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SPATIAL ANALYSIS OF THE NINIVE 5 CULTURE IN NORTHERN MESOPOTAMIA (3000–2500 BCE)

FRANCESC XAVIER GARCIA RAMIS

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UNIVERSITAT AUTÒNOMA DE BARCELONA

DEPARTAMENT DE PREHISTÒRIA

SPATIAL ANALYSIS OF THE NINIVE 5 CULTURE IN NORTHERN MESOPOTAMIA (3000-2500 BCE)

PhD in Prehistoric Archaeology

FRANCESC XAVIER GARCIA RAMIS

SUPERVISORS:

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Dr. Anna Bach Gómez

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A ma Mare, a la Melani. Al meu germà i als meus avis, a tothom qui hi era i ja no hi és.

A qui som, i a qui serem.

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Abbreviations

AAAS – Annales Archéologiques Arabes Syriennes.

AfO – Archiv für Orientforschung.

AJA – American Journal of Archaeology.

AASI – Atlas of Archaeological Survey of Iraq.

ASOR – The Annual of the American Schools of Oriental Research.

BAR – British Archaeological Reports.

BASOR – Bulletin of the American Schools of Oriental Research.

BCSMS – Bulletin of the Canadian Society for Mesopotamian Studies.

J Archeol Res – Journal of Archaeological Research.

MDOG – Mitteilungen der Deutschen Orient-Gesellschaft zu Berlin.

OIP – Oriental Institute Publications.

OLA – Orientalia Lovaniensia Analecta.

PAM – Polish Archaeology in the Mediterranian.

STAR – Science & Technology of Archaeological Research.

ZA – Zeitschrift für Assyriologie und Vorderasiatische Archäologie.

ZOrA – Zeitschrift für Orient – Archäologie.

Chapter 1. Introduction

1.1. Previous Considerations. Time and Dust

When it comes to the analysis of a specific culture in its whole regional context, many questions may storm one's mind. The vast amount of information, the quantity of sites and the seemly unfathomable nature of the data make this endeavor appear daunting. In fact, it is not an easy way, but the work of many scholars before have eased the objective in many ways. The curiosity for cultures long fade away have moved the archaeologist's imagination for centuries, from the very firsts explorers to the scientist that, today, dedicate their lives to the knowledge on the ancestor's existences. All of them, although with very different methods and perspectives, tried to achieve a common objective: unravel the remote past of humanity, and explain who were the people that left behind the remains we study with such a dedication, and why their societies disappeared relentlessly under the merciless pressure of time.

The first researchers were drawn to Mesopotamia by Biblical stories and the prospect of discovering the fabulous cities mentioned in sacred texts. There, they encountered a landscape dotted with ancient mounds—some small and discreet, others enormous and imposing. These mounds stood as shadows of a once-splendid past, bearing witness to the glories of a bygone era. To the explorers, these mounds seemed nothing more than piles of mud, yet they contained artifacts, sculptures, tombs, and deciphered inscriptions, all made from the same material that had once sustained the ancestors' lives: mud. Many things have changed since those times, but we, as human beings, remain the same: wars, bigotry, and selfishness still dominate a world that has achieved impressive milestones yet retains its enduring cruelty, violence against the vulnerable, and the imposition of the powerful will through war and fear. My work is also dedicated to those who suffer from past or present injustices, and to those who will suffer from them in the future; to those oppressed peoples who struggle for freedom. I quote them to search for answers in the past, to uncover who they were, and to prevent anyone from erasing them under the pretext of unjust conquests.

The history of the Ancient Near East is the history of humankind itself. The dawn of the world's first cities came hand by hand with the deepening chasms of inequality and the birth of social hierarchies, that divided for the very first time the privileged from those unprivileged. These divisions are etched in almost every facet of live, but also into death, that stage that was supposed to equalize all of us at the end of our time. The tomb, paradoxically, is one of the stages where social divisions are most clearly traced, evolving from the egalitarian societies of the distant past to the highly stratified societies of more recent times. This progression is not only apparent from the perspective of the individuals that lived in that society, but also in the analysis of space, architecture, and economy.

Nevertheless, science also demands modesty from the researcher, who must confront its limitations. Many facets of our subject's lives will remain necessarily unknown, swallowed by the bounds of human memory, far beyond the reach of our comprehension—time that turns empires to dust and their memories into mere grains of sand carried by the wind. But, archaeologist! Do not be daunted by the weight of time upon our ancestors' shoulders. Your genuine curiosity is your most potent weapon against the inexorable passage of time and the shadows of oblivion. It was this very same curiosity that drove me to undertake this journey, along with the conviction that my efforts would be worthwhile, above all. I believed that understanding our ancestors' fates could benefit our present, helping us to avoid extremism, stop repeating the same mistakes (how original!), and perhaps make the world just a little bit better. I know the expectations are high and the effort required is immense, but for those who have felt what I felt the first time I placed my hands on the earth, or the first time they uncovered an artifact that was last used by someone that died many millennia ago, and have fantasied with it long forgotten identity, they will understand my stubbornness in continuing forward, despite the difficulties.

To all archaeologists who wish to keep pursuing their dreams, and to those who refuse to let their past be buried under contempt and indifference—you are not alone!

1.2. Toponymy: Coexisting Languages and Modern Site's Names in the Middle East

Regarding the general topic of this thesis, the treatment of the toponymy could seem trivial, but it is actually a very important question in the, especially in the Near East. As long as this work includes a huge territory across three different modern states (Iraq, Syria and Turkey), borrowed nowadays by many cultures, it is expectable to run into a large amount of names of places. The overwhelming majority of this archaeological siteshold more than one name, especially when regards traditionally well-known sites such as big tells. All this traditional toponymy was originated due to the different peoples living in the same space, each one of them building their own mental vision of this places and naming them after their own collective visions.

Many sites across the studied area hold Kurdish, Arabic, Turkish or Assyrian names, among others, but most of this names are not recorded equally despite their existence. For example, in Turkey, most of the sites in Kurdish, Arabic, Greek or Armenian are officially known exclusively by their Turkish names (often totally invented names or translations from other 'unofficial' languages), as the Turkish government banned other languages they considered to be 'foreigners' in the official toponymical reports, despite of these belonging to native communities that inhabited their regions much before the Turkish republic was founded. These changes started so early, in the 20's, with the emergence of the newborn Turkish Republic and the rise of ethnic nationalism, that seeked to wipe out all that did not belong to the unique culture and language officially recognized to be part of the Turkish identity. For example, the world-round known site of Göbekli Tepe (potbelly hill in Turkish) is named Girê Mirazan (hill of the desires') in Kurdish. This situation is similar in Syria with the Kurdish or Assyrian names of places, that have systematically substituted for Arabic names.

This fact is absolutely determinant in the Iraqi Kurdistan Region. During Saddam Hussain's regime, the Atlas of Archaeological Sites in Iraq (AASI) was made and published by the Broad State of Antiquities of Iraq. All the names of sites they recorded were in Arabic or, at least, written using Arabic orthographical rules. This source avoided the Kurdish and Syriac forms, and translated all words that had an evident equivalent into Arabic (for example, the word *bîçûk*, small in Kurdish, is often translated to *saghir* in Arabic). When Iraqi Kurdistan seized his autonomy, they recovered all the traditional Kurdish names that had been previously replaced by Arabic names, and made them all official instead of their Arabic pairs. This caused a confusion because the identification of each site with his Kurdish-Arabic name is not always evident, making a harsh task to identify each site and not getting them confused or duplicated. However, this situation

also seems logic as most of the sites are known by the local people with their original Kurdish names.

But the erase of local cultures is not the only issue one could find about toponymy. During the course of this investigation, I knew that a there were a site in the Kurdistan of Iraq that bears a well-known name in the scientific literature, the important and huge site of Qasr Shemamok (S23), but it was actually known as Gird-î Sahidawa by local inhabitants. This situation is not so rare in the Near East, were scholar traditions sometimes preserve names that are in disuse today, or also names that were recorded erroneously. Also there are cases in Turkey in which a relevant discovery at a site bear the former Kurdish name, but today they are recognized only by their official Turkish denomination.

One of my aims is to collect all place names as possible for each one of the listed sites (regarding the fact that only Ninevite V sites are taking into consideration) Sometimes, as the official records in Syria and Turkey tends to wipe out local names, existing denominations will not be listed due to the impossibility to find them on reliable sources. On the other hand, the rise of Kurdish liberation movements in Iraq and Northern Syria have created a very different and opposite scenario in regard of names of places. The emergence of Kurdish authorities has come together with the emergence of renewed Kurdish toponymy, but sometimes is difficult to know if the names of places where of traditional origin and existed prior the establishment and that Kurdish authorities, or if the names have been invented in recent times. Most of the cases I have been able to reliably document are to be find in North-Eastern Syria. Only a portion of this region belongs to the traditional Kurdish speaking area (namely the provinces of *Qamişlo* and *Dêrîk/al-Malikiyah*), and all the other regions now controlled by the Kurdish Autonomous Authorities (*Hassakah*, *Tell Tamer*, *Tell Abyad* or *Ras al-Ayn* provinces in the region of study of this these) are areas traditionally inhabited by mostly Arabic speakers. In the Kurdish-speaking side, the Kurdish name for the city of *al-Qataniyah*[1], *Tirbespiyê*, have become official. On the opposite situation, the city of Tell Abyad received a translated version into Kurdish, *Girê Spî*, that apparently have never existed in traditional toponymy.

For that reason, the catalog of sites (Annex 1) is quoting all the names that I have been able to find for a single site, including different transcriptions found in the bibliography and different denominations regarding different languages of origin.

[1] The Arabic name of this city was also changed from Qubur al-Bid (white tomb), and renowned after a general for the Syrian Army.

In addition to toponymy issue, orthography is also a problem in near east surveys, mainly regarding Arabic names, but also Kurdish names (because of the lack of standardization of the language in some regions) The main problem with Arabic names is the conversion of the Arabic script into Latin script, that may vary considerably depending on the different languages in what are written, the informants etc.

Most of the site names are preluded by a common word that defines the kind of site or the ambience of its location. A list of the most common terms in all three languages I will focus on is written down below.

1- Kurdish

Regarding Kurdish language, we must notice that the words are rarely isolated, yet almost in all situations are terminated in a letter that's not part of it. For example, the word *gir / gird* is used in toponymy as *girê / gird-î*. Unlike English, Kurdish does not use articles to link different substantives in a sentence, instead of this, Kurdish does it by adding vocals as terminations attached to the ending of every word involved in the sentence (*-a, -î, -ê*) The vocals used in every case also vary depending on the gender and the dialect. This phenomenon appears in all Iranic languages (group in which Kurdish is included) and is known as *ezafe*. For example, both the *–ê* in the name of the site 342, *Gir-ê Başûr-ê Seker*, are not part of the substantives but they are the necessary plaster that sticks the words together and builds a meaningful sentence (from mound, south and *Seker*, it forms the meaning 'The southern *Seker* mound')

It is also noticeable in the case of the Kurdish language that is a language heavily divided in dialects that are so hardly understandable between each other because of the persecutions and bans of the language. Two mayor dialects are spoken in the area of study: Sorani, that is mostly spoken in the Iraqi Kurdistan region, and Kurmanji, mostly spoken in the Turkish and Syrian Kurdistan, but also in the northernmost part of Iraqi Kurdistan, in the mountainous region around the city of Duhok (where it is called Bahdinî), especially near the Turkish and Iranian borders. Sorani is a standardized language and is written in an adapted version of Arabic script, while Kurmanji is not standardized in a sufficiently accepted way and is written in an adapted latin script taken from Turkish. Despite this, in this work I will use the Kurmanji alphabet and orthographic rules even when they are not widely spread because it is much more simple to hold a uniform writing system by using an already existent one.

Many issues concerning this language's toponyms come from the substitution and legal prohibitions stated before. In the cases when the original Kurdish name have been possible to retrieve, I have stated that name alongside with the Turkish one. However, in many occasions it has been impossible to retrieve any Kurdish name in places in which their existence is to be expected. This may be due to the heavy bans imposed by the Turkish state over Kurdish populations. Even, the policy of destruction of villages and depopulation carried out in the 80's and 90's of the 20th century by the Turkish government has contributed very much to the physical disappearance of names. Nevertheless, even with this extreme eradication policy, some toponyms have been able to dodge this deliberate targeting and have survived: for example, sites like Giricano (S652), Girharrin (S188) or Girnavaz (S106) are of probable Kurdish origin as bearing the initial word *Gir-*, meaning mound.

A list of common landscape words in Kurdish:

- *Gir* / *gird*: mound
- *Çiya*: mountain.
- *Şikeft / Aşkeft*: cave.
- *Gund*: village.
- *Bajar*: city.
- *Rûbar / Çêm / dol*: river.
- *Kanî*: stream.
- *Xerabe*: ruin.
- *Qala*: castle.
- *Gorristan / Tirbestan:* cementery.
- *Gewre* / mezin: big.
- *Biçûk* / piçûk: little.
- *Başûr*: south(ern)
- *Bakûr*: north(ern)
- *Rojhilat*: east(ern)
- *Rojava*: west(ern)

2- Arabic

The Arabic language is one of the most widely spoken languages in the world, and also the dominant language in many countries in the Near East and North Africa. Linguistically, Arabic is divided into lots of dialects that vary in terms of mutual intelligibility. However, the transcription from Arabic script to Latin script has always been a source of problems and misinterpretations. Authors that write in other languages such as French and German has presented a similar problem in terms that the transcription of the sites in these languages tent to differ from what should be a correct transcription in English (see Lyonnet 2000 for the accommodation of Arabic script and toponymy to

French language). In order to avoid misunderstandings and identification problems, I will use a general rule guide for Arabic script transcriptions when its possible (Wardini 2020), but I will also quote the name proposed by the consulted bibliography when the name differs. The compilation of all different name possibilities will reduce the possible confusions and will leave no doubt about the identity of a particular site with an Arabic name.

Nevertheless, this is not the only issue that the Arabic language may cause to the corpus of sites. The fact that the vocals are not inscribed in that script and the high degree of volatility in the Arabic language vocalization makes the transcription of vowels in somewhat a very hard job. For instance, some Arabic common place names are often written using different vowels depending on the source. 'A' and 'E' are vowels with a large degree of interchangeability, so, the presence of one or another in the same toponym should not be strange to us. In extreme cases, these vocalizations may even make a single toponym looks completely different depending on the source or transliteration used. For instance, the case of site S583, Khirbat Musaihili is one of the clearest examples: The AASI classified two sites called خربة مسيحلي, both of them located close to the same village of Musaihili (مسيحلي), but only the second one, the site classified as 1612 have been reported to yield 'Early Dynastic' period (AASI p. 279). Abu al-Soof (1968: 77) and Elena Rova (1988: 208, probably following the first) vocalized the Arabic toponym as Khirbat al-Imsehli. However, a site called Tell al-Imsehli had been excavated by an Iraqi team in 2000-1, but the site is a bit far away to the east compared to the locations given by the Atlas of Tübingen and Ibrahim (1986: 258). Also, the latest period of occupation attested at Tell al-Imsehli was the Ubaid period (al-Hayyany et al. 2011), so, it is likely that this site should be identified with the second catalogued site with no Ninevite 5 presence. Ibrahim transliterates this site as Msihli (1968: 54), and the Atlas of Tubingen made the same as Khirbat Musaihili. However, al the toponyms stated are representing the same name, and this name is recognizable because they all wear the same consonants in the same order, so, the vowels may easily lead us to mistake if we don't take the particularities and circumstances of the Arabic language into account.

A list of common landscape vocabulary found in names of sites:

- *Khirbet* (خربة): ruin.
- *Qala*: castle.
- *Bir* (بير): well.
- *Balad* (بلد): town.
- *Wadi*: river.
- *Deir* (دير): monastery, convent (often means 'cluster of ruins')
- *Qabr* (قَبْر): grave, tomb.
- *Maqbara*: cemetery.

- *Ras*: peak.
- *Tell* / *Kom*: mound.
- *Qaria*: town.
- *Madina*: city.
- *Abu*: father (in toponomy means: a place that produces/contains)
- *Umm*: mother (in toponomy means: a place that produces/contains)
- *Ibn*: son (in toponomy means: a place that produces/contains)
- *Jazira*: island.
- *Jebel*: mountain.
- *Jisr*: bridge.

3- Turkish

Out of all the three languages, the Turkish is the one that has the least presence in this PhD, as long as the Turkish territory has far less Ninevite 5 occurrences than Syria and Iraq. Also, we have to add that some names have a Kurdish (as the aforementioned cases) or Arabic origin (the case of Tell Minar, S673). Only a bunch of registered sites have a Turkish origin, but these sites are most likely to have other local denominations, but in many cases, it has been impossible to prove or find these alternate names. Turkish names are written in Latin script from the reforms of Kemal Atatürk in the early 20's of the past century, so, this language holds no problems neither of site identification nor misunderstood.

Some common Turkish words found in toponymy are:

- *Tepe*: mound.
- *Höyük*: tumulus, mound.

1.3. Objectives

This thesis' idea started because of the attractive idea of the existence of a rather unknown period in the history of Mesopotamia in a very critic time, during the emergence of the first urban structures in Northern Mesopotamia and, at the same time, the emerging of the Sumerian city-states in the South. Inevitably, because of the main source of information being surface surveys made by other authors and teams at different times, the approach has to be done following those produced in the scientific literature by these authors. The theories about urban concentration in Syria (Ristvet 2005; Ur and Wilkinson 2008; Ur 2010b; Rova 2013), and Iraq (Wilkinson and Tucker 1995) have been the main focus of the approximation. However, also evidences pointing to divergences have been implemented, but these investigations are often in a very preliminary stage as they come from very recent survey projects, mostly in the Kurdistan Region of Iraq (Gavagnin 2016; Kolinski 2017; 2018). These authors stated that, following the end of the Uruk period, urban centers started to grow in a very rapid way, leaving behind a previous model in which the landscape was dominated by a scatter of small villages.

Nevertheless, all the existent approximations tend to be secluded to a singular region, a province or a country, but in rare occasions a more comprehensive study of the whole dimension of the settlement patterns in Ninevite 5 culture has been done. Rova (1988) attempted a study on this matter, but her work was mainly focused on pottery production. So, the lack of a complete settlement study of the Ninevite 5 culture is one of the main reasons that lead me to carry out this thesis, but this objective has to come necessarily together with others.

The objectives are:

1-To establish a general pattern for the whole extension of the Ninevite 5 culture:

This objective includes the analysis of all data available and to isolate possible patterns that repeat throughout all the territory in which this culture has been identified to be predominant. In that sense, the theories of urban concentration will be tested as a possible general pattern.

2- Try to define possible complementary patterns:

We need not to assume that a culture has to necessarily have a unique settlement pattern that's repeated without any local variation everywhere this culture is evidenced. An objective of this thesis is to find alternative patterns that could complement or, otherwise, debunk the previous established visions.

3- Establishing the limits:

The limits of the Ninevite 5 culture are apparently clear and it is geographically well limited. However, the bordering areas still be largely unknown regarding the settlement patterns. These areas are often defined by the minimum presence of Ninevite 5 pottery and, sometimes, the hypothetical presence of this material as a prestige good (for example, the Ilisu Dam area). Another objective of this thesis is to compare the settlement pattern of these areas and try to find parallels with the results obtained from other areas in the core of the Ninevite 5 culture.

4- Compare to the previous Late Chalcolithic pattern:

Although not a main objective, the comparison with the previous period is mandatory. I am aware that a full comparison of both of the patterns would involve the compilation of an immense amount of data, thus exceeding by far the objectives of any PhD work. However, the existence of a previous social organization with its own settlement pattern cannot be ignored. Both similarities and differences are also compiled when they are available in the publications on surveys. Then, even when the comparison of the Late Chalcolithic patterns and the Ninevite 5 patterns at a general level is not contemplated in this thesis, comparisons at a regional level are also an objective.

5- Stablishing relation between 'rural' and 'urban' spheres.

The relation between smaller settlements defined as 'rural' and devoted to agriculture and larger settlements defined as 'urban', has been one of the most important debates for the development of the Ninevite 5 culture. In this regard, different theories have come out, but the study of this relations and, over all, the productive and functional relations between both of this spheres is a key to understand the emergence of this new reality (Scwartz 205: 3).

6- Try to establish a relation between the settlement pattern and the social organization:

One last objective of the thesis will be to investigate a possible relation between the settlement pattern and the social structure that ruled the individuals that were behind it. In this way, it is clear that the settlement pattern is not independent of social changes, and historical processes left their prints on their settlement's locations, displacements and even disappearances and depopulations. For that reason, I will try to infer the changes in the social networks that provoked visible changes in the patterns at the beginning of the

Ninevite 5 period and, in the cases in which it is possible, also within the Ninevite 5 period itself.

1.4. Structure of the Thesis

This thesis counts with three chapters in which the objectives previously stated will be discussed. Also, each chapter is, at the same time, divided into subsection that will help for better organize all the information collected and also to help the reader to better understand the discussion sections of the work.

Then, the chapters are divided as follow:

-Chapter 2: State of the Question

This chapter and its successive subsections will provide a proper context for the Ninevite 5 period. Here I will explain, following the latest researches, general information about the period, the physical landscape in which this culture evolved, as well as the climate in the region (with some insights on the past's climate), also focusing in the importance of landscape and environment for the achievement of optimal conditions for the development of agricultural activities and subsistence.

A last section in this chapter will also treat the questions related to chronology and its problematics, mainly focusing on ceramic studies and stratigraphic dating at sever key sites. In this point, it is also important to put a focus on the different regional periodizations that have been stated by scholars working in different regions of the Near East. All these periodizations, however, have a same chronological equivalence, but are not always referring to the same material culture realities.

-Chapter 3: Methodology

In this chapter, I will discuss the methods utilized to achieve the objectives I stated in the 1.3. section. First of all, I will treat the usefulness of the data obtained from archaeological surveys for scientific investigation, its strengths and weaknesses, and the possibilities of this method in order to establish a model for settlement patterns in the Near East applied to the Ninevite 5 culture.

In this point I will also explain the management of the data obtained from this surveys, the elaboration of a catalog with all reported Ninevite 5 that I have been able to document through bibliography or other methods that served as a data base. This catalog served very much to ease the task of analyzing the data once it was finish.

A last point will talk about the usage of statistical techniques using different softwares such as ArcGIS and R and its applications to the analysis of the settlement patterns, as well as its promising results.

-Chapter 4: Analysis and Results

As its name states, this chapter will expose the analysis of the data, the processes I undertook and the results that I obtained after the application of the methodologies described. In this chapter, a complete scheme of the whole data contained in the catalog will be set up in order to structure a proper discussion in which I will try to extract conclusions from this analysis.

-Chapter 5: Discussion

In this chapter, all the data collected and presented in the Chapter 4 will be complemented with archaeological data in order to include some important elements to explain the development of urban societies in northern Mesopotamia. Among the topics that will be treated in that chapter: the origin of the dwellers of the new urban centers, the management of agricultural surplus or the emergence of an urban elite and the management of the architecture of these cities, dealing between the public and the living quarters, and the plan of all of these elements to favor a systematic and ordered enlargement.

-Chapter 6: Conclusion

1.5. Style Choices and Clarifications

In this work, there are some style decisions and other elements that need to be clarified. Firstly, for obvious reasons, all dates need to be referred to using a specific chronological expression. For the completion of this thesis, I have preferred the formula BCE (Before Common Era) over other solutions such as BC (Before Christ) because I consider it to be more neutral. Additionally, the BCE reference has been chosen over BP (Before Present) because the former is considered to be clearer, as it is equivalent to the BC date, the most widely used common date expression, whereas the BP expression is less evident and intuitive. Also the name of the culture, the Ninevite 5, has been historically referred to as Ninevite V, but, more recently, scholars have shown unequivocalpreference for the denomination that uses the numeral 5 instead of the latin V, a tendencythat will also be followed in this thesis. In consonance, for time divisions and periodizations that could be stated with both Arabic numerals and roman numbers, the first will be priorized over the second (for example, Early Jazeera 1 over Early Jazeera I,Early Tigridian 1 over Early Tigridian I).

Furthermore, readers who wish to consult the catalog of sites, referred to in Annex I of this volume, will note that the sites listed are identified with an alphanumeric code consisting of an "S" (for Site) and an ordinal number that identifies each entry. The numeric order is consecutive, but some numbers are missing, and the list may not include certain numbers. This is because the complete list of sites compiled during the initial phases of the thesis included sites with unproven evidence of Ninevite 5 presence, as well as important Late Chalcolithic sites that have some relevance to the discussions, or sites in peripheral regions that were ultimately not included due to the scarcity of Ninevite 5 materials and the lack of evidence for Early Bronze Age occupations. In the catalog, only sites with demonstrated Ninevite 5 presence, or sites that have some material and architectural links (for instance, sites in the Middle Khabur region), have been included.

Lastly, an important remark must be done on the figures displaying maps. Often, maps involve data about the sizes of sites: all the sizes represented graphically in the maps present at this work are referring to, when known, the estimated size of each site for the Ninevite 5 period, not to the total size of the site considering all the periods present at the site. This will be the normal trend in the thesis.

1.6. Disclaimer

I declare that I committed no plagiarism in this thesis, and the results are originated from my own research effort. Despite of I necessarily had to support my conclusion on other's works, the objectives and the limits of my aim where not to appropriate anyone's work, but to extract my own conclusions comparing their results and confront with my spatial analysis in order to confirm or refute their statements. Also, I used no special software to elaborate the bibliography of this thesis, but all of the references have been confectioned manually. All the maps and GIS elaborations that appear in this thesis are my own work (sometimes kindly assisted by my laboratory colleague, Biel Soriano Elias, to whom I am grateful), unless otherwise is specified. I am responsible for any possible mistake in this thesis' contents, either in the analysis or the bibliography.

Chapter 2. State of the Question

2.1. The Ninevite 5 Culture: Phases, Development, Evidences and Chronological Questions

The Ninevite 5 period is the name given to a culture first identified by Max Mallowan in the early 1930s during his so-called 'prehistoric' pit at the Ishtar Temple at the site of Nineveh, located in the center of the city of Mosul, Northern Iraq (Thomson and Mallowan 1933). The deep pit uncovered successive cultural layers that were divided into five levels according to the historical and cultural sequence, with the first level being the most ancient, and the fifth being the most recent (Edwards, Gadd, and Hammond 2008: 301). After that remarkable discovery, pottery ascribed to the same cultural style had been previously identified in other excavations by the same scholar at the same site, but it wasn't until his famous prehistoric pit that the pottery could be finally assigned to a concrete cultural horizon (Grossman 2014: 83).

Sadly, Mallowan's discoveries greatly lacked a good archaeological context and modern investigation standards, as the discoveries were assigned to a particular cultural horizon as the material culture was changing as the test pit went deeper (Roaf and Killick 1987: 214). Nevertheless, this first approximation was of great importance because it marked the first presentation to the scientific community of material belonging to the Ninevite 5 period. After this initial discovery, other excavations reported finding identical material culture to that described by Mallowan in Level 5 at Nineveh, a fact that determined the naming of this archaeological culture. However, this culture is much better understood in chronological terms than in its social dimension (Forest 2003: 563), but this does not mean that the periodization was without problems. Many excavations in key regions, such as the Eski-Mosul Dam region (formerly known as Saddam Dam) or important sites like Telul ath-Thalathat (S360), in the province of Tell Afar (Mosul, Iraq), have also contributed to our understanding of this culture. Chronologically, the Ninevite 5 culture was developed in a short span of time, about five or four hundred years at the beginning of the third millennium BCE (ca. 3000-2500 BCE). This culture emerged from the ending of the Late Chalcolithic period, in which resembles to be an abrupt change in the settlement pattern from the previous culture and the establishment of the roots of what would be the urban emergence of the second half of the third millennium BCE. Nevertheless, the Ninevite 5 period was more than a simple transitional phase, but was a culture with its own character and social structure that had major impact in the development of complex urban societies in northern Mesopotamia.

If one thing defines the Ninevite 5 culture, that thing is the decorated pottery, both made with painted and incised/excised styles (Numoto 1991; Rova 1993), but also an assemblage of fine and cooking pottery that also defines very much the presence of this culture. However, the Ninevite 5

pottery style is far from unified (Grossman 2014: 85), and both the decorations and the forms of the assemblages differ so much in time and space: The pottery assemblage have significant regional variations throughout the Ninevite 5 region, and these forms also witnessed major changes within the period that, even considering its relatively short length, that are visible in the archaeological register recovered at many sites in the Eski-Mosul region and the Syrian Jazeera. However, some authors have noted several problems when it comes to the analysis of these different decoration styles, as ceramics with very different decorations have been gathered together under the label of Ninevite 5. Also, the study of the plain pottery has been a little bit ambiguous, and sometimes it is not clear whether the label of plain Ninevite 5 pottery has been applied to the grey ware, one of the most typical undecorated Ninevite 5 ceramics, or it applies to all the pottery assemblages associated with this culture (Roaf and Killick 1987: 200-1). Recently, some studies on other types of plain pottery or kitchen pottery has been made (Reiche and Smogorzewska 2013; Smogorzewska 2014), as well as other studies intended to systematize all pottery productions (Arrivabeni 2019).

In summary, the Ninevite 5 can be regarded as a still poorly known culture that will benefit very much of future investigations and further and more accurate chronological sequences.

Figure 1. Example of a Ninevite 5 painted jar, from the site of Nineveh. Early Ninevite 5 period. 26 cm in diameter, 31 cm length Ashmolean Museum (Accession number: AN1932.1028, Object ID: 461315).

2.1.1. Chronological Issues and Periodizations

The Ninevite 5 period is strongly characterized by its extension, but this fact is not only observable in the material culture and the diversity throughout all its geography in different aspects of this society, but also in archaeological research. As the Ninevite 5 period has been described and reassessed through decades and even a century, many periodization systems have been utilized to refer to the chronology of the culture, but some are hard to assimilate. Also, the presence of significant pottery assemblages at sites such as Leilan, Gawra, Tell Billa, or the same Nineveh, has led the scholars to refer to these particular phases within the Ninevite 5 periodization with the names of the levels in which particular assemblage for each phase was identified. For instance, the late Ninevite 5 period attested at Tell Leilan corresponds to the level IIIc, and some authors stablish the chronological correspondence attending to this artificial separation, a fact that may lead to some confusions if the equivalences are not properly indicated, or if the lector does not dominate these equivalences.

In the earliest stages of investigation, the dominance of the southern Mesopotamian nomenclature ruled over the northern Mesopotamian cultures, and the scholars tended to categorize all its findings attending to the equivalent chronologies in the south. The Ninevite 5 culture was roughly equivalent to the Early Dynastic 1 period in the south, and also partially to the Early Dynastic 2 (this phase coincided with the later phase of the Ninevite 5 period). In concordance, some sources name the Ninevite 5 culture under the label of 'Early Dynastic' (Mallowan 1971amin). However, the Early Dynastic terminology has never been widely applied by scholars, and regional chronologies have been always preferred, but it has consistently appeared in publications relating local chronologies with its southern counterparts (Bielinski 2010; 2012).

In northeastern Syria, the chronologies relating to the Early Bronze Age are referred as Early Jazeera, abbreviated EJ (from now on, this abbreviation will be used instead of its full form), but the equivalents are not always clear, and the subdivisions of the EJ periodizations are not always fully coincident with the periods established within the Ninevite 5 period. In general, it could be said that the transitional period between the Late Chalcolithic (Late Uruk) and the Early Ninevite 5 period corresponds with the EJ 0 (Rova 2003: 5), and the Ninevite 5 corresponds with the EJ 1-2, and also with the first part of the EJ 3, called EJ 3a. In some regions of the northeastern Syria, such as the Middle Khabur and Upper coursed of the Khabur, the Ninevite 5 ceramics do not dominate the material register of the first quarter of the third millennium BCE, so, EJ labels are preferred over the Ninevite 5 term, as it may not properly definite a period at regions in

which Ninevite 5 material represents, sometimes, minimum percentages of the total assemblages attested.

The case of the Upper course of the Tigris, in Turkish territory, also fits with the case of the regions in which the Ninevite 5 assemblage does not represent a major percentage in the total pottery count, but it appears to be important in funerary contexts. In that region, a general Early Bronze Age subdivision is used to refer to a period that is roughly coincident with the Ninevite 5 culture happening quite far away to the south (Lebeau 2000). The EBA subdivisions coincident with this culture is EBA 1 (3000-2750 BCE) and EBA 2 (2750-2500 BCE), and this labels are widely used in all excavations in The Turkish Upper Tigris in order to avoid confusions with local chronologies (Laneri 2016: 14). However, as long as these regions is not influenced by Ninevite 5 culture and its material probably arrived there through trading routes, the local chronological sequence prevails over the adapted sequence for the Ninevite 5.

							Central Syrian Jazeera		*Tell Afar Region*	*Eastern Syrian Jazeera*
Absolute Chronology	***Syrian Jazeera***	***Southern Mesopotamia***	***Tigridian Region***	***Pottery Periods***	***Tell Brak***	***Tell Arbid***	***Tell Barri***	***Tell Leilan***	***Telul eth-Thalathat V***	***Hamoukar***
3100		Late Chalcolithic (Late Uruk)		Late Chalcolithic (Late Uruk Assemblage)	TW 12					
		Terminal Uruk			TW 11					
3000		Jemet Nasr	ET 1		TW 10				?	
	EJ 0									
			ET 2	Transitional Phase	TW 9		B – IV and III		?	
					TW 8-2					
2900				Intermediate (Numoto 1993)	TW 1					
	EJ 1				ST 13-15			IIIa		
		ED 1			H52					
2800			ET 3	Painted and Early Incised Ninevite 5	J		B – II		IV	
						VIII		IIIb	III	
					HS 4 1-2				II	
2700	EJ 2	ED 2	ET 4	Incised and Early Excised Ninevite 5				IIIc	I	
					HS 1					
					HF 1					3M-1
					ER					
2600				Late Excised Ninevite 5	STCH	VII C, Phase D, Strata 4-6	B - I, G. A1. Stratum 41-40 (L VIII)	IIId		
		ED 3	ET 5		FS	VIIC/B, Phase 3, Stratum 3				
	EJ 3a					VII B, Phase B, Stratum 2				3M-2
					L			IIa		
2500				Post-Ninevite 5			Stratum 39			
										3M-3

Absolute Chronology	*Syrian Jazeera*	*Southern Mesopotamia*	*Tigridian Region*	*Pottery Periods*	*Tell Mohammad Arab*	*Tell Kutan*	*Gir Matbakh*	*Tell Thuwaij*	*Tell Fisna*	*K. Hatara*
3100		Late Chalcolithic (Late Uruk)		Late Chalcolithic (Late Uruk Assemblage)						
								I		
		Terminal Uruk			MA 1			H		
								G		
3000		Jemet Nasr	ET 1				5.1			Occupied
	EJ 0								C	
			ET 2	Transitional Phase				F		Occupied
							6.1?	E	VI-B	
2900				Intermediate (Numoto 1993)					A	
								D-L		
	EJ 1						6.2. Trench A	C-K		
		ED 1			MA 2	3	6.5. Trench D	B		
2800			ET 3	Painted and Early Incised Ninevite 5		2		A-E		
						1	6.7. Trench H	10-D		
					F (Cemetery)		6.9	9		
							6.10-12	8-A		
2700	EJ 2	ED 2	ET 4	Incised and Early Excised Ninevite 5				7		
								6		
					MA 3			5		
								4		
2600				Late Excised Ninevite 5				3		
		ED 3	ET 5					2		
	EJ 3a							1		
2500				Post-Ninevite 5						

					Eski-Mosul Region		*Mosul Region*		*Middle Khabur*	
Absolute Chronology	***Syrian Jazeera***	***Southern Mesopotamia***	***Tigridian Region***	***Pottery Periods***	***Tell Jumbur***	***Tell Billa***	***Kuyunjik***	***Tell en-Naml***	***Tell Raqa'i***	
3100		Late Chalcolithic (Late Uruk)		Late Chalcolithic (Late Uruk Assemblage)			MM - 31-20			
							IV			
		Terminal Uruk								
							MM - 20-18			
3000		Jemet Nasr	ET 1				IV-V			
	EJ 0									
			ET 2	Transitional Phase			MM - 18-15			
2900				Intermediate (Numoto 1993)						
	EJ 1									
		ED 1								
2800			ET 3	Painted and Early Incised Ninevite 5	5?	7		Stratum 2 (cemetery?)	7	
							MM - 12?			
									6	
							V		5	
2700	EJ 2	ED 2	ET 4	Incised and Early Excised Ninevite 5		6			4	
							MM - 8?			
2600				Late Excised Ninevite 5					3	
		ED 3	ET 5							
	EJ 3a						MM - 0			
									2	
2500				Post-Ninevite 5						

Table 1. Correspondences of the Mesopotamian Early Bronze Age periodizations with an absolute chronology. Comparison with well documented sites with stratigraphy. Data extracted from Roaf and Killick 1987; Rova 2003; Arrivabeni 2019; Valentini 2008b (Tell Barri), Wilhelm and Zaccagnini 1993 (Tell Karrana 3), Campbell 2003 (Gir Matbakh), Bielinski 2007; 2010; 2012; Kolinski 2009, Smogorzewska 2016 (Tell Arbid), Grossman 2013 (Hamoukar), Curvers and Schwartz 1990, Schwartz 2000; 2015 (Tell Raqa'i).

As one can see in the table, the ET phases are mostly coincident with the EJ phases, but its coincidence is not absolute, and it is caused by a different timing in the elaboration of the different regional chronologies. For example, the EJ periodization was developed in the late 90s of the past century due to an increased need to periodize the chronological sequences of a wide region such as the Syrian Jazeera, whose knowledge had arisen severely because of the multiplying archaeological projects, many of them prompted by dam constructions. These construction projects made the information available on rural sites in the riversides of the Khabur and other major rivers increase, and also the amount of data that needed to be categorized. However, the existence of different material cultures for similar chronologies (Ninevite 5, metallic ware etc.) could cause confusions and ambiguities, as the scholars confronted methodological problems caused by the lacking of definitions. It was in that same conference where the basins for the EJ periodization where established: the EJ 1 period was established to have begun around 2850 BCE, while a previous transitional period equivalent to the Jemet Nasr in the southern Mesopotamia was called EJ 0. The EJ 2 phase was set around 2750 and 2600 BCE, and only the first part of the EJ 3, labeled 3a and finalizing at 2500 BCE is marked as the end of the Ninevite 5 period (Lebeau 2000: Ristvet 2005).

Additionally, he ARCANE chronology also complete its periodization locating parallels to the materials found at sites outside of the main core of the Ninevite 5, mainly the Turkish Tigridian flow. However, not all the excavated sites have contexts clear enough to establish occupation sequences: such cases are the sites of Tepe Gawra, a site in which Speiser distinguished three different levels with pottery that may be cataloged as Ninevite 5, painted pottery appeared in stratum VIII-A, then it was reduced in favor of incised decorations in stratum VII and finally disappeared from the register in stratum VI, while the incised decorations are dominant. Nevertheless, nowadays, levels VI and VII are believed to be mostly mixed and disturbed levels as the Ninevite 5 pottery appeared alongside with forms that clearly belonged to the Akkadian period (Roaf and Killick 1987: 214-15). Other sites such as Tell Billa have the very same problems and difficulties to establish a proper chronological and pottery sequences.

2.1.2. Evolution of the Ninevite 5 Pottery Assemblage and Ninevite 5 Phases

Regarding the context and origin of the Ninevite 5 pottery, the painted pottery, a style has been taken as one of the earlies examples of the culture, was believed to have an origin in the Iranian plateau, and scholars such as Mallowan tried to search parallels for this tradition at sites like Tepe Hissar or Tepe Siyalk (Mallowan 1964). Nevertheless,

today this Iranian origin seems to have been completely surpassed, as evidence from excavations have showed clear local Late Chalcolithic precedents for the painted Ninevite 5 pottery (Roaf 1988: 590), and some of this designs also showed archaic or pre-Ninevite 5 forms (Rova 2013). Several sites in northern Mesopotamia have yielded well stratified and documented pottery sequences. At Tell Brak, the transitional phase between the Late Chalcolithic and the first century of the Early Bronze Age was archaeologically attested and documented in a reliable context (Oates 1982). Also at Tell Leilan, the excavation of level III at the site allowed the scholars to reconstruct a complete sequence of occupation of the whole Ninevite 5 period (Schwartz 1982). Then, it could be said that this transitional phase would have been roughly contemporaneous with the Jemet Nasr period in southern Mesopotamia (Rova 2013: 108).

Figure 2. Incised Pottery jar found during the UZGAR survey project, at the site of Kawrasor 1, by the main flow of the Great Zab River (Erbil Province, Kurdistan Region of Iraq). From: Kolinska and Kolinski 2024: 207.

Some sites excavated in the 80s in the Eski-Mosul area, such as Tell Karrana 3 (Wilhelm and Zaccagnini 1993: 17; Rova 2003c), Thuwaij or Fisna ((Fujii et al. 1987: 43-9), yielded pottery material belonging to a transitional phase between the Late Chalcolithic (Late Uruk), and arose the interest for the study of this transitional phase and the possibility for the Late Uruk repertoire to be the immediate predecessor of the early painted Ninevite 5 pottery. In this sense, the site of Mohammad Arab was very important

because complete assemblages of Late Uruk pottery where recovered, some with very simple painted decorations that could have preceded the Early Ninevite 5 painted styles (Roaf 1984). However, the characteristics of this phase are not only the painted types, but also some questions on the usual forms changed in these transitional period: first of all, Uruk related types are very much reduced in favor of local pottery forms, with a dominance of carinated rim types. Also, another characteristic is that the ring-bases disappeared in favor of the high-ring bases (Arrivabeni 2019: 54). According to Numoto (2003), an intermediate phase could be recognized between the Late Chalcolithic transition to the Early Ninevite 5 and this very same period at some sites in the Eski-Mosul region.

Figure 3. Painted pedestal bowl from the Ninevite 5 period, one of the most distinctive ceramic forms of the period, appeared in a tomb at the site of Tell Rijim, in the Eski-Mosul dam area. From: Bielinski 2003: 503.

About the division of the pottery styles within the fully evolved culture and its chronological distribution, it was believed that painted style appeared earlier in the register, a point that seems accurate, attending to the existence of Late Uruk painted pottery as a precedent, and lately it disappeared as substituted by incised style. However, modern excavation works was proven this reality to be much more complicated. The distribution of the pottery decoration within the Ninevite 5 period became less clear as the archaeological register enlarged, and the history of the investigation has led to several major changes in the paradigm of what was believed to be. For example, it was assumed that the incised pottery style had substituted the painted one, and thus the first had to be more recent than the second, but several evidences led the scholars to shift the stablished theory. The site of Telul ath-Thalathat yielded Ninevite 5 pottery assemblages consisting of both painted and incised styles, all related to a granary dated to this very same period (Fukai, Horiuchi and Matsutani 1974). The appearance of both painted and incised Ninevite 5 in the same contexts rose awareness on the possibility that the excised did not mark an end in the painted pottery production, a statement also followed by Schwartz in his doctoral thesis (1982: 223), where, through the results of the excavations at Tell Leilan, he concluded that both pottery styles coexisted, at least some time. According to the evidence, the early stage of the Ninevite 5 culture, it seems that the incised ware existed, but it was less frequent that the painted one, a tendency that reverted during the latter part of the culture (Roaf 1988: 589; Rova 2003a: 5). Also, the evidences from the site of Mohammad Arab, though, unfortunately, an incomplete Ninevite 5 sequence, led the excavations to the conclusion that the incised pottery was less frequent at the earliest stage than at the later, so, it was believed that some more periods of division need to be assigned, thus evolving into a new proposition for the pottery sequence.

The last period of the Ninevite 5 culture is, by far, the most widely attested in sites of both northern Syria and northern Iraq. Even though some authors have pointed to a possible late persistence of painted pottery in the Eski-Mosul dam region (Rova 2003a: 5), this style mostly disappears and the incised pottery shares it space in the material register with a newly appeared excised pottery, that will define the whole late Ninevite 5 culture. Additionally, some studies have distinguished two further internal divisions within this phase, an early excised period (Numoto 1993) and a later Ninevite 5 phase attested at level IIId of Tell Leilan (Calderone and Weiss 2003) and at several sites of the Middle Khabur region. The excavations at Arbid (S28) have also yielded important remains of pottery and other Ninevite 5 materials belonging to its later phase, corresponding to the EJ 2 or Early EJ 3 period (Smogorzewska 2016).

Then, attending to the evidences, nowadays, the major consensus about the Ninevite 5 period sequence is that the period was divided into three phases, depending on the predominant type of decorated pottery:

1. Transitional phase: corresponding to the Jemet Nasr period in southern Mesopotamia or the EJ 0 period in northeastern Syria. The material related to this phase are forms not related with the Late Uruk assemblage, but with early painted forms that predated the earliest Ninevite 5 painted style, and probably influenced it and determined its final evolution.

2. A possible transitional phase with pottery featuring painted pre-Ninevite 5 decorations

3. An early phase roughly correspondent with the beginning of the EJ 1 phase in northeastern Syria. The most common decorated type attested was the painted style, though some simple incised decorations are also attested at the period (Roaf 1988: 590).

4. A second phase chronologically located between the end of the EJ 1 period and the beginning of the EJ 2. In pottery terms, this division combined incised and early excised pottery.

5. A last division that is mostly characterized by late excised pottery and chronologically coincided with the EJ 2 and the beginning of the EJ 3 period, also labeled as EJ 3a.

This evolution was clearly attested at many sites of the Eski-Mosul area, as well as other sites in the northern Mesopotamia. However, the period itself have been divided into more internal sections regarding geographical aspects and also different periodizations, a matter that would be discussed further.

One of the most recent tries to categorize the Ninevite 5 pottery is in the publication of the ARCANE project, but the extension of this work is limited to the Tigridian region (Northern Iraq). In this volume, the chronology, material, architecture and other aspects of the ancient Tigridian region during the Early Bronze Age is summarized, and thus compiled in a chronological proposition under the labels of Early Tigridian period. According to this periodization, the painted pottery appears to be related with the earliest forms of painted Ninevite 5 pottery during the ET2 and ET3 phases. Afterthat, the painted pottery would have completely disappeared during the later phase of the

Ninevite 5 period, coinciding with the ET4 phase (coincident with the phase called Early Jazeera 2 in Syria), and excised types becomes the most representative decoration for all the sub-period, though the incised decoration still exists (Smogorzewska 2016; Arrivabeni 2019: 60). This periodization seems to validate the sequence for the Ninevite 5 period in northern Iraq, and also supports similar sequences for the same culture in the Syrian Jazeera and also evidences for chronologies from other regions, such as the Tigridian region in Turkish territory, where Ninevite 5 pottery also appear with moderate frequency.

2.1.3. Other Contemporaneous Pottery traditions

Regarding other related types of pottery, is noteworthy the relation found between the so called Scarlet Ware and the Ninevite 5 ware. Scarlet Ware tradition is present in southern Mesopotamia, as well as in the Middle course of the Euphrates river up to the site of Mari. Both of these ceramic types have been attested at different contexts, but were first documented together at the salvages excavations at the site of Tell en-Namel (S500) from the Makhool Dam region (south of Qalat Sherqat), where both styles were found together in an Early Bronze Age necropolis (Suleiman 2001/2; 2010). Studies on the technical features of this pottery have been made (Thuesen 1987; Del Bravo 2014b), and also studies on the evolution and the relation with the Ninevite 5 pottery exist (Rova 2000; Ii 2003). Since Scarlet Ware pieces were found in funerary contexts at Tell an-Naml with a pedestal painted Ninevite 5 ceramic, a good *post quem* term for this pottery around the Early Dynastic 2 in southern Mesopotamia (Del Bravo 2015), roughly coincident with the Middle Ninevite 5 period (Arrivabeni 2019: 60), but its chronology could have been coincident with most of the Ninevite 5 period, around 2900-2600 BCE (Butterlin et al. 2020). Then, it could be said that the study of these materials, even when exogenous and foreign to Ninevite 5 region, the knowledge of compared chronologies may help in dating contexts and materials belonging to the Ninevite 5 period and found in core Ninevite 5 regions as found in relation to these other materials.

Another material that have been chronologically compared to the Ninevite 5 in Early Bronze Age contexts is the Metallic Ware, a pottery style attested in the Middle Euphrates region, but that also shared some space with the Ninevite 5 cultural horizon in the western Jazeera. From the chronological point of view, the Metallic ware coincided, at least for some time, with the later phase of the Ninevite 5 period, and appears in archaeological contexts alongside with excised/incised material form this later Ninevite 5 period, most probably coincident with the Early Jazeera 3a period in the Middle

Khabur region (Pruß 2000: 198). This material has even appeared in the same contexts alongside with Ninevite 5 ceramics at sites outside of both cultural cores, such as in some sites in the Upper Tigris Turkish flow (Ay, Ay and Tarhan 2013). That fact could be pointing to both materials to have been trades as a prestige exogenous goods to bordering regions outside of their native extensions.

However, it is also necessary to take into account that the Metallic ware assemblage surpassed the limits of the later Ninevite 5 material, and it also appears in post-Ninevite 5 contexts, coincident with the ET phase 5 of the ARCANE periodization and the Early Jazeera 3 phase (though the very beginning of the period may be coincident with a very late Ninevite 5 horizon) in the Syrian Jazeera (Arrivabeni 2019: 64). Then, even considering the comparisons with other material culture different than the Ninevite 5, gaps between the horizons of different material cultures must be taken into account, especially when it comes to the chronological comparison between both of them. The Metallic ware itself would have disappeared at the end of the EJ 3a period (ca. 2350 BCE), and thus extending only some two centuries after the disappearance of the Ninevite 5 material culture (Lebeau 2000: 173).

2.2. The Landscape as an Active Actor for the Ancient Societies

When it comes to the study of past or present human societies, the landscape in which they develop rarely plays a secondary role; in most cases, it is an active agent in both the emergence and eventual decline of societies. The landscape determines the mobility of individuals; thus a flatter land could be more suitable for an easy mobility than mountainous landscapes. Also the natural paths or routes determined the way in which humans exploit economically the territory and also how they connected with other societies. Moreover, landscape determined how they survive and rise the future generations, attending their necessities and maintain their social organization stable. Logic suggests that past societies tended to establish themselves in more favorable landscapes, such as river basins or lakes, where water supply and agricultural conditions were more conducive to growth and expansion. However, societies that developed in marginal areas or, at least, drier zones, as in the case of northern Mesopotamia, established different strategies to overcome the lack of natural resources, and their social structures evolved to adapt to harsh conditions. Then, it is safe to say that, in order to commence to study a past society, one of the first elements we need to take into account is the landscape that accompanied the human beings.

The absence or presence of notable features in the landscape also affected the worldview and cosmology, and could be linked to various religious or spiritual matters. Caves, mountains, or bodies of water may have become significant aspects in the cultures of the peoples who lived near them, thus becoming personifications of gods, places for myths, or symbols of creation in bygone times. In Ancient Egyptian society, for instance, the landscape decisively influenced their religion: The fertile land surrounding the Nile River, up to the limit of the annual flooding, was considered a land linked to life and the rebirth of the god Osiris himself, while the deserts and wastelands beyond the reach of the Nile's flooding were associated with the wild and chaotic outer world, also connected to the foreigners who lived far away and threatened the stability and order of the universe. Nevertheless, the religious vision of the Egyptians was so shaped by their environment that black, the color of the rich and fertile silt left behind by the flooding, was considered a color associated with life, while red, the color of the desert sands, was seen as a color related to death and all sorts of negative things.

Also in southern Mesopotamian religion, personification of landscape features such as mountains, and also natural events was common and widely known (Perdibon 2020). Moreover, Mesopotamian myths are determined by the water element from the

Tigris and Euphrates rivers, whose riversides gave shelter to the different societies that flourished in this naturally rich land.

Obviously, other more mundane matters were also defined by geography and the resources available in the vicinity. Economy and subsistence were among the most important things that depended on both soil conditions and climate. In southern Mesopotamia, the influence of the Tigris and Euphrates allowed early states to rely its agricultural production to the waters of these flows through the construction of a network of irrigation channels that increased the productivity of the lands surrounding the large city-states. In the south, several studies aside of the well-known literary sources, including remote sensing analysis have been done, thus confirming the existence of a well-structured network of irrigation channels throughout the land (Hritz 2010). On the other hand, large areas of northern Mesopotamia, namely the areas in the Syrian Jazeera plains and the areas of north-western Iraq did not enjoy such a favorable conditions as the flows of rivers that irrigates these regions are not as abundant as the ones in the south, and probably never developed an important network of channels comparable to that from its southern counterparts. Opposite to the south, the harsher climatic conditions and the lower rainfall forced the inhabitants of an extensive territory, mostly populated by human groups linked with the Ninevite 5 culture, forced them to rely on dry farming agriculture. Despite the fact that the dry-farming is far less productive than the irrigation, the climatic conditions in northern Mesopotamia prevented people from developing irrigation systems that required major river flows and also more fertile land to cultivate. Then, the natural environment is as decisive than any political change because it determined the capacity of survival of cultures and communities that were forced to adapt or crumble. For that reason, societies in the past are considered to be vulnerable to changes in the climatic conditions that could have force them to change in order to ensure their continuity.

2.2.1. Physical Geography

From the Geographic point of view, the Ninevite 5 culture occupied an extensive territory that spans from the northern Iraq Region and the Kurdistan Region of Iraq (except for most of the southern part of the province of Slemanî/Sulaymaniyah and the whole province of Halabja) to the Syrian Jazeera, almost until the Upper Khabur region (Figure 4). The eastern limit of the Ninevite 5 culture seems clear and mostly determined by the first ranges of Zagros, were the density of settlements has proven to be much lower until it becomes practically inexistent in mountainous terrains (Kolinska and Kolinski 2024). The mountains determine the eastern limits, while in the south, the Ninevite 5

occurrences seem to gather together around courses of rivers in the North of Slemanî/Sulaymaniyah provinces and the province of Kirkuk. In the main flow of the Tigris, the limits seem to be located north of the site of Assur, yet some occurrences still happen south of this point.

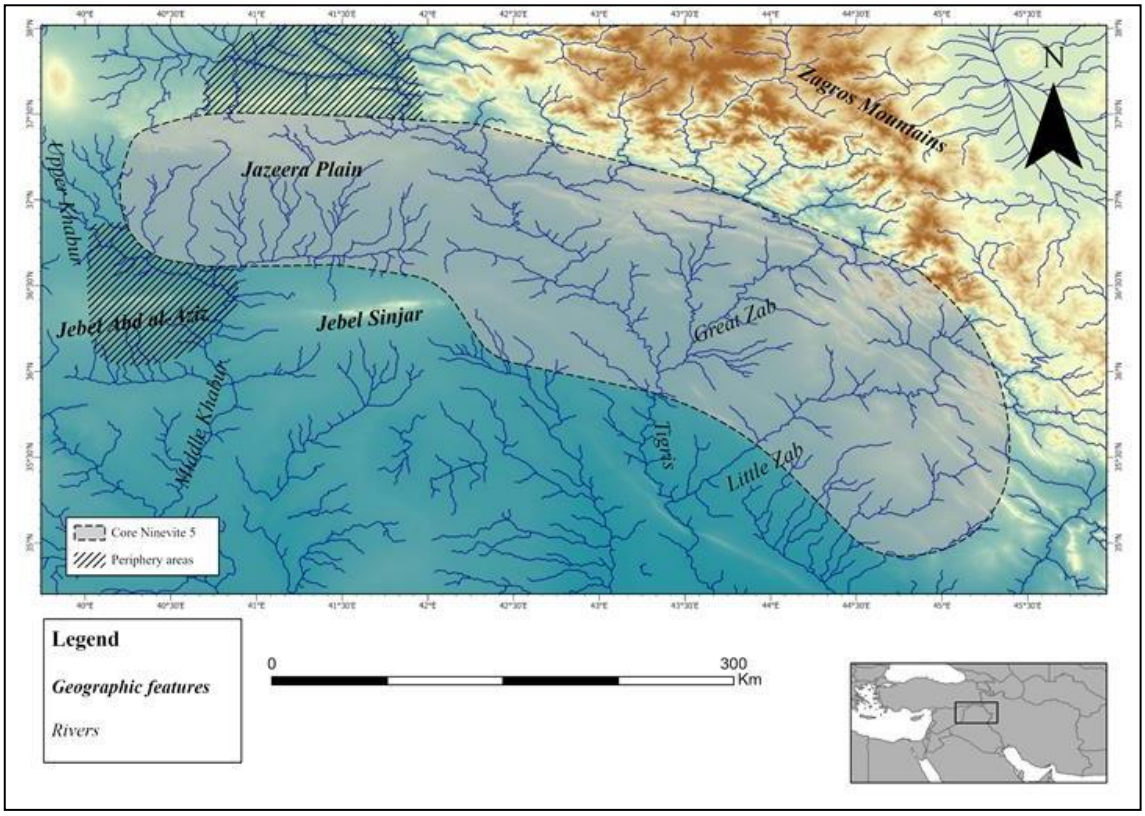

Figure 4. Map of the northern Mesopotamia with highlighted elevations and river flows. The region occupied by the Ninevite 5 culture and other periphery areas are shaded over the map.

The physical landscape in northern Iraq is clearly conditioned by the flood of the Tigris River, that creates a basin suitable for one of the larger and important cities in Mesopotamian history, including heartlands and grand capitals of realms and empires such as Babylon, Assur or Nineveh. To the east, the Lower and Greater Zab rivers flow from the Zagros mountains until to meet the Tigris, thus creating great fertile plains around de city of Erbil, the province of Makhmur and the region that spans from the Tigris course to the city of Dohuk. To the west of the Tigris, some other rivers flow from disperse small mountainous mountains that arise from the mostly plain terrain north of provinces of Tell Afar and Sinjar, being one of the most important peaks the Sinjar mountain, that reaches 920 meters above the sea level. The region around the important site of Tell Afar (known as the northern Jazeera) was irrigated by the wadi al-Murr, one of the largest flows in the region. Also, another important river is the wadi Tharthat, that flows all its way down to the south, where it meets the Euphrates.

In the Syrian side, a huge plain known as the Syrian Jazeera (not to confuse with the region bearing the same name in northern Iraq) spans from the Upper course of the Khabur River to the border with Iraq, but, essentially, this division is more political than physical, as no real geographical feature divides both planes, that could be considered instead as one and the same. The Syrian Jazeera is crowded with many streams and tributaries, some of them are still active today, that run from the Taurus mountains ranges, in the Turkish side of the border, until to meet the course of the Khabur in the very same place where the capital city of the entire region, al-Hassakah, was placed. Important rivers such as the Jaghjagh even could have been navigable, but the vast majority of the water courses were no more than tiny courses or even seasonal streams that did not allow any navigation on them. However, the abundance of water courses favored the evolution of the Ninevite 5 culture in the region.

The Syrian plains presented low or no elevations, as the terrain is mostly flat. Only one mountainous range is located east of the Middle Khabur course, the Jebel Abd al-Aziz (Ball 1990: 2), a mountain that reach up to 1500 meters above the level of the sea. This mountain, in fact, does not seem to have acted as an important area for the Ninevite 5 population in Syria, and is considered to be a marginal or peripheral are.

The Ninevite 5 culture did not reach the main course of the Upper Khabur, but it becomes rare in sites close to this river, such as the site of Tell Beydar. Then, as physical conditions did not interfere in the spread of the Ninevite 5 material, other explanations need to be found to explain for its low presence in that area in contrast with the rest of the Jazeera.

2.2.2. Climate Conditions

The climate in the region of expansion of the Ninevite 5 culture are mostly plains in which the dry-climate conditions dominate, with heat summers and template and even cold winters. Obviously, the drier conditions are more obvious in the plains than in the mountainous ranges, but the low populations of these areas make them marginal and isolated, and by no mean representative of the general climatic conditions of Ninevite 5 sites. We don't know that much about the specific climatic conditions the region had during the Early Bronze Age as the contexts from which scholars may obtain good samples to study the paleoclimate, namely caves and lake bottoms, are not that abundant in the northern Mesopotamian plains. Also, not so many work has been done in the more mountainous regions of the Kurdistan of Iraq, a region more susceptible to host caves and shelters that could provide more interesting geological contexts for the evolution of the

climate conditions throughout history. Two of the most important contexts for the knowledge of the climate are the Soreq Cave in Israel and samples taken from the bottom of the lake Van, in nowadays Turkey (Wossink 2009; Wilkinson, Gibson and Widell 2013: 10-4). Even when these samples may be so physically separated from the region of study, they provide important insights on the climatic changes and conditions throughout Bronze and Irion ages in northern Mesopotamia, thus becoming one of the most valuable sources of information regarding this aspect.

Climate studies have showed that a great switch occurred after the Late Chalcolithic period that lead to a climatic change that could have been an important factor that lead to the emergence of the Ninevite 5 culture. Registers from the period known as Late Chalcolithic 4-5 (3500-3000 BCE) showed a region with more favorable climatic conditions that permitted the local chalcolithic culture in northern Mesopotamia to evolve. Nevertheless, the beginning of the Early Bronze Age meant an abrupt change in these conditions to a drier climate, with less raining and a reduced atmospheric moisture (Kalayci 2016). These changing conditions greatly affected the terminal Late Chalcolithic peoples, that witnessed an important drop in the productivity of their fields, as the rain ratio felt around the end of this period. Perhaps, the new ambience conditions led the society to reach new ways of overcome the harsher climate conditions, and developed new ways to obtain the resources need for sustain a large population at it was done in the past (Ur 2015). According to estimations, dry-agriculture, moderate manuring and manual plowing could have been enough to sustain the population of medium to large urban centers, but the average was much lower than other areas in the Ancient Near East, what meant that the conditions in this area were even more demanding (Bogaard et al. 2018a; Styring et al. 2022; Diffey et al. 2023).

The responses that human groups proposed to this disruption are varied, but it seems that it could have influenced in the demographic change experienced by Early Ninevite 5 populations. Human societies have also responded dramatically to drastic climatic changes: collapse of a whole cultural network can overcome societies al across the world due to similar climate changes, the aridification and the reduce of the available resources (namely the water and the agricultural surplus, also to sustain husbandry) cause difficulties in life conditions to the point that may affect to the demographics. Then, when a settlement sustained by a certain system that depends on stable climate conditions crumbles because an abrupt change, people is unable to hold its old lifestyle and is forced to seek for possible solutions (Ur 205: 70-1). One of these solutions, in the case of northern Mesopotamia, could have been the exploration of further ways to make the most on the new climate and the challenges that posed to the Ninevite 5 emergent society.

However, the changing climate was not restricted to a single period, while it continued all through the Middle Bronze age, and even reached much later periods, but, according to recent studies, its impact could have been different depending on the period. In this way, the response of Late Chalcolithic society to the drying climate was the reduce of settlements and the dispersion of the population, that became slightly clustered during the beginning of the Ninevite 5 period and definitely clustered again during the latter part of the period, yet many urban sites never reached the size of the biggest Uruk settlements in the region, especially in the Syrian Jazeera and northern Iraq. On the other hand, Middle Bronze Age urbanization processes seem to happen on a more independent way regarding the aridified landscape, and both urban settlements and rural settlements tend to grow, as opposite to the model of large growing urban centers of the Ninevite 5 period (Styring et al. 2022).

Chapter 3. Methodology and Data

3.1. The Surface Surveys as a Source of Information in Archaeology

3.1.1. Surveys in the Near East

Surface surveys have been one of the classical non-intrusive and non-destructive methods to carry out archaeological studies at sites without excavations and earth removal. Many efforts have been made to theoretically evolve the method to be fully included as just another tool that scholars may use, and many manuals and publications have come out in this regard (Adams 1981; Banning 2002; White and King 2007). Surveys have been carried out in northern Mesopotamia from long time ago, and these works has allowed us scholars and governments to elaborate catalogs of sites that are now very useful as a base for future research and heritage preservation programs (Mallowan 1936; Rolling and Kühne 1977-78). This method consists on, through different strategies, the systematic collection of archaeological material on surface, mainly pottery as a basic chronological and cultural marker, that may help reveal different aspects of the site buried beneath the surface: its chronology, extension and intensity of every occupation. Surveys may be performed on large areas, generally with wider objectives that usually involve the characterization of an entire region from a diachronic point of view, but also can be performed on individual sites in order to establish which areas were populated at certain periods, and to distinguish zones with more archaeological potential. However, even when this technique has several advantages, it also has important limitations that have to be taken into account when it comes to the analysis of the data obtained through it. Among the advantages of surface surveys, campaigns focused on this kind of interventions are much cheaper than archaeological excavations, and also can provide valuable information to help archaeologists to decide which site is worth excavating, and even find out the more promising parts of a single site. For example, a team interested in a certain period may find an ideal side performing a surface collection at certain areas, or relying in other's collections to find a site that fits with its scientific objectives. On the other hand, surface surveys have several limitations: the very same origin of the evidence of which surveys take advantage of, the surface material, comes from a series of tafonomic processes (erosion, human activities or other causes) that makes samples collected to be relatively randomized, and not always reflect the exact reality of what lies beneath.

In all Mesopotamia, the mere process of formation of sites generate an aggregate problem aside of that normal in surface collections in other parts of the world. The fact that the sites are formed of pilled layers of successive layers (considering the ideal situation of a model Mesopotamian site), makes that, logically, the lower layers, and

normally the oldest ones, tend to be buried beneath later occupations, especially on large urban scale sites. This fact may provoke a situation in which, in mounded sites, the oldest occupations may be obscured by later architecture, and surface materials may not be reflecting the actual scale of the older settlements. In addition, when later occupations are massive, as happens in sites such as Nineveh or Assur, the older settlements are, in almost all the cases, poorly known because of the large amount of later remains over it. Another problem that affects the most to southern Mesopotamian sites is the alluvial sediment that may cover large portions of sites, thus burying beneath meters of sediments that would also cover surface material at a point in that it could be even difficult to identify certain types of sites (Postgate 1994: 48-50).

Another inconvenient of the surface survey is that the chronological adscription and/or the identification of some kinds of materials may be problematic, and even impossible. For instance, pottery forms and decorations that are less characteristic, or chronologically or geographically more widespread also pose problems in the characterization of it importance in superficial register. For example, the typical southern Uruk (Late Chalcolithic) rim bowls, a director fossil for this culture, may also appear in entirely Early Ninevite 5 contexts, so, its sole appearance may not serve to classify a site as Late Chalcolithic, but the relation of this pottery with other possible findings, namely painted early painted Ninevite 5 ceramics, need to be taken into account. Also, other materials such as lytic tools have a relative utility, especially after the Early Bronze Age, because the production techniques are not so unique and representative of a certain period like it happens in prehistoric times. Also, the collection of superficial sherds cannot detect cultural or historical events linked with specific periods in the history of each site, but it is very much limited to plain chronological analysis and cultural affiliations (Baldi 2013: 53).

Nowadays, new technologies have made their way into the archaeological sciences, and innovative methods have found their space in the archaeological research in the Near East, and also new techniques have been applied to surface surveys. Drones, satellite imagery and other innovations are now of common use in the Middle East as well as in the archaeology in general, and many papers on this topic have come out in the recent decades (Altmaier and Kany 2002; Beck 2006; 2007; Menze, Mühl and Sherratt 2007; Hritz 2010; 2014; Kalayci 2016; Herrmann et al. 2018; Ur 2020a; 2022). One of the most utilized technologies in the recent years have been the satellite remote sensing and LIDAR imagery, both are techniques that have been proved very effectives in the landscape of Mesopotamia. Specifically, LIDAR imagery, a tool that is able to detect the accumulation of sediments from mounded sites and also different kinds of soils of anthropic origin, thus clearly differentiate them from natural-originated soils from the

fields (Hammer and Ur 2019). This effectiveness is caused by the contrast of archaeological mounds, usually between 5 to 30-40 meters, and in some exception occasions even up to 50 meters, with the mostly plain landscapes in which, despite of its relative low heights, they stand out over the surrounding flat lands (Kouchoukos 2001; Menze, Mühl and Sherratt 2007: 2). The use of this technology allow researchers to introduce digital elevation models that greatly help to identify anthropic accumulations of sediments from remote satellite imagery (Altmaier and Kany 2002). This technique is useful to help archaeological teams to analyze entire regions at a very little cost, and discriminate in which areas there are major accumulations of sites, and even to note physical limits of currently identified sites (Figure 5), but also to reevaluate the position of sites from old survey campaigns, as the coordinates stated by these early scholars are not always as precise as the actual gps systems (Menze, Mühl and Sherratt 2007: 1-2).

However, the results offered by LIDAR imagery are far less relevant in mountainous areas, where anthropic elevations are much more difficult to distinguish from natural hills. Nevertheless, LIDAR imagery has been used in certain mountainous or hilly regions of the Kurdistan of Iraq alongside other methods, such as oral interviews with local inhabitants, walking transects, and following watercourses on foot—a combination that has proven to be useful (Kolinski 2018: 15-6). In this sense, it is interesting to note that, in one recent survey project in the Kurdistan Region, the UZGAR project along the Greater Zab river, more sites were discovered thanks to interviews with locals and transects than through satellite imagery (Kolinski 2017: 580-2). Despite this, the use of LIDAR is now widespread as an auxiliary method to aid archaeological surveys and other purposes. However, satellite mapping and studies have their own limitations, particularly because it is impossible to infer the chronology and occupation of sites through them, making ground exploration necessary to acquire a complete view of a region.

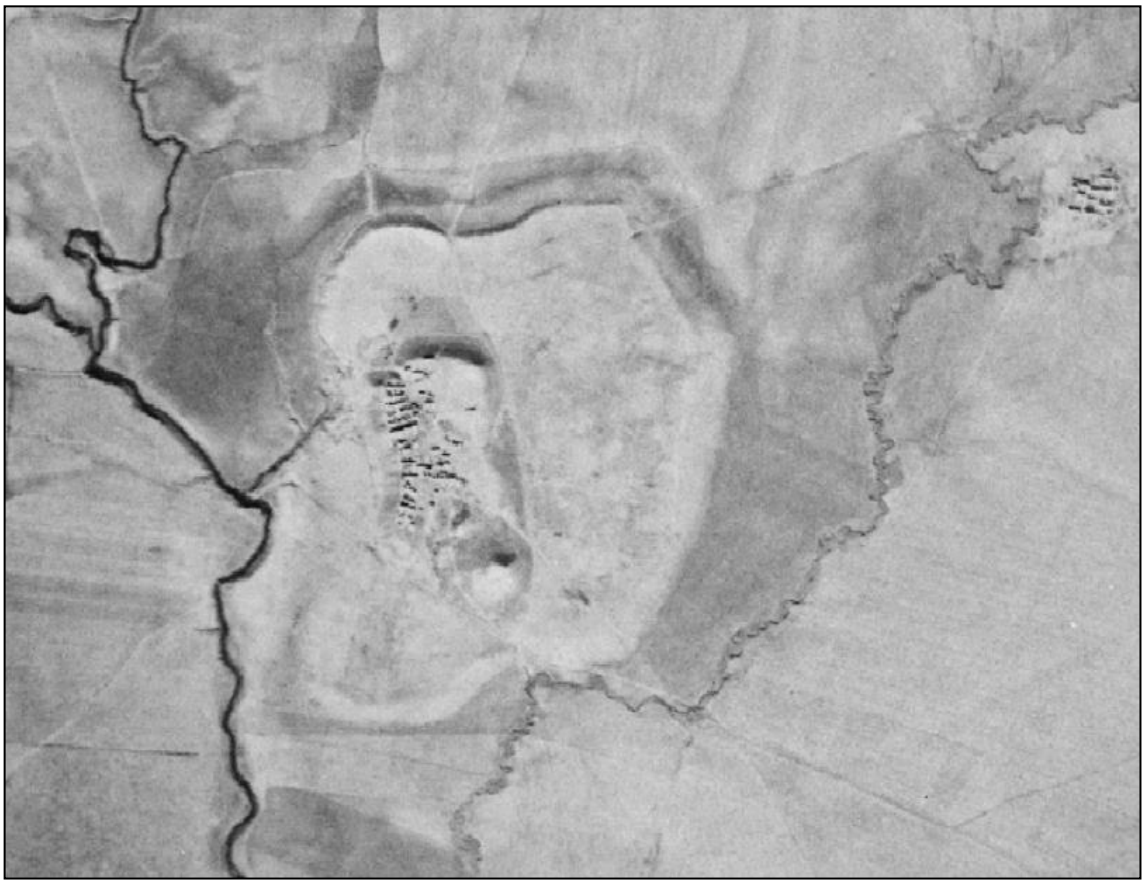

Figure 5. The urban expansion of Tell Leilan as seen in the CORONA imagery. The acropolis (main mound) is visible in the south western corner of the site. The lower town and the outer wall is also visible as a whitish soil surrounding the upper town.

Surface surveys are a good tool to help archaeologists to first define and culturally characterize a region and the archaeological landscape lying on it, but is a technique with limitations, and it can only be considered as a support tool for further archaeological works. Surveys may help to hint out the general occupation phases of the investigated sites, but it cannot be considered in any way a definitive analysis, or even an accurate image of the periods of activity and abandonment. Then, even considering the valuable information obtained from surveys, we need to take into account that their results are only preliminary, and theoretical approximations to settlement patterns, that, otherwise, have to rely on this source due to the impossibility of excavating entire regions at a whole, must be conscious that the data stated may be subject to changes due to various factors: further revisions of materials, low observance conditions or lack of time to perform more exhaustive explorations, low amount of pottery sherds retrieved etc. For instance, in some survey reports, sites have been reported to possibly hold occupations of certain periods with only a couple of retrieved pieces of the chronology claimed, and, even considering this proposed occupation as possible, it is also true that such lower quantity of material must be taken into consideration.

As this work utilizes a lot of information coming from surveys, and specifically surveys performed by other scholars, I was forced to critically analyze and consider all the information gathered. However, relying on other's work have as a consequence that not all the published material is equally consistent with my personal scientific objectives, and, sometimes, publications and survey campaigns summaries does not provide necessary information, or fail in identifying Ninevite 5 material among the archaeological register (sometimes, Ninevite 5 material is labeled as Early Bronze Age pottery in general). Sometimes, exhaustive study of material has never been done, and, in other extreme cases, nothing was published on surveys that we only know about to have happened due to succinct references in other sources (Some Scholars utilized data from a largely unpublished survey campaign performed by Frank Hole in the 80s and 90s of the past centuries in the Khabur Basin and around Jebel Abd al Aziz. Kouchoukos 1999; Koubková 2015; Koubková and Wygnanska 2018). In other cases, new survey projects are still in phase of study, and no general reports on the whole extension of sites and documented have been published. This last case is so usual in exploration works centered in the Kurdistan Region of Iraq, as scientific missions only started to arrive on that region after 2010, due to the eruption of the Syrian civil war that forced many missions to move to a safer region in the Middle East, conditions met in the Kurdistan Region.

Then, information need to be taken carefully, and evidences will require a comprehensive analysis to achieve the maximum reliability possible, in order to try to study the settlement pattern of the Ninevite 5 culture. The amount of data is massive, and the surveys and excavations are a lot, but it will be attempted to introduce them all in a comprehensive study of the whole extension of the culture, and help future scholars with a useful tool that gathers all known information on the Ninevite 5 culture: sites, constructions and material.

3.1.2. General Statement on the Regional Surveys in Northern Mesopotamia

For the Iraqi case, it is important to note that for a long time, the main and mostly the only source of information was the Atlas of Archaeological Sites of Iraq, made by the State Board of Antiquities of Iraq. This atlas has printed maps as well as a written volume with a list of all known sites in the 70's (Salman 1970, 1976). First published in 1970, the list of sites that provides a very limited information of each site, each one referred exclusively with its Arabic name, the village in which the site lies and the approximate periods of occupation.

However, the list of sites in this atlas is very limited and the information provided on it is also scarce. For instance, the periods are mostly classified following the southern chronology, thus making the northern divisions unclear. Regarding the Ninevite V period, it is not directly taken into account, but the Ninevite V are generically classified as 'Protoliterate – Early Dynastic' The first survey or analytic woks about Ninevite V was based on this data, yet partial and uncompleted. Al-Soof made some papers about Late Chalcolithic and Ninevite V in the governorates of Nineveh and Kirkuk and the Kurdistan region, listed a number of sites and differentiate the specific occupations (Al-Soof 1968, 1975) However, most of the sites are difficult to locate due to the low accuracy of the Atlas or, in Kurdish regions, the name changes. It is important to note that, as the Kurdish became official, the local Kurdish names of the sites became official too, but the names recorded in the Atlas are always Arabized.

Elena Rova and other authors followed the list made by Al-Soof to study the spatial distribution, but this works have the logic limitations stated above. Only a limited amount of sites is available through this source in most of the provinces. For example, only 10 sites are located in Kirkuk governorate or 30 in Erbil governorate. It is also important to note that Rova did not locate most of them on a map (Rova 1988, pl. I) However, the important surveys made by two major dam projects, the Ranya plain dam (Al-Soof 1970) and the Eski Mosul dam (Battini 2011). Another interesting resource for the knowledge of the Ninevite 5 distribution is the Tübinger Atlas des Vorderen Oriens: this map was elaborated following brief survey campaigns in some selected regions in the Middle East (Rolling and Kühne 1977-8), but also utilizing other sources from previously performed and published surveys (for example, Meijer 1986), as well as the AASI, surely through the work done by Abu al Soof (1968). However, the Tübinger Atlas has several inconvenient: the geographical positions are not always clear, and sometimes is difficult to locate a site relying exclusively on this source, and also several errors have been detected regarding the position of Ninevite 5 sites, while one error stood out over all the others due to a site that has been erroneously positioned in the map in a location several hundred kilometers north of where it is actually located (S624- Tell Wa'i).

In recent times, dam construction projects have prompted multiple surveys in order to order the necessary salvage excavations and prioritize the most interesting and important sites. In Iraqi territory, during the construction of a dam, the Eski-Mosul reservoir, more surveys (Ameen Agha 1997-98) and many excavation projects were carried on by both foreign and Iraqi teams. These excavations uncovered important sites that offered notorious Ninevite 5 contexts (Roaf 1984; Ball 2003). This region yielded important results regarding chronology and ceramic sequence. This is a very attractive

region for spatial analysis due to the decent amount of information available and the many publications done.

Upstream of the Tigris, the construction of a massive dam at Ilisu, rose attention on the importance of saving what was possible of the rich heritage in risk by the waters of the reservoir. The lake was planned to affect totally or partially the river banks of the Tigris and some of its tributaries to the north as far as the skirts of the city of Bismil. Important survey programs were undertaken in that extensive area (Algaze 1989, Ökse et ali. 2001), followed by a number of excavation programs that, in most cases, lasted for several years. For the case of Ninevite 5 culture, some sites where of special importance because of the occurrence of Ninevite 5 pottery, both of painted and incised/excised types.

To the western bank of Tigris River, very few survey data is available nowadays. The only comprehensive study was the one made by Wilkinson around the site of Tell al-Hawa (S319). This study shed light on the spatial distribution patterns in a rather short area, but significant in terms of population, given the large amount of sites identified. Up to 38 sites were identified as Ninevite 5 sites (Wilkinson and Tucker 1995). In adjacent regions, however, very few survey information exists. Aside of small and limited reconnaissance (Stein 1938; Oates 1968), no true survey work has been done.

In the provinces of Sinjar and Tell Afar to the province of Hatra, to the south, an early survey was published by Seton Lloyd, that covered an extensive region south of the mount Sinjar to the city of Tell Afar to the west (Lloyd 1938). In the late 80's, Jabir Khalil Ibrahim published some notes on a number of sites scattered around that provinces, mostly summarizing other survey works, but also utilizing the information provided by the AASI and also an unpublished survey by Oates in the 60's (Oates 1968; 1970). Nevertheless, the survey appears in the author's PhD only as an appendix of the true focus, the Parthian period in the region, so, the survey data is incomplete and often even inaccurate. Other limited surveys where carried on by excavation teams, who's main focus was to contextualize the archaeological resources in the vicinity of the excavated sites, such as the Tell Taya regional survey (Reade 1968).

In Syrian territory, Mallowan was one of the very first explorers to survey the region of north-eastern Syria, also known as the Syrian Jazeera, in the province of Hassakah. The scholar carried on two survey campaigns along the Habur basin up to the Turkish border during his excavation campaigns in Chagar Bazar (Mallowan 1936, 1937) and Tell Brak (Mallowan 1947). However, most of the information available comes from much more recent surveys between the 80th and the beginning of the XXI century. In the 80's, Meijer published a brief report for a survey performed by himself around all Syrian Jazeera, mainly the tributaries of the Khabur River to the north (Meijer 1986). However,

Meijer's survey was very general and unspecific in terms of pottery analysis and chronological information, thus showing a very disperse scenario. In fact, this author points out to the existence of very few Ninevite 5 sites in such a big region, a statement also denied by more recent surveys.

Surveys in Syria use to be planned by teams excavating major sites. Most of the region covered by Meijer's survey was covered again and revised by the teams of Tell Leilan (Ristvet 2005), Tell Brak (Wright et.ali. 2006-7) o Tell Beydar (Wilkinson 1997/8) excavation projects. Also in the 90's, another survey project was led by Bertille Lyonnet and covered a major area of the Khabur, Zerkan and Rijlat rivers up to the Turkish border, and totally covering the area of the Tell Beydar survey, that covered only a small portion around this site. Sadly, no detailed report on the study of the pottery has been yet released beyond the studies on prehistoric material included in her publication (Lyonnet 2000).

To the east, in the province of Dêrik/al-Malikiyah, only the regional Hamoukar survey have been published (Ur 2002), but it is very limited in terms of space. Otherwise, the remaining land in that province to the Turkish and Iraqi borders may be considered as *terra incognita* to the scholars.

In the province of Qamişlo, the Tell Leilan regional survey undertaken by a team from Yale university have proved to be one of the most relevant and well documented of all the surveys in the Ninevite 5 region (Stein and Wattenmake 1990). This survey is so important for two main reasons: the first one is that it was extensive and thorough and comprised a wide region not limited by the site of Leilan itself, otherwise the center of the excavation activities of this team, and the second one is that the team managed to distinguish three different phases within Ninevite 5 period based on pottery sequence from Leilan excavations. These phases have turned to be especially relevant when it comes to the Settlement pattern because have provide a valuable and unique opportunity to demonstrate different patterns of settlement in the same cultural period (Ristvet 2005; 2007, Arrivabeni 2010).

Further to the west, the area around the important site of Tell Brak witnessed several surveys across the years. Aside of Mallowan's expeditions (1936; 1937), some partial surveys have been carried out in the late 70's (Fielden 1981), but the first comprehensive survey was that carried out by Eidem and Warburton in the late 80's, and sufficiently published in the late 90's (Eidem and Warburton 1996). This survey focused on sites located on the riversides of the Jaghjagh and the Radd Rivers, and also investigated sites in the landscape nearby Tell Brak. In 2002, another survey around Tell Brak started, but in 2003 this area was extended further north and east, surpassing by far the limits of the previous survey. This survey was somewhat more complete that the

previous because,

in the words of Eidem and Warburton, they missed many low-mounded sites and focused on bigger mounded sites (Eidem and Warburton 1996: 58), and the 2002-3 survey was way more accurate. However, for some reason, the complete results of this survey never got fully published, and only a brief report came out (Wright et al. 2006/7). This report changed the complete numeration of the Eidem and Warburton's survey, but neither a list of sites nor a complete analysis on the settlement patterns was ever done.

To the south of the Jazeera, in the vicinity of the city of Hassakah, yet another dam project, a triple reservoir project led to the organization of survey and salvage excavation, but this time. The southernmost dam was planned to be the largest of the three by far, and projected to be located in the Middle Khabur. The results of an initial survey were published in a brief note by Monchambert, but the information is scarce and, obviously, partial and has to be necessarily completed by following archaeological reports from the late 80's and early 90's excavations in the area (Monchambert 1983; 1984). To the north of the Hassakah province, a second and much smaller barrage was planned in the Riljat River, a small tributary of the Khabur. This barrage was planned to flood some sites, being most of them selected for excavation by foreign teams, but no detailed survey has been published so far.

To the west of the Middle Khabur, in the surroundings of the Jebel Abd al-Aziz mountain, another survey was conducted by the Habur Basin Project, led by Frank Hole from the university of Yale between 1986 and 1997. Unfortunately, the information obtained by the team has never been published, and only some studies has been done. Luckily by the author of this thesis, a set of materials stored in the Yale university and coming from the HBP survey has been recently studied, and some papers have been published on the Ninevite 5 occupations on sites both in the banks of the Khabur (already documented by the salvage excavations on the barrage area) and in the skirts of the Jebel Abd al-Aziz (Koubková 2015; Koubková and Wygnanska 2018).

Other surveys out of the main core of the Ninevite 5 have identify occasional Ninevite 5 occurrences such as three isolated sites in the Diyala basin identified in the AASI. However, survey projects aren't of much help due to the low frequency on the Ninevite 5 material appearance and the low change for a surface survey to find these materials. For instance, the Sirwan Regional Project, a recently started project that covers much of the Diyala river course from the Hamrin basin up to the border with Iran and Sulaymaniyah, has not reported any Ninevite 5 occurrence. Nevertheless, this team has not published a final report on the material collected on surface surveys aside of some brief reports (Casana and Glatz 2017). This is so interesting considering the fact that at

least one of the sites listed by al-Soof as a Ninevite 5 occurrence, Tepe Imam ‘Abas (S648) is most probably inside of the SRP area of study.

Another example of survey is the one performed in the Shirqat province and motivated by the construction of the Makhool dam (that is, to this date, still to be constructed). The survey conducted under UNESCO requirements for avoiding further damage to the site of Assur did not find any evidence of Ninevite 5 presence (Hausleiter 2003), but the Iraqui excavations at Tell en-Naml prove the preliminary survey results inaccurate (Suleiman 2001/2).

The eruption of the Syrian civil conflict in 2011 that ended up with well-known and still active civil war in 2012, caused a sudden halt to all archaeological projects. The scholars were urged to find another safer region in the Near East and, due to instability in the Federal Iraq, the pacific and prosperous Region of the Kurdistan of Iraq dragged their attention. The area had remained largely unexplored due to its historical instability, but, now, the area is one of the most stable and safe regions in the volatile Middle East, features that have attracted archaeologists and have motivated the beginning of archaeological investigations all around its territory (Figure 6). As a largely ‘virgin’ landscape, archaeologists required new sources of data on how was the archaeological landscape, and many survey missions started in the early 2010s. The northernmost governorate of the province, Dohuk, was partially explored by the team of the LoNAP (Land of Nineveh Archaeological Project), led by Daniele Morandi, and focused on surveys in this province’s southern plains, from Gir-ê Gomel region to the shores of the Eski-Mosul dam lake. The exact results of the survey have not yet been published to this date, but the reports and preliminary analysis state that the Early Bronze Age is characterized by a drastic drop on the settlements with regard to the previous Late Chalcolithic (Morandi 2015: 16) This survey registered a total of 65 sites (Barbaro et.ali. 2019: 222), but as long as there is no available publication with information of each site, it is not possible to locate each one of them. Only a few sites can be taken into account, namely Bassetki, excavated by a German team lead by Pfälzner (Pfälzner and Qasim 2017, 2018), Muqable (Pfälzner et.al. 2017), Amyan (Courtuaud 2020; Courtuaud et.al. 2022) or Girê Gomel (Simi 2020).

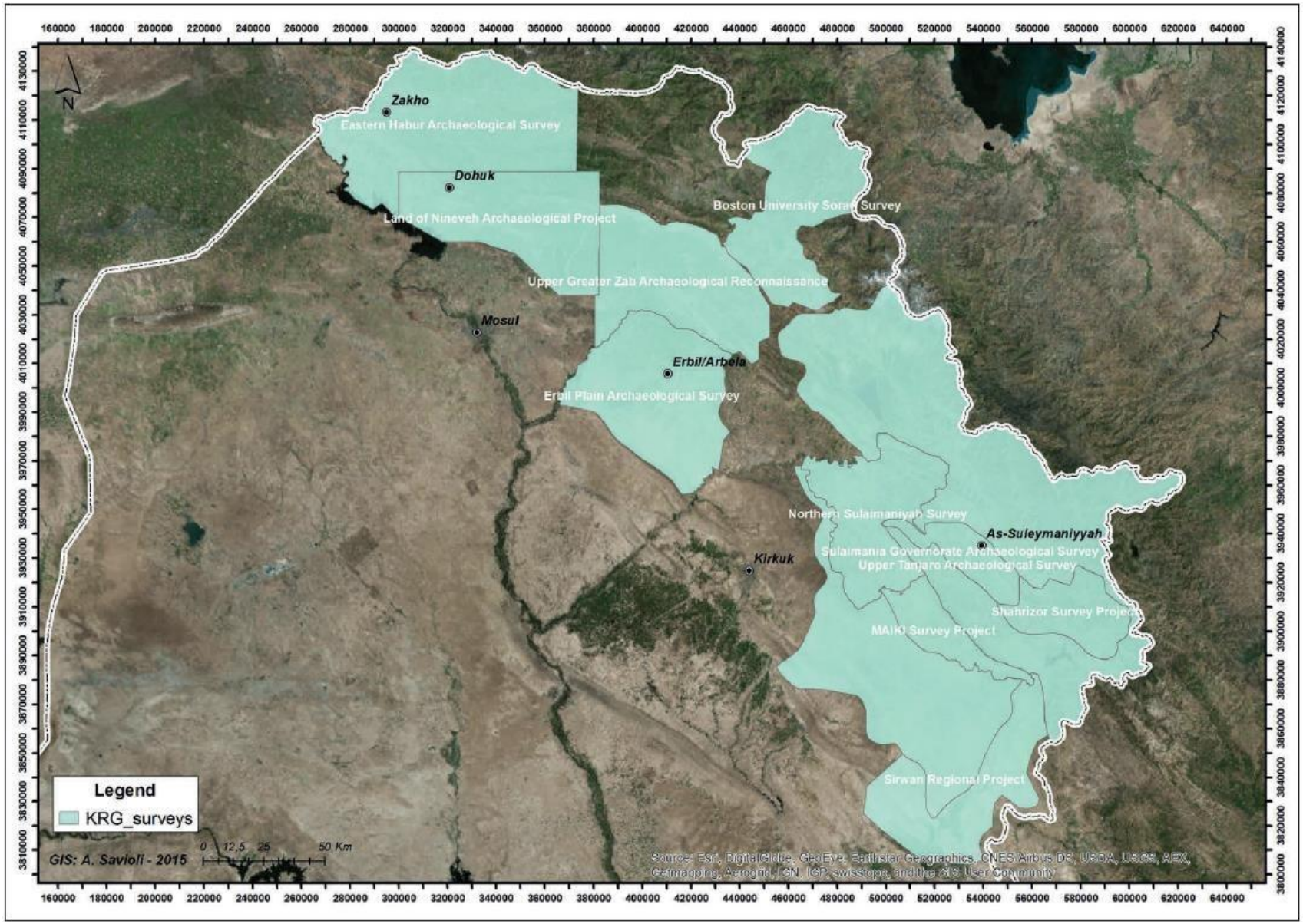

Figure 6. Map with the limits of all the recent archaeological survey projects carried on in the Kurdistan Region of Iraq. In: Iamoni 2020: 91, figure 1.

Similar results were obtained in the Erbil plain, around the city of Erbil, a team lead by Jason Ur, who has been surveying along the courses of major rivers in the region. The biggest efforts by this team have been done in the region of the Çiwa-Sur River and its tributaries, that flow throughout the districts of Qush Tapa, Gwer and Shemamok, to the south of the city (Ur et.ali. 2021, Palermo, de Jong and Ur 2022). To the north, a limited survey has been done close to the Great Zab and following two small tributary streams up to the village of Qalaçogan and the northern neighborhoods of Erbil (Ur and Giraud 2020). However, once more, the complete inventory of surveyed sites has not been published yet so far. The eastern countryside of the city to the limit with Slemanî/Sulaymaniyah province is still largely unknown. A few sites recorded by the Iraqi Atlas and Al-Soof are the only evidence of ancient occupation there, but the location of this sites it is yet doubtfully (TAVO; al-Soof 1968; Rova 1988).

The province of Slemanî/Sulaymaniyah, to the south of Iraqi Kurdistan, has yielded a small number of sites with Ninevite V material. The excavations in the site of Kani Shaie (S29), some 20 km east of the city of Slemanî, is the best known example in the whole region. The excavators found a complete stratigraphy of the transition between Late Chalcolithic and Early Bronze Age, yet the Ninevite V pottery is present only through a few sherds and alongside with other regional styles and even with local painted ceramics (Tomé, Cabral and Renette 2016: 431-432; Renette et.ali. 2023) The same authors explain that most of the pottery samples showed only distant parallels with Ninevite V style. The cave of Palegawra, only 5 km north of Kani Shaie, also offered some Ninevite V materials, but only at a limited extent (Braidwood 1951; Braidwood and Howe 1960: 58) Other sites in the region like Gird-î Qala – Logardan yielded no Ninevite V material despite of its EBA occupations (Vallet 2015, 2016, 2017) Also no evidences of Ninevite V have been found so far on sites in the Sharizor plain, north of the city of Halabja, so we can consider this region to be outside of this culture's influence (Muehl and Fassbinder 2015; Tamm et.ali. 2018). The materials belonging to Early Bronze Age may be assigned to the types known as scarlet ware or other regional types like the Aliabad ware (Altaweel 2012: 25) Also Al-Soof did not list any Ninevite V site south of Dukan lake and Kirkuk governorate, while he analyses some sites in Sharizor plain with claimed Uruk occupations (Al-Soof 1964).

Among the newest surveys in Iraqi Kurdistan region only the UZGAR (Upper Great Zab Archaeological Project) project, that has been discussed above, has published a complete register of their ground surveys. This project, led by professor Rafa Kolinski from the Adam Mickiewicz University of Poland, explored the region north of Erbil province, following the Great Zab on both banks, the eastern one belonging to Erbil province, and the western one belonging to Duhok province. In this area, closer to the

mountainous range of the Zagros, the average sizes of the sites appear to be much lower than that of the Erbil plain. Only a couple of sites are bigger than 10 hectares, while the Ninevite V occupation area is small in almost all of them. Even when the overall number of sites is not small (around 55 identified sites) there is not a single standing out site over the others here as it happens in other regions like the Erbil plain. This same situation was found by Algaze during his survey in the Cizre region of Turkey, undertaken due to the planned construction of a dam in the nearby zone of Silopi-Cizre plain. This region turned out to be settled only in a limited amount of sites, more precisely, 14 during Ninevite 5 period, but all of them but one (Basorin Höyük, S199) of small size, less than 2 hectares (Algaze et.ali. 2012).

3.2. Archaeological Excavations

Since the XIX century, the Near East and, precisely, the area of Mesopotamia has dragged attention of the western scholars, mainly seeking for cities and figures referenced in the Bible: the legendary gardens of Babylon, the tower of this same city believe to have been teared town by god himself, the birthplace of the prophet Abraham, Ur, or any other proof to recover evidence to confirm Biblical stories. Excavations of sir Leonard Wooley in Ur are only one early example of notorious excavations that brought to the light fabulous tombs, sumptuous palaces of magnificent libraries with hundreds of cuneiform tablets stored and ready to tell the story of important past civilizations.

Excavation at important sites like Assur, Babylon, Nineveh, Nimrud, Uruk or Dur-Sharrukhin yielded impressive discoveries that fed the curiosity of explorers, but as the southern Sumerian world and the Assyrian and Babylonian empires dragged all the attention, other less sumptuous, peripheral cultures and realities were neglected. In fact, northern Mesopotamia, aside of some sites, was largely ignored but by the intervention of some scholars that centered their attention in those long-lived prehistoric sites. One of the very first scholars that focused in this region was Max Mallowan, that conducted excavations at some key sites in Syria such as Tell Mozan, place in which he performed some short test trenches before moving to his next destination, also one of the Mallowan's most important intervention in the Syrian Jazeera, the one conducted at the site of Chagar Bazar (Mallowan 1936). Later on, also in northeastern Syria, Mallowan conducted excavations at other sites such as Tell Arbid, between 1934 and 1936. This same scholar also developed important interventions in northern Iraq, where he performed his well-known prehistoric pit at the site of Nineveh and described the stylistic characteristics of the decorated Ninevite 5 pottery for the very first time. The excavations at Nineveh where an undisputed landmark in the history of archaeological studies in the northern Mesopotamia region, but others will follow it, and will shed more light on the Ninevite 5 culture. Another significant site explored in the 30s of the XX century was the site of Tell Billa, a 12 hectares' large site that was excavated by a team from the University of Pennsylvania and the American School of Oriental Research, that yielded important Late Bronze Age remains, but also earlier Late Chalcolithic and Ninevite 5 occupations (Speiser 1932; 1933). This site yielded also remains of Ninevite 5 painted and incised sherds (Speiser 1933). The same team also excavated a way smaller rural site close to Tell Billa, Tepe Gawra, that yielded an interesting Ninevite 5 sequence in the levels VIIIa-VI (Speiser 1929; 1932; 1935; Grossman 2014: 83). Yet another rural settlement was excavated in the 30's to the south of the Sinjar mountain, the site of Grai Resh (S298), a site that was only very briefly tested, and reevaluated again in the early 2000s by a team from the Sinjar Archaeological project (Kepinski 2008; 2011).

However, these early excavations often lacked of modern scientific standards and some publications are not as complete as it would be desirable, is that so that, in some occasions, scholars haven't been able to reconstruct complete sequences from old excavations in spite of the existence of published material. In other cases, excavations were unpublished or only partially published, leaving today's archaeologist with blank gaps or elements that are difficult to reconstruct, such as most of the occupation sequence at Tepe Gawra. Even considering the scientific shortcomings, these early excavators gave us an undoubtedly valuable insight on the earlies stages of development of the northern Mesopotamian development of early urbanism during the Early Bronze Age.

The development of modern techniques and systematic methods of measuring and recoding information have greatly improved the amount of information we can obtain. In the las decades of the past century, excavation projects multiplied throughout Syria, Turkey and southern Iraq, but the northern Iraq remained largely abandoned to the scientific knowledge aside of the famous Assyrian and Babylonian capitals. In the Kurdistan Region of Iraq, the massacres against the Kurds and also against other minorities keep western archaeologists away from this region during most of these decades. Modern archaeological works in Syria have been centered in large urban centers in the region: Tell Brak (S5), Tell Leilan (S25) or Beydar (S13) were part of the sites involving the Ninevite 5 period that were excavated during these period, but also other important sites with no Ninevite 5 traces were excavated, sites such as Tell Halaf or Tell Fekheriye. In northern Iraq, excavations continued at Nineveh and Nimrud, but, regarding the Ninevite 5 period, some significant sites were excavated west of the province of Mosul, namely Tell Taya (S425) and Telul ath-Thalathat V (S360), site that yielded very important Ninevite 5 remains. The site However, the two gulf wars and the US invasion of Iraq brought instability and chaos to a region that had been an archaeologist's paradise for most of the XX century, but now the security conditions became too precarious to maintain continuity in these archaeological projects. After that, most of western archaeologists centered its attention in Syria, where excavations at sites such as Brak or Leilan continued until the eruption of the Syrian civil war, event that forced archaeologists to move again, this time having the Kurdistan Region of Iraq as a destination.

However, even considering the importance of planned archaeological projects, one of the most important events that prompted large archaeological projects from the 60s on in all Mesopotamia were the dam constructions. As long as the archaeological sites in Mesopotamia are usually nothing but piles of messed mud and artifacts scattered all along riversides, they are very vulnerable to the rising water and the erosion provoked by the floods of the rivers. Then, dam projects have been one of the greatest dangers that

threats archaeological heritage in Mesopotamia. For that reason, governments and heritage ministries of Turkey, Iraq and Syria prompted rescue interventions intended to safe all that was possible before the completion of the dam projects. On one hand, the planning of a dam project in a river section, even if sounded strange, gives an opportunity to scientifically study areas and small archaeological sites that, otherwise, would remain unnoticed to the archaeologists due to many factors: sites too small to result attractive to missions, regions apparently poorer in findings etc. On the other hand, the urgent character of these interventions, and the fact that the archaeologists are running against the clock provokes that the retrieved information in limited for some sites due to several reasons: one single team is carrying out several interventions at the same time and they have to prioritize more promising sites, leaving less prominent sites with a minor investment of time, archaeological teams that do not fully publish reports on their excavations, or committed mistakes etc.

In Iraq, the Eski-Mosul dam project left dozens of excavated sites, and also several publications of the results of most of the teams that were involved in the salvage project. In the Sherqat district of Mosul, the Makhool dam project prompted the intervention of the UNESCO, and several archaeological campaigns were carried out by Iraqi teams. To the south, in the province of Diyala, the Hamrin dam project also prompted another salvage project that involved many excavations and surveys. In Syria, the Middle Khabur dam prompted important excavations of rural sites belonging to the Early Bronze Age, and in Turkey, the construction of the massive Ilisu dam, one of the bigger dams in the whole Middle East, also motivated interventions at many sites, especially in the plain of Bismil, far away to the north of the Syrian border. In all of these cases and, as stated before, the information retrieved was important, especially from minor rural sites that, otherwise, would have probably never been excavated, thus yielding interesting insights on the spatial structure and the organization that ruled the settlement hierarchy during the Ninevite 5 period as well as other attested epochs. On the other hand, many sites remained untested and only appeared, in the best of the cases, as mere marks in a map, the well documented of which were surveyed, but nothing more.

More recently, many excavations have been initiated at the Kurdistan Region of Iraq, among which some stand out due to its significance: The relevant urban site of Bassetki (S426) is noteworthy because of its significance as urban center in Ninevite 5 times. Aside of this, other sites that are yielding interesting results are Tell Baqrta (S18), Kandara Qal (S296), briefly excavated in 2018, Amyan (S631), excavated from 2019 onwards, or Girê Gomel (S30). As the fieldwork in Kurdistan of Iraq has only begun, further results are expected to come out in a nearby future, surely, with relevant

information for the study the Ninevite 5 period, as well as all the historical and prehistoric periods of the region.

3.3. Compilation and Treatment of the Data: The Catalog of Sites and Data Lists

To fulfill the primary objectives of this thesis, the required work has been divided into different stages that had to be completed before the analyzing faze can get started. These initial works are committed with gathering the maximum amount of information from any scientific source. Naturally, due to the time limitation of doctoral thesis, this phase need to be done and considered as finished in a reasonable period: As a consequence, information published after the conclusion of the initial phase can easily be overlooked. Nevertheless, even without an active publications searching, some notorious investigations have been included after the completion of this phase, but some other could have not reached me and some readers could consider that something is missing. For obvious reasons, this thesis will not be a complete image of the settlement pattern of the whole Ninevite 5 culture because many regions in northern Mesopotamia remain unsurveyed or unpublished, so, future work is certainly going to expand its contents.

The phases of work were divided in the following steps:

1. After a complete bibliographical search, and reports, papers and books on archaeological surveys in northern Mesopotamia had been compiled, a comprehensive catalog of archaeological data had been compiled, all of this as a necessary previous step before the analytic work could begin. Reports from all the archaeological surveys conducted through decades of fieldwork were thoroughly studied, and all information regarding known Ninevite 5 sites was retrieved from them. At the same time, archaeological information on sites, context and different studies on landscape were also collected and catalogued. After that, all information from the sources was gathered together and all sites with evidences to have been inhabited during the Ninevite 5 period were marked. The most valuable information was registered in publications consisting of a list of sites with coordinates and periods of occupation attested (if possible, a list of artifacts is also appreciated to separate sites with low and large concentration of Ninevite 5 material).

2. After that, this first process, that was already resulted in a massive amount of data, a second screening of the information was done, through which all the list of sites was cataloged and separated into two categories: the first ones were sites with indubitable Ninevite 5 affiliation, and the second one were sites with probable Ninevite 5 affiliation. This distinction was made purely relying on the primary

sources and the evidence their authors stated to evaluate every site they explored. Obviously, a deep work on catalogs could not have been done in all cases, as not enough information was done for some of this survey projects. All the information compiled in this phase was contained in an access list that contained essential information on any site: name(s), coordinates, a brief description of the location and the history of occupations, investigations done at the site (surveys, test pits or excavations), a bibliography on each one of them and also the kind of Ninevite 5 material found, when it is known.

It is necessary to state that the coordinates of the sites were not always easy to obtain, on the contrary, some sites or regions had some added complications in order to locate them all. The most problematic cases often are those coming from the AASI (Atlas of Archaeological Sites of Iraq): As the primary problems with the AASI has been explained in section 3.1.1., I will limit here to explain the complications it brought to this specific phase of the work. Many sites in the list where very difficult to locate, some others had too common names that lead to confusions, and others even were impossible to locate due to several situations. Sometimes, a single village featured two or more than two sites, and it resulted of major difficulty to distinguish which one was the site referred in the sources. Also, as the AASI features blank maps with minor geographical information, another major issue was to identify terrains, and most of the time I had to guide myself using river courses or the relative proximity of sites to cities and towns to try to spot some others, but there were sites placed in the map with no references, as were places isolated and far away from villages or other major geographic markers and, thus, its locations were problematic. However, it is necessary to clarify that not all the sites could be located with the same precision, but the most exact location figures on the maps, and, when the location in uncertain, this condition is explained in the site catalog (annex 1).

Once the job was completed, and the dataset was considered finished, I decided to shut it down and introduce minor changes up to the completion of the thesis, in order to have control over the data that was going to be part in the discussion and the argument about the settlement pattern.

3. Elaboration of a geographical map displaying all the sites listed using as a support the base maps provided by both Google Maps and Google Earth, and also occasionally the Bing Maps provider: the election of one of these three providers were made only regarding the site catalog of this thesis, in order to pick the one that provided better quality imagery for each site listed. For the first version of the

map, locations were introduced manually in a google maps support using the coordinates provided in survey reports. Once the map was considered complete and holding the maximum amount of information that has been possible to compile, then the information was transferred to a GIS data base using ArcGIS pro software, a tool that also allowed to make some complementary statistical and computerized analysis that will be explained with more detail in the section 3.5.

4. Once all the sites were located, they were classified according to their sizes and listed in separated categories. It is important to note that I categorized sites according to estimate size during Ninevite 5 period, not the total size of the site, counting all the periods attested. This task has been laborious and difficult, mainly because estimations of Ninevite 5 sizes were not always available on surveys reports. Also, we need to take into the account that estimations have some degree of error, especially when the surface collections are scarce, so, the data regarding this estimation have to be taken with precaution.

To solve this issue, some strategies have been followed: when data is inexistent, insufficient or doubtful, the site in question has been considered as 'indeterminate'. Also, sites that do not exceed two hectares as a total size considering all its occupations can be considered as a small sites or rural villages during Ninevite 5, considering that these sites did not exceed these two hectares at any period. Sites between two and fifteen hectares are considered to be more problematic because estimations are often difficult. Sites exceeding 15 hectares can be reliably classified as urban centers (Figure 7), as many of this sites have been object of archaeological excavations, or the Ninevite 5 artifact scatter is too notorious or occupy large portions of the site's surface to have some certainty about its urban dimension. Needless to say that excavated sites with confirmed urban dimension will have more secure estimations of total size, even when not large portions of this sites have been excavated.

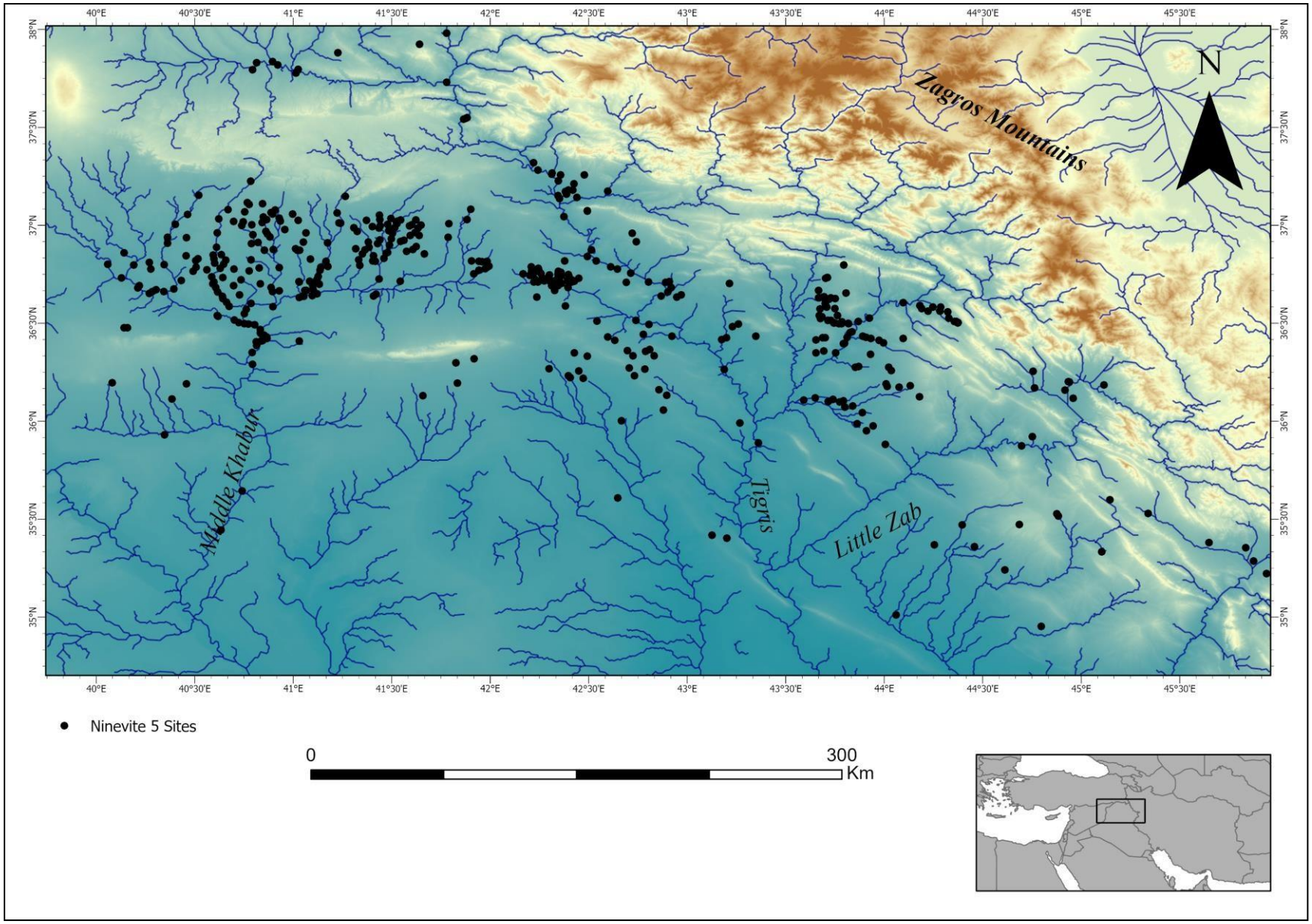

Figure 7. Distribution of Early Bronze Age sites in northern Mesopotamia. Not all sites in display in this image were included in the catalog of sites nor in the analysis, as some had little evidence of Ninevite 5 presence (small quantities of pottery) or data is insufficient.

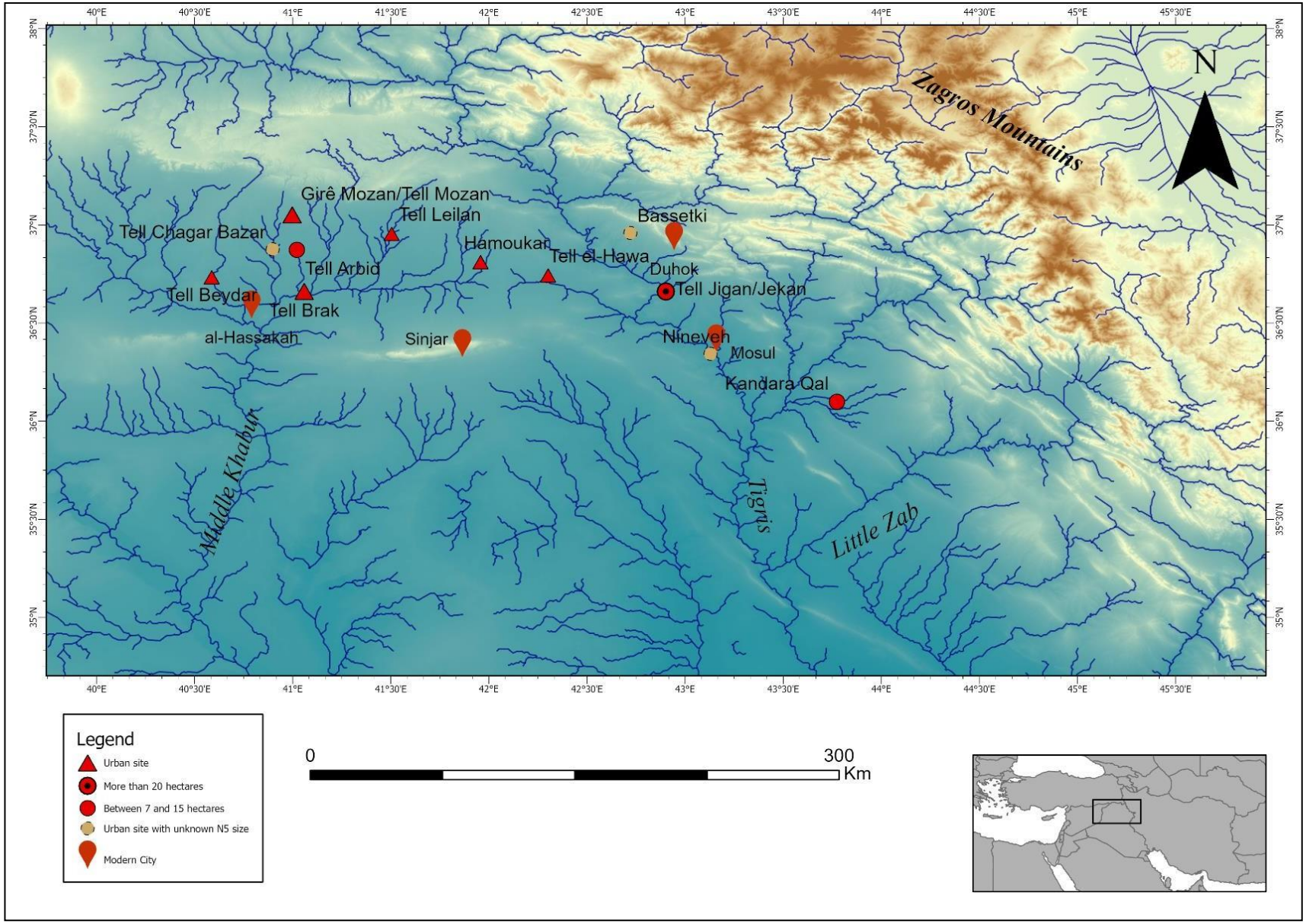

Figure 8. Urban and possibly urban Ninevite 5 settlements.

5. The last step regarding the data and the catalog of sites was the lecture of all the studies made on the settlement pattern of the Ninevite 5 culture. No study has been done on the general patterns of the Ninevite 5 culture in its own dimension, but studies done in particular regions could be of major interest in order to obtain different visions of the archaeologists and other scholars that worked on the field, and also on study stages of these particular regions.

3.4. Data Analysis

Once the dataset was ready and all geographical information was on display, I started to compare the settlement patterns proposed for the region around Tell el-Hawa (Wilkinson and Tucker 1995) and the region around Tell Leilan (Ristvet 2005; Arrivabeni 2010), mainly because of two reasons. The fist reason is that these regions belong to a fully Ninevite 5 related cultural area, and also because the both of these areas has been well studied and published, and patterns have been proposed for them both. It was interesting to me to test both models, as they were mostly coincident in the final conclusions, but had several differences. The study of the Tell al-Hawa region lacked a deep study on pottery sherds and internal divisions within the Ninevite 5 period, conditions that the Leilan project managed to meet. Then, it was also interesting if the data of the Tell al-Hawa project was coincident with that of Tell Leilan, as well as in other regions for which no pattern has been proposed yet.

The data was studied both bibliographically and through visualization of different arrangements around sites that could be considered as urban or, at least, bigger and more complex than the average of Ninevite 5 sites that, which, in contrast, are generally small rural sites. Sites with urban characteristics were isolated and analyzed in relation to sites in their immediate vicinity, usually focusing in sites that are immediately by the urban center. Most of this sites had a surrounding area empty of other sites, a feature that was tested in areas in which less archaeological work have been done. Aside of that, measurements of distances and physical separations between sites have been done in order to determine if a hierarchy is visible through the observation of the settlement pattern as visible on the map.

Finally, the information obtained through the spatial analysis of sites was contrasted with archaeological data obtained in excavations across the Ninevite 5 culture: valuable information comes from selected excavations of urban sites like Tell Brak, Hamoukar, Beydar or Leilan, but also from rural sites like those excavated in the Middle Khabur and the Eski-Mosul dam projects, but also programmed projects at secondary sites like Tell Khazna (S133) or Tell Feres (S6). All the information on contexts, architecture, economy and funerary world was contrasted with data from all the Ninevite 5 extension with the objective of finding common bounds between all the culture that could be considered as particular or, at least, followed and repeated with certain degree of standardization. The junction of all these elements together are the core of the investigation proposed in this doctoral thesis.

3.5. Statistical tools: GIS and R Language

The use of GIS and other virtual tools was not one of the main objectives of this thesis, but I had the opportunity to apply a methodology based on the use of computational parameters on the dataset that I have compiled for the present study and, through it, shed more light on the spatial distribution of the Ninevite 5 culture. The use of GIS has been already applied as part of the methodology with the purpose of allowing a better comprehension of the landscape in which the whole extend of Ninevite 5 settlements are settled on. The GIS tool allowed to display the complete dataset in order to allow the comparison between regions and sites, but the statistical use of this tool goes further than the simple observation.

The combination of R Language system, a program that permit the establishment of scripts that automatizes processes that otherwise would represent an unfathomable objective, as the dataset is so big that any try to treat it by any manually method would result unworthy. My objective when using these systems was basically the same than thatof the thesis, but in a complementary way, treating it as some sort of way to confirm of debunk the settlement pattern observed through the comparison with the bibliographicalsources and the observation of the settlement pattern on the GIS mapping systems. In order to fulfill this objective, a method developed by E.E. Jones was taken as an examplean applied to the database of the Ninevite 5 settlements. Jone's proposal was based on thedisplay of two groups of points on a GIS base map, the first were the actual database of compiled archaeological sites, and the second one was a set of random points scattered on throughout the same region in which the archaeological sites are located. Then, once all the points are correctly distributed, the author compared a set of items regarding geographical position, political features or access to resources and applied them to both the random points and the archaeological sites. Then, when compared to the random points, the items that turned out to be more relevant in the distribution of archaeological sites were prominent over the items that had less relevance.

For the study of the Ninevite 5 settlement pattern, other items adapted to what it may be considered relevant factors for the population of the Ancient Near East have been taken into account. From the geographical point of view, proximity to river flows, slope at the site (considering the slope of the surrounding landscape, not the artificial slope of the site itself created by the accumulation of archaeological layers) or flat land available in the proximity. A feature that has been noticed for the settlement pattern throughout the Near East, and also, logically, in most of the human societies, is that the vast majority of all of the sites were stablished near or close to river flows. This feature is common in all northern Mesopotamian regions in order to assure a source of clean water for human

consumption and also for irrigation, but also, in the cases of major flows, a communication route with other territories. This element has been used as a criterion for archaeological surveys for the detection of new sites, as it is expected for unsurveyed riverbanks to have held population at some degree (Decklers n.d.). Also flatter land seems to be preferred by Ninevite 5 society over hilly territories, probably due to the importanceof the agriculture in their subsistence economy.

From the political aspect, data such as the size of the sites, their visual spread, and their proximity to each other have been chosen for analysis. It is necessary to state that all the sites have been grouped by size into four categories. In the thesis, only three sizes have been considered: small, medium, and large. However, different parameters had to be considered for the computational systems. The smaller sites were those that fit within the range of zero to two hectares, while the larger ones were those of fifteen hectares or more, following data from actual excavated sites. For the computational method, the medium size category proved somewhat artificial and included a variety of sites that were quite different from one another: for example, sites measuring three hectares were classified as medium, as well as sites measuring fourteen hectares. This classification was obviously inaccurate from an archaeological perspective. Although a four-tier classification is not intended to represent an actual hierarchical reality, it was necessary to meet the objectives and properly compare sites in their real dimensions. To conclude the parameters applied to the sites, two different catchment areas were established for each one: five and ten kilometers, to analyze how the sites are arranged on the landscape and if this arrangement shows any possible hierarchy.

The parameters of comparison were complemented with a base map of the complete rivers in the Ninevite 5 core area, a task that had to be completed manually, as a raster compiling all river flows does not exist. As a result, a GIS map combining the elements of study and parameters, along with an elevation base map, was created to start the statistical comparison (Figure 9).

The results yielded by the study were quite interesting: first of all, it was found that large sites (i.e., urban settlements) are never clustered together in the same catchment area, while one or two medium to large sites tend to appear in the catchment area of larger settlements. In the case of small and medium to small sites, the proportion of sites in the catchment areas of larger urban settlements rises to five, and small sites tend to cluster together in a larger proportion than any other group. These results suggest a possible hierarchy where larger sites do not share catchment areas, but smaller sites do.

Once the analysis has been completed and the results have proven satisfactory, the patterns shown by the statistical analysis need to be tested on the ground by comparing

the actual distribution on the GIS map with archaeological data. By comparing these results with all available data, the validity of this method will be assessed and determined as either correct or incorrect, depending on whether it aligns with reality or proves inconsistent with the material evidence.

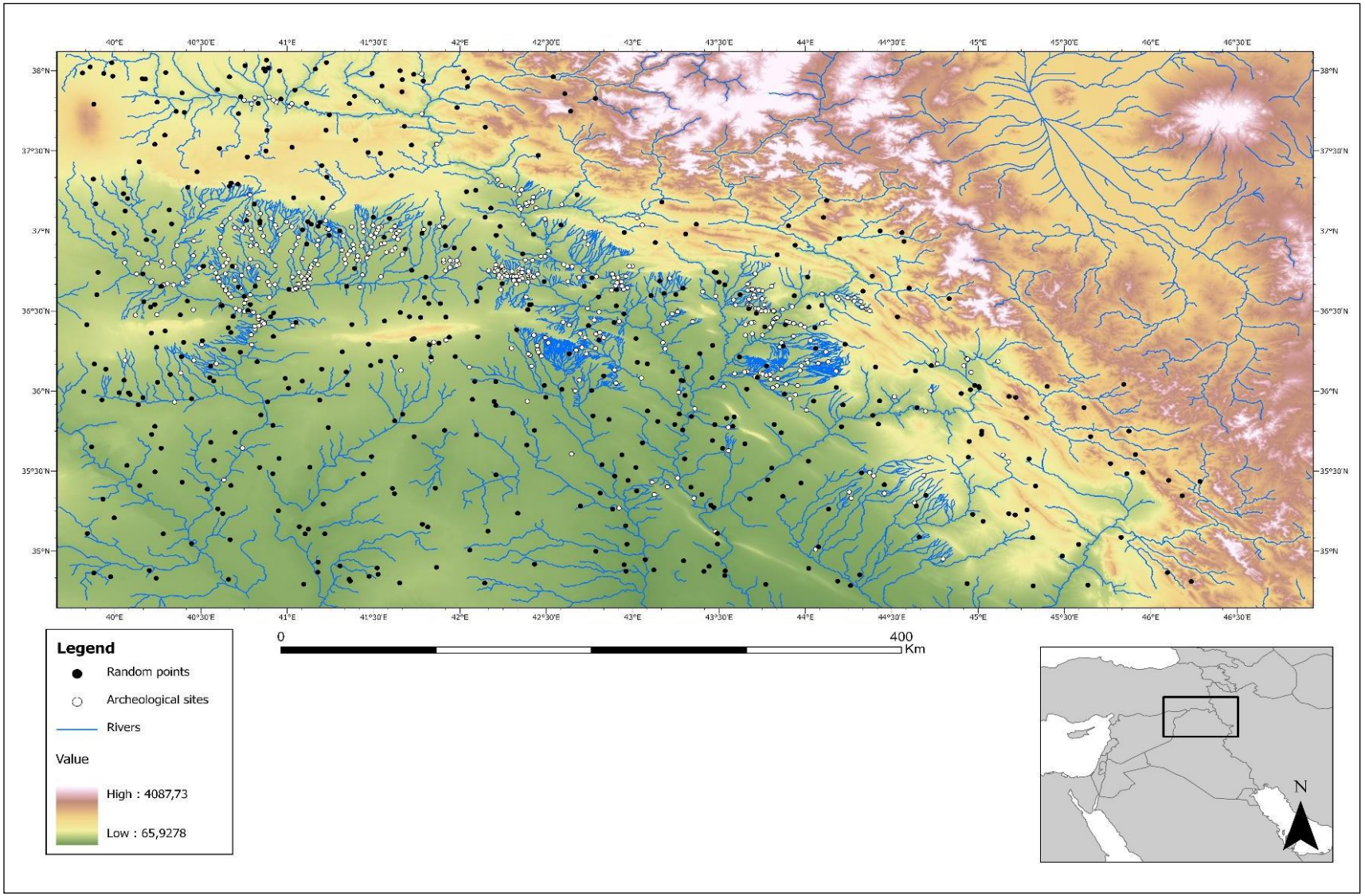

Figure 9. Map displaying the Ninevite 5 sites and the random points distributed throughout the northern Mesopotamian region.

Chapter 4. Analysis and Results

4.1. Settlement Pattern of the Ninevite 5 Period

To perform a proper analysis of the settlement pattern of the Ninevite 5 culture, a complete vision of all the known settlements that belonged or could belong to this cultural group need to be stated. In this section, I will post a summary of all the available sources to this date on the spatial distribution of sites throughout northern Mesopotamia, including salvage projects and scientific records. However, as I stated before, we do not have sufficient data to include some regions, either because a total lack of systematic surveys or lack of publications. Both situations will be considered in this section, as it has been conceived as a revision of all the territory in which the Ninevite 5 period developed, and not only a review of archaeological surveys and excavation projects carried out. Nevertheless, this objective has proven to be challenging, as some regions proved to be authentic wastelands of information, while other are very well documented, as islands of information among deserted regions (obviously, in a metaphoric sense).

To illustrate this last statement, the region of Tell Leilan was the object of a very systemic work done by scholars of the Yale university, that studied and divided the Ninevite 5 period into comprehensive and solid sections, each with a distinct settlement pattern. On the other hand, adjacent regions suffer an important lack of information, to the point that almost nothing is known on the Ninevite 5 population out of the boundaries of Leilan's project.

4.1.1. Regional Distribution of the Ninevite 5 culture

Our knowledge on the geographical extension of the Ninevite V culture has grown greatly in the past decades since its first discovery in a very disturbed context in the site of Nineveh in 1929/30 (Thompson and Mallowan 1933: 106, pl. XXIII) and stratigraphicaly clarified in the 1931-32 excavations in the well-known 'prehistoric pits' at the temple of Ishtar in the same Tell Kuyunjik site (Thompson and Mallowan 1933; Mallowan 1964; Reade 2005; Rova 2017).

The core region of the culture is clearly defined by scholars to occur in northern Iraq, mainly around the region of Mosul and the Kurdistan Region of Iraq to the east. The western core is focused on the Jazirah region of north-eastern Syria, more or less from the region of Til Tamer to the east with no little geographic limit with the westernmost regions of Iraq, to the other site of the nowadays political border. The Ninevite V had been developed basically in the flat plains.

It was thought that Ninevite V culture extension was delimited by the nowadays border between modern states of Iraq and Turkey (Rova 1988: 14), stating that it was believed that no presence of this culture ever existed in Turkish lands. However, the surveys carried on first by Algaze (1989) in the Silopı region, and then during the salvage projects for the construction of the Ilisu Dam on the Tigris River have proved this wrong.To the east, the knowledge has also increased since that time, as more sites closer to the border with Iran have been discovered during modern surveys in the Iraqi Kurdistan region (EHAS project) in the province of Acre and the districts of Salahaddin and others in the region of Slemanî/Sulaymaniyah. According to Rova, with only exception to be found on the Ranya plain (surveyed by the Iraqi Department of Antiquities due to a dambuilding plan) no other Ninevite V sites where believed to exist east of the province of Shaqlawa (Erbil governorate) but the UZGAR project also denied this by discovering a densely populated region in the Harir valley, just north of Shaqlawa city (Kolinski 2018). On the other side, the southern and western boundaries have suffered minimum changessince Rova's study (1988: 14-15)

To conduct a more comprehensive study, the area of study has been divided, and area that, otherwise, would be too vast to take it all into consideration as a unified whole. These regions do not necessarily have to coincide with modern provincial or national boundaries; instead, most of them correspond to regions characterized by a natural feature (a river course, for instance) or homogeneous landscapes with similar conditions (mountains, plains, wastelands). Each of these areas have diverse access to different resources and special conditions, necessitating a separate evaluation for every one of them.

4.1.1.1. The Diyala/Sîrwan River Basin

The Diyala river is an important tributary of the Tigris River: It origins at the confluence of the Tanjaro and Sîrwan rivers in the Sharizor plain, down from Iranian Zagros range, to the south of Slêmanî/Sulaymaniyah province, and flows to the south until it joins the main course of the Tigris immediately south of Baghdad City. The river has a total length of some 445 in which the river goes through the provinces of Slêmanî/Sulaymaniyah and the recently created Halabja, in the Kurdistan Region of Iraq and the province of Diyala down to Baghdad.

Regarding evidence of Ninevite 5 occupation, this region has to be considered a southern periphery if not directly outside of this culture's area.

Tell Asmar (better known by its ancient name, Eshnunna) is the southernmost site in which Ninevite 5 pottery has been identifies so far, but, this occurrence is limited to a single painted sherd found during the early excavations at this extensive site (Delougaz 1952: 76, 141, plt. 64). However, the find spot is clearly isolated as no other occurrence has been identified that close to Baghdad.

Upstream of the Diyala river, other isolated occurrences happen. In the Hamrin basin an extensive survey and excavation program took place in the 70's because of a planned dam that was threatening the basin's archaeological heritage. As a result, some Early Dynastic 1-2 sites were uncovered, such as Tell Razuk (Gibson 1981), Gubba (Fuji 1981), Tell Sabra (Tunca 1988) or Tell Madhur (Moon 1982). It is noteworthy that the scarlet ware pottery, that appears often related to Ninevite 5 pottery in many sites in the Khabur and the Upper Tigris, is common in the ED I-II layers at these sites (Renette 2009). However, Ninevite 5 pottery is almost totally absent in the Hamrin basin aside of one single find spot at the site of Tell Abu Qasim (S664) (al-Kassar 1979, Rova 1988: 15), but the accuracy of this occurrence is doubtful because of the absence of published detailed reports on the excavation. Despite of the intensive archaeological work in the Hamrin Basin, no other occurrence has been identified.

Slightly upstream, two more sites have been claimed by Abu al-Soof (1968) to have yielded Ninevite 5 pottery. They both are relatively close to Tell Abu Qasim: Tepe Derwiesh (S662), located near the city of Qara Tapa and some 25 km north of Abu Qasim, and Tepe Imam 'Abas (S648), located in the Qubba plain, just north of the Jebel Hamrin, some 20 km northeast of Abu Qasim. According to this source, non-decorated Ninevite V sherds were found in both of the sites. However, even considering them as isolated spots, the closeness of those three sites in a such a southern location could point to a limited distribution point for Ninevite V material, but such a claim is impossible to defend due to the poor available archaeological data.

Yet another site, Telul al-Hadid (S665) (Abu al-Soof 1986: 75, Rova 1988: 15), is to be located in the Basin of the Diyala river, in the district of Khanaqin, close to the Iranian border. This last site is completely isolated and has to be considered the last Ninevite V occurrence in the Diyala Basin. To the north, the Sharizor Plain, in the Halabja Governorate (KRI), has seen a number of archaeological projects in which evidence of Early Bronze Age has been uncovered. Some sites like Gird-î Şamlu were excavated as a result of a salvage program during the construction of the Darbandikhan dam, but most of the work done by the Iraqi State Board of Antiquities has been lost, as well as most of the information (Muehl and Fassbinder 2015). Other sites have been recently the main

focus of archaeological projects such as Gird-î Qalrakh (Wicke 2020), but none have reported to have found Ninevite 5 pottery so far.

4.1.1.2. Kirkuk Governorate and Adjacent Regions

This second region is encompassed by the Little Zab to the north, the Tigris to the west and irrigated by several tributaries of the al-Uzym river (Figure 10). The terrain of Kirkuk governorate is mostly dominated by low mountainous ranges to the north up to Slêmanî/Suleymaniyah governorate, in which one can find the origin of the abundance of tributary streams and springs that run from north to south until they join the main course of the aforementioned river, some 45 km north of the main course of the Tigris. To the south of Kirkuk city, the ground becomes flat and suitable for agriculture.

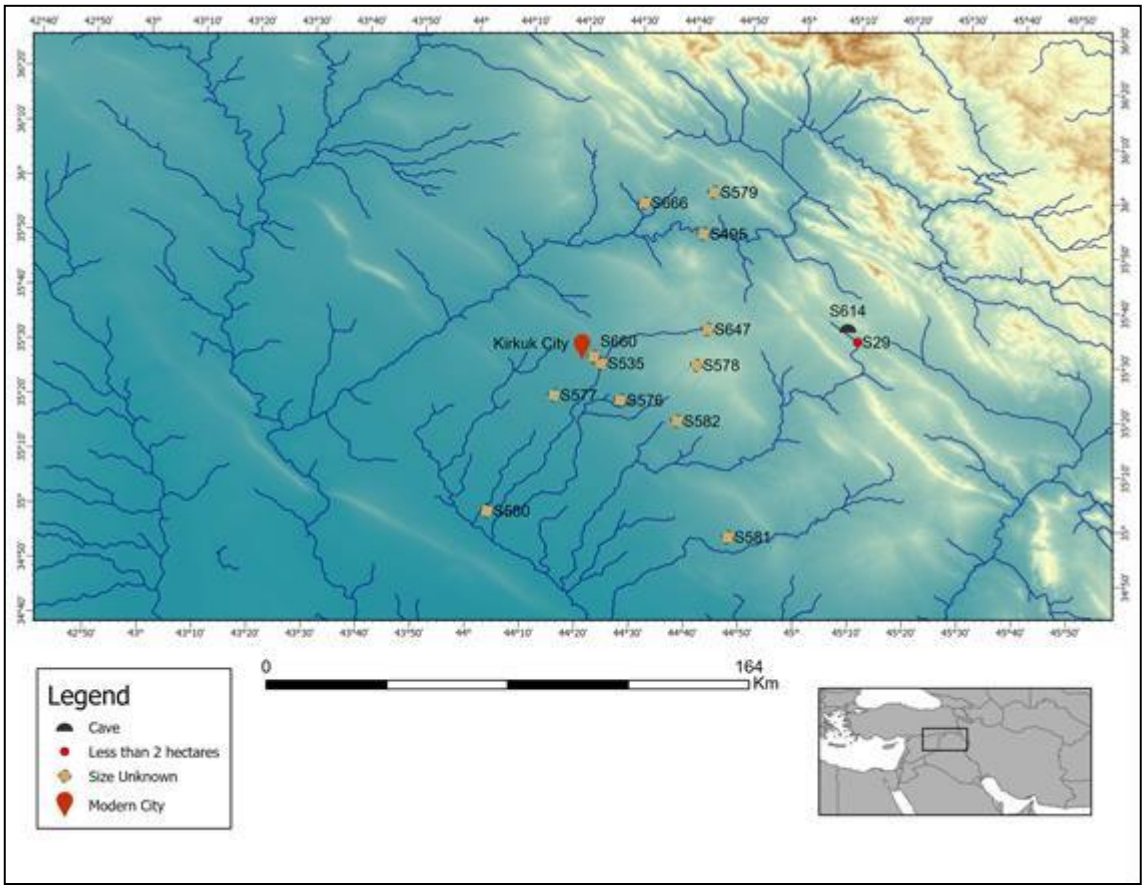

Figure 10. Reported Ninevite 5 sites in the province of Kirkuk.

The human population in ancient times, as it seems logic, tended to concentrate in the flattest lands, as there are a lot more recorded sites than in the mountainous areas. However, the recorded sites containing Ninevite 5 are scarce and scattered all around the governorate. It seems clear, then, that there is no a unified patron of settlement for this

culture and all of the occurrences appear to be rather isolated and occasional. In Kirkuk governorate, only 10 sites are recorded by Abu al-Soof (1968) based on the records of the AASI (Edwards, Gadd and Hammond 2008: 298). However, in fact, that number has to be reduced to 8 given the fact that the author gathers together in the same province sites that are nowadays in other provinces, namely sites S662 and S648, listed in this work as part of the Diyala Basin (and administrative as part of the Kufri province in Diyala governorate).

The distribution of sites is quite heterogeneous: Only one site is to be found close to the course of the Uzym river (S580, Tell Khadigha/Khadijja), another one some 12 km south of Kirkuk city (S661, Tell Ghatish/Qatash) plus the well-known site of Nuzi (S577, Yorgan Tepe) and two more sites inside Kirkuk city itself (S535, Qala-î Kerkûk and 660, Tell 'Arafat). It is important to note that Abu al-Soof do not list the sites S577 and S535 as Ninevite 5 occurrences, but them both appear in the Tübingen Atlas (TAVO). 6 km south-east of Kirkuk city, but still placed in flat agriculture suitable lands, there is one more site (S576, Oşagh Tappe/Ujagh Tepe). 3 more sites are scattered around the mountains of this same province (S582, Kalak Saifak, S578, Tell Başbulaq and S647, Tell Banna Bur) while 2 more (S666, Jia Balka and S579, Qal'at Ghin al-Ghanubi/Southern Qalla Jin) are located in the mountains of the province of Koisinjaq (Erbil governorate) and 1 more (S495, Sâtu Qalâ) in the riverbank of the Little Zab. Other 3 sites are located inside a valley in the immediate vicinity of Sulaymaniyah city, a cave with Ninevite 5 remains (S614, Aşkeft Palegawra) and one mounded site (S29, Kani Shaie), both in the strategic Bazyan Valley.

Only the sites found near Kirkuk are close to each other, while all the rest seems to be too distant and randomly placed to constitute a coherent net of correlated sites. On the contrary, all the occurrences here clearly come from other sites in the north and is not to be expected as a local culture. This vision is also supported by the few archaeological excavations that have been carried on in the area. The excavations at Nuzi did not yielded important Ninevite 5 remains. A similar result was obtained in the site of Sâtu Qalâ, where no remains of this culture were found during recent excavations (Van Soldt et.ali. 2013, Pappi 2016), but some painted pieces appeared in surface surveys (Pappi 2018: 99). In Suleymaniyah, the cave of Palegawra was excavated in the 50's of the XX century and some Ninevite 5 material was found alongside with Uruk pottery in the most recent layer of the cave, but the impressive results of the Paleolithic layers overshadowed the later occupations (Braidwood and Howe 1960: 58). The tell site of Kani Shaie has been object of recent excavations (Tomé, Cabral and Renette 2013; Renette et.ali. 2023), but, in this case, stratified Ninevite 5 sherd were reported (Tomé, Cabral and Renette 2013: 431).

It is clear that the data available is still scarce and difficult to analyze because of the lack of modern archaeological excavations, mainly due to the complicated security situation in Kirkuk province, and the scarcity of Ninevite 5 material record. Almost all of the occurrences are recorded in the AASI, but the information it provides is limited, even in some cases, the location of the site is unclear (S582). Also the few excavations don't contribute much to our knowledge on Ninevite 5 in the region. The excavations of Satu Qala did not yielded Early Bronze Age contexts, as well as Nuzi's. It is also noteworthy that the AASI catalogs a site that is called Tell Ghatish/Qatash (S661), a site that is so close to another one that had been excavated by the archaeological team that were working at Nuzi, and in the close vicinity of that site, called Kudish Saghir. As the names are similar to each other, it is not clear whether both names refer to the same site, but it seems unlikely. However, no Early Bronze Age layer were found in Kudish Saghir.

The only site that yielded stratified Ninevite 5 material, Kani Shaie, could shed light on this culture's issue. According to the excavators, only a few examples of sherds clearly belonging to Ninevite 5 tradition were found in the Early Bronze Age layers of the site, while other sherds were related to other contemporary cultures, and most of the excavated pottery showed only distant affinities with Ninevite 5 tradition (Tomé, Cabral and Renette 2013: 431). This information is interesting because it strengthens the thesis that this region is out of the main Ninevite 5 area as long as only a small percentage of pottery belongs to this tradition, while the related decorated pottery could reveal some cultural influence. In any case, as the Ninevite 5 material is always a minority in the total amount, the peripheral character of the region seems clear.

4.1.1.3. The Ranya Plain

At the very foot of the first ranges of the Zagros, there are several plains surrounded by short mountains that encompass them such as the Ranya and Sharizor plains. The Ranya plain is now partially flooded by a dam built in the 60's, but, before the barrage of the Little Zab, the area was an extensive flat plain with a lot of arable land and intensively populated in the antiquity. The Ranya plain is also close to the Darband pass that could connect the plain with several routes to Iran. All that conditions could have been conditioned the population of the plain in Late Chalcolithic and Early Bronze Age times.

Many archaeological survey and salvation projects were carried out prior to the construction of the Dokan Dam in the 60s and, as a result of these previous works, there is an extensive list of sites that were going to be affected by the rising waters of the

reservoir. Some selected sites were also excavated by Iraqi teams, but the reports have not always been properly published. For the sites that were located in areas that remain permanently drowned, only some scarce reports, in the best of the cases, are available onthe Iraqi rescue excavations (Tekriti 1960). Other sites located on the fringes of the lake had a better fate, as these sites are only temporarily underwater, and they are thus available for study at certain periods on the year. One of this sites was Tell Basmusian (S294) was excavated by Abu al-Soof (1970), but, sadly, he did not report any Ninevite 5 occupation. Later, the NINO expedition led by a team from the university of Leiden resumed the investigations in the early 2010s after a long delay, and performed surveys on the edges of the lake and also some rescue excavations at selected sites (Eidem 2012; 2015). Regarding the results involving Ninevite 5 occurrences, the site of Tell Basmusian was reexamined, and this time, painted Ninevite 5 sherds were discovered in archaeological contexts. Other sites to the northern edge of the lake, namely Tell Shemshara (S295), Gird-î Bardastee (S19), a site called immediately to the north of Shemshara, where they also conducted excavations, also yielded important remains of Early Ninevite 5 period (Eidem 2015), alongside with a number of Late Chalcolithic sites, thus evidencing a continuity in the population between both of the periods (Baldi 2018). Another salvaged site by NINO team is Araban (S293), that's located further to the south, near the mid-section of the Dokan lake. This site turned to be very bad preserved and so severely damaged that only pits and fireplaces had survived from the former settlement, but the remains were enough for the archaeologists to document an important Late Uruk occupation along with a short Early Ninevite 5 persistence, mainly concentrated on the southern part of the site (Eidem 2015: 11). Another early Ninevite 5 site close to the lake but, in this case, never affected by it is the site of Gird-î Shaiwazan (S335), reported by NINO during a surface survey but never excavated by them[2]. This site, as well as many others in the region bearing Ninevite 5 sherds, also had an Uruk occupation.

Further to the north and close to the city of Hajiawa, to the north, half away of the town of Saruçawa, lies the big site of Gird-î Tle (S427), sited in a valley heading to the north of Erbil province, that has been object of recent excavations by a Hungarian (Dezso and Mordovin 2016; Dezso et.ali. 2017; Kalla and Dezso 2019; Viczián 2020), and a Japanese team (Hassegawa, Yamada and Ismail 2016). According to their publications, the mound had Halaf, Ubaid, Uruk and Ninevite 5 occupations. However, as it is usual for sites with a wide history of settlement, the first layers use to be overshadowed by later periods and not so many information is available about the earliest stages of the site. The

[2] The information about surveyed sites has been published online: https://www.nino-leiden.nl/projects/rania-plain-survey.

excavations uncovered layers with Ninevite 5 pottery in trench 1, but a little is known about it due to the limited size of the trench (Kalla and Dezso 2019: 2).

Across the Darband pass, in the Pishdar plain, only one site has been reported as a Ninevite 5 occurrence: the site of Qaladze (S507). This site has also been object of a recent archaeology project that performed a surface survey in 2013, which yielded Ninevite 5 sherds. The archaeological team stated that little evidence from this period was found in the settlement, but the analysis of the pieces revealed very distinctive pieces of Early Ninevite 5 pottery with many parallels in the Ranya plain (D'Agostino et.ali. 2016). Also, in that very same line, a recent survey project has been carried out in the region, the SGAS project and, as a result, very limited amount of Ninevite 5 sherds have been recovered in the vicinity of the Dukan lake (Verdellet 2018: 88-9).

To sum up, it seems clear that the Late Chalcolithic period was a time of settlement expansion in the Ranya Plain and surrounding landscapes. That early settlement decreased slightly during the Early Ninevite 5 but many sites still being inhabited, but then, it looks like the population declines and the following centuries would be very limited in that region from Late Ninevite 5 period onwards, at least until the end of the third millennium, as we can see in sites such as Basmusian (Eidem 2015: 7) or Gird-î Tle (Kalla and Dezso 2019: 2-3). This heavy decline in population after Late Uruk seems not to be an especially unique feature of the Ranya plain region, as we might glimpse similar processes in Erbil and Dohuk provinces. However, the presence of Early Ninevite 5 material evidences that the shortage in population did not happen abruptly, but sustained in time.

Anyway, as of what we know, the Ranya plain represents the easternmost area of expansion of Ninevite 5 culture, not having appeared any other occurrence further to the east.

4.1.1.4. From the Erbil and Navkur Plains to the Province of Duhok

The land surrounding the city of Erbil, limiting with the province of Koya on the east, and limited by the Great Zab to the west, is an extensive plain with some areas of smooth hills with the huge urban center of Erbil covering the center of the Plain and rapidly expanding. This region has many reported Ninevite 5 sites: the AANI recorded as much as 29 sites in all Erbil governorate, but we now know that the real number exceeds by far the Iraqi antiquities list of sites.

All this region is irrigated by many small rivers, streams and tributaries that makes this land a very suitable place for agriculture, thus explaining the great variety of settlements. The River Çiwa-sûr and its tributaries extends from the south-west of the Erbil city, in the Gwer sub-district (district of Makhmur) and flows to the north-east. The Ninevite 5 sites extend along this river system and developed thank to the resources it provided. All this region was investigated by the Erbil Plain Archaeological Survey, directed by Jason Ur, from Harvard University. That mission reported a total of 44 sites with Ninevite 5 pottery (Ur et.ali. 2021). Unfortunately, only limited information has been disclosed and is accessible to the academic community as long as many details about the surveys of this team have not been published to this date.

The southern Erbil region has some sites that could have been very significant in the development of the Early Bronze Age population (Figure 11). One of this sites is the site of Kandara Qal (S296), a huge cluster of low mounds that has been recently excavated by a French team. Both the excavation work and the survey by EPAS team has revealed this site to be an important settlement (up to 55 hectares counting all the nearby mounded sites) that has yielded an important corpus of early painted Ninevite 5 as well as some incised/excised pottery sherds (Dolce 2020). Also the 2019 excavations at the nearby important site of Qasr Shemamok found vestiges of Ninevite 5 painted and excised sherds in context with architecture, but, once more, the real dimension of the settlement is unknown due to the enormous size of the later site (Rouault and Masseti-Rouault 2015; Masseti-Rouault 2019; Dolce 2020; Rouault et.ali. 2011; 2018).

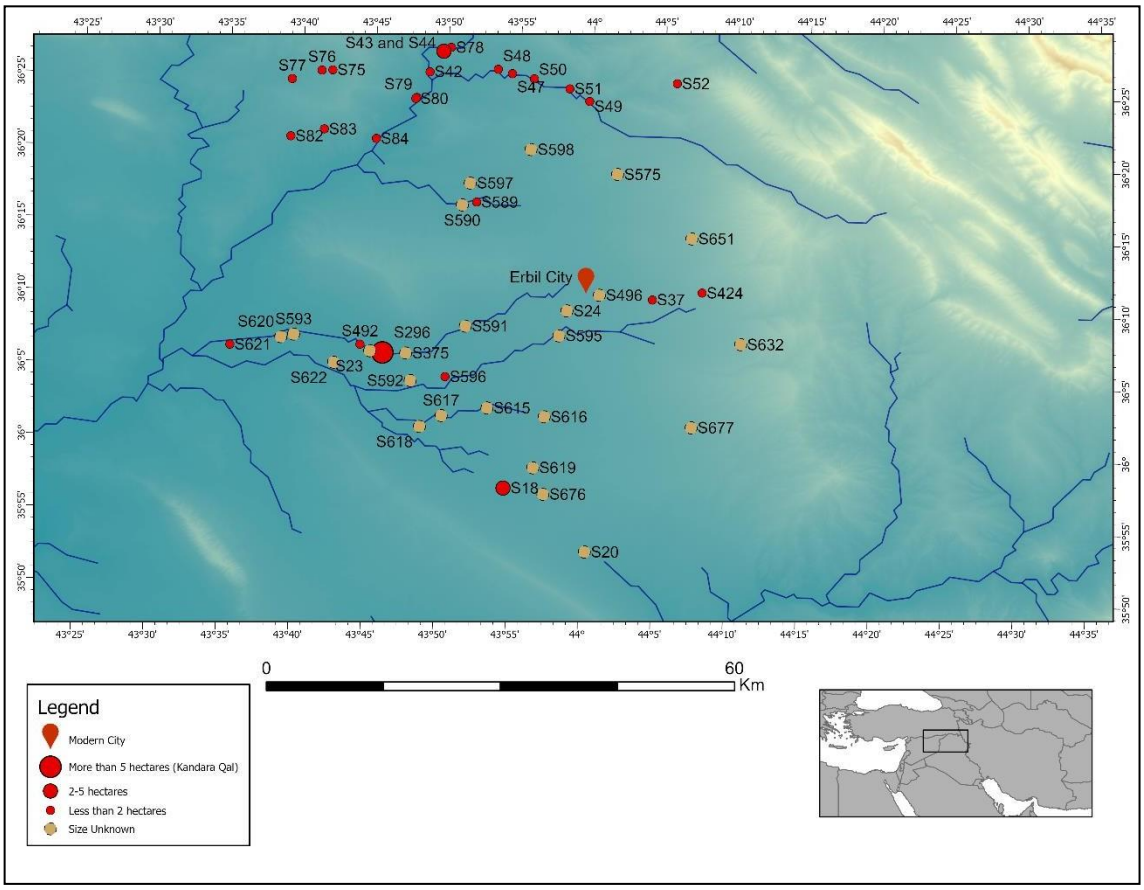

Figure 11. Archaeological landscape around the city of Erbil. Some sites from the UZGAR survey are also visible to the north-western corner of the map.

At a regional level, it seems that all the rest of the 'urban' Ninevite 5 settlements did not exceed 3 or 4 hectares in size, such as Tell Baqrta (S18) (Kopanias et.ali. 2013; Ur et.ali. 2013: 97) or Baş Tepe (Marti, Nicolle and Shawaly 2015; Nicolle 2020). Other important siteslike Tell Khazna (S375) and Aliawa (S618), whose overall area exceeds 70 and 20 hectares respectively, actually were only limitedly occupied during Ninevite 5 period, butthe lack of excavations on the first case, and the lack of publications in the second one (Peyronel, Vacca and Zenoni 2016) prevent us to better understand the real dimensions of this settlements.

To the south of Erbil province stands the Makhmur district, where some other occurrences are recorded by the AASI, but no modern work has been ever done in that region aside of the MULINEM project, but it focuses almost exclusively on later medieval landscapes and sites. Only 4 occurrences are identified so far, and the only excavated site, Gird-î Ibrahim Bayis, offered only limited information because of the extensive Assyrian remains above the Ninevite 5 settlement. However, it seems acceptable to assume that the site has never exceed a fraction of the total surface occupied by the later settlement (Mallowan and al-Amin 1949, 1950).

In the city of Erbil itself, several sites have been identified and excavated so far. To the south-west, Gird-î Kilik Mishik (S24) yielded a sole painted Ninevite 5 piece without context, excavated from a deep sounding in the main mound (Rouault 2013; Rouault and Calini 2016: 378). To the south of the Erbil Citadel, another small site called Qalinj Agha (S496) was excavated in the 60's by an Iraqi team that uncovered important Uruk remains, but also a limited Ninevite 5 findings (Abu al-Soof 1966, 1969). To the east, two small sites have been object of recent excavations, Tell Nader (S37) and Gird-î Lashkir (S424). The first one is very small and was badly damaged by agricultural activities by the time it was discovered. Excavations by K. Kopanias uncovered Ubaid and Uruk layers (including Late Uruk) and Ninevite 5 painted material, but the related archaeological contexts were never identified (Kopanias, Beuger and Fox 2014). The case of Gird-î Lashkir is very different: this site that don't exceed 4 hectares (but Ninevite 5 occupation is much smaller) has several Ninevite 5 layers with a long sequence of architecture and related painted and incised/excised pottery (Molist et.ali. 2019). This sites are still in the vicinity of Çîwa-sûr stream, so we can imagine the importance of this river for the settlement in the Erbil plain.

Other sites in the vicinity of Erbil city are only recorded by the AASI and other sources but scarcely documented, in the better cases, only with specifications of decorated sherds. Sites like Gird-î Qoç (S632), Khirbet Auduk Burst/Avral Berest (S651), to the east of Erbil city, or Molla Gerrk/Mullah Jirik (S575), to the north of it, are only some examples. Another cluster of Ninevite 5 is known to happen along a nameless stream close to the city of Xebat, partially because of the EPAS survey, with several sites (S590, S589, S597), but, once more, the details are mostly unknown because of the limited information already published.

To the north, more sites gather together on the river banks of the Great Zab and other tributaries up to the Zagros. Part of this areas where surveyed by the UZGAR, a polish project leaded by R. Kolinski, in the northern districts of Erbil and Akre district. To the north of Erbil, settlement sites identified by them gather around river Bastura, a tributary to the Great Zab, and other rivers like the Qûrebek stream, that flows in the middle of a plain closed and separated from the Erbil plain by a short range of mountains. The regional history during Late Chalcolithic and Ninevite 5 is very similar, even when some regions have slight differences at a local dimension. The settlement history is also absolutely conditioned by the river courses, with a relatively high in number of sites (for instance, 15 sites in the Navkur Plain), but all of them being small villages no more than 1-2 hectares. According to this evidences, it is safe to say that the patterns visible on the Ebil plain are completely different here. No site is reaching an urban dimension similar

to that observed at Kandara Qal, but the lack of archaeological evidence doesn't allow us to ascertain it.

Since all the sites around the Great Zab and its tributaries are of small size (Figure 12), a settlement hierarchy is difficult to propose. However, there are some sites that exceed 2 hectares in size, such as Kawrasor 3 (S43), in the Great Zab river basin or Khirbet Şeh Usu (S48), in the Bastora river basin, but the Ninevite 5 settlement are unclear because of the presence of other periods on top. Other settlements like Xrab-î Haci/Gird-î Şamsaxar (S83), with a total surface of 3,8 hectares had evidences only of a limited Ninevite 5 settlement less than 1 hectare, and this feature seems to be a general trend in all the region. To the west of the Navkur plain, there are other sites in a gap of 3-5 hectares, but all of them had little Ninevite 5 evidence, often only one or two diagnostic sherds (S566, Gird-î Mla; S63, Gird-î Malkaua). However, it is clear that the Ninevite 5 period presence in these regions is characterized by the presence of small centers and by a general decrease of the settled land, while the mid to late third millennium tends to be an opposite case with the emergence of sites such as Girê Gomel (S30), with 35 hectares or Xrabe Kilaşin, with 34 hectares (Couturaud et.ali. 2022: 10) However, it is also noteworthy to point that the previous Chalcolithic settlement was slightly smaller in the case of Girê Gomel (Couturaud 2020: 17). Only one site in the Navkur plain has been the center of an archaeological project, the site of Amyan (S631), a site that could has been a regional center during that period.

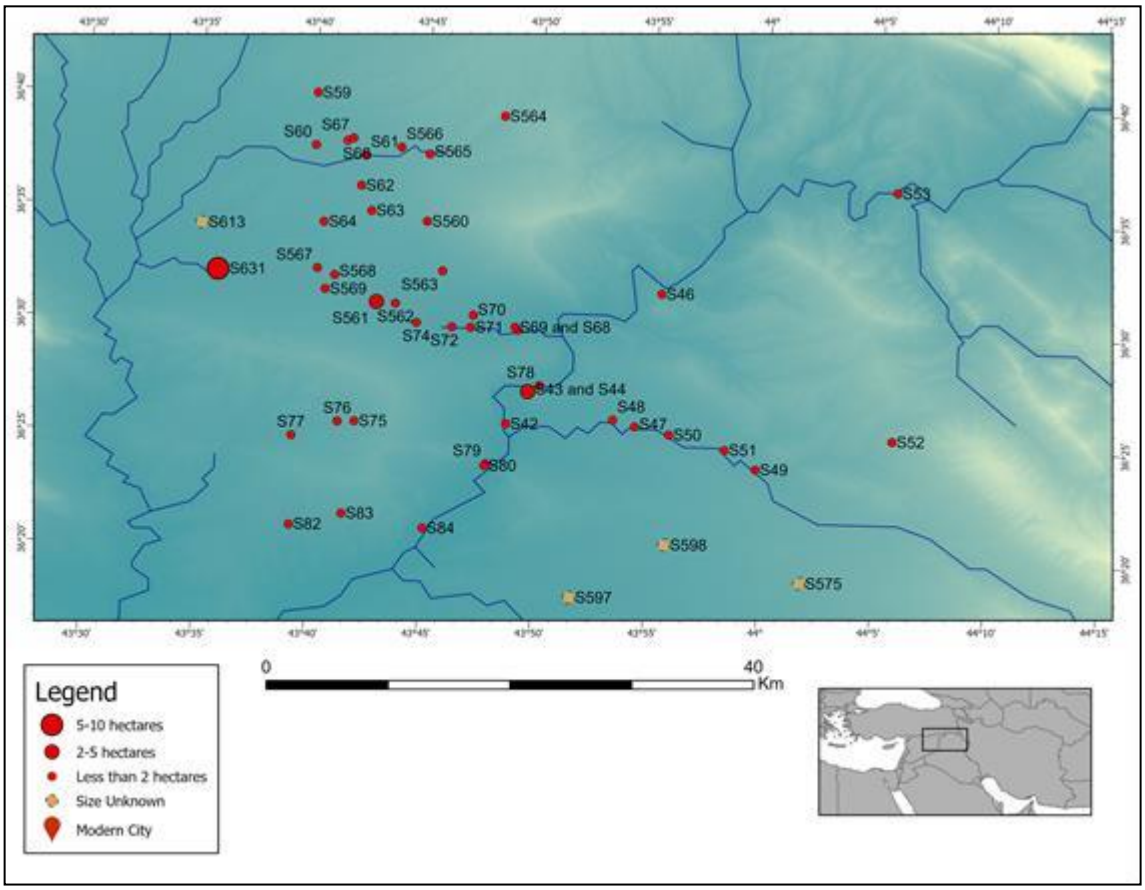

Figure 12. UZGAR project distribution of sites west of the Greater Zab and the Bastura Çai, north of Erbil city.

Unfortunately, the URZGAR regional project did not reach the region around the site of Amyan, that is just north of the city of Bardarash. On the opposite site, LoNAP project (Land of Nineveh Archaeological Project), led by professor Daniele Morandi, hasconducted both survey and excavation projects at that site. Unfortunately, very much of the information retrieved by this expedition on the ground surveys remains unpublished, so, it is impossible to make a statement about the situation of the population within the studied region (roughly encompassed between the city of Duhok and the west bank of the Eski-Mosul lake and the city old site of Khorsabad) during Ninevite 5 period. The information available is so scarce at this date that only the site of Amyan is known to holda Ninevite 5 population.

According to the data published by the team, the occupation of Amyan during this period was basically limited to the main mound and to another small satellite site known as site 572 (Couturaud 2020: 16). Also it is significant to note that this site 572 is founded after the abandonment of a previously settled site, thus evidencing a population behavior similar to other sites in the region like Muqable (S504) or Telul eth-Thalathat (S360, in Tell Afar province) and possibly also Girê Jahare/Khirbet al-Jarahiyah (S586) (Barbaro et.ali. 2019: 220). All this sites are more likely to be a cluster of mounds settled and

abandoned successively at different times and during different periods. It is also important to note the dramatic increase of the site's surface from 4 hectares in Ninevite 5 to 28 hectares in the mid-late third millennium (Couturaud 2020: 16), a pattern also observed in other sites like the aforementioned Tell Baqrta (S18) or Bassetki (S508).

Overall, all the region from the river Khanzir to the east, the Zagros rages to the north, Mosul and the main course of the Tigris to the south and the Turkish border to the north-west (in Dohuk province), is largely unknown. This region has large plains with long rivers to the south with a lot of fertile terrain for cultivation, while in the north, the Zagros left only small river valleys available for ancient settlement. Recent surveys by the aforementioned LoNAP project and the EHAS (Eastern Habur Archaeological Project), led by professor Peter Pfälzner, have been undertaken in recent years, but very few data from both survey projects has been published to this date (Bonacossi and Iamoni 2015; Gavagnin, Iamoni and Palermo 2016; Gavagnin 2016; Pfälzner and Sconzo 2015; 2016a; 2016b) and the excavation of the site of Girê Gomel, just west of the Khanzir river (Simi 2020).

The most interesting results by Pfälzner's team where obtained at two sites excavated by them. The first one, Bassetki (S426) seems to have been a major regional center during Ninevite 5 period, reaching about 50 hectares in size, perhaps the biggest settlement at that times in the whole Dohuk region. Aside of this noticeable site, very little is known about the countryside and the remaining territory. Only seven Ninevite 5 sites are known in the southern plain of Dohuk, plus four more occurrences to the north of the Şax-ê Bîxer mountain, just north of the Dohuk city. Out of eight sites in the plain, six are only isolated occurrences whose existence is only known because of occasional mentions in video registered conferences (Pfälzner 2018; Herrmann et al. 2019). Four sites (S504, S679, S680 and S681) are close but at a certain distance from Bassetki, three of them to the west (S679, S680 and S681), and one to the south to the south east (S504, Muqable). Sites S504 and S681 are the closest to the Bassetki site if we exclude S682, both located roughly five kilometers away from it. Site S682 is the sole exception and it is located only 300 meters to the north of Bassetki, featuring perhaps yet another example of satellite sites that are common in the Ninevite 5 period (Figure 13).

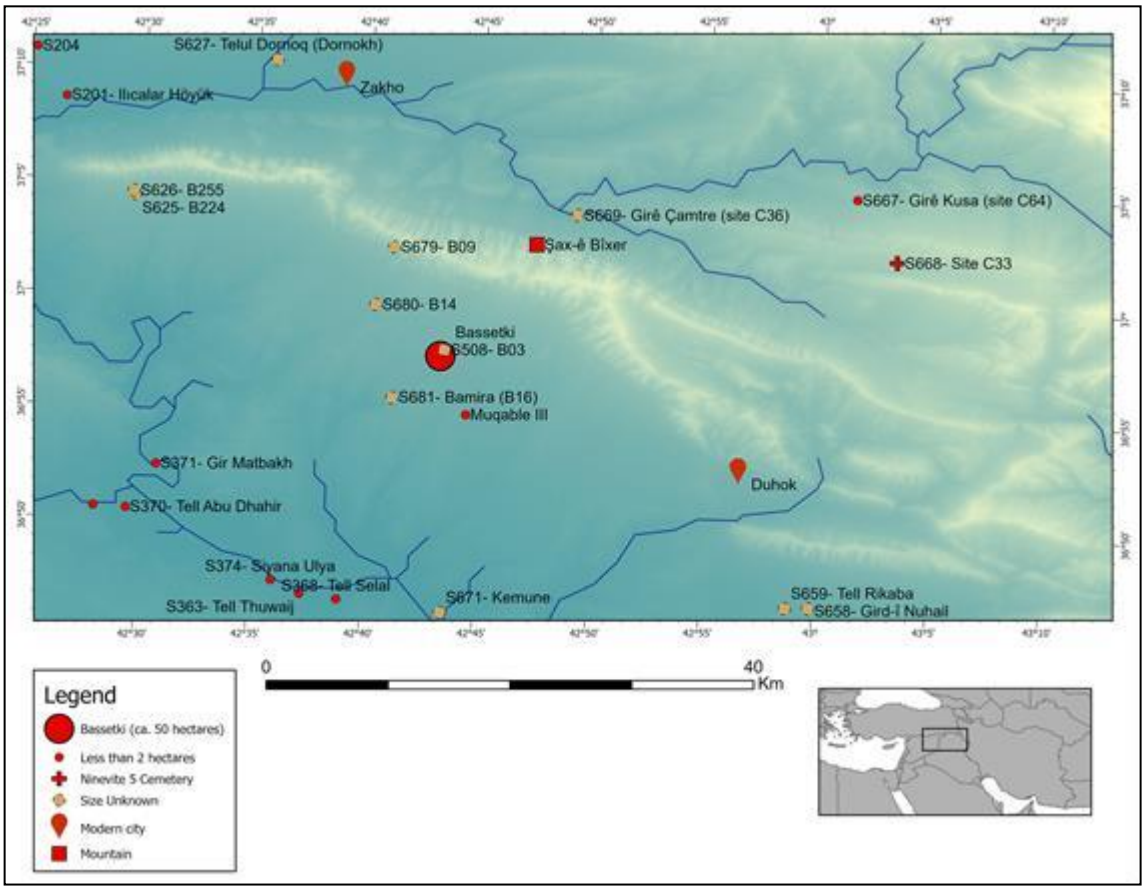

Figure 13. Sites in the EHAS Regional project in relation with sites in the Eski-Mosul dam area and the Silopi plain. S373, excavated in an Eski-Mosul dam salvage mission is on display.

Both the Gomel regional survey and the LoNAP noted an increase of settlement density from Ubaid to Chalcolithic periods, followed by a dramatic drop during Ninevite 5 and a massive increase in both number of settlement and settled hectares during mid-late third millennium (Gavagnin 2016; 76, Simi 2020: 289). These results are very much like the ones obtained by EHAS project, with a very scarce Ninevite 5 occupation, only 11 sites, and mostly placed in fertile flat land in between the Tigris and the Şax-ê Bixêr mountain, compared with the Late Chalcolithic period (Pfälzner and Sconzo 2016a: 19) and despite some problems in pottery identification that made initial reports to propose a very limited Late Chalcolithic and Ninevite 5 occupation (Pfälzner and Sconzo 2015; 2016b), but then switched to a sustainable Uruk/local Late Chalcolithic settlement (Sconzo 2019), but different in appearance from those obtained by the EPAS team in the Erbil plain. Comparing all available data, it could seem like the number of settlements number remained stable in the Erbil plain, with a slight decrease from Late Chalcolithic to Ninevite 5 period. However, the population decrease is not attested in the number of sites, but in the total settled area. The Harvard team noted that, even when the settlement is rather the same in total number (47 during Uruk period to 44 during Ninevite 5), the

settled area dramatically dropped in almost 50% comparing to the previous period (Ur et.ali. 2021: 10).

So, it is clear that Ninevite 5 settlement pattern in this regions is pointing to a sort of reorganization of space that could have conditioned the emergence of population centers such as Qandara Kal, Bassetki, Muqable or Amyan that greatly grew over the following centuries after the end of the Ninevite 5 period. However, the appearance of this population centers doesn't mean, in general terms, that they are truly urban centers during Ninevite 5, but only in later phases.

In terms of internal subdivisions of the Ninevite 5 period, it is very difficult to propose any regional pattern due to the unequal local data available. Compared to the Ranya plain, severe differences on settlement patterns where observe as compared with the other regions. Excavations on that region have mostly uncovered early Ninevite 5 remains, being late Ninevite 5 pottery nearly absent. In EPAS region, both painted and incised/excised material are found, but then, the EHAS project reported that late incised/excised pottery is almost completely absent with the sole exception of the site of Muqable, that was occupied throughout all the period. Because of this, they considered the proposition of internal subdivisions absolutely impossible due to the low amount of material found (Pfälzner et.ali. 2017). Also the sparsity of the Ninevite 5 material in the LoNAP region, with only 130 reported diagnostic sherds prevent us to distinguish internal chronological divisions. Also, most of this pottery was unpainted, alongside with existing examples of all types of decorations (Cavagnin 2016: 75).

To the north of the Şax-ê Bixêr mountain, in the Sindaya basin, north of the Dohuk province and east of the Zakho city, the evolution of settlement, according to EHAS reports, is different of that in the plain. The number of sites during LC 3-5 decreased from 7 to only 3 (Sconzo 2019) in Ninevite 5 times (one of them registered as a cemetery) and then, again, heavily increased from 3 to 16 in Mid-Late third millennium, but none of them exceeding 2,3 hectares in size (Pfälzner and Sconzo 2016b: 26). Only 2 habitation sites (S667 and S669) are to be found, being one of them, Girê Kusa (S667) also occupied during Late Chalcolithic 3-5 period. Although small in size, the tendency in this region seems to follow a general pattern also found in other areas regarding the transition between Ninevite 5 and Mid-Late third millennium, but the general decrease in LC 3-5 sites is, while present, less prominent. However, the low population density in LC might be nuancing this decrease. Similar results for that of LC 3-5 regard were obtained by Algaze during his survey on the Tigris plains around the city of Silopi (Figure 14). This extensive and fertile plain (but limited in total extension), irrigated by the Tigris and a number of tributaries, is occupied by a number of relatively small settlement scattered

along the different river courses. The biggest sites on the region does not exceed 15 hectares in size, being all of them multi-period mounded sites with a long history of human settlement. It seems that, as well as in the Sindaya basin, the number of sites that yielded Uruk pottery is so limited, only on 3 sites, and always related to local LC pottery types like the so-called 'hammerhead' rimed bowls and carinated casseroles (Algaze et al. 2012: 19; Sconzo 2019). However, up to 16 sites where existing at that times.

In general terms, LC had a slight decrease in number of sites regarding Ubaid times, but not only limited in general terms both in number of settlements and in total inhabited hectares. Regarding Ninevite 5 period, Algaze's survey yielded another slight decline of sites. Also, only one site could have been a major regional center, Basorin Höyük (S199). This site, 10,6 hectares in size, could have reached as much as a half of its size during Ninevite 5 period, much larger than the preceding LC 3-5 site, that did not exceed 0,5 hectares in size. However, even if we consider this site to be a regional center and, thus comparable to other regions in the Tigris, it is also true that, in this case, the total area settled was essentially the same. Then, as compared with other regions aforementioned, it is possible that the decrease in the population ratio had already begun during the LC period and, the arrival of the Ninevite 5 phenomenon only reproduced a similar patter to that found in the south, but not involving a decrease in an, otherwise, already reduced population (Algaze 1989; Algaze et.ali. 2012).

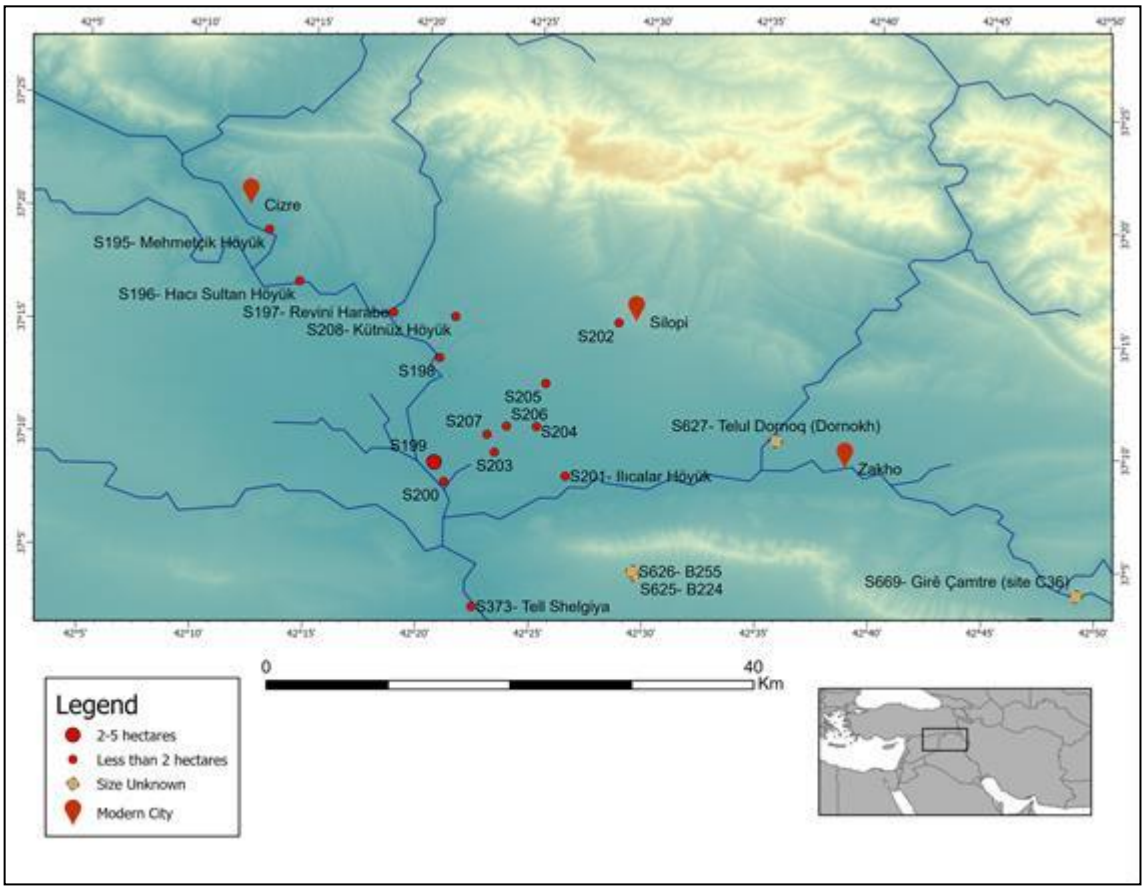

Figure 14. The Cizre-Silopi region. Sites from the Iraqi side of the border are also in display.

It is also noteworthy that the painted pottery variety was often found at the surveyed sites, but only three of them yielded excised/incised types, as well as noted in the EHAS project reports. The author states that the Silopi/Cizre plain could have suffered a process of depopulation during the later phase of Ninevite 5 (Algaze et.ali. 2012: 25), but this could be considered a statement still to be proved.

To the west of the Tigris course, to the south of the ranges of the Taurus mountains, in the province of Mardin, and in the Syrian province of Dêrik/al-Malikiyah, a significant plain still extends almost uninterruptedly to the main tributaries of the Khabur River. It is to be supposed that all this area had a substantial ancient settlement (many mounded sites are, in fact, clearly visible on the map), but no extensive survey work has been done there.

4.1.1.5. To the West of the Tigris to the Syrian Border (Tell Afar, Mosul, Sinjar and Hatra Provinces)

This huge region, all of it inside Iraqi land, is geographically defined by extensive and very flat terrain. To the south, the province of Hatra is dominated by the river Tharthar, that runs from the mount Sinjar to the north along the eastern part of the province. Most of the region is an arid steppe with some fertile river banks, mostly around the Tigris and its tributaries. To the north, from the mount Sinjar many river streams flow to the south, thus originating a relatively fertile plain that is archaeologically richer than the Hatra region. To the north of the Sinjar mount, up to the border with Syria, there is a fertile plain irrigated by the river al-Murr and its many tributaries in addition to some tributaries of the Tigris to the west. All three regions have witnessed very different occupation patterns during Ninevite 5 period, but also the information quality is unequal and allow different levels of understanding.

The Hatra/Shirqat region is very poorly known in regard of Ninevite 5 occurrences, but, anyhow, it seems clear that such a southern region has to be outside of the main core of this culture. As seen before, only the AASI and the survey information by Dr. Khalid Ibrahim (1986) provide us with some details on the Ninevite 5 occupation of this area. To the south of the province, a cluster of 3 sites seems to gather together around the site of Qalat Shirqat (S610), all of them (S583, S584 and S634) located east of it, but in the close vicinity. Another site, S670, is a bit far away to the west, but still could be considered as a part of this group. The information available on all this sites is poor and, in the case of S634, even it's simple identification on the map is doubtful. Even for Qalat Shirqat, the evidence is so scarce than only a single incised Ninevite 5 sherd was identified in the excavations (Beuger 2016: 22). Regarding S670, it is a small mount almost completely occupied by a Sassanian structure, but, according to Ibrahim, sherds of Ninevite 5 dating had been found there (Ibrahim 1968: 46). Further to the north, the situation is even scarcer, with only one occurrence is noted by Ibrahim in the vicinity of Hatra. This site, S585, is, as S670, beneath a later stone structure, possibly a Sassanian fortress, given its situation in an arid land some 7 km north-west of the site of Hatra.

To the south and closer to the city of Shirqat, to the west of the Tigris, some more occurrences are documented. The site of Assur has been excavated from 1903, and some Ninevite 5 remains have been found, but it seems that the site beared no importance until the second half of the third millennium BCE (Renette 2019: 31). Aside of Assur itself, another 5 sites are listed as having yielded Ninevite 5 pottery: Two of them have never been excavated (S634 and S584), one is a doubtful case that has been already discussed in the 1.2.2. section in this same work (S583, Khirbat Musaihili), and the last one, Tell an-Namel (S500), was excavated as part of the Makhool dam salvage project. In fact,

Ninevite 5 pottery and metallic ware have been reported to have been found at other sites in the region (Mühl and Sulaiman 2011: 371), but many excavation reports are still not available. At the site of Tell an-Namel, an interesting round building dating to the Early Bronze Age was unearthed, similar to others found at other sites in the same area like Tell Farha (not counted in this work) or Tell ar-Raqa'I (S33) in the Middle Khabur area. Alongside with the rounded building, a necropolis was also found at the site, a hundred meters north of the building, and this cemetery yielded interesting assemblages consisting of Ninevite 5 and Scarlet Ware pieces altogether in the same burials. Ninevite 5 decorated pottery was also found inside the rounded building (Sulaiman 2001-2; 2010; Heil 2011).

To sum up, even with such a scanty information, the low volume of Ninevite 5 sherds found on the surface of most of sides has lead me to think about this area as being outside of the main core of the Ninevite 5 culture, but definitely in contact with it. Even considering that four sites out of six are located relatively near one to each other, the sole existence of Ninevite 5 sherds does not mean that these sites are in fact producing this pottery. The most plausible theory is that of the ceramics reaching these sites via trading routes, maybe being redistributed by a major regional site.

To the north of the Hatra province lies the Sinjar and Tell Afar provinces that, regarding Ninevite 5 population, is a completely different story. 39 sites are known by different surveys, but a limited information is often known of each one. We have to assume that, even when we know an amount of sites, only the biggest and most evident sites were probably recorded. Thereby, it is enough by checking a view from the CORONA satellite focusing almost any segment of this region to easily spot dozens of sites, most of them probably unrecorded and unsurveyed (Figure 15). Also, no specific data about each site is available, being elements such as the size and the coordinates often missing.

Figure 15. CORONA image of the landscape surrounding the site of Tell Qara Tepe (S378). The sites are gathered together forming clusters. Most of them are unnamed and unregistered, and many are endangered by the expansion towards the south of the modern city of Tell Afar.

However, the distribution of known sites and the information provided by the different scholars that worked in the province and the AASI (through the analysis made by Abu al-Soof; 1968) give us some insights on the general settlement pattern of this region. First of all, it is interesting to see how the sites seem to gather together in several groups in the southern Tell Afar province (Figure 16) To the south of the city of Tell Afar and within the borders of the urban area of the city, 11 sites spread along the three main rivers that flow from north to south (rivers Abbadan, al-Ibrah and Arafiah). One of these sites, Tell Taya, was excavated by a mission from the British School of Archaeology in Iraq led by J. Reade, and lasted for three seasons between 1967-1973. Tell Taya was a massive site that covered an impressive amount of 160 hectares, but many periods were represented in the total size. Regarding the earliest occupations, Reade stated that the city was first occupied during the ED 1-2 (Reade 1973), but the ARCANE team found the earliest levels to be more fitting with the ET 6 period, thus post-Ninevite 5 in date. Another excavated site in the vicinity of the city of Tell Afar is Tell ar-Rimah, worked by D. Oates, an important site with a surrounding wall that bears important later occupation. Ninevite 5 material was retrieved during the excavations, but the layers related to these occupations where not reached and, as a consequence, we only know that the site had an occupation during this period, but nothing about it is actually known (Oates 1963; 1968; 1970).

To the east of the city up to the main flow of the Tigris River, 15 more sites are to be located, including the significant site of Telul eth-Thalatat (S360), one of the few sites in this region that have been the focus of an archaeological project. This site is, in fact, a cluster of 5 relatively modest size tells arranged in a semi-circular pattern, of which only the mounds II and V were excavated by a Japanese team, lead successively by N. Egami and S. Fukay, at different campaigns in the 50s and the 70s of the past century. The mound II was excavated in three different seasons (1956-1957, 1964-1965 and 1976), while the Tell V, measuring only 0,3 hectares, was only excavated during a single campaign in 1965-1966. The results on all these campaigns came out in preliminary reports and papers (Egami 1956; Fukai and Matsutani 1977; Numoto 1997), and also final reports published as separated volumes, two dedicated to the excavations at Tell II (Egami 1958; Fukai, Horiuchi and Matsutani 1970), and one additional publication dedicated to Tell V (Fukai, Horiuchi and Matsutani 1974). At the site, ceramic material from the Terminal Uruk and Transitional phase to the Early Ninevite 5 period where found, but the sherds were found in secondary contexts, and nothing can be stated on these period's occupation aside of its existence (Numoto 1994; 1998; Renette 2019: 28-9). Regarding the Ninevite 5 period, the only remains were uncovered at the Tell V, but the discoveries where of extraordinary relevance. A single large grilled building associated to a large circular kiln were uncovered (Renette 2019: 29), and was interpreted as a granary, a complex used as a grain storage facility. Fortunately, the final report published was exhaustive and well documented enough to reconstruct a complete sequence of use of this building, that was set between 2800 and 2700 BCE, as painted and incised pottery sherds were found alongside with a period with excised sherds. The importance of the excavation at Telul eth-Thalathat V will be further discussed in forthcoming chapters of this thesis.

All the other sites in the vicinity of Telul eth-Thalathat are only known by name and very scant and inexact sources. 5 more sites are located south of the city of Sinjar, but very limited archaeological work has been done here. One of this worked sites is Grai Resh (S298), a site located only 5 km to the east of the Sinjar city center, just north of the road that leads from this village to the city of Tell Afar, and has been the subject of different excavation campaigns in the 40's (Lloyd 1940: 18), and again in the 2000's (Dessene and Tenu 2002; Kepinski 2011), but Lloyd's claim for this site to have been held Ninevite 5 occupations have not been confirmed by the modern interventions, thus claiming that the site was suddenly abandoned after 3600 BCE (Kepinski 2011). Another site that was tested by Loyd in the 40s is Tell Khoshi (S299), a large site comprising an upper town with a long story of occupation and a lower town. According to Lloyd, the upper town was originated, at least, in the Early Dynastic period, and Ninevite 5 materials were reported to have been unearthed during his test trenches (Lloyd 1938: 141; Hughes, Cameron and Dubberstein 1941). It seems that the same archaeological mission that

intervened at Grai Resh also planned to excavate at Tell Khoshi but no information has come out up to this date for unknown reasons, and only a very brief summary of the team's intention has been published (Dessene and Tenu 2002). It is unknown (by me) if the team never excavated at the site, or its results were never published.

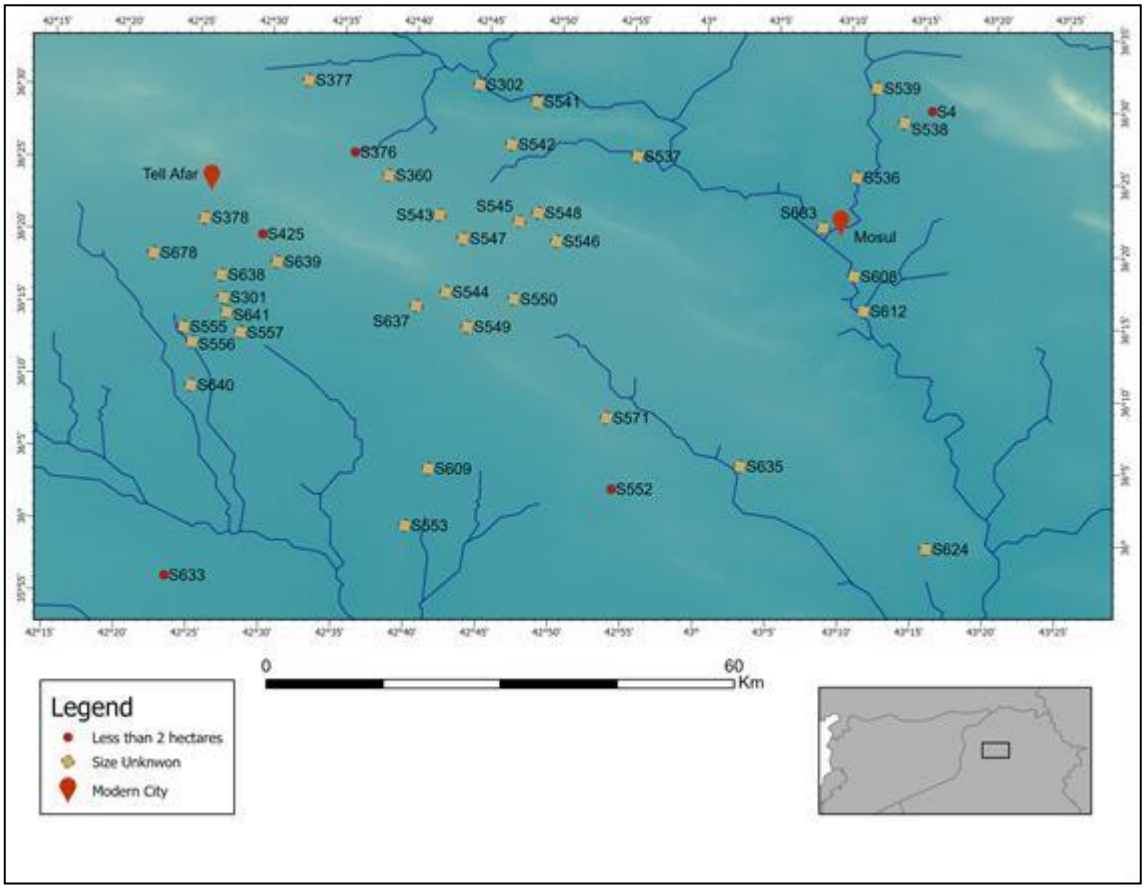

Figure 16. Distribution of registered Ninevite 5 sites to the south and east of the city of Tell Afar, to the west of the Tigris, and ocurrences in the vicinity of Mosul city.

To the north of the Sinjar mountain, the situation is, nevertheless, not so good compared to the south (Figure 17). Only a bunch of Ninevite 5 sites are known from the Syrian border to the Tigris flow and to the south of the Tell al-Hawa regional survey (Wilkinson and Tucker 1995). All of this sites are mostly poorly known, and only scarce references are available for one of them, Tell Abu Wajnam/Khirbat Abu Wajnah (S636), but the quotes are focused on later periods (Stein 1942; Oates 1968), and only Ibrahim points to a Ninevite 5 occupation (Ibrahim 1986: 74). The northern part of the Sinjar mountain is, by far, the less known as no sites have been reported so far, but this is, undoubtedly, due to a lack of research rather than the physical absence of Ninevite 5 remains. To the south of the Tell Afar province, 7 more sites have been identified as Ninevite 5 settlements, but they are scattered through the land and they are lacking of an obvious pattern.

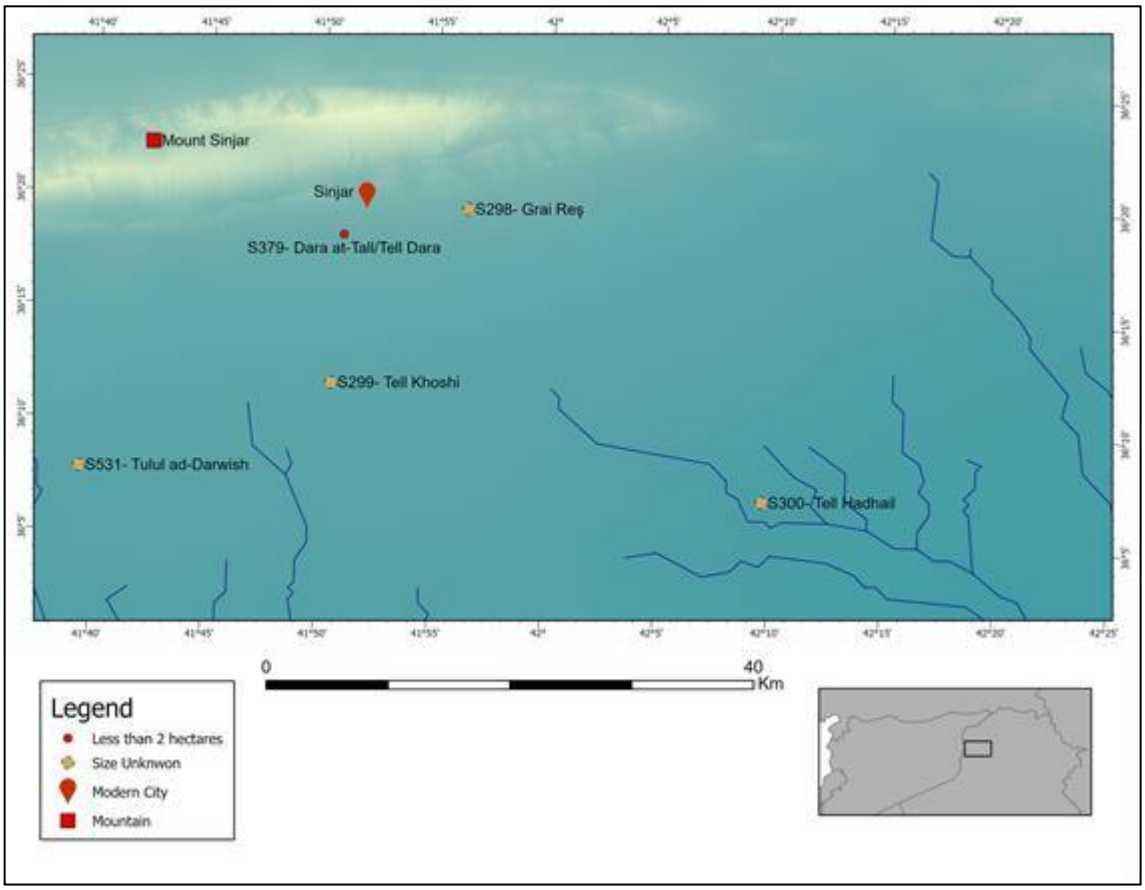

Figure 17. Ninevite 5 occurrences south of Sinjar mound.

This region is, unlike the more arid land in Hatra, a fertile and extensive plain irrigated by lots of rivers that flow from the mountain ranges around Sinjar, in the surroundings of the modern road Mosul-Sinjar road. This land also favors the observation of sites through satellite imagery because the mounded sites stand out and are very obvious in the middle of the flat terrain. However, as have been stated before, the lack of modern systematic archaeological survey programs on the ground ballast the possibilities and the limits of the interpretation of the data.

However, given the excavation results in site such as the aforementioned Telul ath-Thalatat (S360) and Grai Resh (S298), and also others like Tell Taya (S425), it is evident that this region is to be placed within the fully Ninevite 5 cultural space.

Around the city of Mosul, some occurrences are registered thanks to old excavations and surveys, but most of the sites has received little attention. Some sites like Tepe Gawra and Tell Chenchi (a site that did not yield Ninevite 5 pottery and, as a consequence, it has not been included in the site catalog) had been excavated during the 30s of the past century, but the region as a whole has received very little attention. Some other sites in the vicinity of Nineveh were visited by Max Mallowan, who drew some selected materials from them, these are the sites of Tell Abbasiya (S539), from where the

drawing of a painted Ninevite 5 pottery was published (Mallowan 1933: plt 50.17), and the site of Tell Yarimjah (S608), from which only one excised piece is represented by the author (Mallowan 1933: plt 63). This fact may be due to the great attention drawn by the huge site of Nineveh, that has been object of continuous interventions from the XIX century up to our days. The Ninevite 5 period was present at the site, more precisely, around the temple of Ishtar at the large mound of Tell Kuyunjik (a part of the Nineveh site), at an extend that made safe to state that the whole mound was occupied during this period (Renette 2019: 22).

The site of Tell Billa is another one of this group of sites excavated in the 30s, but, unfortunately, the authors of the excavation failed in the systematic register of the archaeological data they uncovered, and many details on the Ninevite 5 occupation of the site remains doubtful or entirely unknown. It seems that stratum 7 was set on natural soil, and this stratum dated to the painted Ninevite 5 phase (Table 1). This stratum was followed by strata 6, that probably contained excised Ninevite 5 pottery. Regarding the architecture, it doesn't seem that the site registered any kind of mudbrick construction, but the whole Ninevite 5 occupation was represented by deposits dug upon the soil and filled up with archaeological material (Renette 2019: 24).

4.1.1.6. Northern Iraqi Jazeera (the Tell al-Hawa Region)

To the north of the Tell Afar governorate, in the provinces of Rabi'a and Zummar lays the region around the site of Tell Hawa (S319). This site is one of the biggest in northern Iraq with around 90 hectares in size, but being significantly smaller during Ninevite 5 period, about 24 hectares. However, even with this estimated size, it would still be one of the largest Ninevite 5 sites in the whole culture's extension (Wilkinson and Tucker 1995: 125).

In the 80's, a major agricultural development program threatened much of the archaeological heritage in the region, so it was selected for a salvage detection and selective excavation program whose main objective was to save as much as it was possible. To fulfill such and objective, the Ministry of Antiquities of Iraq collaborated with british scholars that conducted intensive surveys and excavated several sites in the region (Ball 1990; 1999/0; Wilkinson and Tucker 1995; Ball and Wilkinson 1995/6). As a result, we dispose an interesting amount of information, both of spatial distribution and also from archaeological excavations, that makes this region a good test subject for spatial analysis. In fact, many sites had already been affected by both irrigation systems (among many others, S394 or S393) and operations to flatten agricultural grounds (like in S395).

Also other sites are embedded in modern villages as usual in the Near East (like S319, Tell Hawa, S390 or S559). Also it is noteworthy to say that the affectations by modern construction activities have been continuously carried out until today. For instance, the site S401 has apparently been heavily affected if not completely destroyed by embankments and trenches dug up between October and November 2017.

Even though excavations revealed very limited information on the Ninevite 5 period in this region (Campbell 1995-96; Wilkinson 1995/96), the overall research resulted in an important example for the analysis of its settlement patterns. First of all, a large amount of Ninevite 5 sites is known, more than 40 in an area of roughly 300 square kilometers. Nevertheless, the amount of sites recorded by the Tell Hawa project rises to 184 considering all the periods documented. Also, this region is so important because this catalog of sites includes a range of sites that goes from the biggest and highest to the tiniest low mounds and even flat settlements. This fact is relevant because, if the information is restricted to the biggest sites, we are lacking of other small sites that are impossible or almost impossible to spot on the satellite and sometimes even on the ground.

Other sites outside of the range of the Tell al-Hawa project are known, and even some have been excavated such as Tell Ahmad Agha Saghir (S498), but, in general, very little information is known about them. Ahmad Agha Saghir is a medium-sized site that extends over 5,5 hectares, but seems that most of the occupation belongs to the second millennium BCE. The site was excavated by Spanos (Spanos 1990), who found Ninevite 5 remains in the western low town of the site, but the total extend of this occupation remains largely unclear. Among the scant architectural remains, an oven related to incised/excised Ninevite 5 pottery, while the rest of the sequence seems to be later in date (Spanos 1990; Renette 2013: 28). These sites are often known by mentions in the AASI, but most of them have never been object of archaeological projects. eight sites in total are known to be outside of this area, three to the north (S574, S497 and S498) and the remaining five to the south (S559, S558, S377, S390 and S383). Some of this sites are close enough to the Tell al-Hawa area for being included in territorial investigations, like S390 or S383, but some others are too far away and isolated in a data empty surrounding territory.

The Tell al-Hawa region (Figure 18), despite of its size, holds a very important information regarding the hierarchical relationship between sites in close vicinity and others located at a certain distance. The centrality of Tell al-Hawa seems undeniable, while in its vicinity, a cluster of small sites, most of them not bigger than two hectares during Ninevite 5 period surround it. There are also medium size sites located at some

distance such as the site of Kharaba Tibn (S382), a site that features a ca. 5.5 hectares in size and could have been center of secondary importance. Other medium-sized sites are Tell Wardan (S308), with ca. 4.2 hectares in size or Tell Qarayah al-Botha (S315) with ca. 6 hectares in size. All this sites, however, seem to be located close but, at the same time, at a certain distance one from the others, and no medium-sized sites is to be located in the immediate vicinity of another site of the same size. That is very interesting because, on one hand, when there are sites nearby to a medium or large site (two kilometers or less), those are always small (around 2 hectares or less). On the other hand, medium sites are always relatively far away from Tell Hawa: Tell Qarayah al-Botha (S315) is located 5 km to the southwest, Tell Wardan (S308) is approximately 5.6 km to the southeast, and Kharaba Tibn (S382) is 13.3 km to the east. Other sites on this range are Site 29 (S385) that measures some 7.2 hectares located 5 km to the west of Tell Hawa and Tell Abu Hujairah (S384) with approximately 6.1 hectares and located 8.5 km to the east of the same site.

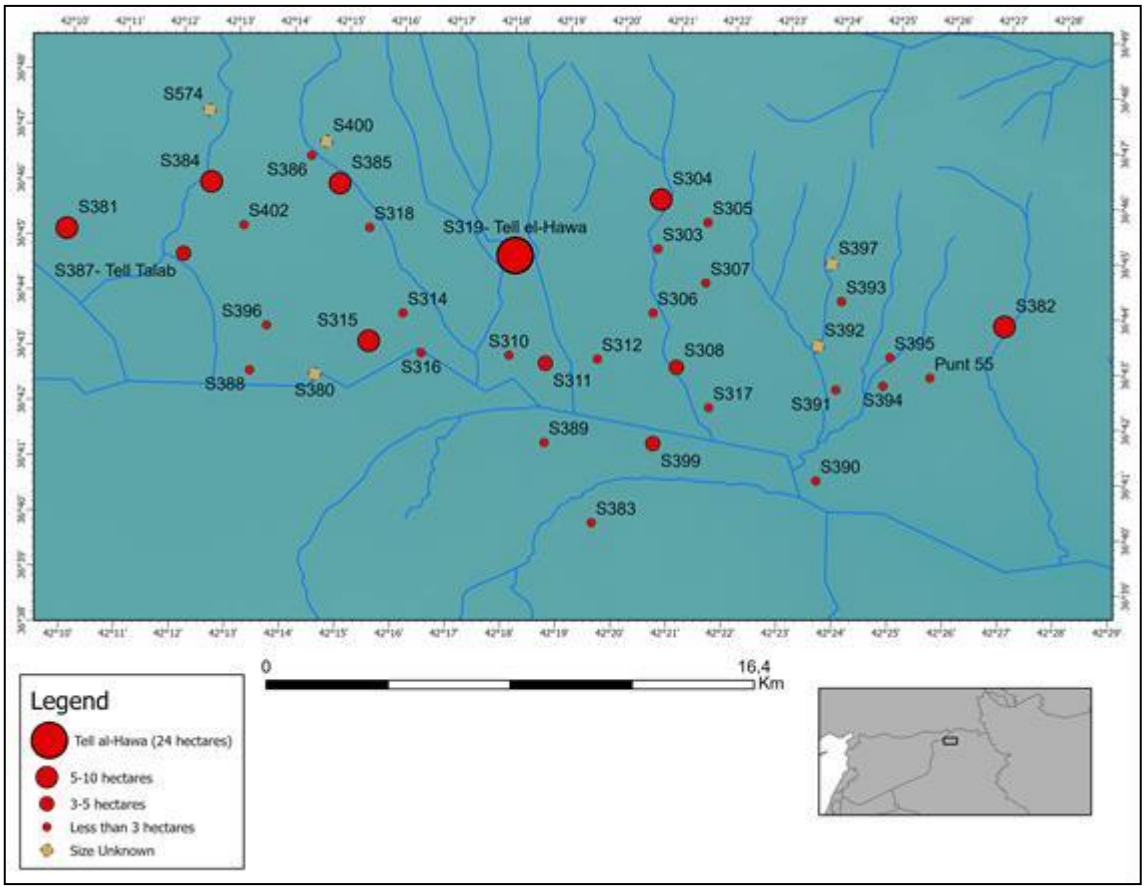

Figure 18. The archaeological landscape around Tell el-Hawa.

These two last sites, however, feature a singularity among the medium sized sites in the region, and it is that they are closer between them than they are from another medium sized sites. Sites S385 and S384 are at 3.5 km from each other. The distance from

this sites to the closest medium sized site, Tell Qarayah al-Botha (S315) is 5.5 km for the first site and 6.5 km for the second one. Nevertheless, this particularity seems that does not affect the general view of the settlement pattern. It is also necessary to not to lose perspective at this point and consider the deficiency in the data on the intra chronology. It is possible that these sites were not occupied at the same time and their populations or growths did not happen at the same time. In order to clarify this issue, it would be necessary to establish a material sequence that could take into account internal divisions within the Ninevite 5 period[3].

Also it is important to note that the site of Tell al-Hawa is located no less than 3.5 kilometers of any other site. This fact left the site with a very wide area virtually absent of any identifiable archaeological remain of the same period. This could be explained by the necessity of such a huge site of dominating a remarkably large agricultural area in order to be able to feed such a large population, thus remarking a dominant position of this site in the landscape.

However, it seems that Tell al-Hawa was already an important site of an estimated 33 hectares in size (Lupton 1996, 127). Then, as we will see in other similar cases than Hamoukar and Brak, the growth of sites during Ninevite 5 and post-Ninevite 5 periods sometimes have a preceding in the Uruk period.

4.1.1.7. The Eski-Mosul Dam Area

The Mosul dam region as well as other dam regions on the Near East, had been object of important savage efforts both by international and national archaeological teams since the construction project was first released. This kind of massive salvage archaeological programs owns both advantages and disadvantages for the researchers: On one hand, archaeologists are prompted to survey areas and excavate sites that otherwise could have been unnoticed (due to an apparently low potential, the small size of the sites, etc.). On the other hand, the limited amount of time available for this missions force them to try to optimize the operations in order to collect the maximum information as possible before all the region disappear beneath the reservoir's rising waters. Up to 23 sites have reported to contain Ninevite 5 occupations through excavations. Many sites also were excavated by more than one team: sites like Abu Dhahir, tell Jikan or Tell Shelgiya

[3] At this point, one can compare the expanded possibilities that scholar may get from more exhaustive works on these internal divisions and the different patterns obtained in the region of Tell Leilan. Ristvet 2005.

Regarding the spatial analysis, the study of the Eski-Mosul dam region is a bit tricky, yet very important because of the enormous data that generated. The fact that this area was selected due to the dam's construction and not because of scientific criteria, makes it a randomly selected zone with no specific quality rather than that is necessary for the reservoir. However, even regarding that fact, the operations in the 80's of the past century have left behind a comprehensive corpus of bibliography on many important sites at a regional and global level for the understanding of the chronology and the society during Ninevite 5 times.

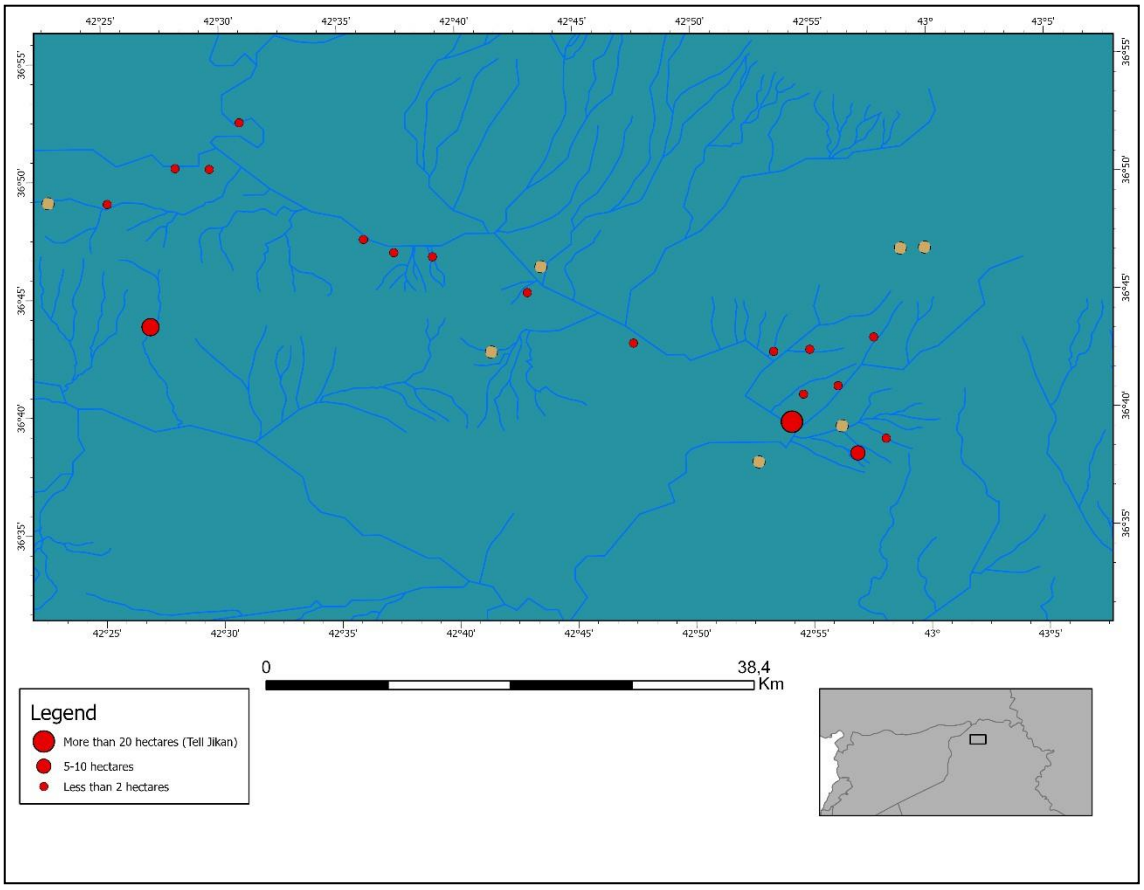

Figure 19. Eski-Mosul lake dam region. Only excavated Ninevite 5 sites affected by the rising waters of the reservoir are on display in this map. Site S373 (Tell Shelegiyah) is not visible because it falls outside of the reservoir, further to the north.

Many monographies and articles have come out after this campaigns. One of the most notable expedition what that of the British Archaeological Expedition on the site of Abu Dhahir (S370) and other adjacent sites in the northern section of the Eski-Mosul dam (Ball 1987; Ball 2003; Simpson 2007) (Figure 19) This site was also excavated by an Iraqi team, and two successive archaeological reports have been published (Abboud 1981; Yunis 1981). Even when the site of Abu Dhahir itself offered very scarce Ninevite 5 contexts (a pit and some mudbrick walls) and some disperse pottery sherds found on the surface (Simpson 2007: 56), other minor sites in the region had another very different

story to tell. The site of Siyana Ulya, a small site 0,2 hectares in size located in the western riverside of the Tigris and close to the south of Abu Dhahir, turned out to be the most important Ninevite 5 site as most of the material found there belonged to this period. Even when the architecture was too fragmented to make a complete study on what remained, the pottery found was rather interesting. An important sequence from the Late Uruk to the Early Ninevite 5 was identified, but a limited amount of painted pottery was unearthed (Ball and Gill 2003: 27). This fact could represent an exception on the painted to incised/excised sequence established in other sites of the same Eski-Mosul region. Excised/incised material was also present at this site (Ball and Gill 2003: 27-28).

Further to the north, another two sites were excavated by the same team. The first one is located 4,3 km north east of Abu Dhahir and 1 hectare in size, the site of Gir Matbakh (S371) (Ball 1987: 79-0; Campbell 2003: 121-50). The lower deposits of the site consisted of Late Uruk layers above which there were Ninevite 5 occupations, being another case of continuity during both periods in the northern Eski-Mosul region. Around four or five different Ninevite 5 architectonic phases were documented at the site (Ball 2003: 13). The second and last site excavated by the British team was Tell Shelegiyah/Shelgiyya (S373), located further to the north, only 1,5 km south east of the Syrian border and 23 km north west of the site of Gir Matbakh. The site was selected to excavate despite being been far from the reservoir area and theoretically safe from regular rising waters of the dam. Shelegiya was excavated aside of the British team (Ball 1997; Ball and Pagan 2003), also by a team from the university of Edinburg (Watkins 1987: 150-1) and an Iraqi team. Ball and Pagan (2003: 152-5) stated that both painted and incised/incised Ninevite 5 pottery were found in three trenches, yet, as well as in the case of Gir Matbakh, the incised/excised dominated over in quantity over the painted (Ball and Pagan 2003: 155). Another coincidence with the other sites discussed is that Uruk occupations also preceded the Early Bronze Age (In this occasion, the Uruk occupation spans from Early to Late Uruk).

The same team also performed a brief survey in the northern area of the reservoir, but no further data on Ninevite 5 occupation was noted. The published report states that only one site, the cemetery of Bardiya, was found to have a possible Ninevite 5 occupation, but it has decided to not to consider this site because the team classified the Ninevite 5 occupations as doubtful (Ball, Simpson and Tucker 2003: 174). Another site, Bardiya 7 appear in the catalog of surveyed sites as a Late Uruk and Akkadian site, but no a Ninevite 5 site (Ball, Simpson and Tucker 2003: 173), but in the list of sites it appears as holding a Ninevite 5 occupation (Ball 2003: 6). This site has neither been considered because it seems that the list was mistaken.

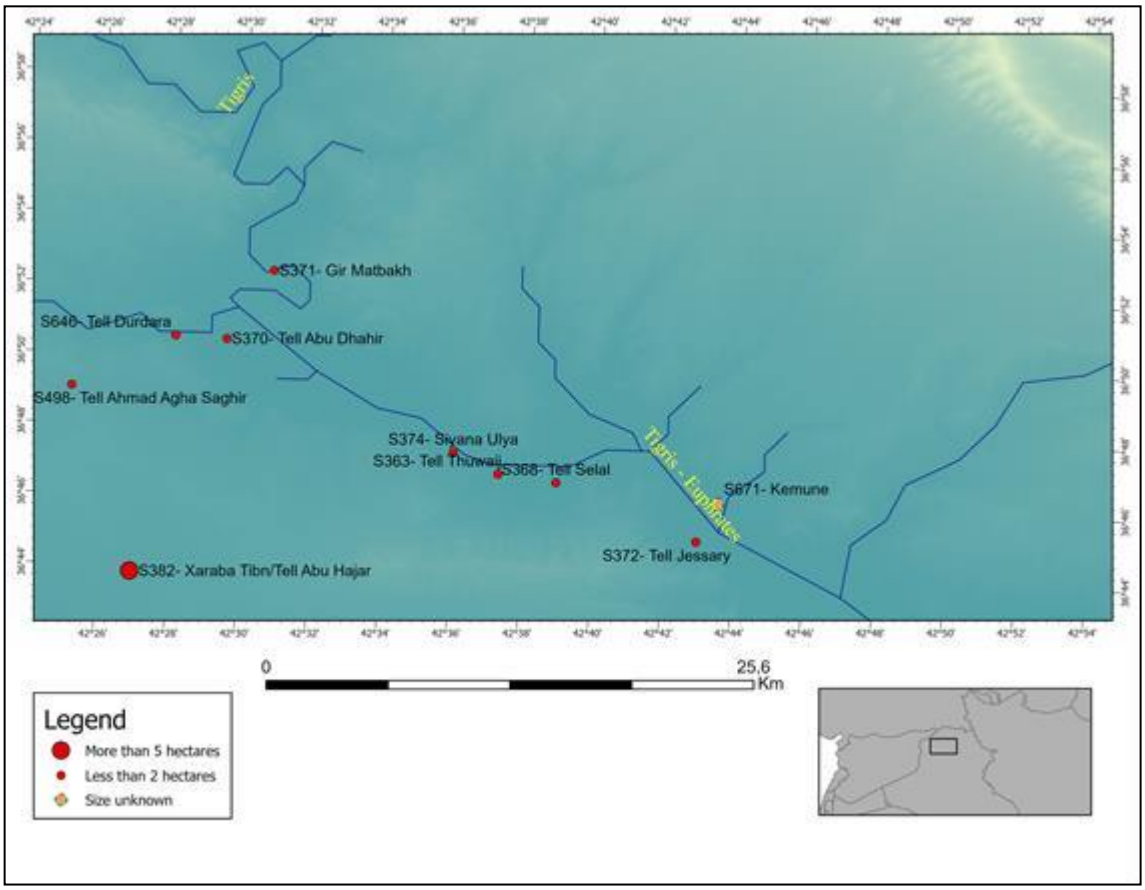

Figure 20. Northern section of the Eski-Mosul dam reservoir area (formerly known as Saddam dam) following the old course of the Tigris. Sites from the Tell al-Hawa region (section 3.5 of this same work) are visible in the down left side of the image.

Another small site in the close vicinity of Abu Dhahir is Tell Durdara/Der Derra (S646, named Durdara by Spanos [1988] and Bachmann [2022] and Der Derra by Ball [2003]), located in a tributary of the Tigris to the west, the river Suwaidijah, but further to the west. This site was 1,7 hectares in size and was excavated by Peter Spanos in 1985 and the main occupation turned out to be Ninevite 5. The author states that some stone and mudbrick pavements could be related to Ninevite 5 pottery, but, in this case and according to him, the painted pottery was found to be more numerous than the incised/excised (Spanos 1988: 74).

To the south of Siyana Ulya, a Japanese team also undertook important programs in several sites in the middle and the southern region of the Eski-Mosul dam: Tell Thuwaij (S363), Tell Jikan (S361), Tell Jessary (S372) and Tell Fisna (S362). The first site is the only one located in the middle section of the barrage lake, only two km south-east of the site of Siyana Ulya, also in the western riverside, while the other three are in the southern section. Tell Thuwaij resulted in the discovery of eleven levels of occupations from witch only one of them belonged to Late Uruk, being all the remaining levels ranged from Early to Terminal Ninevite 5, but remains from the earliest stages were scarce at this site

(Numoto 2003: 90). In the layers 1 to 10, only incised/excised pottery was identified in a stratigraphic sequence that allowed the scholars to propose a intra sequence for the incised/excised pottery style comparing the forms and decorations with other sites like Tell Taya or Tell Leilan. Also from the layer 10 to the bottom of the site, painted pottery began to appear at a quantity. However, painted pottery had appeared in between layers 7 and 8, but only two fragments that, even when scarce, they are not absolutely absent (Fujii et al. 1989/90: 45; Numoto 2003: 90). Another data that deserves to be discussed is the presence of Late Uruk pottery in the oldest level and also in the earliest Ninevite 5 level, where it coexists with painted Ninevite 5 pottery (Numoto 2003: 88). The coexistence between Uruk pottery and Ninevite 5 pottery is a common feature in pure Ninevite 5 contexts due to the survival of older pottery styles.

Tell Jessary (S372), a small site located 9 km south east of Thuwaij (Figure 20) has a comparatively shorter history. Only one layer, known as level 5, had originally been identified as belonging to Ninevite 5 period in two trenches, A and B, in the preliminary reports published by the Japanese team (Fujii et al. 1987; Fujii et al. 1989/90). However, a further revision of the material from trench A led Hirotoshi Numoto to rectify their initial reports and classified the material found there and previously identified as Ninevite 5, as pottery forms from Late Uruk. Numoto's comparison with forms from Late Uruk levels from Mohammad Arab (S132) and Tell Karrana 3 (S143), both in the Eski-Mosul reservoir area, brought him to the conclusion that his former classification needed to be amended (Numoto 1990: 103). Regarding trench B, most of the pottery retrieved belonged either to Late Uruk or Ninevite 5 period. From the later, Numoto identified both Early and Middle to Late Ninevite 5 material, as well as painted and incised/excised pieces (Numoto 1990: 208). Anyway, the limited area excavated prevented the archaeologists from identifying architecture linked with the Ninevite 5 phase, and only a possible wall was tentatively identified as belonging to either Ninevite 5 or Akkadian periods (Fujii et al. 1987: 71). The third trench discussed by the scholars, trench D, only yielded an amount of painted and incised/excised Ninevite 5 pottery mixed with Uruk pottery, including a Late burial urn. The author explains this mixture between Uruk and later Ninevite excised pottery in the absence of a true Ninevite 5 occupation, so the pottery was actually not in stratigraphic position (Numoto 1990: 226).

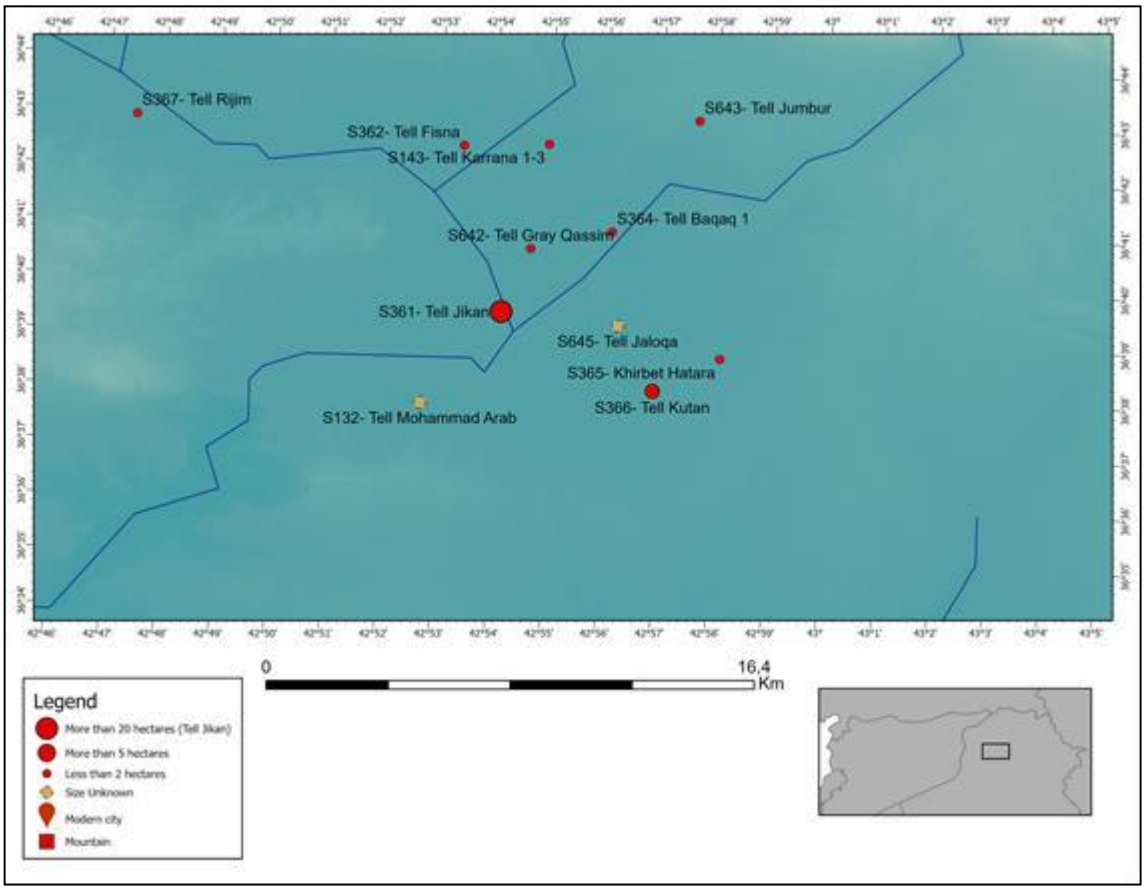

Figure 21. Southern section of the former Tigris' river course prior the flooding of the entire region by the reservoir of the Eski-Mosul dam (formerly known as Saddam Dam).

The other two sites, Fisna and Jikan, are located further to the south (Figure 21). On one hand, Fisna was excavated by the same Japanese team that also excavated at Thuwaij and Jikan (Fujii and Numoto 1987; Numoto 1988), and was a very small site during Ninevite 5, and only a single structure, a mudbrick platform, could be related to this chronology in the site. So, the settlement seemed to be restricted to the topmost part of the tell (Fujii et al. 1987: 45). Regarding the pottery and its chronology, Numoto's study and comparisons with Tell Mohammad Arab and Karrana 3 seems to locate the Ninevite 5 occupation of Tell Fisna around the transitional and Early Ninevite 5. Jikan, on the other hand, was a much bigger site, one of the biggest in the whole reservoir area with 23,5 hectares in size. The site was excavated by three teams in two campaigns, and the results came out in different publications set up by the Japanese (Fujii 1984; 1987a; 1987b; Kawamata et al. 1987; Numoto 1992) and the German-Italian expeditions (Fales et al. 1987; Tusa 1993). Yet another foreign team, an Austrian team led by Dr. Trenkwalder, took part in the excavation and worked in the southern part of the site, where they discovered a structure made of stone and probably dating to Ninevite 5 period (Iraq 1986: 232). However, this team published no report on the work done in Jikan. Also an Iraqi team lead by Mahfudh Abdullah Najih excavated in the northern part of the site and,

as a result, a brief publication came out (al-Aswad 1987). In this bibliographical sense, it is noteworthy to state that there is contradictory information of the bibliography about the Ninevite 5 occupation at this site: on one hand, the Italian-German team stated that the Ninevite 5 occupation should be restricted to a small part of the tell, and they support this affirmation by stating that no remains of this period were identified at their excavation (Tusa 1993: 259). On the other hand, other teams and archaeologists, for example the Polish team that conducted the UZGAR project in the nearby Autonomous Region of the Kurdistan of Iraq stated that the whole site was probably occupied already during the Early Ninevite 5 phase, because painted pottery fragments were found all over the mound's surface. However, the Polish team did not quote his references for such a statement (Doro 2021/2; Kolinska and Kolinski 2024: 200). Also, the Japanese team considered that the site had large proportions, at least twenty hectares during the Early Ninevite 5 period (Ii 2003: 44).

It is relevant to note that, while Ninevite 5 pottery is reported by the Japanese team and it's also recorded to have been retrieved in the Iraqi led excavation (Iraq 1986: 232), the trenches opened by the German-Italian team have been reported the totally absent of this material culture (Fales et al. 1987: 108; Tusa 1993: 259). This fact leads to the conclusion that, despite of the big size of the site of Tell Jikan and as it happens in other similar sites, the actual size of the Ninevite 5 was restricted to a small percentage of the total settled area. Even when some authors believe that the size of the Ninevite 5 settlement was big and reached twenty hectares (Doro 2021/2: 11) in the third millennium (not specifically pointing to the Ninevite 5), this site may fit more with the Akkadian settlement rather than with the Ninevite 5. The founding of later and larger settlements supports this hypothesis. The finding by the Japanese team showed a very different scenario involving the Ninevite 5 settlement. According to their reports, only painted pottery was found in the first of the areas that they investigated, as well as very few remains linked to it due to the limited area they were able to open. In area B, however, Excised, incised and plain pottery appeared to be related with mudbrick walls, but also painted ware was found out of context, what, according with the authors, could be pointing to the former existence of habitation layers belonging to the Early Ninevite 5 (Fujii 1987a: 41). It also seems that, according to the mentions published about the Iraq Antiquities Service, painted Ninevite 5 was found in their trench (Iraq 1985: 232; Fujii 1987a: 42).

The German-Italian expedition excavated another important site in regard of the Ninevite 5 settlement in the Eski-Mosul dam, the site of Tell Karrana (S143) (Wilhelm and Zaccagnini 1991; 1993). The site of Karrana consisted of several tells aligned on the banks of the river also called 'Karrana', roughly 2 km east of Tell Fisna. Out of all of

them, one turned to be of special importance, Tell Karrana 3. This site was founded during the Late Uruk period and was abandoned by the end of the painted phase of the Ninevite 5 period. So much so that the site yielded only a small amount of incised/incised pottery fragments (Zaccagnini 1993: 18). So, this fact makes this important site a key for the understanding of the absolute chronology and the pottery sequence involving the transition between Late Uruk and Early Ninevite 5. Also Tell Karrana 1 and 2 (the second was closely related to the former) was briefly tested by an Iraqi team led by Karim Toma Youssef. The site was founded during the Early Uruk period and above this occupation, another one appeared that could be either Ninevite 5 or Akkadian (Iraq 1985: 232-3). It is tempting to interpret all the three sites as consecutive, as happens in other cluster sites like Muqable. Karrana 1-2 could have been founded during Early Uruk and then, during the Late Uruk phase, the population could have moved to Karrana 3, where remained until the End of the Middle-Late Ninevite 5 and Karrana 1-2 was reoccupied during Akkadian times. However, we cannot rely on this assumption because no comprehensive study of the results of the excavations at Karrana 1-2 have ever come out.

The British Archaeological Expedition led by Michael Roaf also intervened in another important site, Tell Mohammad ‘Arab (S132). This site is located near the dam itself, 4,5 km north-east of it, and was excavated in several campaigns. As in the case of Tell Thuwaij, this site also yielded up to twelve building phases in some parts of the site, all belonging to Ninevite 5 period (Roaf 1983: 71; Killick 1987). This site also stands by because, similar to the case of Tell Karrana 3, it held important remains of the transition between Late Uruk and painted Ninevite 5 phase. However, one of the most important contributions of this excavation was the definition of an exclusively Early Ninevite 5 with only painted pottery, a second phase with painted and simple incised pottery and a third phase in which only incised pottery was developed (Roaf 1984: 154).

Another site to be excavated lies roughly 7 km east of Mohammad Arab, and was called Tell Kutan (S366). This site was excavated by a French team in three different campaigns from 1983 to 1985 and yielded interesting results for two main reasons: the first one is that the vast majority of the pottery recovered *in situ* belonged to Ninevite 5 period (only two sherds could be of Late Uruk chronology and also some scattered Halaf sherds), and the second one is that is a rather big site of this chronology, probably one of the biggest Ninevite 5 settlements excavated in the southern section of the Eski-Mosul dam with some six hectares in size. However, as long as many of the soundings performed across the surface of the site were sterile, it is to be expectable that the size of the actual limits of the site were rather smaller, probably closer to the three hectares stated by Bachelot (1987: 91; Forest 1987a; 1987b: 85). Unfortunately, according to the excavators, must of the site must had been destroyed by erosion much before the scholars reached the

site and, as a consequence, only a small portion of it could be investigated (Bachelot 1987). This is especially true when it comes to architecture: only remains of several walls and occupation floors were discovered, all uncovered into up to five occupation layers densely packed together, but most of the structures had been washed away by the river or very badly preserved by the erosion or rebuilding on top of each. Also, the time span between floors could not be completely clarified, neither possible internal divisions in the Ninevite 5 occupations (both painted and incised pottery was found, but no sequence could be distinguished). The chronology of this site is so complicated that the authors only could theorize this to be close to the painted-early incised phase of Mohammad Arab due to the presence of both types of pottery, but this argument could be feeble as it is no supported by any other evidence (Forest 1987b: 86; Bachelot 2003: 158).

Close to the north, about 2 km away from Tell Kutan, the 'Centro di Scavi di Torino' conducted three seasons of excavations at the extensive site of Khirbat Hatara (S365), a site that included up to six archaeological mounds with evidences of occupations from the Ubaid to the Late Islamic period (Fiorina 1997; Negro 1998). These excavations revealed a complete sequence of up to seven layers of uninterrupted occupations from Early Uruk to transitional/Early Ninevite 5 (plus evidences of the existence of a Halaf and Ubaid settlements, but only attested by a scatter of surface pottery from these periods). However, even when the site is reasonably large, only the level 5 of the mound 1 yielded Ninevite 5 material, so, the settlement of this period should be considered nothing but a small village (Renette 2019: 25-6).

Various teams from the Iraqi Antiquities service and the university of Mosul also performed excavations at other sites in the region, but the results of this excavations have been mostly poorly published. Regarding Ninevite 5 period, all the excavations led by teams from Iraq were in the southern part of the Eski-Mosul reservoir except from one site located on its middle part. Tell Selal (S368), located 2,5 km east of Tell Thuwaij, was excavated by a mission from the University of Mosul led by Dr. Najim Abu Adil and Dr. Khalil Jabbar. Very little can be said about this site far from having this yielded two layers of incised Ninevite 5 pottery and another layer of painted sherds (Iraq 1983; 219-20; 1985: 238). Only a few scholars treat it as a medium sized site (Simpson 2007: 57; Doro 2021/2: 11), but the total absence of publications by the excavation team makes the consideration of this site absolutely non-viable.

To the south, other sites excavated by Iraqi teams have been also briefly published. For instance, the site of Jaloqa, located 10 km north east of the Dam, was reported to have one single layer of architecture related to the Ninevite 5 period, but many detail remain unclear because of the poorly detailed publication. Only a brief paragraph summarizes all

the periods attested, and only references of the two layers belonging to the Warka (Uruk) period and Ninevite 5 are stated without any further details about its intra chronology. We don't know either if each phase had further divisions or not. Moreover, according to the same publication, an 80% of the site was dug out during the salvage excavations (al-Dabbagh 1987). Rova reported this site only from oral information she got from Green (1988: 206). Seven km to the north of Jaloqa, lies the site of Tell Jumbur (S643), that was excavated by a team lead by Karim Toma. This site is located near the town of Jumbur and, unlike most of the sites stated before, this one was not threatened by the reservoir's waters. The site had to be excavated because it was going to be affected by the new road Duhok-Mosul that had to be built in order to substitute the old route, sunken by the dam. This site was the very first to be excavated, in a date as early as 1981, and the works there lasted as much as a whole year. The publication made is way more complete than the one for Jaloqa, but it is still too simple to offer a comprehensive vision of the relevance of the site during Ninevite 5 period. All that we know from the research is that there was an architecture phase from Ninevite 5 period, layer fifth, and also some pottery forms that are described apparently due to its good state of preservation and its complete form (Toma Youssef 1987). From this occupation we do know that it consisted of an area with 27 rooms (defined as storage and habitational spaces by the author) and a plan of this phase, but nothing else but the plain description of the uncovered structures (Toma Youssef 1987a: 18) is stated in the publication.

Yet another site, Tulul Baqaq (S364, referred to the site of Tell Baqaq 1), was excavated by Toma Youssef. The site is located 4,5 km south of Jumbur and, as its very name suggest, the site is made up of several tells just like other sites in the vicinity like Tell Karrana or Jaloqa (Tulul is the plural of Tell in Arabic language). The only one of the four mounds that formed the site of Tulul Baqaq that has something to do with Ninevite 5 chronology is the one known as Baqaq 1. This site has roughly one hectare in size. The information inferred in the published material allow us to know that only the las layer, the seventh, was found to hold Ninevite 5 pottery, both painted and incised types are represented, and this layer was the oldest occupation of Baqaq 1 and lies directly on natural soil. However, there is no an exhaustive study made on the pottery, no dating is available and also the publication lacks a plan of the Ninevite 5 layer. However, the author states that the Ninevite 5 architecture was very badly damaged by more modern structures, so, this could explain the absence of a plan draw (Iraq 1985: 228; Toma Youssef 1987b).

Close to Baqaq, 2 km west, the site of Grai Qasim (S642) was also excavated by an Iraqi team lead by Mahfudh Abdullah Najib. Very much like in the case of Tell Selal, very little about the results of the excavations of this site is known because the results

were never even partially published. All we know about the Ninevite 5 period at the site is that incised pottery sherd appeared during the excavations, in level 5 (Roaf 2003: 314). Also, from the very limited information available about the site it is possible to infer that the settlement at that time had to be forcibly very small, mainly because the whole site was probably smaller than 1 hectare (Iraq 1983: 210; Doro 2021/2: 18).

More recently, the team of the Eastern Habur Archaeological Survey identified and excavated an important Mitanni era site near the town of Kemune (S671), in the eastern bank of the Tigris thanks to an important drop in the level of the reservoir's waters. The team, prior of its excavation, performed a surface survey in which Ninevite 5 pottery was retrieved, so the site is likely to have had a Ninevite 5 occupation that may have been either buried or destroyed by the massive Late Bronze Age mudbrick buildings uncovered (Puljiz et al. 2019: 13; Doro 2021/2: 13). Obviously, nothing else can be added on the possible Ninevite 5 settlement in this site.

Two more sites excavated by Iraqi missions but only briefly referred to in a very short report published by the State Board of Antiquities of Iraq itself (Sumer 1987-8: 87). This sites are Kharabat el-Sebkha and Khirbat Bazila. Of the fist site it is only known that yielded Ninevite 5 pottery without any further detail. Of the second one, some scarce information was published regarding some structures from either Late Uruk or Ninevite 5 date found at the site (Ball and Gill 2003: 26). Also, the original publication of the ministry contained very important mistakes regarding the general chronology of the northern Iraq proto-history. For these reasons, it was decided even to not to count that two sites in the total account of Ninevite 5 settlements, due to the total lack of published information on them.

A Polish team led by Piotr Bielinski also took part on the rescue excavations (Bielinski et al. 1985; Bielinski 1987a; 1987b; 1987c; 1992a; 1992b; 2003). Their work at the site of Tell Rijim (S367) during three revealed the existence of a Ninevite 5 phase at this site. The site was divided into sectors and the results were displayed in the published reports for each one of this sectors. The western trenches of the site preserved some poorly preserved remains of walls with no definite plan and other remains with Late Uruk and Ninevite 5 pottery. A pit and a burial jar were also found there, but attributed to Late Uruk. In the southern trench, where the Late Uruk was the oldest phase, no architectural remains from the Ninevite 5 phase were found and only some scattered sherds were found. The only structure found there was a tomb that yielded an important set of grave goods consisting of a painted Ninevite 5 crater, another undecorated and 13 typical cups from the same period found inside the undecorated crater, most of them with ribbed decorations, and 12 more with rope-pattern decoration found inside the painted

crater. Another partially preserved tomb was also found, but, in this case, it was far poorer in regard of the grave goods. Only two vessels were found, one decorated with horizontal grooves alternated with bands of notches (Bielinski 2003: 494).

Even with this relevant findings, one cannot presume how the Ninevite 5 occupation of this site was when no stratigraphic solid remains were found (Bielinski 1987a: 1987b). On regard of the burials, it is noteworthy that the one containing the painted pottery assemblage yielded only forms that are coincident with Early Ninevite 5 forms, as well as most of the pottery located during the excavation and also during the surface collection. However, it is also true that the incised pottery is present but comparatively extremely rare. In this point, Bielinski focused on the location of the second tomb yielded incised material. As an explanation, he denies the possibility of a long lived necropolis during the whole Ninevite 5 period, thus preferring to point out to the existence of a sporadic use of the otherwise abandoned site as a necropolis during the later phase of Ninevite 5 (Bielinski 2003: 497).

After all the information collected, it is evident that the rescue campaigns of the Eski-Mosul dam decisively completed the understanding of the development of the Ninevite 5 period in this part of northern Mesopotamia. However, it is also true that almost all the archaeological teams fall short in their investigations, and many important questions will remain unsolved. One of this questions is the one related to the hierarchy and total size of the sites. In almost all of the cases, the sites are no more than small villages, often less than one hectare. On the opposite, the biggest sites were probably no more than 5 hectares, being the occupations of many of the biggest sites in the region restricted to parts of the main mounds (Tell Jikan or Tell Fisna) or even remaining partially or totally unknown (Abu Dhahir). For instance, in the site of Abu Dhahir, one of the largest ones in the whole region that encompassed a total area of 13,7 hectares, evidences of Ninevite 5 occupations did not surpassed the main mound and was no more than a small village (Simpson 2007: 56).

It seems clear that no urban centers similar to the ones that rose in other neighboring regions like Tell al-Hawa or Bassetki, emerged in the Eski-Mosul dam area. The absence of monumental architecture also supports this point of view, as no physical proves of dominance are there to be seen in any of this sites (Simpson 2007: 57). It is also not necessary to mention that feature like these are hard to miss in a such extensively studied area.

Then, regarding the settlement patterns, this area features no clear distinction or hierarchy between settlements, as all of them could be classified as very small to small villages. Also the distributions of the sites prioritizing the course of the Tigris rather than

the relative position of the other settlements, make it clear that the access to the resources is a more valuable variation than the relations with their neighbors.

However, it is difficult to say if all this sites were self-sufficient and relied on their own capacity of getting and storage resources to ensure their survival or were dependent of a larger chain. Either way, our knowledge of the immediate vicinity of the actual limits of the Eski-Mosul dam are largely unknown, so, we can only speculate with the possible existence of a Ninevite 5 settlement large enough for this to could have been a regional center. All the urban centers that we know are probably too far away from the Tigris for exercise an effective dominance. The only site that has been excavated to the west of the Tigris but close enough was Tell Agha as-Saghir (Spanos 1990), but it was too small, less than three hectares, to could be considered as a regional center. To the east, the situation is even worst, as no site closer enough to the catchment area of the reservoir have been ever excavated. We expect that, when the results of the survey performed by the EHAS on this side of the Tigris come out, it will shred like on this question.

4.1.1.8. The Ilisu Dam Area

From the early 2000's, the ongoing construction of a massive dam in the Tigris near the site of Ilisu prompted the intervention of many international teams in order to perform further excavations in as many sites as possible to save as much as they could before the reservoir was filled. The dam project was massive and a great portion of the banks of the river were going to be affected by the rising waters.

The excavated sited that yielded Ninevite 5 remains have a very irregular distribution. Up to eight sites cluster together in the Bismil plain, to the very northern end of the Ilisu dam reservoir. That is so that some sites like Ziyaret Tepe (S215) are not completely underwater. Apart from this group, another four sites are very anarchically distributed along the Tigris and its tributaries.

Regarding the Ninevite 5 occupations, the information that each site offered is also very irregular. For instance, only one single Ninevite 5 excised piece of pottery was found at the site of Gre Amer (S653), but related to no stratum at all (Pulhan and Blailock 2016). So, it is safe to say that no Ninevite 5 settlement have ever existed at this site, and the pottery could have arrived via trading routes. Another site with a similar condition is Çattepe (S328). This site is located halfway between the Ilisu Dam and the Bismil Plain, and it featured an important roman fortress with an exceptionally well preserved dock. During the excavation, the archaeologists found pottery from Late Uruk and examples of

painted Ninevite 5 sherds, thus relating these findings with the possible existence of a settlement of this chronology underlying the roman fortress, but no stratigraphic evidence was ever found (Algaze 1989; Batihan 2014; Sağlamtimur, Batihan and Aydogan 2020: 437). Another isolated find was made just besides the Ilisu dam itself, less than 2 km north at the site of Tatika (S323). During the excavations, some tombs featuring Ninevite 5 ceramics as grave goods were described (Ökse et al. 2015; Ökse 2019; Sağlamtimur, Batihan and Aydogan 2020: 437).

Perhaps the most isolated site among that group was the site of Başur Höyük (S326), located on the eastern bank of the Bitlis stream, a tributary of the Tigris, 15 km north of the city of Siirt. This site was not part of the Ilisu dam salvage project as it is not by the reservoir, but it has been included here because of its proximity and rather lone situation. This site could also be one of the northernmost Ninevite 5 finds ever made in an archaeological excavation. The archaeologists found out that an important settlement belonging to Late Uruk was developed at Başur Höyük, including a platform with structures identified as public monumental architecture (Sağlamtimur, Batihan and Aydogan 2018: 3-4). Regarding the Early Bronze Age, the authors state that a residential and a cemetery area were found, but the necropolis yielded the most interesting results on regard of Ninevite 5 material. Painted Ninevite 5 pottery have been found to be the dominant type of pottery in the cemetery, but it shares its space with other different types such as the Late Reserved Slip (Batihan 2014; Sağlamtimur and Ozan 2014: 518-20; Sağlamtimur 2017; Sağlamtimur and Massimino 2018; Sağlamtimur, Batihan and Aydogan 2018; 2020: 437; Baysal and Sağlamtimur 2021). However, the tombs displayed in the publications seems to greatly differ to those that are found in Ninevite 5 contexts in northern Iraq. The tombs from the Early Bronze Age of Başur Höyük are made of stone slabs that configure a rectangular space in which the deceased and the grave goods are placed, among which Ninevite 5 pottery was retrieved (Hasset and Sağlamtimur 2018: 643, Sağlamtimur, Batihan and Aydogan 2018: 5).

In the settlement area, the painted Ninevite 5 pottery (referred to as Early Ninevite 5 by the archaeologists) was predominant among the decorated potteries (Sağlamtimur, Batihan and Aydogan 2020: 437), but it was also stated that the plain undecorated forms were predominant, forms that were no related to any typical Ninevite 5 shape (Sağlamtimur and Ozan 2014: 517-8). Also it is noteworthy that no other types than the earliest painted groups have been located at Başur Höyük so far (Íbid 515).

Therefore, even when the painted Ninevite 5 pottery dominates among the decorated varieties, it is safe to say that, in appearance, the presence of this material in this site looks more closely related to trading of prestige good coming from routes from

the south, rather than a stable Ninevite 5 related community (Ökse 2007). The absolute dominance of this painted pottery in the graves of the Early Bronze Age cemetery could be supporting this point.

In the Bismil plain, the situation is not so different on regard of the distribution of Ninevite 5 pottery across the settlements. Some of them present a similar situation to that of Çattepe or Gre Amer, with a very low quantity of sherds identified. One of this cases is that of the aforementioned Ziyaret Tepe, where a single possible incised/excised Ninevite 5 sherd was located. Needless to say that, as long as this site was a big 32 hectares' Assyrian regional capital, very little is known about the context of this piece. So much so the fragment could also be identified, following the researchers, as a local imitation (Matney et.ali. 2003: 179). A similar frame was found at the site of Kuriki Höyük (S332), a site excavated by a joint Turkish-Italian mission (Genç 2016; 2018, Genç and Köse 2017, Genç, Valentini and D'Agostino 2011; 2012), where incised/excised Ninevite 5 sherds were unearthed (Valentini 2012).

Also the excavations at the site of Hirbemerdon Tepe (S210) led to the discovery of a number of pottery pieces belonging to Ninevite 5 period, both decorated and undecorated (Laneri and Ur 2010). As well as in many other sites in the Ilisu dam barrage, the pottery that appeared in domestic context was mixed together with other types of fine ceramics such as the Metallic ware or fingernail incised ware (often seen at other sites in the region), and with other locally produced ceramic forms (Laneri, Schwartz and Ur 2016: 31). Regarding the decorations, both painted and incised/excised ceramic ceramics are present, but the painted type are treated as being exclusive from funerary context (Ibid 2016: 32).

Other sites like Müslümantepe (S189) also share space with other pottery styles of the same chronology but associated to other cultural horizons. In the case of the stated site, the Ninevite 5 pottery appeared in relation with Meatllic ware pottery (Ay, Ay, and Tarhan 2013).

Kenan Tepe (214) is a rather more interesting example (Parker et al. 2003; Creekmore 2007; Parker et al. 2008). There, pottery that, according to the author, had Ninevite 5 resemblance was unearthed at habitation stratums alongside with other forms that had parallels in the Euphates valley. Interestingly, it seems that the decorations of this pottery differs of that we would expect from Ninevite 5 ceramic. First of all, painted types are totally absent even when the site had a possible transitional Late Chalcolithic to Early Bronze or perhaps an EBA phase. Also incised types differ from what is typical on the Ninevite 5 pottery (Creekmore 2007). Then, according to the pottery assemblage it is not disposable to believe in certain degree of local imitation of Ninevite 5 forms.

In relation to the cemetery found in Başur Höyük, the site of Aşağı salat (S212) offered up to 53 tombs dated to the Early Bronze Age. The site consisted of a badly disturbed mound with this cemetery which were excavated in several campaigns. The settlement was occupied between the Late Uruk and Early Bronze Age transitional period, chronology attested by the presence of plain Ninevite 5 ware at the site (Şenyurt 2002; 2004: 660). However, this pieces were found altogether with pottery types belonging to other traditions. On the contrary, Ninevite 5 pottery is the dominant type in the settlement's cemetery. The configuration of the burials reminds to the tombs at Başur Höyük because of the structure of the tombs: all 53 burials belonged to the cist type, being 23 of them cists limited by four stone slabs and 23 more cists with only a cover stone slab (Akaçkay 2017: 54). The tombs that were not limited by stone slabs often were limited by rows of pebbles. The form of the slab cists is clearly similar to those found at the Başur Höyük and, once more, divergent from the typical tombs identified in northern Mesopotamia and the Syrian Jazeera. However, this fact could be decisively conditioned by the abundance of stone in the region of Bismil, so, a better access to this resource could have motivated the inhabitants of this region to use it more in their funerary places. Also it is noteworthy that stone structures are more often found here than in sites further to the south (Sağlamtimur and Ozan 2014; 526, figure 6; Şenyurt and Akçay 2020: 421-2). Of this cemetery it is also particular the fact that it is located outside of the settlement, a fact that appear to be rare in the Late Chalcolithic and Early Bronze Age sites in the region (Şenyurt and Akçay 2020: 421).

Plain and decorated types, both painted and incised, were the most common finds in the cemetery of Aşağı salat, with forms that found resemblances at sites in northern Iraq and the Syrian Jazeera.

The great amount of information obtained from the Ilisu dam salvage project mostly suffers from the same shortcomings than all the other barrage salvage projects, but still proportioned enough material to provide a vision on the Ninevite 5 presence in the area. Two things are evident from the distribution of material on the sites: the first one is that the Ninevite 5 or related forms are much more preeminent in funerary contexts than in habitation areas, and, as a fine ware, Ninevite 5 pottery coexisted alongside with other types of fine ceramics as well as with other locally made traditions. So, given that facts, it seems logic to think that most of this pieces arrived in the sites via trading routes as a prestige goods. The position of this pottery in funerary contexts alongside with other imported goods supports this idea.

The closeness to the Tigris could be a factor prompting the spread of Ninevite 5 pottery from other territories to the south and penetrated further to the north using this

communication stream. That could explain why this pottery is only reported at sites close to the river, while not a single mention on Ninevite 5 material has been done on other EBA sites in the region. However, it is also to be mentioned that no report of the survey activities undergone by the Diyarbakir culture and Tourism Ministry have come out, so, many details about the material found on surface is unknown. Also, in the survey performed by Algaze in the late 80's throughout the Batman river, no traces of EBA settlements were found at all (Algaze 1989: 245). Also surveys to the north of the reservoir, west of the Batman river, near the site of Pir Hüseyin, have yielded no evidences for any Ninevite 5 materials on surface (Peasnall and Algaze 2010), as well as other areas close or within the catchment area of the Ilisu Dam (Brancato 2018: 42). However, it is possible that, given the small percentage out of the total amount of pottery that Ninevite 5 pieces represent, this material could be absent in most surveys simply because is overshadowed by other and more common locally produced typologies. This assumption would amplify the idea of the Ninevite 5 pottery in this region as being prestige goods imported from the south.

Outside of the Ilisu dam area, other isolated finds of Ninevite 5 material have been done at sites such as Hassek Höyük, certainly identified material that's clearly outside of the Ninevite 5 influence sphere, and its presence must be explained by the action of trading routes (Behm-Blancke 2003).

4.1.1.9. The Eastern Syrian Jazeera (Tell Leilan and Hamoukar Regions)

The region of the Syrian Jazeera has been artificially split into three in this present work because of two factors: the whole region covers a territory too big to be treated comfortably in a long section and also because of the presence of regional centers that motivates this divisions, very much like in the case of Tell al-Hawa.

The Western Syrian Jazeera region comprises the three provinces of the Governorate of Dêrik/al-Malikiyah and the sub-districts of Tirbespiyê/Kataniyah and Tell Hamis, both belonging to the governorate of Qamişlo/Qamishli. The region has received a very irregular attention and some areas are widely known, while others are largely unknown. All the Ninevite 5 sites in the region are distributed along the course of the wadi Khanzir, an important river that flows from the city of Hassake up to cross the Turkish border and even passing near the border with Iraq. Many more wadis flow north from the course of the Khazir, and these rivers host important regional urban centers.

To the south east of the region, the important site of Hamoukar (S26) lies only 8,5 km north west of the border with Iraq. The survey of the site and its environment by Ur resulted in the discovery of a site with a Ninevite 5 pottery covering all the mound of the site and also an extensive lower town in which Ninevite 5 pottery was found in lower density (Ur 2002: 20), being one of the largest Ninevite 5 sites ever discovered so far. In order to partially understand the real extension of the settlement, Grossmann planned a series of test pits in selected sites basing on Ur's survey, and the results were very promising. Following the results of the excavations at the lower town, it was theorized that the initial occupation at this part of the site occurred exactly during this period and that settlement covered nearly the entire extension of the site, 105 hectares (Grossman 2013: 109).

According to the results of Ur's survey, as the site of Hamoukar became massive, the land surrounding it became more depopulated (Figure 22). Only three sites (S289, S290 and S291) remained populated out of eighteen sites from the Uruk period. The total area settled, excluding Hamoukar, felled from almost 50 hectares in Uruk times to 2,66 hectares of Ninevite 5 period (Ur 2010b: 105). This vanishing of villages has parallels in other sites in northern Mesopotamia, but, apparently, this massive drop may seem unique and, thus very drastic. However, we cannot forget that the dimensions of the land investigated by the Hamoukar team was much smaller than that of other regional surveys, only a fraction of most of them in fact, so, the overall image could be biased by dimension of the region surveyed.

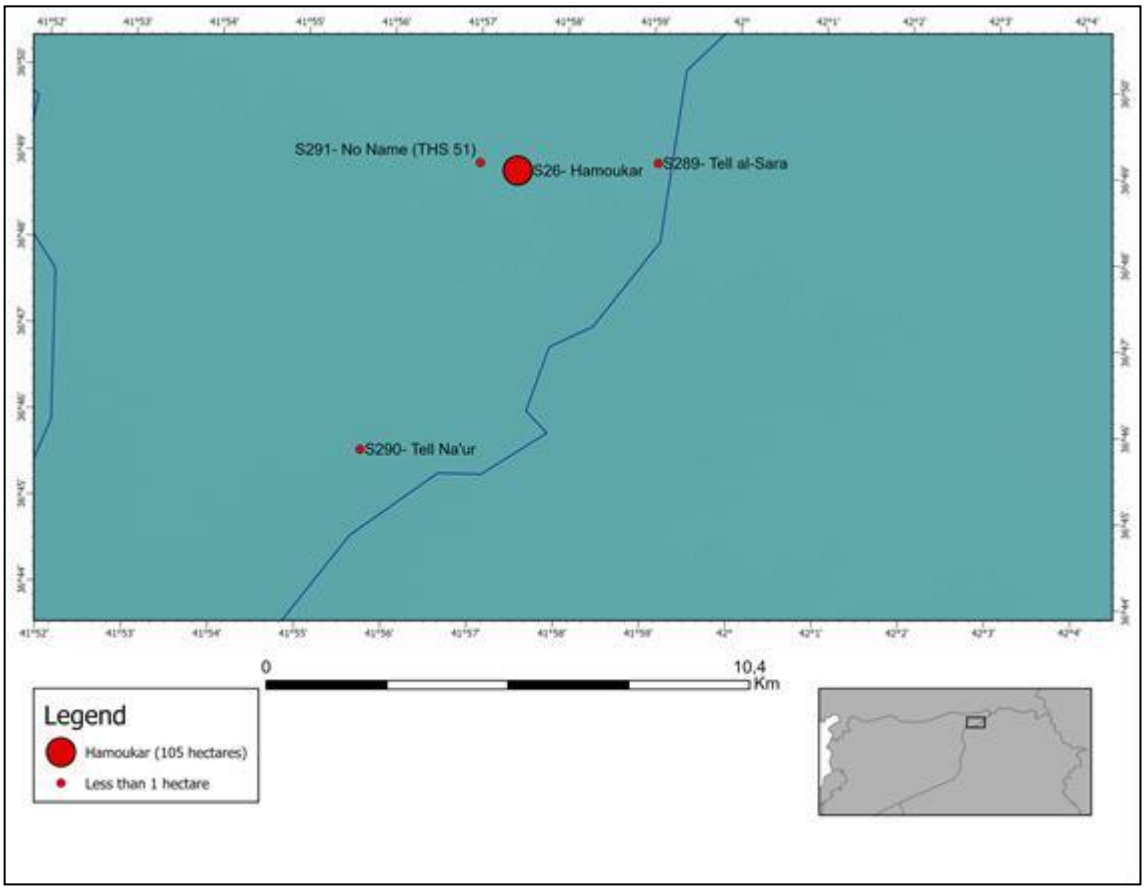

Figure 22. The tiny regional survey around Hamoukar and surrounding Ninevite 5 sites.

Other sites are written down by Ur as having yielded surface Ninevite 5 sherds, even some with decorations, but these sites are not considered for his analysis of the regional period (Ur 2010b). The author does not explain this event in any of his publications on this topic, but it is to be supposed that, given the low density of sherds found at all of this sites, Ur couldn't consider them as fully occupied during any of the Ninevite 5 phases.

Aside of this four sites, only three more are known for the whole province of Dêrik. Of these three, only the site of Tell Qunaytira (S516, also known as Girê Pîrê, and occasionally spelled as Qunetra [Renette 2019: 30]) was briefly excavated by a Syrian led team. All the information available on that excavations is that two occupation layers were found, and the second one yielded incised Ninevite 5 pottery (Mahmoud 1978/9). Sites S517 and S515 are only known through Meijer's survey (1986) and the TAVO project survey.

All the tributaries that flow further to the west from the main course of the Khanzir river form a network of rivers and streams that irrigate a great amount of land and make this part of the Jazeera a great land for agriculture. The majority of the Ninevite 5 sites to be found here are placed around some of the largest streams in the region, namely the

river Abbas, Qatrani, Jarrah and Safraui, to the east of the city of Qamişlo. However, none of this rivers aside of the Khanzir itself is navigable, so, the river transportation and communication that could have been an important factor at the courses of other major rivers such as the Tigris is completely denied here (Weiss 1990b: 387). On the contrary, this lack of transportation sense may be pointing to the exclusive usage of the river as a water source. Perhaps this also contributed to the tendency of nuclearization of small settlements of previous Uruk period into larger urban centers in order to maximize de efficiency of the agricultural resources. However, this statement cannot be proved at this moment in this and a comparative study of the settlement pattern in the Uruk period becomes necessary to fulfill this objective. Moreover, it is also true that large Uruk centers existed throughout northern Mesopotamia, namely Tell Brak or Hamoukar, but also Tell Leilan was a relatively important site, but others were much more important. Tell Gazhal (S258) or Tell Khodr (S247) were bigger, but the site of Tell al-Andalus[4] stood out as the biggest in the Leilan region, with 64 hectares in size (Rova 2007: 26). Alongside with this bigger centers, the data from the 1987 survey conducted by a team from Yale university suggest a settlement pattern characterized by a dispersion of small villages of which the biggest ones never exceeded five hectares in size (Wattenmaker and Stein 1989: 283).

[4] This site is not included in this thesis's catalog because no Ninevite 5 remains were identified there.

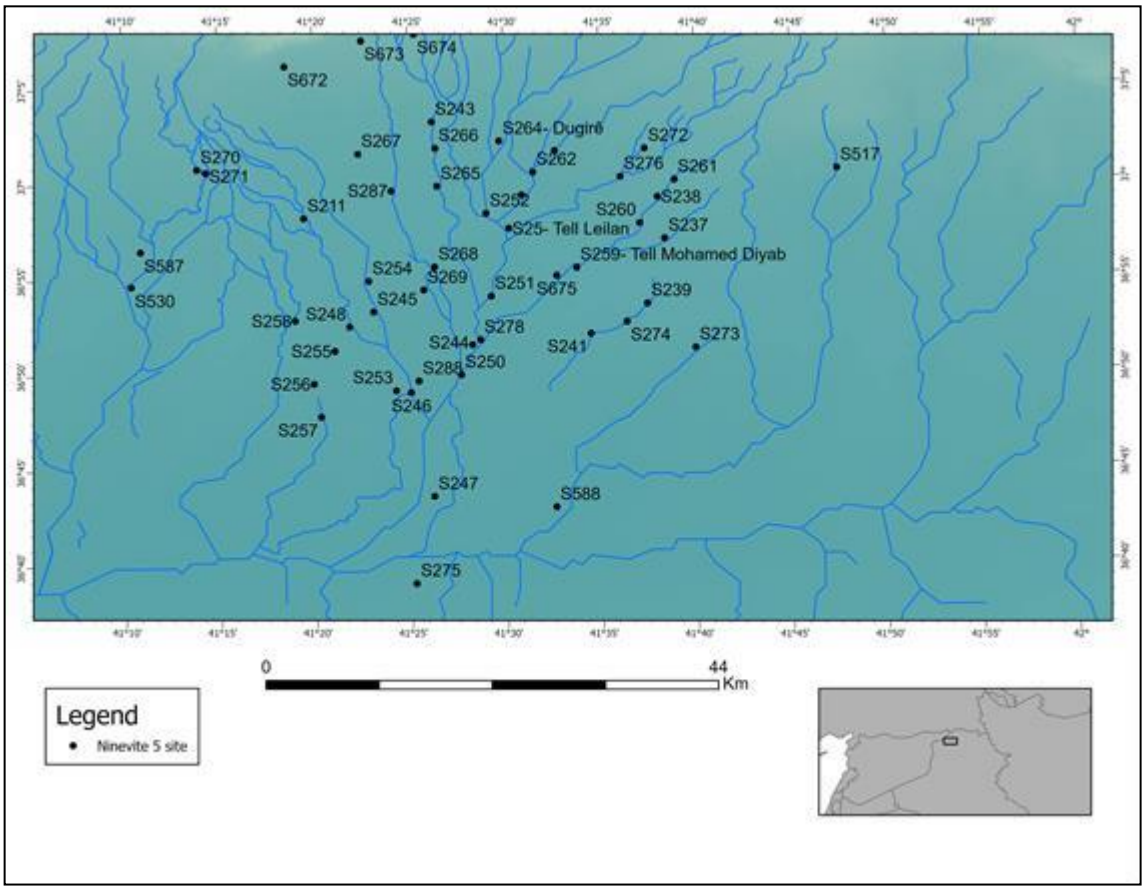

Figure 23. The region around Tell Leilan, Dugir and Mohammad Diyab. The sites displayed represent all the Ninevite 5 period. Most of them are extracted from the Tell Leilan survey, but some occurrences in the margins came from different sources (S530, S587, S672, S673, S674 and S517).

At the end of the Uruk period (Figure 23), the nuclearization becomes evident at the site of Leilan itself. During the transitional period between Uruk and Leilan, an important drop of 87% either in the number of settlements, from 53 to only seven and in total habituated hectares, from 161 to 31, was attested (Ristvet 2005: 58). This decrease has its pair found at other parts of northern Mesopotamia, where the settlement history shows similar patterns (Ur et.ali. 2021: 10). Meanwhile, Leilan grew to fifteen hectares and stood up in this rather early phase as an important site in terms of total settled area. This expansion, rather than been a punctual anecdote, had its continuity by the end of the EJ 2 phase to the mid-late third millennium, when the site experienced an even more drastic increase in size, from fifteen hectares to ninety (Stein and Wattenmake 2003: 361; Ristvet 2005: 59). However, we should take into that these data could have been amplified by other external factors like the limitations of survey and the low degree of identification of painted Ninevite 5 pottery across all the Syrian Jazeera (Weiss 1990b: 389). All these factors could have amplified our vision on this settlement decreasing. For instance, ceramic material from the transitional phase, the EJ 0, has only been identified at Tell Brak, but the pottery found presented good parallels with the Eski-Mosul dam region

(Arrivabeni 2010: 10). Even though, the reduction of settlements and inhabited hectares seems undeniable.

According to the data from the survey, during EJ 1 (Figure 24) only Leilan acquired enough importance to be considered as a primitive urban center. Other settlements also were founded or rose at a more discreet ratio: Tell Mohammad Diyab (S259) was founded during this period as a small town no bigger than 4 hectares, and the village of Sharmukh (S245) which probably stood as a six hectares' village from the previous Uruk period to Early Ninevite 5 (Ristvet 2005: 58). The pottery sequence and the excellent work done by the Leilan project team allow us to establish differences between the settlement pattern within the Ninevite 5 period, and thus hypothetically define possible intra phases.

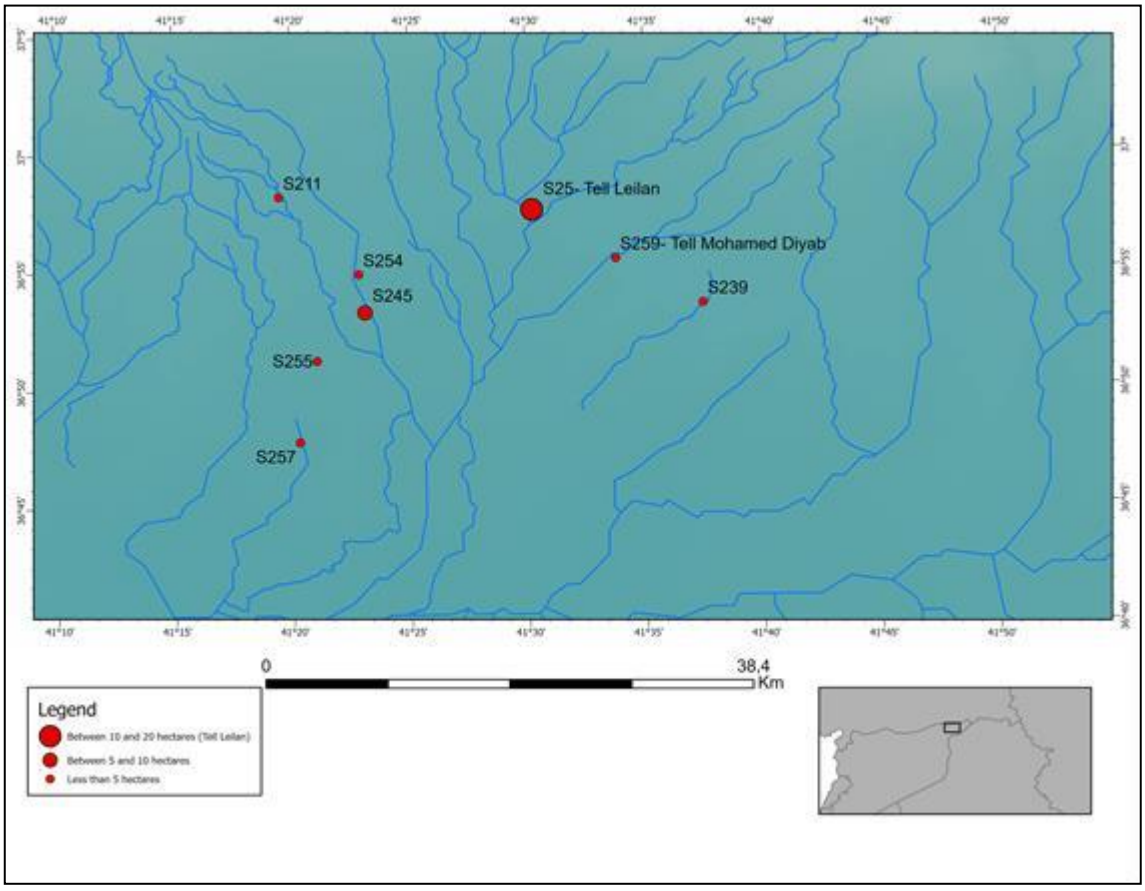

Figure 24. Yale University's survey around Tell Leilan, EJ 1 period.

Thanks to this meticulous work, we could infer that, in the region of Leilan, the EJ 2 period (Figure 25) marked a turning point in the settlement hierarchy. Ristvet defined a second stage in the Ninevite 5 period settlement between 2800 and 2650 B.C.E, roughly coincident with EJ 2 phase (Ristvet 2005: 58; Arrivabeni 2010: 27). In this phase, while Leilan remained mostly the same, Sharmukh apparently did not increase its size during, and no evidences of settlement were found for EJ 3 period at all, but it was inhabited

again during EJ 4 (Arrivabeni 2010: 30-39) and, at the same time, other site in the same range, Tell Ghazal (S258), emerged only four km west. On the opposite, the site of Mohammad Diyab experimented a notable increase in size and was comparable with Leilan, ranging between ten and fifteen hectares. Other two sites, Dugir (S264) and Tell ‘Aid (S211) also experienced a growth.

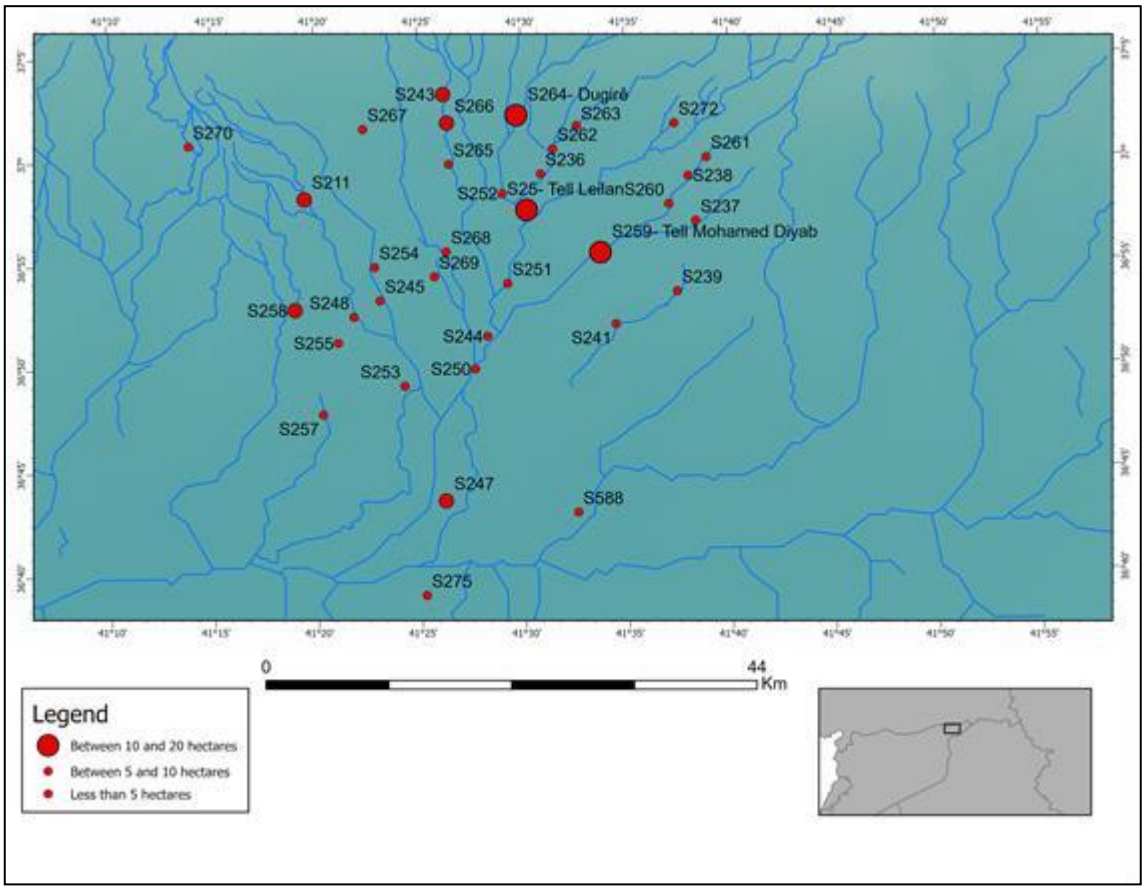

Figure 25. Yale University’s survey around Leilan, EJ 2 period.

It is safe to say that, even when Leilan was a pioneer site in terms of concentration of population, the emergence of another sites in a relatively short time are pointing to the existence of regional centers on similar terms than that of Tell al-Hawa (even without a complete analysis on its internal phases). Some aspects need to be taken into account in order to analyze the settlement pattern in this region. First of all, it is important to note that all major sites are located at a certain distance one from another, allowing each to retain enough land to cover the feeding necessities of its growing population: Mohammad Diyab is 6,5 km south east, the shortest distance between two of this sites, Dugir is 8,5 km north and ‘Aid is 15 km west, being Leilan in the middle of all of them. However, when compared to the Tell al-Hawa region, the distribution of minor sites, those less than 5 hectares in size, is very different.

As a brief comparison, Tell al-Hawa has a ring of, at least, ten or more sites clearly surrounding it at a regular distances between 3,5 and 4,5 km. No other Ninevite 5 site is to be find within this area. During EJ 2, Leilan had only two settlements, both of them located north of it (S252, 2,5 km north west and S236, 3,5 km north). The closest small villages are S251, 6,8 km south and S268, 6,8 km south east. Tell Mohammad Diyab has a very different landscape during the Ristvet's phase 2 (2800-2650 B.C.E.): the site has a ring of six sites (S260, S237, S239, S241), all of them small villages, surrounding it at a regular distance, like Tell al-Hawa, but, in this case, the distance rage is much longer. Five sites out of six are in a range between 6,5 and 7,5 kilometers in straight line from Mohammad Diyab. The last site of the list, S675, seems to be a discordant case among all the other occurrences. This tiny village less than one kilometer south east of Mohamad Diyab is only occupied in an isolated span during EJ 3, the very last phase of the Ninevite 5 culture in the region, and then appeared to be resettled by the Early Second Millennium B.C.E. This small site is a bit far away to be considered as a satellite mound of Mohamad Diyab. In comparison, the furthest satellite mounds of Tell Brak are located 1 km away. Then, this case could be considered as unique but, as long as it is restricted to the EJ 3, a restructuration of the settlement development is to be expected there, just like happened in Leilan. The phenomenon of bigger sites featuring extensions forming lower tells in the immediate vicinity of major sites is also observed at Hamoukar (Al-Quntar, Khalidi and Ur 2011) and Tell Brak (Eidem and Warburton 1996; Emberling et al. 1999: 17-26). Another argument supporting this especial position of the site of Mohammad Diyab during EJ 2 is that there are more sites inside the empty area of the Ninevite 5 period, most of them along the course of the wadi Abbas, the river that also waters the site of Mohammad Diyab, but all of them remained uninhabited at that time. This situation cannot be casual, even more when this very same pattern is repeated in other exposed cases.

However, and as it has been mentioned above, Leilan also falls into the same distance range from Mohammad Diyab than the rest of the sites, occupying a place where no small village is to be found, to the north west of the second. This fact seems a singularity among all the explained and needs to be properly explained. Maybe the two sites grew in an area with enough resources, or maybe both sites were ruled by the same people, as no signs of conflict have been reported at Leilan at that times so far.

Even though, not all sites identified during the surveys fit in the same scheme. Three more small sites less than 5 hectares are arranged following the course of the rivers Abbas, upstream from Mohammad Diyab (S238 and S261) and one more near the river Qatrani (S272), 13 km upstream from Leilan. The presence of small and rather isolated sites is not uncommon throughout all the Ninevite 5 extension. The small size of the

settlements and the central disposition of other much bigger sites make unprovable to believe that this sites could have been self-sufficient. Perhaps, all this settlement scattered without an apparent pattern were part of the same network of agricultural exploitation system than the sites adjacent to regional centers. Doubtless, the bigger settlements would have not limit themselves to exclusively exploit the lands immediately surrounding them. Another option to explain this situation is that S261 and S272 mark the easternmost limit of the Yale's university survey and, as a consequence, perhaps another site similar to Leilan or Diyab are yet to be discovered. However, this casuistic could hardly explain all the occurrences of apparently isolated small villages at this period.

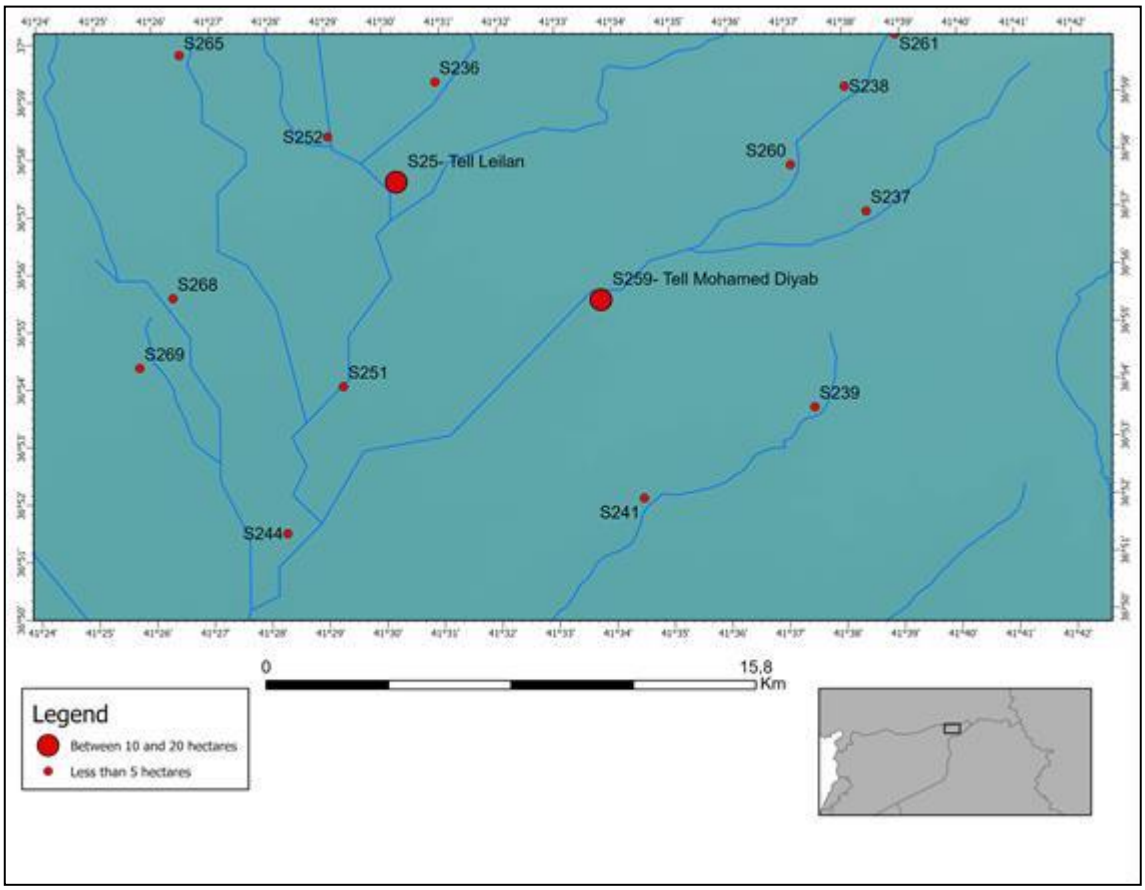

Figure 26. Region around Tell Leilan and Tell Mohammad Arab during the EJ 2 period.

Further to the north, near the Turkish border, the site of Dugir is surrounded by seven more sites corresponding to the same time lapse than Mohammad Diyab and Leilan, 2800-2650 B.C.E. Dugir stands alone in the middle of the course of a tributary of the Harrah river that, at the same time, stands in the middle of other two rivers, the same Harrah and Safaui. All the small settlements are located near the courses of the Harrah and Safaui rivers, and Dugir is the only site on this chronology to be found in the banks of its river so far (Figure 26). According to the surveys, this statement is valid also for the Late Ninevite 5. On the contrary, the study of the pottery recovered on the survey did not

identify the presence of any settlement in the whole region of Dugir (Figure 27), so, according to this data, we should believe that all this area was entirely depopulated (Ristvet 2005).

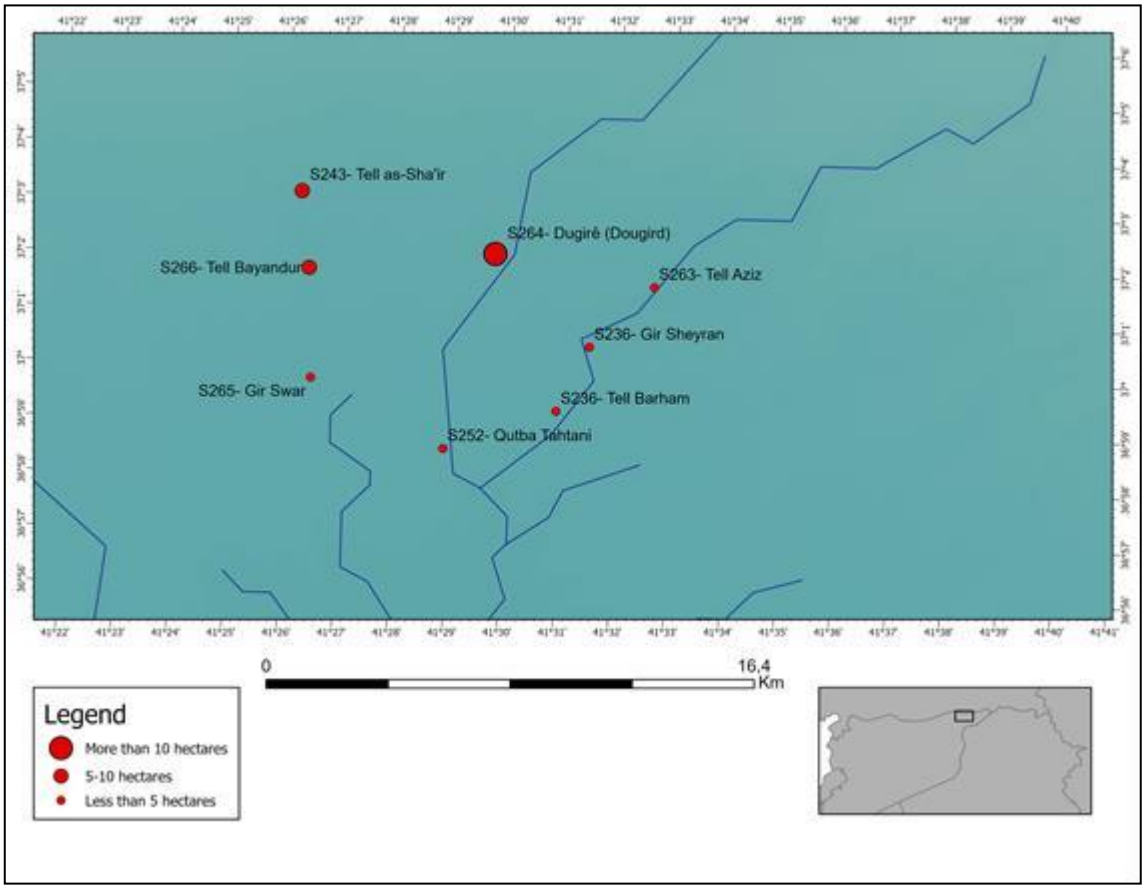

Figure 27. The spatial distribution of Ninevite 5 sites around the central site of Dugir (Syrian Jazeera) during the EJ 2 phase (ca. 2800-2650 B.C.E, according to Ristvet 2005: 228).

The spatial distribution at Dugir would left a similar frame than that of Mohammad Diyab. The site stands alone in the middle of an area that would be otherwise suitable for living. In fact, at the very end of the Ninevite 5 period, another site was identified 3,5 km downstream, where no other settlement had existed before (Stein and Wattenmake 2003: 367-368; Ristvet 2005: 297, 310). Moreover, other sites appear to be founded near Dugir by the early second millennium onwards (Ristvet 2005: 244).

Regarding the distances, in this case, are not so regular than in Mohammad Diyab or Tell al-Hawa, but this could be explained for environmental reasons. The sites surrounding Dugir are arranged following the courses of the rivers, and that probably provoked that, the ones located more to the south were at a major distance than those located upstream. Dugir is located 5,5 km east of sites S243 and S266, and 4,5 km west of S262 and 263. At the same time, it is located 6 km north east from S265, 7 km north ofS252 and 5,5 km north west of S236. Those distances are explained by the courses of the

rivers rather than an intentional reason, but the lack of sites near Dugir and along the wadi in which is located is notorious. Also, the distances between neighboring surrounding sites is much reduced that the distances between them and Dugir. The distance between S265 and 252 is 4,4 km, representing the major distance by far between two small villages. All the other sites are located at distances ranging from 2 to 3,5 km at most, but all of the northernmost sites, the closest to Dugir, are all located less than 2 km from each other. It is interesting for the regional pattern to understand why the two outer wadis were so overcrowded of sites and the central wadi remained exclusively occupied by the site of Dugir until the end of the Ninevite 5 period.

Regarding the size of the sites, all of them are ranging from 0 to 5 hectares except for two, S243 and S266, both of them ranging from 5 to 10 hectares and located 2,5 km to each other. The presence of middle ranging sites close to major settlements is a reality also observed at the Tell al-Hawa region. Also, the site of Tell Sha'ir, S243 was briefly excavated by Suleiman Elias, from the General Directorate of Antiquities and Museums of Syria, but, unfortunately, very little information about its results was published in a succinct paper (Elias 2004/5) and in a congress communication[5].

The western limit of the Yale's survey is much more difficult to interpret. The two biggest sites for the chronological frame discussed, S258 and S211 are located on the western edge of the survey, and none of them features a singular position on the landscape. On one hand, S211 appears totally isolated and the closest small village is S254, 5,5 km south east. On the other hand, S258 is close to four minor sites, but, in this case, a possible arrangement of the small villages around this site is doubtful. The distances between points doesn't seem especially coherent, ranging from 2 km for the closest one to 5,5 km the furthest.

Other minor sites were identified totally or partially isolated in the landscape. For example, S267 is located seven km west of the cluster of sites around Dugir, but no other site, neither minor or major is to be located near. Also at the other site of the Turkish border, an arrangement of four sites was identified south of the first ranges of the Taurus mountains (S106, S672, S673 and S674), but many details on these sites are unknown due to the limited range of the survey in which they were identified (Uysal 2006).

The first half of the EJ 3 (2600-2500 B.C.E.) brought important differences in the relationship between Leilan and the rest of the settlements. Leilan itself grew massively

[5] As far as I know, the only information available on this site's excavation was released in a short article quoted above, and on the frame of the 2015's International Syrian Congress on Archaeology and Cultural Heritage. Unfortunately, no information was published in the proceedings of that congress, and all we have is a brief summary of Suleiman's talk. Elias 2015.

in a short span of time from 15 hectares to 90 and greatly expanded its low settlement in an urban enlargement that has been described as a planned development (Ristvet 2005: 59). At the same time, the surrounding wall was also built by 2600 and remained across the Akkadian period (Ristvet et al. 2004; Ristvet 2007). Regarding the other major sites, Dugir and Mohammad Diyab remained the same, 'Aid slightly grew and reached the size of the previous ones (10-15 hectares) and a new site, Tell Farfara (S256), emerged as a small village in the western edge.

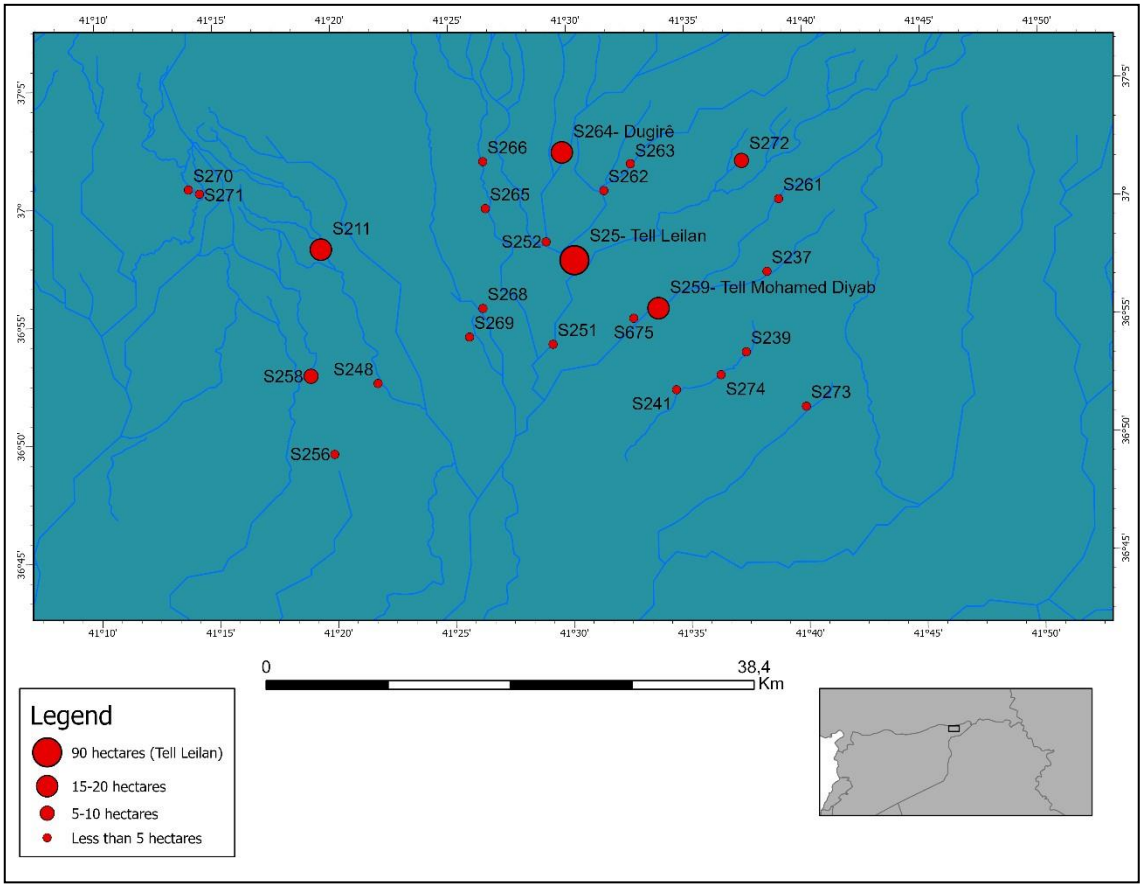

Figure 28. Area of the Yale survey during the EJ 3a phase (2600-2500 BCE). Note the total depopulation of entire areas, specially the southern section of the region, and the reduction in size of some sites.

In general, the region witnessed a slight fall in the total area settled following the expansion of Leilan. Of all the small and medium sites at the western edge of the Yale's survey, almost all the small sites were abandoned except S248. S258, Tell Gazhal, a site cataloged before as a 5-10-hectare site remain the same, so, 'Aid remained as the only site in this area that enlarged its limits. Near Leilan, some sites surrounding Dugir (namely S236 and S243, and S266 that was reduced) (Figure 29) and some others near Mohammad Diyab (S260, figure 30). Probably part of the population of this abandoned sites moved to Leilan, but it also true that other small villages were also founded near Mohammad

Diyab (S274) and in isolated spots (S273), but these new foundations cannot receive the excess of population because more villages were abandoned than founded.

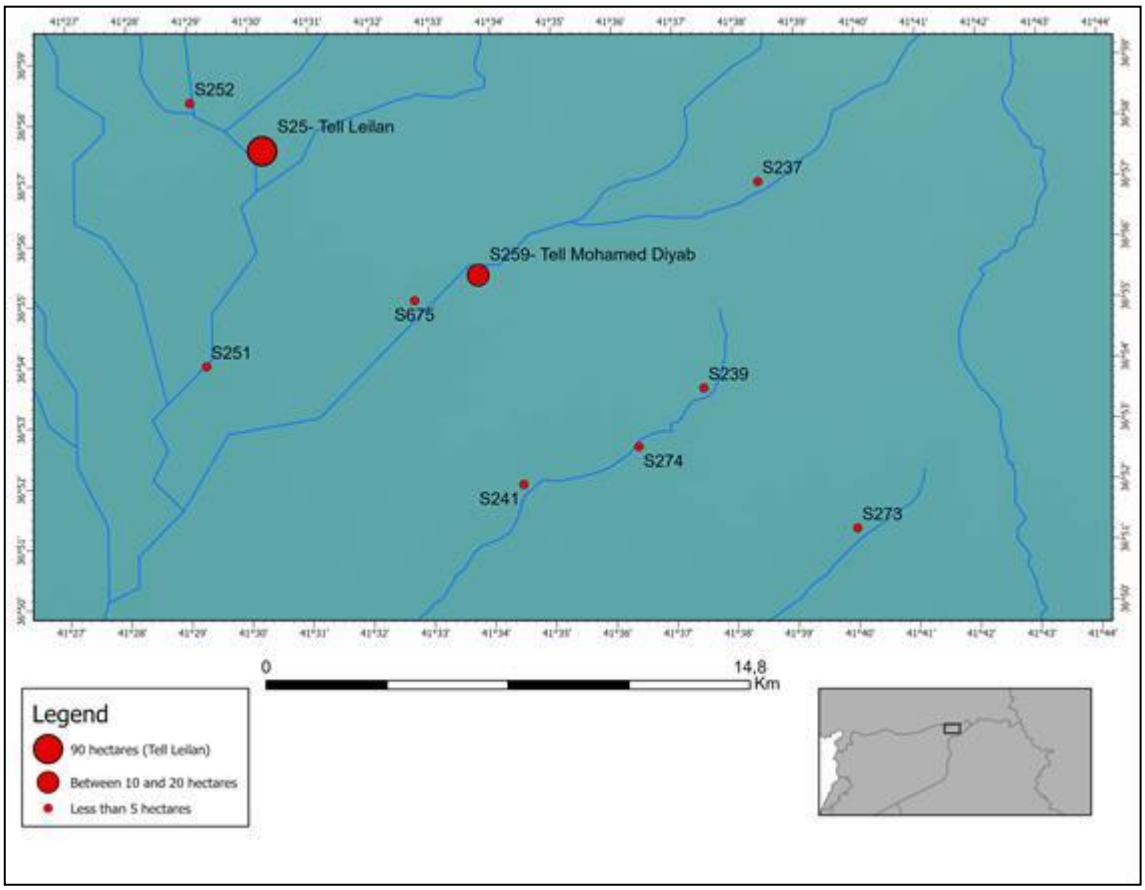

Figure 29. Surrounding areas around Mohammed Diyab and Leilan during the EJ 3a phase.

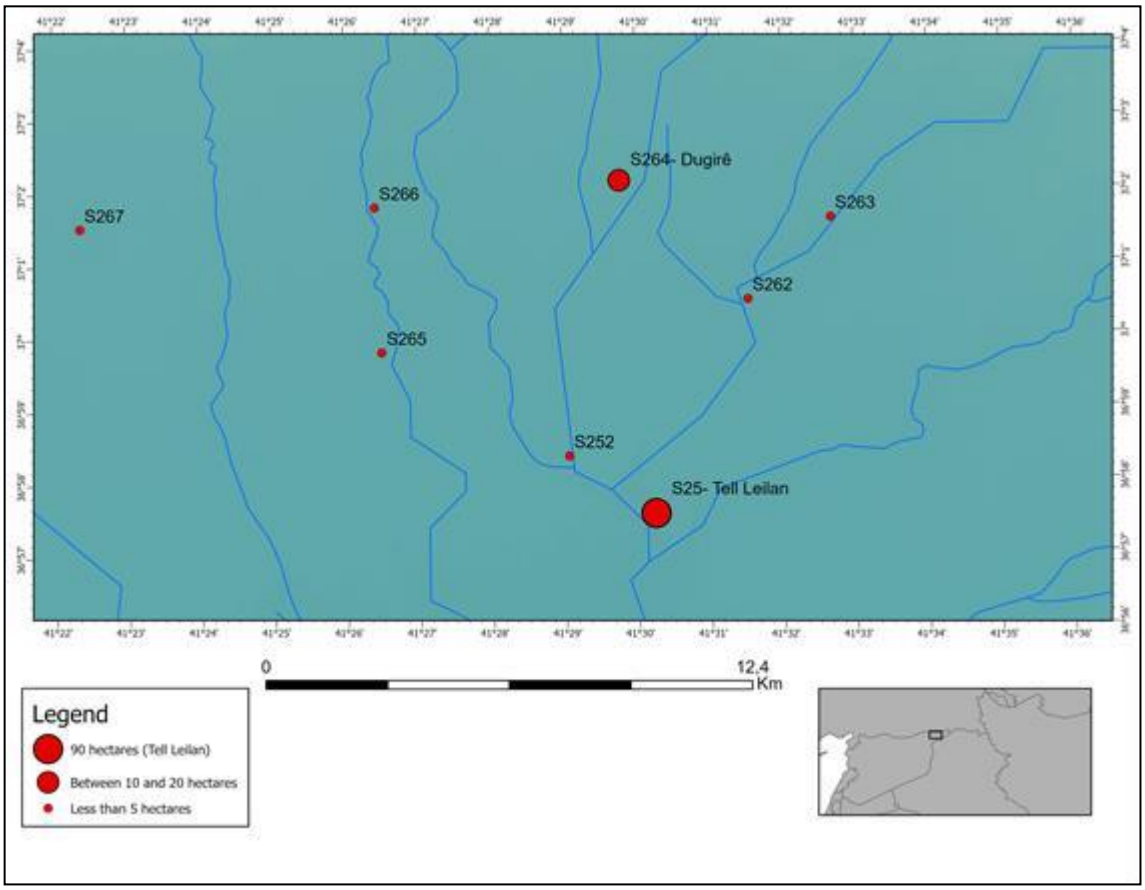

Figure 30. Region around Dugirê during the EJ 3a period.

However, considering that the growing of sites at some regions, it is also noteworthy that some other regions and sites loose population, such as the region around the site of ‘Aid, even with the growth of this site (Figure 28). Other regions even become totally depopulated, such as the southernmost region of the Leilan survey, that, otherwise, was already much less populated than the northernmost region during the EJ 2 period, but the already low population disappear completely during the EJ 3a, signifying an important switch in the settlement pattern (Figure 28). The southern region had been an important center of population because of the presence of the important site of Tell al-Andalus, signifying an important change in the general settlement pattern.

Beyond the western limits of the Leilan survey, some more sites considered to be large urban centers have been excavated, but the information on the landscape surrounding these sites is rather limited. The sites of Chagar Bazar (S27), with an estimated size of 10-12 hectares (McMahon 2009: 21) Tell Arbid (S28), with an estimated 40 hectares (Smogorzewska 2020: 119) or Tell Mozan (S119), that reached an impressive 120 hectares during the EJ 3 phase, after a huge development (Pfälzner 2010: 4). Unfortunately, these sites have been object of different excavation campaigns, but no intensive surveys have been carried on around them. The site of Tell Arbid was firstly tested by Max Mallowan (1936), and later excavated by a Polish led by Piotr Bieliński

from the Polish Centre of Mediterranean Archaeology, University of Warsaw from 1996 to 2010 (Mateiciucová et al. 2012; Bielinski 2010; 2012; 2019; Bielinski and Bielinska 2019). Around Tell Arbid, only two other additional sites are known less than ten kilometers away (S467 and S470). Also, the information available on this sites is very limited, as we only know that site S467 is less than 2 hectares in size, and S470 is seven hectares, but considering all the periods of occupation. This site, however, is one of the few medium sites archaeologically investigated in the Syrian Jazeera that yielded Ninevite 5 remains. Tell Mozan, for his part, has five sites in its close vicinity, of which three of them (S486, S485 and S164) are less than two hectares, while the remaining two (S526 and S483) are of unknown size. Regarding the distances and position, Tell Mozan is located in the middle of a river, possibly isolated in all of its course, while four sites (S486, S485, S483 and S164) are located near the main flow of the river Dara, to the west of Tell Mozan, and the remaining site is located in another tributary river to the east of Mozan. However, even when it is tempting to compare the case of this site with the case of the site of Dugir, the data available in this case is much scanter, and the evolution of population is, nowadays, impossible. For the last case, Chagar Bazar, only one site of unknown size is known four kilometers west of this urban center (S525), a situation clearly insufficient to infer any spatial pattern.

4.1.1.10. The Central Syrian Jazeera (Tell Brak Region to the Turkish Border)

The central region of the Jazeera embraces areas of the sub-districts of Qamişlo and Amuda, in the district of Qamişlo, and the sub-district of Bir al-Helu, in the district of Hassakah. Most of the information that we have comes from the 2002-2003 regional survey and the survey focusing the countryside around Tell Brak (Figure 31), one of the most important and well-known sites in north-eastern Syria (see chapter 2 of this work). Already during the Uruk period, the site of Brak was a very important urban center between 110 and 160 hectares, one of the biggest Uruk sites in northern Mesopotamia (Charles et al. 2010: 188), and had monumental architecture and other evidences of central organized craftsman production. Some authors have linked the relevance of this site with the control of important trading routes with Anatolia (Oates et al. 2007: 586-87). However, this is not the only case of a relevant urban or almost urban Uruk sites complementing the spread of small villages, as stated in the Eastern Jazeera section.

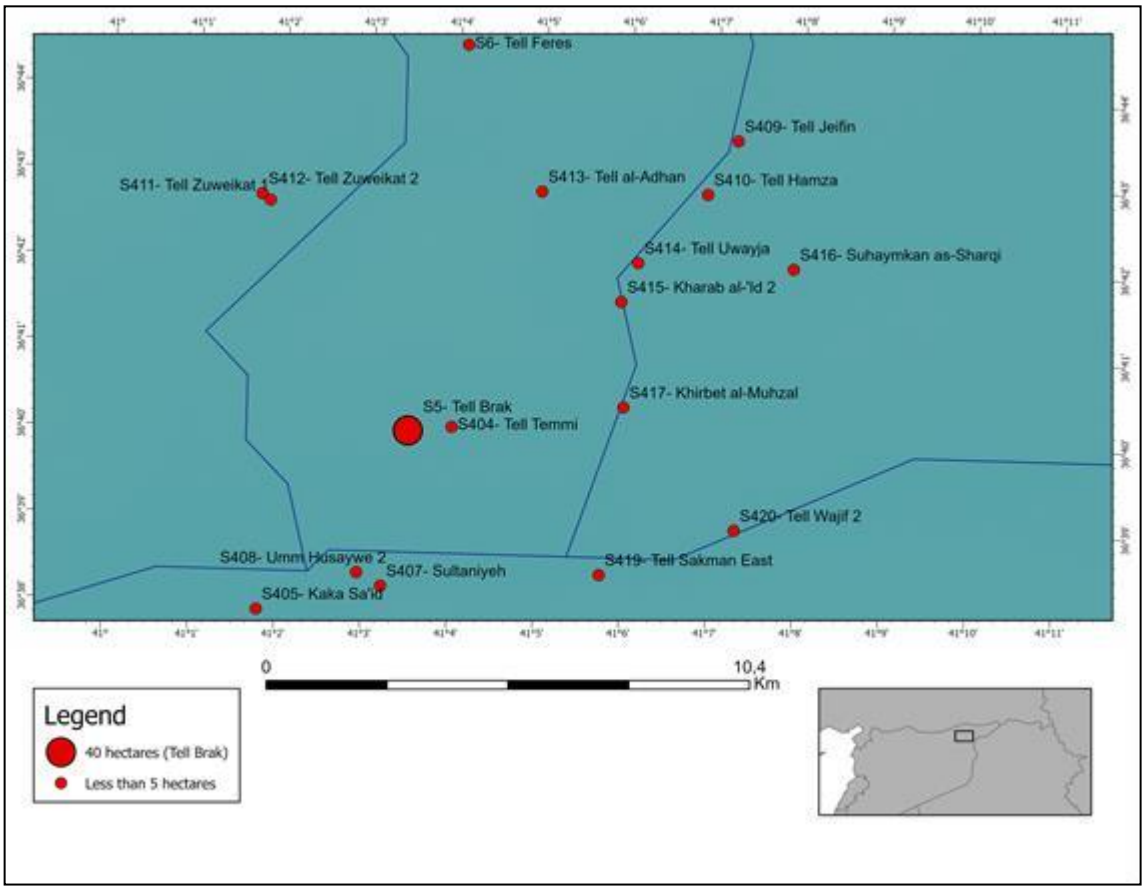

Figure 31. Region around Tell Brak and its main rivers and surrounding settlements.

This event in Brak appears to be much like Tell al-Hawa, sites that reduced its size from Uruk period to Ninevite 5 period, but the case of Tell Brak covered an extreme reduction to about 40 hectares in total size (Bright et al. 2006-2007: 11; Ur 2014: 56). Another noticeable feature is that Tell Brak have a surrounding area empty of other contemporary settlements and limited by the course of the river Jaghjagh, which flows toward the north and limit the location of a number of minor sites. However, even when this structure was maintained during Ninevite 5, as in other cases discussed above, it existed already in Uruk times, and this space could also fulfill a similar purpose: holding an agricultural zone free of settlements in order to ensure a source of food for the settlement's inhabitants (Wright et al. 2006-7: 11), but with an outer ring with many minor sites surrounding Brak on all its sides (Oates 2002; Ur et al. 2011: 6). Then, it becomes necessary to explain if this free-of-sites area meaning was maintained during Ninevite 5 with the same signification or if it emerges as a completely different way of spatial organization.

As other authors have noticed before, most of the settlement throughout all periods tends to concentrate near the junction of the rivers Jaghjagh and Radd (Mallowan 1947: 11), to the south east of Brak than upstream of the first, and downstream of the second.

However, the fact that this historical concentration merges many sites from different periods in a quite reduced area makes more difficult to infer a particular settlement pattern for each one of them. What is clear is that the traditional tendency of a slight reduction of settlements and inhabited hectares between the end of Uruk period and the beginning of Ninevite 5 period is maintained in the Tell Brak area. The most evident reduction occurred in the immediate vicinity of Brak: the site itself had three (or perhaps four[6]) satellite mounds encircling the main mound, but only one of them, Tell Temmi (S404), existed during Ninevite 5 period (Figure 32). These occupations were also evidenced by test trenches excavated in the site S404, in which slight Ninevite 5 occupations where reported (Emberling et al. 1999: 19).

Figure 32. Tell Brak and its immediate surrounding landscape, as seen in CORONA imagery. The main mound visible above the surface along with the lower town/satellite mounds, which stand out against the lighter agricultural lands outside the anthropic-originated terrain.

In the countryside, up to eleven sites were occupied during Uruk period and later abandoned during Ninevite 5, while only three sites showed the opposite way (Eidem and Warburton 1996: 56-57). This data is completely coincident with that obtained from Hamukar and Leilan's areas. Unfortunately, no phases were established within the

[6] At this point the existence of a possible fourth Uruk satellite site has been quoted in some publication, but the site seems to have been destroyed in the lapse of time in which it was first recognized and the course of the archaeological operations in the 90's that registered most of the sites we do known now. Emberling et al. 1999: 23.

Ninevite 5 period by the survey team, so, we cannot know whether all the Ninevite 5 sites were active at the same time or a lapse occurred between the abandonment of Uruk sites and the foundation of new Ninevite 5 settlements. Nevertheless, the evidences for new foundations in Ninevite 5 are so scarce that this element would be unimportant anyway. Also, even when we are lacking of a list of sites, we do know that the total amount of Ninevite 5 in the area surveyed in 2003 (far beyond the Tell Brak surrounding area) is 40, a discrete number in comparison to the sites registered for the mid-4th millennium (Wright et al. 2006: 17). Again, this decrease is totally coincident with the data from Leilan.

Regarding the distribution, according to the summary of the 2002/3 survey, it seems that a network of mid-4th millennium sites appear arranged north of Tell Brak, but this material does not specify the presence of Ninevite 5 sites, so, we are prevented from comparing both periods. However, some insights can still be given. First of all, four sites are known north of Tell Brak. Out of this four, two of them, Tell Zuweikat 1 and 2 (S411 and S412 respectively) are located 50 meters one from another and both have one hectare in size, and their occupation history is quite interesting. Zuweikat 2 was founded in Ubaid period and occupied throughout Uruk and Ninevite 5 periods onwards. Zuweikat 1, conversely, was founded during Ninevite 5 period and lasted for a similar time (Eidem and Warburton 1996: 56-57, 60). The fact that both of these sites are so close makes unlikely for them to hold separate realities, but the similar occupations may suggest an extension of the settled area during Ninevite 5 that originated two tells instead of one. This very same situation is observable at Dugir (as its own name in Kurdish says, two mounds), where both of the mounds that forms the site were occupied mostly during Ninevite 5, but the urban process made the population to be divided in two closely related cores. The same perspective was found at Tell Brak and its Late Chalcolithic extensions, where separated low mounds with urbanism that appears to be physically separated from the high mound. The Tell Brak team theorized this sort of expansion as identifying distinct social sub-groups living in a sort of neighborhood communities (Ur et al. 2011: 8).

Another of the four northern sites, Tell Feres (S6), was excavated from 2006 by a French team (Forest and Vallet 2008; Forest et al. 2010/1), and the results couldn't be more interesting. This site is, like in the cases stated before, composed of two tells but, on the contrary, the eastern (Sharqi) tell was occupied during Late Chalcolithic period and the western one (Gharbi) was during Ninevite 5 period. Interestingly, the biggest extension apparently was reached during LC, and the Ninevite 5 site would have been significantly smaller (Forest and Vallet 2008: 192). In the eastern Tell Feres, nine architectural layer were found, among which a large communal building, firing places for pottery production, granaries and domestic structures were found. Most of this remains were dated to Late Chalcolithic period, but also from an Ubaid phase (Baldi 2012; 2013: 50).

By the LC 5, the Late Uruk period, the site of Tell Feres al-Sharqi was already abandoned, and the excavators theorized that the last remnants of population at the site would have been moved to Tell Brak (Vallet 2018: 169). Nevertheless, this assumption seems to not to find its counterpart in Brak. According to the surface survey around Brak, the sherd scatters point to that the maximum peak size was reach during Late Chalcolithic 3-4 (an estimated 130 hectares), and the Late Chalcolithic 4-5 Brak experienced a major reduction in size, with many areas of the low town being abandoned and the settlement mostly getting concentrated in the main tell (Ur et al. 2011: 6-9). Perhaps, this evidences could be pointing to a slightly earlier settlement collapse than that happened at the region of Tell Leilan, and the huge drop in the transitional and Early Ninevite 5 could have started to happen already during Late Uruk period, at least in the tell Brak region. Also, this image of early collapse supported by excavation (in the case of Tell Feres) and surface survey (at Tell Brak), is mostly invisible in the countryside because the same parameters were not applied on the major survey's dataset (mostly because the analysis has never been completed).

The major evidence that the survey team found to identify LC 4-5 assemblages was the stratigraphicaly identification of Southern Uruk forms appearing for the very first time during LC 4. This fact could make the classic southern assemblages a good marker for this later phases of the LC, at least at a regional level (Ur et al. 2011: 6-9). However, this marker is pending of new excavations and a possible completion of the study of the data from the different surveys carried out.

4.1.1.11. The Western Syrian Jazeera (Tell Beydar Region)

The eastern Jazeera is a land comprised between the district of Serêkanî/Ras al-Ayn and the north eastern part of the governorate of Hassakah. The region is limited to the west by the course of the River Khabur, and conditioned by the flow of minor tributaries flowing north of the city of Hassakah. Some important sites have been excavated in this area and yielded Ninevite 5 remains, namely the sites of Chagar Bazar (S27) and Beydar(S13), but information on the landscape is far more scarce than in the previous cases (Figure 33). Outside of the area of Beydar, only occasional occurrences are known: for instance, the site of Tell Ailum (S436), excavated in the 50s, is known to have yielded incised/excised Ninevite 5 pottery (Mootgart 1957/8).

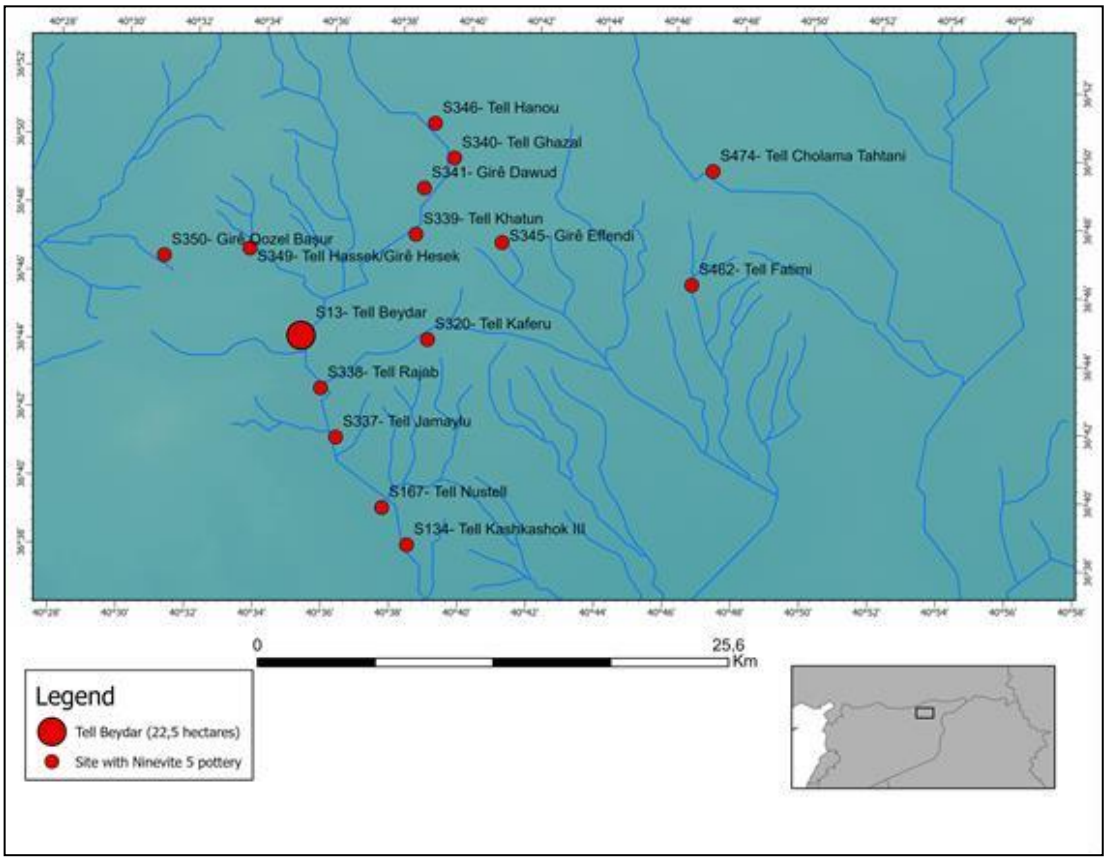

Figure 33. The Tell Beydar region, focusing the course of the River Aweij.

Betille Lyonnet led a survey in the 90's and covered a huge portion of the Jazeera, from the surroundings of Chagar Bazar, north east of the city of Hassakah, to the course of the Khabur River. However, this survey presents some problems and difficulties for the interpretation of the data about the Ninevite 5 settlement. First of all, the most evident difficulty is that, as she introduces in the first volume of the survey's publication (Lyonnet 2000), it was supposed to be the first of three volumes dedicated to the study of the periods represented in the ground survey, but the other volumes were never published. This first volume assumes the study of the earliest phases identified in the survey, but the absence of further publication left the other periods, among which the Ninevite 5, entirely unpublished. Another important difficulty is that this survey only classifies sites using the general label of 1st half of the third millennium, and never gets into the actual distribution of Ninevite 5 pottery. Even the word Ninevite appear only once in the whole volume, so, is to be expected that the analytical possibilities derived from it was so limited. Of course, no phases are stated for each single period, and it's impossible to infer different stages of development of the settlement patterns.

However, in another publication, Lyonnet went a little bit further an included a brief distribution of Ninevite 5 sherds identified during the surveys. Surprisingly, the occurrences of this type of pottery are quite rare in the course of the Khabur, that is, the

western limit of the Jazeera, while the biggest concentrations are to be found in the northern section of her survey, more close to the Turkish border and near the course of the Jaghjagh River in the south (Lyonnet 2001: 18; Ur and Wilkinson 2008: 307).

At the site of Chagar Bazar, Max Mallowan's excavations considered levels 4 and 5 from the sector BD as bearing Ninevite 5 occupations, but the contexts that he uncovered where pretty limited (Mallowan 1937). During the excavations, streets, possible private houses and also a room identified as a shrine were discovered but, according to the revision made by Roaf, the plans published by Mallowan seems to be representing various structural phases all together in the same drawing, without any interpretation on the chronological adscription for each structure, aside of the general Ninevite 5 classification (Roaf 2003: 312-3).

Another more limited survey was carried out in 1997 in the immediate vicinity of Beydar but, unfortunately, it covered a small area around this site. This survey is focused on the land around the River Aweij, a tributary of the Khabur River that hosts Tell Beydaron its riverside, as well as other amount of sites generally disposed following its course or the course of other smaller streams or tributaries (Sallaberger and Ur 2004: 60). The relationship between the patterns during Late Chalcolithic 2-3 and Late Chalcolithic 4-5seems to fit very well with the data obtained in the Tell Brak region. In LC 2-3, a great expansion in the number of sites with a dramatic drop during the LC 4-5 (Ur and Wilkinson 2008: 307). However, the evidences for this low occupation (from 27 in LC 2-3 to only two in LC 4-5) is entirely based in the presence or absence of southern Uruk assemblages (almost exclusively beveled rim bowls), a condition that seems solid as attested in other sites from the Middle Euphrates area (Rova 2007: 10).

The comparison between LC and Ninevite 5 settlement patterns in the region of Beydar also yielded interesting results. The number of LC sites, as it was usual throughout all the Jazeera, decreased at the Ninevite 5 period, both in number of settlements and in hectares, but the emergence of the site of Beydar absorbed all the hectares lost after the abandonment of an important number of LC sites. Beydar yielded no evidence for any LC period (Alexander 2013: 135), but during the Early third millennium it was already a relevant 22,5 hectares' site (Ur and Wilkinson 2008: 307). This data is unequivocally pointing to this site to have drawn the entire population that abandoned the deserted sites after the LC 4-5 crisis.

The Surrounding landscape of this Early third millennium Tell Beydar is entirely constituted by small villages arranged around it and also along the course of the Awidj River. However, a particular pattern is hard to see: four sites seems to be circling Tell Beydar, S338, S320, S339 and S349, and no site is less than three kilometers close to the

site, but three of them are more than 4,5 kilometers from Beydar (S338 is the closest site). The remaining landscape is much more difficult to analyze as not much data on the identified sites is available.

Yet another source of information for Ninevite 5 period in this area is to be found just noth of Hassakah city (Figure 34). Here, two tiny dam reservoir flooded a small area in which several sites were included, and most of them were salvaged. Some relevant Ninevite 5 occupations were retrieved at sites like Kashkashok 3, site S134 (Suleiman and Taraqji 1995; Munchaev, Amirov and Suleiman 2011.) or the Abu Hijairah cluster, site S162 (Martin and Wartke 1993/4; Ur and Wilkinson. 2008: 307) or Tell Raq Shaqrah, S153 (Bielinski 1995) or Tell Abu Hufur (Kolinski and Laweka 1992). To the north, another site that remains mostly outside of the drowned area was salvaged, the site of Tell Nustell (S167), and, even when some Ninevite 5 remain have been reportedly found at this site, the published material does not offer detailed information (Seeden 1991). Unfortunately, no site stood up as a relevant major center, and all the sites were arranged following the course of the River Aweij without any particularity rather than following thewater flow.

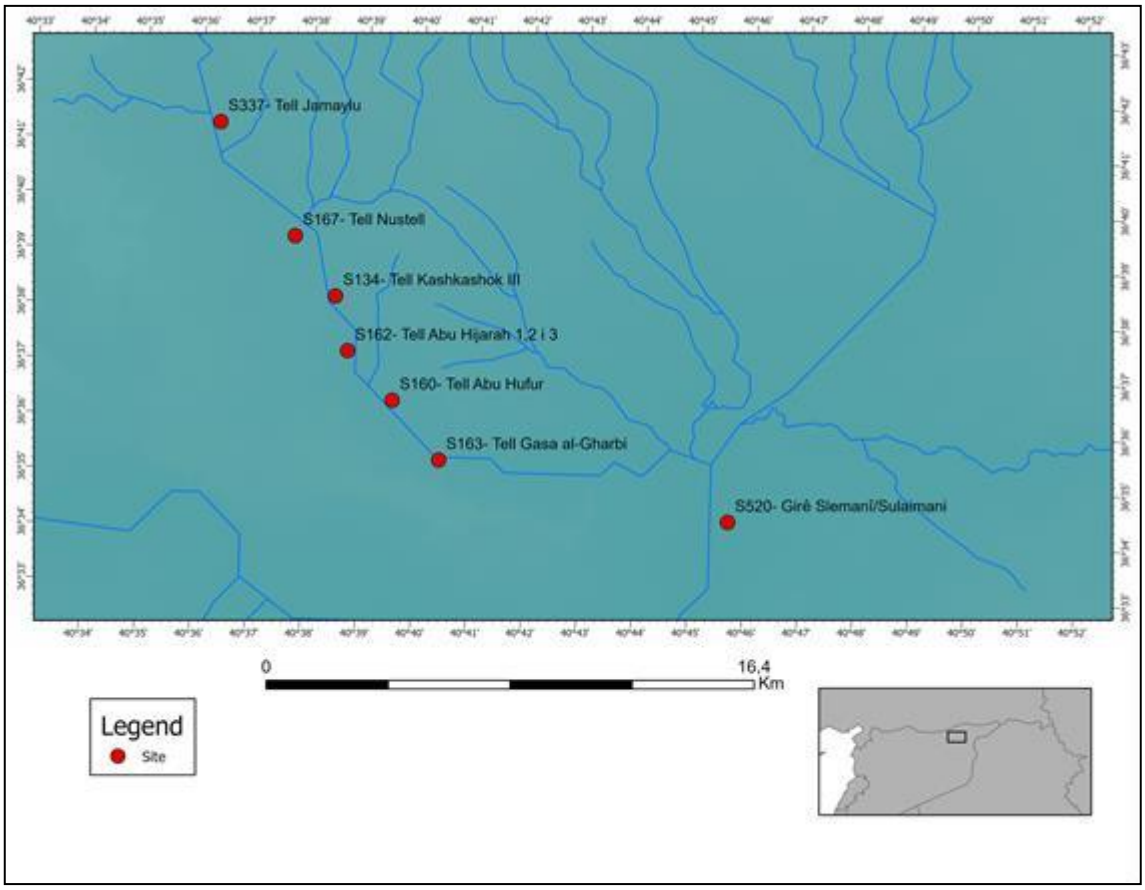

Figure 34. North Hassakah dam plan. Site S163 is almost always underwater, S160, S162 and S134 use to be and S167 is occasionally. S337 and S520 are outside the dam's range.

4.1.1.12. The Middle Khabur (South Hassakah)

The construction of the Middle Khabur barrage south of the city of Hassakah prompted a series of archaeological surveys and excavations along the riversides of its main flow in the late 1980s and early 1990s. As a result, a landscape similar to that found in the Eski-Mosul dam area was revealed: many small sites are arranged along the banks of the river without any evident hierarchy; no site appears to be significantly larger or strategically positioned for controlling agricultural resources or trading routes (Figure 35).

The ancient landscape was heavily influenced by the flow of the Middle Khabur, a navigable water source that flowed from the north towards the south, where it met the main course of the Euphrates. The Middle Khabur region may be regarded as an area rich in water and resources, surrounded by desert areas to the west and east, large wastelands whose climate and landscape differ greatly from those found along the riversides. However, despite the apparent image of this area as a fertile riverside, the arable land and average rainfall during the first quarter of the third millennium are considered rather poor, even compared to the lands of the Syrian Jazeera, further to the north. Nonetheless, the region has proven to have been densely inhabited during this period of the Early Bronze Age, as demonstrated by the many excavations carried out.

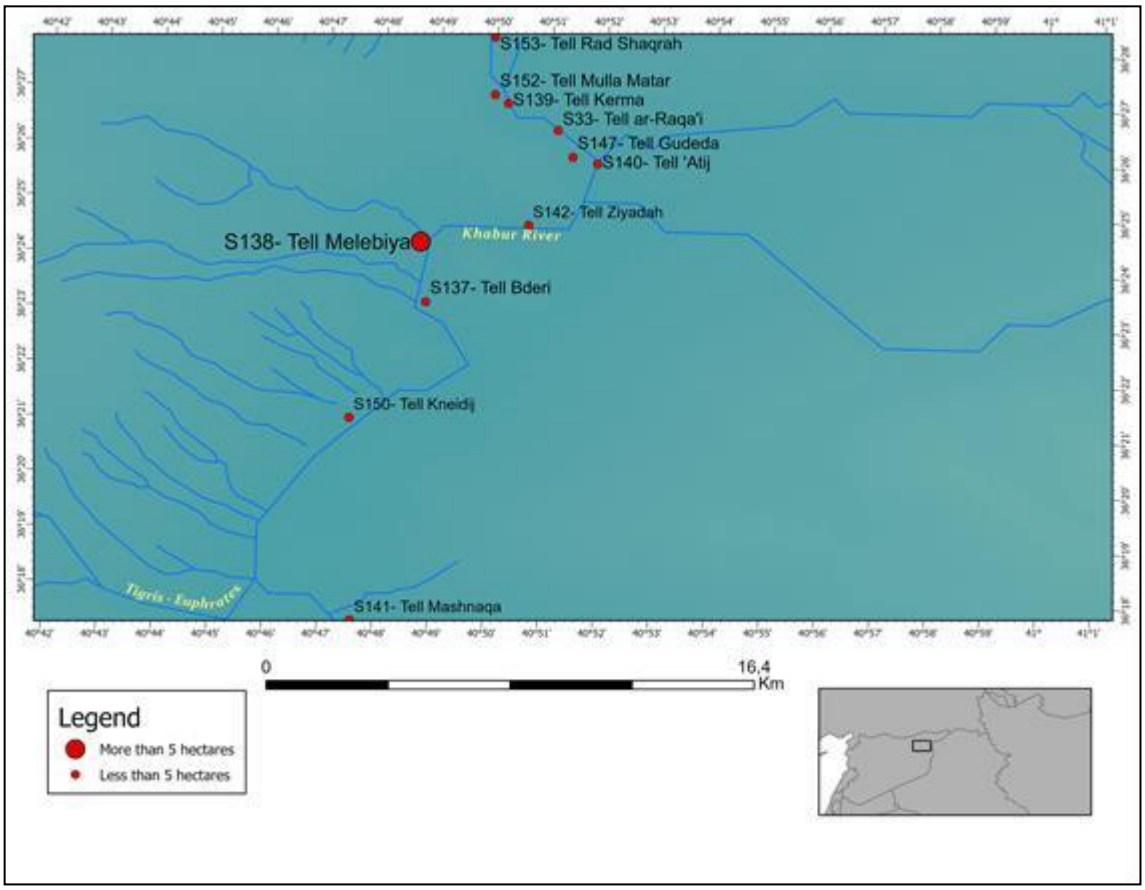

Figure 35. The Middle Khabur area prior the construction of the dam. The main flow of the Khabur and its tributaries to the west are shown, but the tributaries to the east are omitted due to a lack of survey on this sector that was not going to be affected by the lake.

Out of fifty-five sites discovered during the initial survey (Monchabert 1983), twenty-two were found to have been either founded or expanded during the Early third millennium (Hole 1999: 267-8). Nevertheless, some sites seem to have had some previous populations during Ubaid and Uruk periods (Hole and Tonoike 2016: 109), but both the previous surveys and excavations have shown that these sites at previous Chalcolithic periods held very limited population prior the beginning of the third millennium (Monchabert 1983: 235-6). The Late Chalcolithic 4-5 populations were concentrated in small rural sites such as Tell Um Qsair, and the ceramic assemblage attested at these sites includes southern Uruk beveled rim bowls, such as present in most of the LC 4-5 assemblages in northern Mesopotamia (Tsuneki 1998; Tsuneki and Miyake 1998: 146-49).

As well as on the Eski-Mosul dam area, some sites were identified as having had a Ninevite 5 settlement, but this occupation has only been identified as a scattered or out of context pottery sherds belonging to this period. An example of these cases is the sites of Mulla Matar (S152), where Early Ninevite 5 pottery was retrieved in altered contexts (Sürenhagen 1990). Also Tell Tuneinir (S158), a massive site with important later

occupations, a fact that, as usual in all the Near East, hides earlier occupations. Then, even when Ninevite 5 material has been identified there, our knowledge on the period is very much limited by the massive size of the later settlement (Sarre and Herzfeld 1911: 194; Weiss 1997b: 144-5; Fuller and Fuller 1998).

The biggest sites with Ninevite 5 remains are no bigger than six hectares, a situation that reminds the patterns in the Eski-Mosul dam, with the bigger sites being approximately this very same size. Tell Bderi (137) is one of this regional large sites, about 5,8 hectares in size and the earliest occupation layers belonged to the Uruk and the Early third millennium, with Halaf material also appearing out of context (mozan1986/7a; 1989/0; 1990: 66), but it was in the third when the site was inhabited in the vast majority of its settled area. Interestingly, Ninevite 5 incised ware was found in context with a massive wall and a city gate reinforced with stone orthostats that lead inside the settlement. Nevertheless, only incised Ninevite 5 pottery appeared and it was in relation with MetallicWare pottery, while the Ninevite 5 style is barely mentioned once in all of the existent reports from the salvage excavations (Pfälzner 1990: 217/8).

A site with an extensive urbanism is Tell Melebiya (S138), located 2km north of Bderi and excavated by a German and a French teams. However, just like in the Bderi's case, only a very small percentage of the total amount of pottery (only 0,18%) was Ninevite 5, and only sherds from the incised variety were found (Lebeau 1993: 259-60). A similar situation happened in Mashnaqa (S141), immediately to the north of the dam, where only some Ninevite 5 fragments were unearthed (Monchambert 1985; 1987: 64), as well as at Tell Gudeda (S147), with only an exiguous 0,01% of Ninevite 5 pottery attested (Fortin 1991b:71, Fortin, Routledge and Routledge 1994). This event did not pass unnoticed, as scholarsprefer to use the more general term EJ 1-2 on cases in which Ninevite 5 is so scarce that cannot determinate the Early third millennium occupation at a site (Pfälzner 1986/7b; Lebeau 1993; Hole and Tonoike 2016: 9). In general, it can be stated that the phase equivalent to Ninevite 5 in the middle Khabur region has been conventionally assigned to this name, because the archaeological records has shown that the ceramic assemblagediffers so much from that of a fully Ninevite 5 culture site (Hole and Tonoike 2016: 457).

Tell Ziyadah is a site excavated by a Canadian team led by Fortin (S142, Hole and Arzt 1998; Hole et al. 1998), and radiocarbon dating showed it as one of the earliest EJ 1 sites in the Middle Khabur, alongside with Raqa'i, populated at least from 2900 BCE (Hole 2001: 76-7). Ziyadah, a structure was discovered that was tentatively identified as a storage building (Figure 36) similar to the one identified at the EJ 1-2 site of Tell Raqa'i (S33), but no Ninevite 5 was identified to be related with that specific building. At the site of Raqa'i, a huge rounded building that has been interpreted as a granary was

excavated, as well as a household neighborhood (Schwartz and Curvers 1992; Schwartz 1993; Del Bravo 2014a; Schwartz 2015a; 2015b). However, once again, the presence of Ninevite 5 diagnostic pottery is low, and also relevant is the finding, alongside with incised Ninevite 5 sherds, of twenty diagnostic of painted pottery in level four (level three presented late incised and metallic ware and was more recent than level four), but none of it could be clearly assimilated to Early Ninevite 5 forms, and researched pointed to the possibility of them to belong to some local tradition (Schwartz and Curvers 1992: 412-4). Another interesting sites excavated during this period and related to Ninevite 5 remains are Tell 'Atij (S140), excavated by a Canadian team led by M. Fortin (Fortin 1989; 1991c; 1998b, Fortin and Cooper 1994), or Tell Kerma (S139), excavated by a Lebanese team (Saghieh 1991), and was found to be a bit later than Zidayah or Raqa'i, but still EJ 1-2 in date (Hole 2001: 77).

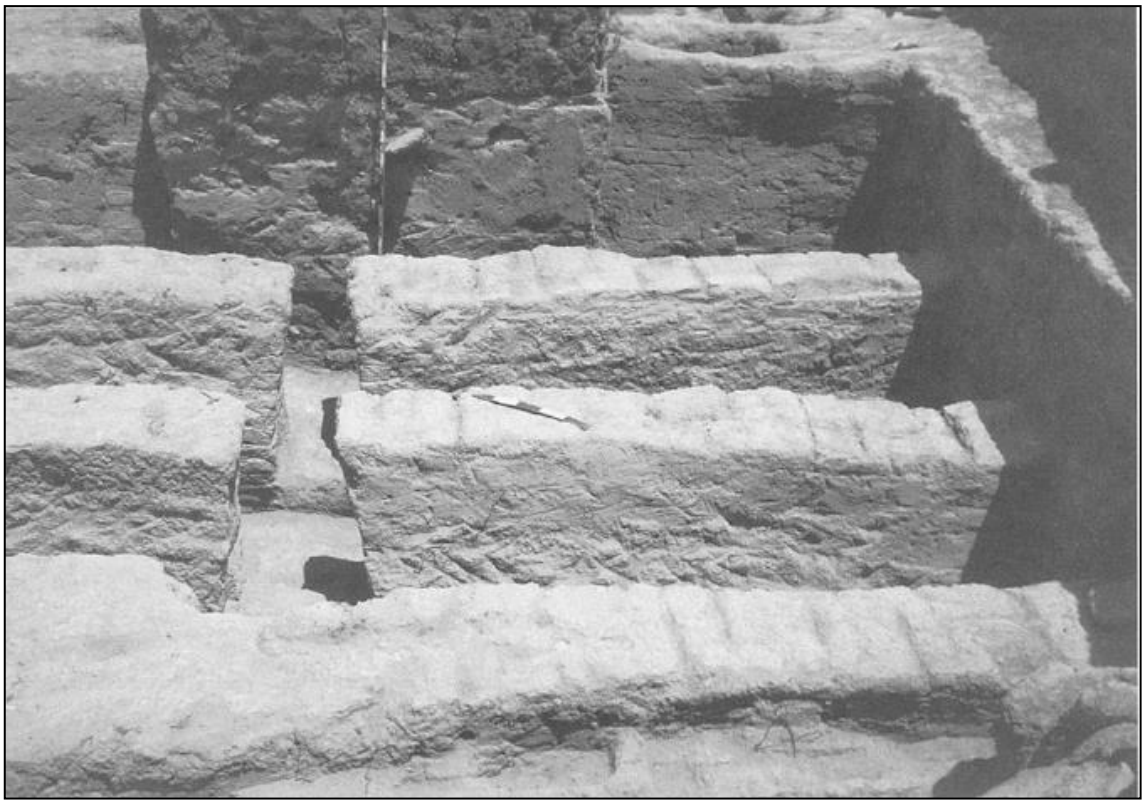

Figure 36. Grill structure from Tell Zidayah (Hole 1999: 273).

4.1.1.13. The Region of Jebel Abd al-Aziz

The mountain of Jebel Abd al-Aziz rises at a maximum height of 920 meters above the plain surface of the western Middle Khabur River, just south west the city of Hassakah,in the same province. Despite of the proximity of the Middle Khabur Ninevite 5 settlement cluster, the situation of the Jebel Abd al-Aziz seems to be much more similar

to that of a peripheral area. Three sites have been identified so far in the northern skirts of the mountain, and other two are close to the southern submit. Four more sites are scattered in a larger area, one of them as far as fifty kilometers south (Figure 37).

Only one site has been excavated in the region so far, the site of Tell Mabtuh Sharqi. The excavations were carried out by Gemezet and Suleiman in 2013, but due to the sudden death of the second, no report was ever published. This site belongs to a type of sites known as 'kranzhugel', thought this name is nowadays questioned (Castel 2020), a kind of fortified settlements with a rounded plan, an inner high mound and an outer defensive wall. This typology had its origins in the second half of the third millennium, just after the end of the Ninevite 5 period, but some sort of large urban centers did appear in the area from the very beginning of the EJ 0 (Smith 2022: 9). Other fortified settlementswere occupied during the first half of the third millennium BCE, such as in the case of Tell Beydar.

Regarding Ninevite 5 material, very little is attested in the region and all the information available comes from survey samples. Only three sites (S629, S155 and S630) were placed in the frame of the EJ 1 period, but in the cases of S629 and S630, only one or two ceramic sherds were found and, in the case of S155, one single undecorated sherd with possible parallels in the EJ 1 was found. All the remaining sites (S156, S157, S151, S148 and S510) but one, S154, that remains doubtful within the Ninevite 5 chronology, were placed in the EJ 2-3 period.

As we have seen, very little can be said about a possible settlement pattern, concerning the low amount of pottery retrieved (Koubková 2015; Koubková and Wygnanska 2018) and the absence of archaeological data. Most of the sites in the region are either very small villages or very large urban centers, but, in either of the cases, the material reality of the Ninevite 5 period remains the same. For the moment, the region around Jebel Abd al-Aziz, even with some pottery occurrences, must be taken as a peripheral area. This fact could have been provoked by the low availability of resources and the unsuitability of most of the lands to the west of the Middle Khabur flow for agriculture (Hole 1999: 267). The Middle Khabur are, in contrast, offers more extensive agricultural lands and resources, factor that could determine the preference for the settlement around the river rather than in the deserted margins, far less attractive.

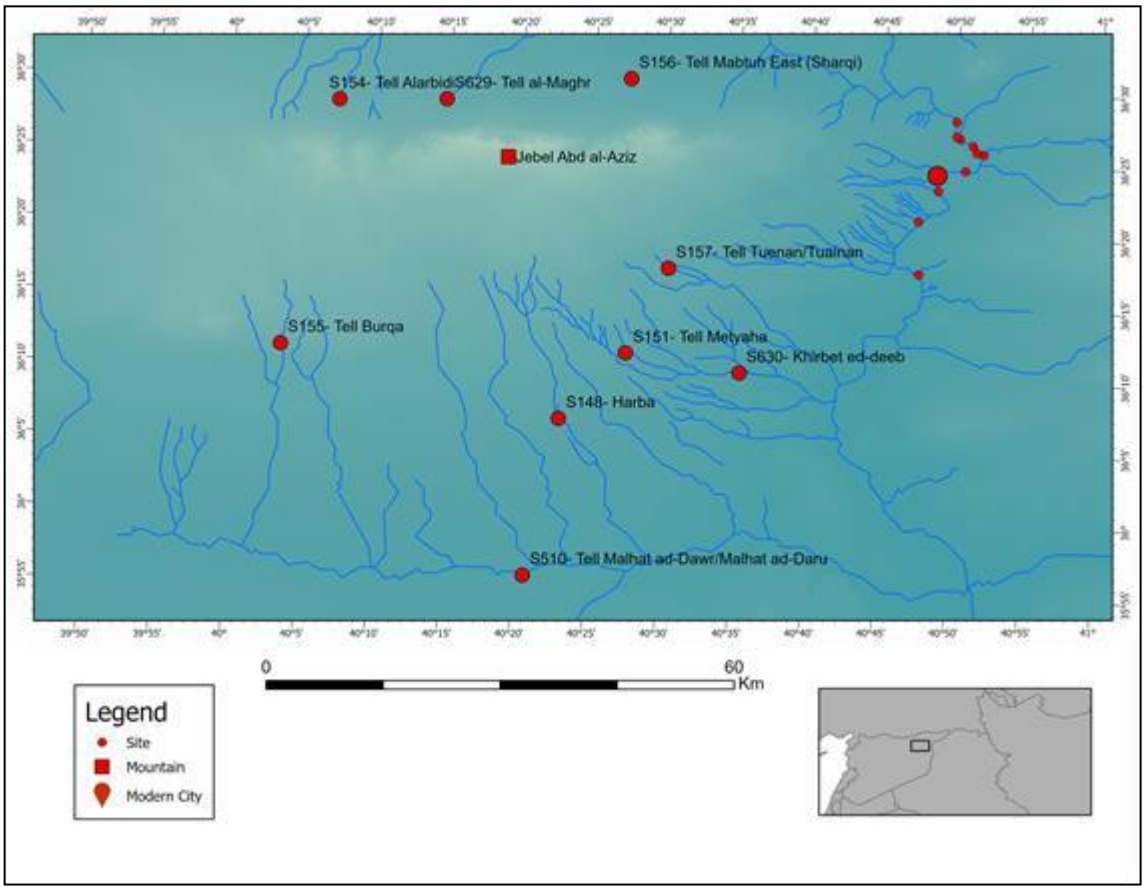

Figure 37. The wasteland area around Jebel Abd al-Aziz. The sites of the Middle Khabur region are also on display, just east.

4.1.1.14. Ocurrences in the Euphrates

In a small group of sites in the riversides of the Euphrates, some of them as far as the distant Middle Euphrates region (in the province of Raqa), and also in the Lower course of the Khabur, Ninevite 5 material has been identified both through surface surveys and archaeological excavations. Though these occurrences are clearly isolated, as very small quantities of Ninevite 5 pottery have been retrieved at each site, it is importantto quote the existence of this distant occurrences to evidence the existence of a trading route that could have utilized the Khabour route to incorporate the decorated pottery to long distance routes. Rova (1988) compiled a more comprehensive list of sites outside of the limits of the Ninevite 5 culture in the main course of the Euphrates, but not all thesites cited there have been considered in this thesis because it exceeds its main objectives,but the most important occurrences will be treated.

In the Lower Khabur, two occurrences where identified by the Tübinger Atlas von Alten Oriens, Tell Sheikh Hammad (S509) and Tell Namleya (S508). The first occurrence

is a large site of some 50 hectares in size with a large tell and a lower town. Excavations at the upper town led to the discovery of some Ninevite 5 ceramics (Kühne 2013: 240, Rollig and Kuhne 1977/8: 122). For the second site, Tell Namleya, only surface Ninevite 5 material is known (Rollig and Kuhne 1977/8: 120, 122).

Following the Euphrates course to the south, near the border between Syria and Iraq, the important site of Mari/Tell Harir stands as a prominent Bronze Age site. Regarding Ninevite 5 evidences, some incised pieces where retrieved from early excavations at the site (Parrot 1954: 165). In the Middle Euphrates, occasional incised Ninevite 5 occurrences have been documented at Tell es-Sweyhat (Holland 1980: 136), orTell Halawa (Rova 1988: 212). One of the most distant occurrences was identified at thesite of Tell Afish (S655), a settlement located to the east of the city of Idlib, near the course of the Orontes river and about 300 to the west of the closest site in the Ninevite 5 core area. Excavation reports point to the location of isolated painted Ninevite 5 sherds (Mazzoni 1998: 71).

4.2. Spatial Analysis of the Ninevite 5 Culture

The Ninevite 5 period occurred in a short lapse of time, only about 500 years, but it brought important changes in the settlement patterns in northern Mesopotamia. Also, its huge extension poses a challenge to anyone trying to stablish a general pattern through regional comparisons. If we try to follow a historical line of evolution of settlement medium size in the northern Mesopotamian region, one would notice that the bigger settlements for each period witnessed a progressive enlargement from prehistoric times to the Late Chalcolithic 4-5, when urban centers reached a peak followed by a sudden drop and the emergence of rather smaller cities, among the biggest ones slightly surpassing a hundred hectares (Lawrence et al. 2016: 5-6), and all of them occurring at the very end of the Ninevite 5 period. Even considering the general loss in size, these cities played a key role in the Ninevite 5 space. First of all, the urban centers proliferated in the extensive and fertile plains in the Syrian Jazeera and Norther Iraq, dominating a new landscape in which, even being much smaller than their predecessors, they still retained a centrality in the interactions between other human communities and the surrounding landscape.

As we have seen before, a general trend seems to emerge across all northern Mesopotamia focused on the enlargement of cities and the transformation of a previous village dominated landscapes into urban centered territories. However, this trend is not coincident in all the Ninevite 5 extension, thus presenting some variability that, sometimes, seems to differ greatly with the idea of planed urban centers that hoards the agricultural production of smaller surrounding villages. Nevertheless, these ideas can be complementary and not necessarily exclusive. It is worth to keep in mind that diverse settlement patterns at a regional level can be a part of a single mechanism, or simply work together in the same cultural network without any need for one to be dominant with the other.

Also, the dominance over the natural resources and the central role in the landscape is one of the most important factors to define the spatial organization of the Ninevite 5 culture. The sites already stated before occupy wide areas

As a general statement, we could say that in the core of the Ninevite 5 territory, where the material culture belonging to this culture is more dominant during the first half of the third millennium, the pattern of enlarging cities is more or less evident in the register.In this region, key sites seem to be following a similar pattern in the terms of an emergingurban center that has control over a wide surrounding agricultural area.

However, in order to explain the significant change that supposed the arrival of the Ninevite 5 culture, we should first put the focus on the Late Chalcolithic period (or Uruk phase, in its last stage of LC 4-5). The analysis of the previous patterns is, with no doubt, important to understand the reasons behind the significance of the Ninevite 5 transformation of northern Mesopotamia.

4.2.1. The End of Something Old and the Birth of Something New: The Final Phase of the Late Chalcolithic and the Emergence of the Ninevite 5 Period in the Spatial Dimension

The expansion of the Uruk world towards the north was a fast process that carried out major changes both in the configuration of settlements and the archaeological material found in such contexts. Throughout northern Mesopotamia, Iran, Syria and Anatolia, excavated sites has been identified as Uruk colonial settlements across all the territory when Uruk material appears alongside with local pottery productions. Sites like Habuba Kabira or Jebel Aruda (Oates 1993), in the Euphrates, Hacınebi Tepe (Stein et al. 1996; Stein 2002), Kurban Höyük (Algaze 1990; 1993) and Hassek Höyük (Hellwig 2002), both in the Anatolian Euphrates, Godin Tepe (Badler 2002) in Iran. For the cases of Tell Brak and Hamoukar, a model of a separate neighborhood for Uruk newcomers has been proposed as an explanation for the dispersion of Uruk material found at the site during the LC 4-5 periods, but this statement is yet to be tested by archaeological excavations (Ur et al. 2011: 9). Either way or another, the truth is that the incursion of the Uruk system changed dramatically the material reality of northern Mesopotamia, but the register also shows different stages on this influence. As we have discussed before, the Uruk's classical beveled rim bowls only appears in archaeological sites in northern Mesopotamia during Late Uruk (LC 4-5), so, is to be considered that the influences, at least, have had to increase at that time (Trentin 1991). Then, it is obvious that, as the Uruk culture was developing in Southern Mesopotamia, its cultural material only appeared in northern Mesopotamia after a long sequence of widely attested local Late Chalcolithic traditions (Algaze et al. 2012: 19-20). However, the influences of the Uruk world are to be found in other aspects of colonies such as the architecture and administrative technologies.

For this reason, it has been found preferable to speak about Late Chalcolithic rather than Uruk period, because it is noteworthy that an important indigenous society is still on existence despite of southern Uruk influences. This effect is also seen in regions like Beydar, the Ilisu dam area and the Middle Khabur, where the low presence of Ninevite 5 material make more suitable to speak in other chronological terms rather than

cultural (EJ 1-2 in the Syrian examples, and Early Bronze Age 1, or abbreviated EBA 1 for the Anatolian examples).

The end of the Uruk world also brought significant changes observable in the archaeological register. The Uruk system came to an abrupt end around 3100 B.C.E., when many Uruk sites are abandoned in a brief period of time. All the configuration of the human landscape changes in a century to a more centralized system focused on growing cities that are capable to hoard resources and human capital. This break varied significantly the distribution and internal organization of spaces, as well as the material, but, many aspects are still unclear. Other questions like the economic activities or the organization and emergence of public spaces and centralized powers arestill a matter of discussion. The data obtained from archaeological surveys as well as excavations and other sources may help to clarify the importance of the transition betweenthe settlement pattern found in Late Chalcolithic times to Ninevite 5 (Table 1).

When compared to the Ninevite 5 period, the Uruk system's arrangement looks somehow more centralized, with the presence of no more than a dozens of sites that are massive urban centers with other sites of regional importance, but the pattern is only occasionally comparable to that observed for the Ninevite 5 period, such as the urban centers of Tell Brak and Hamoukar. The site of Tell Brak, in fact, offers a unique view of one of the largest Late Chalcolithic sites in northern Mesopotamia (Watenmaker and Stein 1989), and also retained a comparable settlement pattern in Ninevite 5 period. Tell Brak is one of the biggest settlements in the whole northern Mesopotamia, with some 130 hectares, and a massive upper town that was occupied at least from the seventh millennium BCE. Its expansion probably was favored by its strategic location in trading routes leading from the south to Anatolia, a position that would have been very profitable in LC times (McMahon, Soltysiak and Weber 2011: 203).

Sadly, the absence of more detailed analysis prevent us from knowing the actual fluctuations of population between Late Chalcolithic and the Ninevite 5, but the general knowledge of the patterns between them already gives us some insights. The Late Chalcolithic site already maintained a surrounding area mostly free of sites comparable to the patterns that will be more evident and widespread in Ninevite 5 times. The reasons for the existence of this area around it, also probably the case of the site of Hamoukar, may be exactly the same than in the Ninevite 5 examples: the large amount of population gathered together in the city required an immense quantity of supplies to survive. Another example of expanding city during the Late Chalcolithic period could have been found at the site of Nineveh, whose size has been estimated by some scholars to have been about forty hectares and was a significant urban center for the period in that area (Iamoni 2017:

111-2). The location of the city, next to the main flow of the Tigris, and its urban dimension perhaps conferred a central importance to the site, but the urbanism and other physical remains are still poorly unknown, so, sadly, very little may be concluded on the LC period at Nineveh.

However, the outlook for the rest of the territory differs greatly outside of the larger population centers. In the Leilan region, for example, the larger sites during Late Chalcolithic phases are lacking of an apparent arrangement similar to that of Brak or the latter Ninevite 5 population centers. Although, the dimensions of the sites are comparable to the largest ones in the region during Ninevite 5, and even bigger. It seems that during Late Chalcolithic 3 phase, the number of settlements decreased, but the average size of the remaining sites grew bigger, only to experience a sudden fall during Late Chalcolithic phase. This data is completely coincident with Tell Brak (Wright et al. 2006/7) and Hamoukar (Ur 2002; 2010b). However, the sites documented in the Leilan region don't look like they are following a hierarchical pattern, but they are scattered on the land or following river courses. These sites, although not comparable with Brak or Hamoukar in size, tend to show no superior relationships with other minor sites, at least not in a way that could have left any print on the landscape. Even thought, these sites are absolutely comparable in size with Mohammad Arab, Dugir or Leilan in its Early Ninevite 5 stage.

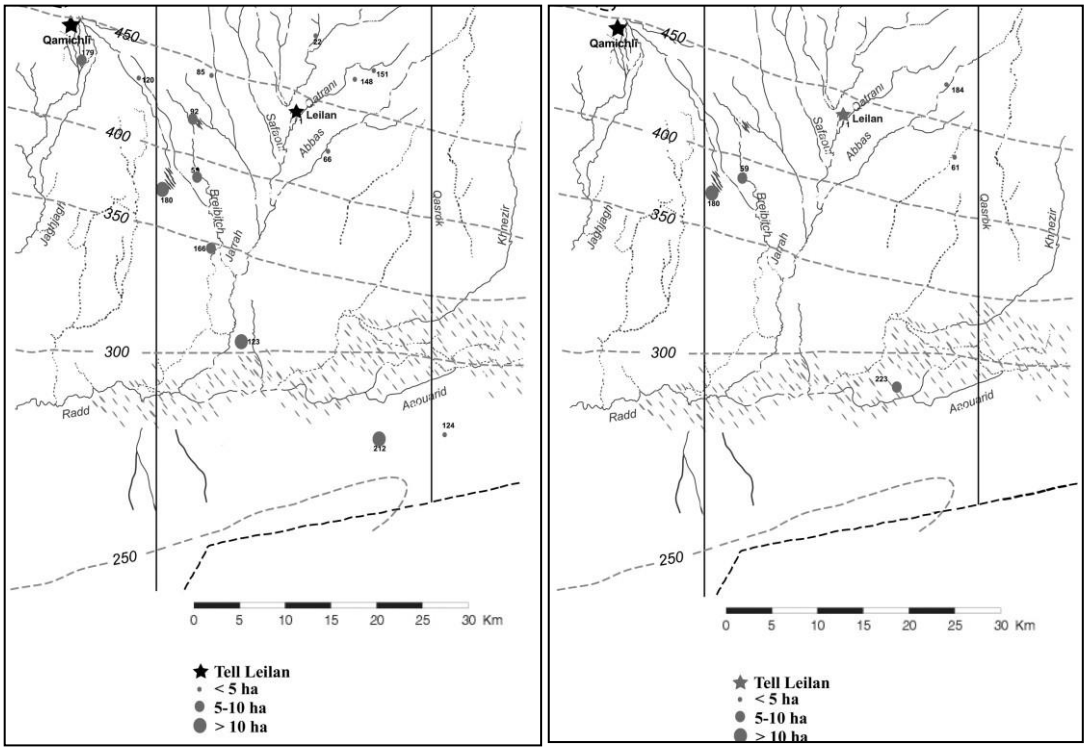

Figure 38. Comparison between LC 3 (first image) and LC 4-5 periods (Rova 2007).

As stated before, the site of Tell al-Andalus (Figure 38) was an important site with more than 60 hectares in size during the Late Chalcolithic 3 phase, but when one compares its relative position on the map, no particular arrangement or relation with other smaller neighboring sites is evident. Also other sizeable settlements like Tell Khodr (S247) or Mathlutheh Tawila (S253), all two between five and ten hectares in size, show a similar pattern. Also, a noticeable fact is that most of the biggest sites in the region were gathered together to the west and the south of the Yale's survey limits, but then the bigger sites in Ninevite 5 period tended to move towards the northern east part.

Regarding the number of sites, the reduction seems to be general in most of the regions treated before. The decrease in the number of sites is already absolutely clear during the Late Chalcolithic 4-5 period in many regions. For example, a general view of the results of the Tell Brak regional survey showed that in by the Late Chalcolithic 3-4 period, a total of 92 sites where found to have been inhabited, but already during Late Chalcolithic 4-5, a huge drop in the population occurred and only 14 sites yielded evidences of settlement at that time. Also the data about the settlement hierarchy is very much like the one attested at Tell Leilan Region, with a bigger site, a couple of sites between 5-7 hectares and a plenty of small villages scattered all around. Also it is interesting to note how all the villages appear in a net of sites with no hierarchy patterns, and Brak is a clear center during this LC 3-4 (Wright et al. 2006/7: 10-11). This data is coincident as well with the settlement development at Tell Brak, with an important decrease during LC 4-5 (Ur and Oates 2011). The data from Hamoukar also shows a similar development: out of eighteen Late Chalcolithic identified sites, only four definitely survived during the Ninevite 5 period. It is also noteworthy that the evidences for local LC 3-5 pottery were found at all eighteen sites, while evidences for southern Uruk material appeared only in four sites (Ur 2004; 2010b: 100). However, opposite to the Leilan survey, Hamoukar's doesn't distinguish between assemblages from LC 3 and LC 4-5 periods, so, even if we could be tempted to assimilate its results to the ones at Leilan, the truth is that the sole presence of Southern Uruk assemblages did not be considered as a sufficiently strong evidence for making such a division (Ur 2004; Rova 2017: 39). The total area settled seems to be a special case in comparison to the other regions because, even when the heavy decrease in the settled area is a reality in the average sites, Hamoukar experienced an unpreceded growing that will be treated in the next section of this thesis.

Survey	Late Chalcolithic Sites (Total hectares settled)	Ninevite 5 sites (Total hectares settled)	References
Erbil Plain Survey (EPAS)	47 (114)	44 (64)	Ur et al. 2021: 10
Northeastern Tigris to Navkur Plain (LoNAP)	66 (153)	29 (55)	Morandi and Iamoni 2015: 38
Northern Jazeera Project (Tell al-Hawa)	62 (134)	39 (123)	Wilkinson and Tucker 1995
Cizre-Silopi Survey	17 (8)	15 (8)	Algaze et al. 2012
UZGAR Regional Survey	17 (?)	58 (?)	Kolinski 2016; 2017
Tell Brak Survey	92 (?)	40 (?)	Wright et al. 2006/7
Hamoukar	18 (44,9)	4 (ca. 132)	Ur 2004
Tell Beydar	27 (?)	12 (?)	Ur and Wilkinson 2008

Table 2. Comparison between the total area settled during the Late Chalcolithic period and the Ninevite 5 period according survey data.

The Beydar area showed a very similar pattern, with a great extension of sites during LC 2-3 period, up to 27 evidenced settlements, but only two sites were proven to have had LC 4-5 occupations. This case is also interesting because neither local assemblages or southern Uruk assemblages were commonly found (Wilkinson 2000; Ur and Wilkinson 2008: 307). Also the Tell Hawa region experienced a similar drop in the number of settlements, but, as well as Hamoukar, retained similar inhabited hectares. Two of the recently performed surveys in the Kurdistan region of Iraq showed similar tendencies: the EPAS in the Erbil province showed an important decrease in hectares, but the number of sites remained almost the same. This fact could be explained by a hypothetical and massive reduction of the inhabited space of each site, but we still require further investigations to be published by the archaeological team from the Harvard university. The LoNAP, on the other hand, found a most prototypical pattern, with a huge descent both in total settled sites and inhabited area.

The Tell al-Hawa regional survey also showed a similar frame regarding the abandonment of sites during the Early Ninevite 5, with only 5 featuring evidences for occupation at that times, and a low degree of continuity from the Late Chalcolithic period. Additionally, and in concordance with the data from other surveys, Tell al-Hawa was the main site in which the population focused after the collapse of the Uruk system (Wilkinson and Tucker 1995: 51).

Then, according to the available data, the thesis of the huge decline in the total number of sites and settled hectares from Late Chalcolithic to Ninevite 5 period seems consistent for the examples stated above and most of the areas in northern Mesopotamia. This depopulation of settlements could have provoked a marked dispersion in the settlement patterns that is so characteristic of the Ninevite 5 period (Wilkinson, Ur and Cassana 2004). Also, the decline in population, reflected in the reduction of the settlement's size, occurred after a rapid process that began with the crisis of the Uruk system and culminated in the emergence of a new system, the Ninevite 5 period, during which complex cities began to substitute the dispersed village model that had dominated northern Mesopotamia in the previous centuries.

Nevertheless, the surveys also point out to the existence of several exceptions that stand out as apparently discordant realities. The survey in the Silopi dam area evidenced a slight decrease in the total number of sites, from seventeen to fifteen sites, but retaining similar settled areas (Algaze et al. 2012). The same pattern seems to appear to the UZGAR team in the Upper Great Zab, where even an opposite situation, an increase in both number of sites and hectares have been reported. However, the case of the UZGAR area is the most discordant among these two: The population reported at the region during the Late Chalcolithic 3-5 was very low, only 17 sites, but this population grew exponentially to 58 sites during the Ninevite 5 period (Kolinska and Kolinski 2024: 201). Then, this is an element hard to explain regarding the pattern observed at almost all of the other regions, even the Silopi plain, where the population remained stable but never exceeded eight hectares considering all the settled sites. One possible explanation for such expansion in the Ninevite 5 period was that the area could have been a peripheral zone during the Late Chalcolithic 3-5, but then the population settled there during the Ninevite 5 period. Perhaps, this evidences could suggest that this region could be considered as a part of the core of the Ninevite 5 culture, even more considering its special status within the settlement pattern (Kolinska and Kolinski 2024: 201).

These elements have to be taken into the account in order to establish a transitional model that could explain all regional features of the Late Chalcolithic transition to Ninevite 5 in regions that differ with the general norm. In that very sense, it is necessary to explain why the Ninevite 5 settlement grow in some regions. These regions have, however, similar conditions: both regions featured no apparent hierarchy, not even in Ninevite 5 period, and they appear to be rather isolated from the main core of the Ninevite 5 culture. Perhaps these areas could correspond to peripheral areas that survived the emergence of the Late Chalcolithic 4-5 crisis, as neither the settlement pattern nor the material presented any sign of it. On the contrary, these areas seem to have survived relatively intact to the transition to the Ninevite 5 period.

To sum up, it is evident that, in general terms, the Late Chalcolithic period crisis left behind a deep print in the material register, and the settlement patterns suffered a heavy transformation because of this crisis. Then, the Ninevite 5 settlement restructuring may be considered as determined by the exhaustion of the previous system, and the necessity of the people to find new solutions to these newly born reality. Most of the regions studied presented several similarities: the huge drop in the population after the end of the Late Chalcolithic, and the emergence of population centers with peripheries that were enlarged by the end of that period, as well as the same urban centers. All these evidences point to a general shift in the spatial organization that conditioned the Ninevite 5 experience.

4.2.2. A Diverse World? An Approximation to the Ninevite 5 Settlement Pattern

In general terms, we could conclude that, regarding the evidences shown in surveys, the settlement patterns across the whole dimension of the Ninevite 5 culture seems to reproduce similar characteristics, both in chronological terms and in usage of the space and hierarchy. Also, it is noteworthy that evidences for other regions outside of the limits of the Ninevite 5 culture showed different patterns, so it points to the existence of a significant regional variability in terms of population and settlement (Lawrence et al. 2016: 6).

By the end of the Ninevite 5 period, between 2600-2500 BCE., the massive expansion at Tell Leilan seems to take advantage of the other two sites, all three of about 15-17 hectares in size during the EJ 2, and enlarged rapidly to 90 hectares, while the other two counterparts remained without any growth, and even Dugir was abandoned at the end of the Ninevite 5 period. Following the example of Leilan, Tell Beydar grew to twenty-four hectares during the EJ 2 phase, but it seems that suffer a general decrease in occupied hectares by the EJ 3 phase, around 2400-2300 BCE, the last phase in which the site can be considered of urban proportion (Pruß 2013). Also during EJ 2, Tell Chuera (S12) experienced a huge enlargement (Dohmann-Pfälzner and Pfälzner 2002b; Meyer 2010; 2021, Meyer and Tamm 2023). The site of Tell Arbid become a 40 hectares' large site, with a certain urban dimension also during Late Ninevite 5 (Smogorzewska 2020: 19). A similar situation happened at Tell Mozan, but, in this case, the site witnessed a massive enlargement that presented similarities with the case of Tell Leilan (Dohmann-Pfälzner and Pfälzner 2002a). The EJ 2 site was mostly restricted to the main mound, measuring some 18 hectares in size, but during the EJ 3, the urban center greatly exceeded this upper town borders and extended to 120 hectares. Then, according to the data available, it could be concluded that the massive urban enlargements occurred around the Late Ninevite 5

period, evolving from more discrete Early Ninevite 5 Settlements. Also Tell al-Hawa reached its urban dimension during the Ninevite 5 period (without any internal chronology specified), reaching up to 42 hectares in size (Ball 1990: 14).

For the chronological analysis, the main source for the knowledge of the internal evolution of the Ninevite 5 period is, as already mentioned in the previous section, the exceptional work done by the team from Tell Leilan project. Thanks to this team, an internal chronological sequence of this period has been attested at the region, taking into consideration the evolution of three main sites, Dugir, Mohammad Diyab and Leilan itself. These settlements, according to the evidence provided, emerged after a period of general crisis and abandonment that prevailed from the Late Chalcolithic 4-5 to the Early Ninevite 5, and was attested by the scarcity of occupied sites for this period. After that, the EJ 2 period witnessed the emergence of the 'classic' arrangement mentioned by most authors for this period, based in the preeminence of a large urban center surrounded at a certain distance by other minor settlements. The evidence proposed for Mohammad Diyab and Dugir seems eloquent with that statement: both major regional urban centers placed in the middle of areas suitable for agriculture but virtually absent of other settlements, with a ring of minor settlements arranged at a certain distance.

This very same scheme seems to repeat at the Tell al-Hawa region, where painted Ninevite 5 pottery was much rarer that later ceramic forms, thus accompanied by a low ratio of reoccupation of sites from the Late Chalcolithic period, only 14% of sites[7]. However, the sole absence of painted material should not be considered as a solid evidence for the factual decrease in population after LC 4-5, while other explanations have been proposed: the more fragile nature of the painted material or considering this material, local customs in use of this kind of pottery or the possibility for this pottery to not be representing a concrete chronological frame within the Ninevite 5 culture (Wilkinson and Tucker 1995: 49). Even thought, the results of the survey at the northern Jazeera seems coincident with the data obtained from more accurate studies at Leilan and also at Hamoukar, that point to an important decrease of the population during Early Ninevite 5, revitalized during the EJ 2 phase (2800-2600 B.C.E).

On the other hand, the example of the Upper Great Zab seems to be highly discordant in this regard: according to the survey, the painted pottery was not considered as rare as in the Tell al-Hawa region, and, even the settlement was considered much bigger than in the late Ninevite 5 period, due to the scarcity of the excised pottery (Lawecka 2018: 421-2). This is the opposite case than in Leilan, but these results could also be

[7] This fact is nothing strange at all considering that, for most of the surveys, the presence or absence of painted Ninevite 5 pottery is the sole evidence for an early occupation within this period at this site.

analyzed in other manner. First, most of the sites investigated only yielded one to three pieces of pottery, and the area of many sites could not be determined with precision (Kolinska and Kolinski 2024). However, even considering this difficulties, the general trend is difficult to ignore, and the most notorious feature, the presence of painted pottery. Perhaps, these new results are pointing to the Kurdistan Region of Iraq as one of the main cores of the Ninevite 5 culture, at least, alongside with the Mosul region, the areas where the culture of the painted pottery was developed the most. That statement supports the theories that pointed that, in regions such as that of Tell al-Hawa, the painted pottery was rarer only because the painted pottery was not the more representative type of pottery for the first centuries of the third millennium at that area. Just as mentioned before, this possibility was already stated by Wilkinson and Tucker as a possibility to explain the low amount of painted pottery found by them during their survey. Nevertheless, as long as most of the information of the other survey projects in the Kurdistan Region of Iraq are largely unpublished, it is impossible to compare their data with that from the Upper Great Zab.

Regarding the settlement pattern of the Ninevite 5 culture seems clear and definable as a parallel development and interaction between small villages and larger urban centers. In the Syrian Jazeera and Norther Iraq, the dominating position over the agricultural land and the natural resources seems to be the main focus of interest of the largest centers, but also to settlement in general. Areas with low water income and drier weather conditions are avoided, for instance, the area around Jebel Abd al-Aziz (Figure 37) is less populated than the area of the Middle Khabur (Figure 35). In this way, plain areas are very much preferred over other terrains, and, when hillier or even mountainous areas close to valleys and plains are present, these areas tent to be devoid or scantly populated (Kolinska and Kolinski 2024: 200).

Large settlements seem to be distributed throughout the landscape at certain distances one from the others, but occupying the majority of the landscape. The size of this sizes vary much between them and also during all the history of the Ninevite 5 period. For example, Tell Leilan suffered a massive enlargement from fifteen hectares to nineteen by the end of the period. Other central urban centers never exceeded fifteen hectares in size (namely Dugir or Mohammad Diyab). In some instances, the larger sites of a region could be even comparable to secondary sites in other regions, for instance, in the case of the site of Amyan (S631), one of the biggest sites in the Harir Plain, north of the city of Erbil, that was not bigger than 7,7 hectares. The site of Kandara Qal, in the Southern Erbil plain presented a similar extension than Amyan, 6,6 hectares, but its vicinity is still less known. In the Eski-Mosul region, the only possible urban center is Tell Jikan, that probably reached twenty hectares, a measure that’s still the half of the estimated size for

Tell al-Hawa (42 hectares). Another fairly modest urban site could have been Tell Melebiya, but it stands out more due to its architecture than for its size. However, the fact that this is the biggest site in the Middle Khabur region, could have conferred it some sort of dominant status. Other probable important site was Nineveh itself, but its exact size is unknown due to the important remains over it (Rova 2017; Laweka 2019).

Also, the large settlements tend to maintain areas surrounding them, most likely areas suitable for economic exploitation (areas clearly marked in the landscape at Tell Brak, Mohammad Diyab, Dugir or Tell al-Hawa). This fact points to a necessity for these populations to keep and secure an assured source of supplies, but also to a dominance regarding the peripheral communities. The fact that these sites have such huge fertile areas, suitable for the stablishing of settlement, virtually empty of other villages is also evidencing that these sites had the possibility at certain periods to keep these areas free of, at least, clusters of permanent buildings that could have left a print in the landscape (Figure 23). Then, this spatial distribution hints out a possible dominance of major centers over the surrounding smaller villages, letting in my opinion, two possibilities regarding their relation: the first one is considering the villages as secondary centers or extensions of the closest larger urban centers, and the second one is that the villages could have been indeed separated centers with its own internal organization, but conditioned by the necessities of the main urban center. In both cases, it is likely that the surrounding ring of villages would have acted as a network focused on the exploitation of the agricultural resources (considering either an internal consumption of agricultural surplus or a possible exportation to larger centers in the vicinity of rural villages).

As evidenced by the site distribution, the larger and smaller sites are not randomly placed on the landscape as an equalitarian arrangement would demand. The sites present a hierarchy captured in the historical environment setting: the centrality of bigger sites around smaller settlements are reproduced in many cases, and it is observable throughout all Ninevite 5 extension. Also the proportion of nearby sites tent to be so favorable to larger sites, as each one of them present several smaller sites around, as evidenced through the tests performed with GIS and other informatic programs described in the 3.3 section of this same thesis. About the three tier sites classification, large sites like Mohammad Diyab, tiered one, cluster four to five tier minor sites, while others like Tell Brak or Tell al-Hawa clusters dozens. These accumulations also support the aforementioned model in which the surrounding sites would act as a secondary centers subdued to the needs of the centering settlement, the one that articulate the landscape and conditions the usage of the soil.

The role of this sites could have been variable, but the most evident fact is the one related to the exploitation of agricultural soil. The fact that these 'rings' of sites were respecting the agricultural field surrounding the tier one settlement could be cause by the same role of this sites as a centers for the management of agricultural surplus, or, at least, the land from which they could obtain such a resources. However, it is also true that not all the sites meet this arrangement, so, other functions are also needed to explain this variability. It is possible that some sites near major rivers or ground routes across the Zagros or Anatolia have flourished from Ninevite 5 period onwards because of the exploitation of trading routes with Iran or the Black sea. These trading routes are attested by exogenous materials found in tombs and other contexts in many Ninevite 5 sites. Anyway, regarding the diversity in the settlement patterns attested by archaeology, it is clear that more than a single explanation is needed to explain all the dimension of the settlement pattern change in Ninevite 5 period.

Wilkinson and Tucker (1995: 45-50) proposed a three-tier system classification for sites in the North Jazeera region. In this case, the central site, Tell al-Hawa, was surrounded by a cluster of sites less than two hectares in size, but also by a couple or three sites that are bigger than the small villages, but still not getting closer to the size of Tell al-Hawa (42 hectares). These sites range between five to twelve hectares, but their patterns are not as easily discernible that that of the tier one and three. The arrangement of these sites around Tell al-Hawa does not display such a clearer disposition: two sites ranging 6-8 hectares are located west of Tell al-Hawa (S384 and S385), and another one some 12 km west that measures 10 hectares in size (S381) but they are closer one with the other than from Tell al-Hawa (Figure 18). Other medium sites in the region are more than thirteen kilometers away from Tell al-Hawa, namely S382 and S498, so, it is difficult to suppose what was their purpose, even if they have ever been related to Tell al-Hawa at all. Also, the remaining tier-two sites are not clearly related with neither Tell al-Hawa nor the tier three sites, while appearing to respond a less obvious schemes.

However, and logically, the same exact size thresholds cannot be applied lightly to all the rest of the regions in which the presence of a large site with other minor sites is detected. Then, we have to take in mind that this thresholds and classifications are only a convention, and there are defined based on the specific situation of each region. For example, the region around Leilan during the EJ 2 must be analyzed considering that Leilan itself at this time could be considered a medium-size site in region around of Tell al-Hawa. However, this does not deny the general approach anyway, but points to a regional variability in hierarchization of settlements according to the range of growing of the large dominating site.

Other example of this pattern is also observable at sites surrounding Dugir (Figure 27). Tier two sites are ranging five to ten hectares, but, in this case, a pattern is even less visible than in the previous case. The only two tier-class sites are both located to the west of Dugir and, again, closer one with the other than to Dugir itself. In addition, in this case we have to also take into account that the difference between tier two and three sites are not as evident than in the Tell al-Hawa region, as much less minor settlements (less than two hectares), are present. In the case of Leilan and Mohammad Diyab, the evidence points to a similar situation, with neither of them having a single second tier class settlement in their radius during the EJ 2 phase, and Diyab having only one during the EJ 3 phase. However, these two sites have also the particularity that them both could be considered to be located in the countryside of the other, but non probably having no dominance over the other, at least during the EJ 2 phase.

For the Eski-Mosul region, the evidences are much more complicated to analyze due to the limited excavations carried out at most of its sites. First of all, a general pattern is not easily distinguishable on the ground, probably because the sites are arranged Prioritizing the flow of the Tigris River. Also, the probable urban size of some sites are not fully understood, mainly because of the aforementioned problem derived from the limited excavations. At Fisna, for example, the Japanese team found a set with many cylinder-seals, and also stated that the site had to be as big as twenty hectares already during the Early Ninevite 5 period, and a bit smaller during the later phase (Ii 2003). However, the team did not found evidences for 'public' architecture or other remain that could suggest this hypothesis. Following this hypothesis, Tell Kutan could have been a medium center, due to its size and proximity to Tell Fisna, and follow a similar pattern than that of Tell al-Hawa region (Figure 18). Nevertheless, the southern part of the Eski-Mosul dam does not display an evident arrangement around tell Fisna, thus we cannot assure that this settlement played a central role in the regional pattern.

Then, it could be concluded that, even when medium-sized sites existed in the Ninevite 5 pattern, no notorious differences between them and tier three sites is notorious, at least as it can be observed in the settlement pattern. In this regard, it is important to note that, given the evidences, the classification of sites because of its size is heavily dependent on the region, and may vary significantly. In this regard, there are large urban sites with a true net of smaller and medium-size sites lite Tell al-Hawa, and others with a much more modest net like Tell Brak o Leilan.

From the archaeological point of view, excavations of medium-size sites are rare in the Ninevite 5 cultural domain, but we have a couple of examples to try to work on. Tell Melebiya (S138), in the Middle Khabur, was a medium size site that featured an

urban network with streets and domestic architecture (Lebeau 1993). Also the rather limited architectural evidences found at Tell Karrana 3 or Tell Fisna, in the Eski-Mosul dam, also featured domestic architecture. Even when the data is limited, the urban network evidences, at least, the existence of a large stable community living at these sites, a feature not present at smaller sites investigated both in the Middle Khabur and the Eski-Mosul region that will be discussed further in the 4.1.2 section of this work. Smaller rural sites also presented limited evidences domestic structures and even ovens and other small transformation elements that probably served, due to its small size, in a household scale (Schwartz 2000).

Probably, the urban dimension of secondary sites could be supporting the idea of a three tier organization of sites, with minor urban settlements in secondary positions by the larger urban centers. However, it is also true that the possible second tier sites excavated are lacking of a clear hierarchy position in relation with a large urban settlement. The site of Melebiya is too far away from the urban centers of the Jazeera, and the cases of Karrana 3 or Fisna are not clear enough to be considered, due to the doubts on the position of the possible larger site in the region (Tell Jikan), and the disappointing results of the archaeological campaigns at the second larger site (Khirbet Hatara).

To sum up, it could be said that sites that expanded across the whole Ninevite 5 period share a general pattern, and a hierarchy can be observed as fossilized in the landscape. Many examples of these kind of settlements have been observed to hold an agricultural area surrounded by small sites, a pattern that's repeated throughout the culture's extension. It would be difficult to state that all these examples are just a coincidence, as the larger sites have repeat systematically the very same pattern. However, it is also true that, in some cases, the patterns seem difficult to see, as there are areas like the Eski-Mosul are in which the largest sites have no a central role, or other circumstances motivates the settlement pattern, mainly the main flow of important rivers. It is not clear whether large sites had any influence over areas without a clear central site, for instance, in the case of Tell al-Hawa and the Eski-Mosul region, areas separated by thirty kilometers. Even though, considering the evidences available, it is impossible to assure whether the large sites had even any control over the small rural sites in its immediate vicinity. It is true that the political relations are difficult to state, and even more when considering only the settlement pattern, but what seems clear is that the central role of the urban centers, at least in its regional dimension, in undeniable. In the next sections, other evidences will be discussed on the possible relations and hierarchy of these settlements analyzed.

Chapter 5. Discussion: What Does Makes a City?

5.1 A Brief Introduction

Once the settlement patterns have been analyzed, and the regions have been compared, a question rises above all the others: why does society tend towards the urbanization of the landscape? Why did people gather together in large cities that evolved and expanded after a short period of time? These questions are difficult to answer, but some clues may be found among the data offered by archaeology (Weiss and Jacobsen 1975; Weiss and Bradley 2001; Ur 2020b). All human societies require similar basic elements to survive, and in this section, we will discuss all the needs that urban-scale settlements had to meet in order to succeed in the past. Also, immigrants played a major role in the expansion of settlements, serving as a main source of labor and as a pillar for the subsistence of the entire community. After analyzing the importance of the origins of the population, the strategies of storing and managing the food surplus will be further discussed, as this is a fundamental problem that all societies need to solve in one way or another to feed their population. Lastly, the emergence of a nascent urban elite will be discussed. This elite was of primary importance for the development of urban societies, as long as management and labor distribution are evidenced in the archaeological record. They were fundamental in keeping urban societies as functional and stable compositions, governed by an emerging hierarchical order.

5.2. What Changes and What Remains: Towards an Explanation for the Urban Revolution

In the northern Mesopotamia, as we have seen before, the beginning of the third millennium B.C.E. was a period of major changes, and one of them was the emergence of urban centers. However, the way in which we define the term 'city' or 'urban center' is relevant to undertake the study of this phenomena. First of all, in order to stablish whether a settlement is a city or not, we cannot treat a singular site as an isolated reality, but strongly tied to the reality of the other settlements. A city is a settlement that has grown bigger and with a denser population in comparison with other settlements (Ur 2017: 133) which we consider, due to its size, to be secondary centers or small tertiary villages. This scheme has conditioned the study presented in this thesis, as well as in other works made by other scholars thought the years.

Several factors must be taken into account when we undertake the task to analyze the changes brought by the Ninevite 5 period, a phase that could be stated as one of the most critical historical periods in northern Mesopotamia's history. Some things derive from logic when it comes to explaining the expansion of urban centers. As we have already stated, the presence of an empty-of-villages areas surrounding many Ninevite 5 important sites is just the top of a pillar that cannot be avoided in order to make cities viable: subsistence.

People requires accessible sources of water and food, and enlarging cities had surely to face also enlarging demands for its population growing needs. Water doesn't seem to represent a major problem in most of the Ninevite 5 territory. Settlements tent greatly to be located on riversides or, at most, several hundred meters away from the closest water flow. Also, this flows that waters most of northern Mesopotamian plains make most of the land very suitable for agriculture and husbandry, the second and third bases of subsistence. Great quantities of food are required to hold an enlarging population, but this seems to be a problem also understood during the previous Uruk period. In Tell Brak, the presence of a substantial sustaining area that could have been exclusively dedicated to food production articulates the usage given to the settlement's space. These empty lands are suitable for cereal agriculture and also for animal husbandry, with a significant presence of goat and pig (Zeder 1995: 29), both activities attested in Ninevite 5 sites as the main source of food.

Also, the larger the city, the bigger the food demand. For the site of Tell Brak, with an estimated population of more than 20.000 (Wright et al. 2006-7: 10-11), it is to be expected that a larger area would have been under intensive cultivation to sustain such

a large population. The same case is undoubtedly applicable to Tell al-Hawa and Hamoukar. Other large sites such as Kandara Qal or Bassetki would have arose similar requirements, but the lack of evidence from its surroundings doesn't allow us to make sure about this statement. Al that we know from large Ninevite 5 settlements from the Kurdistan of Iraq and also most of the province of Nineveh is what we understand as logic regarding its sizes. Also, the existence of other minor sites at a regular distance cannot be considered as mere coincidence, but their function in the space is still a debatable matter.

Some authors have considered that, in order to establish an objective division on what we consider that is the minim size to consider a site as an urban center, we need to establish some parameters. These authors have set a conventional mark when considering the presence of true urban centers in one hundred hectares (Lawrence et al. 2016: 3), but in the case of the Ninevite 5 culture, it has been considered that these thresholds are excessively rigid and not to correctly reflect the magnitude of the whole cultural phenomenon. The rapid development of sites on the Syrian Jazeera like Mohamad Diyab or Leilan, even when these are not comparable in size with others like Tell Brak in LC period, require a notable organization in terms of usage of the space and ordering the construction activities during such a rapid development. In Mohamad Diyab, a complex terracing system was documented and it was found to have had an origin during Late Ninevite 5 period (Nicolle et al. 2006: 41-2). Regarding the fact that the site's first known occupation occurred during Ninevite 5 period, this large arrangement of leveling platforms suggest a planned development that required a centralized organization. The same case happens in Leilan, where we see that the massive enlargement from the Late Ninevite 5 period onwards was a planned development with the construction of the city walls and the expansion of the lower town, rather than a mess of domestic structures piling together in disordered clusters (Figure 39). A similar urban plan has been detected also in other sites like Tell Beydar, Hamoukar or Tell Mozan, so, it seems to have been an extended process throughout the northern Mesopotamian.

Also, as we have previously stated, the regional significance of sites measuring 10-15 hectares in the Ninevite 5 region is so important that, even when the total sizes are nothing but a shadow when compared to other Southern Mesopotamian examples, we could consider them as fulfilling a role that could be assimilated to that of larger urban settlements. The existence of proofs for sophisticated spatial organizations in the sites and the spatial relation with other smaller sites left no doubt of its central role. In other words, it is necessary an efficient central power that could regulate and coordinate the constructive activities of a planned enlargement of a settlement in the terms that have been stated for the Early third millennium in the region.

Figure 39. Hamoukar and its massive lower town, that exceed by far the extension of the modern town, and extends below the surrounding agricultural fields.

5.3. Immigrants and Neighbors for Enlarging Cities

One of the first thinks that will come to one's mind when it comes to the process of a settlement to become an urban dimension site is the population. When studying this casuistic, some questions inevitably rise: where does they come from and why they decided to move to an enlarging settlement. It is obvious that the sole dimension of a site, without proper archaeological excavations, it is not enough to infer a possible percentage of growing, as long as part of the extension of these new settlements could have been occupied by buildings that did not serve for the settlement of its inhabitants such as public or prestige buildings, administrative facilities or defensive enclosures. However, even considering the presence of non-residential quarters, there is no point in believing that the enlargement of cities such as Leilan or Tell Mozan was not tied to a growth in its population. In this sense, the natural growth of the population cannot explain the generalized and massive changes that happened during the Ninevite 5 period and before. This fact is supported by evidences in the settlement pattern change from the Late Chalcolithic to the Early Bronze Age: the population of former large settlements that were abandoned or reduced did not vanished, and their residences had to be fixed anywhere in the landscape.

In fact, these trends explain one of the major paradox in the history of the development of the early urbanism in pre-modern periods, including the process happened in the Ninevite 5 period. This paradox is explained by the absence of sanitarian measures and the absence of preventive medical resources that could prevent the expansion of epidemics that, in overcrowded spaces, would have mean the eradication of significant percentages of population, thus preventing these urban centers from enlarging. However, as we can observe at many sites in northern Mesopotamia (Tell Leilan, Melebiya, Arbid etc.) and also in the south (perhaps the southern examples are even more eloquent, given the fact that the settlement from the Early Dynastic period are much bigger and more densely populated), the dwelling quarters tend to be clusters of houses with little to no separation, thus creating optimum conditions for the rapid spreading of contagious diseases. Nevertheless, the evidence at the Early Bronze Age urban centers is the constant enlargement, especially at the end of the Ninevite 5 period, and this constant enlargement. A possible explanation utilized by some scholars to explain this expansion is the constant flow of new residents to the urban centers, thus overlying the exceptional important of immigration to sustain this city's growing ratios (Algaze 2018: 23)

In the northern Mesopotamian case, mobility of population from smaller sites towards a single settlement could has been one of the many cause for these concrete

settlements to grow, but it could have been not the only possible way. Many scholars have interpreted this process as an opposition between coexistence models based on kin-related societies and societies based on class or neighboring relationships (Ur 2010a: 388-9). These relationships are attested in the material register with the emergence of more complex administrative systems or specialized craftsmanship spheres that required a high degree of social division in order to make the system works. Also, another evidence for this change in the social order is the emergence of exogenous neighborhoods in northern Late Chalcolithic sites, that brought Southern features that are recognizable far beyond the classical Uruk pottery. However, the evolution of northern concentration of population cannot be fully explained as a simple assimilation to the social complexity changes in the southern Mesopotamia region, and other questions need to be resolved. For instance, one need to question the reason that enlarging urban centers attracted large contingencies of population if, as has been stated before, pre-modern cities would have had worst living conditions, highest mortality ratios due to the lack of sanitary measures, and also most of the population stood under the dominance of an urban elite that began to grow in these new urban centers (Algaze 2018: 23).

We have not that many certainties about why the Uruk system collapsed so suddenly and the settlement pattern experienced such an abrupt change, but the archaeological register left no doubt. In general, the old Late Chalcolithic system, based on a scatter of smaller settlements with a short number of massive settlements such as Tell Brak or Hamoukar, switched to a more disperse model at the beginning of the third millennium, and focalized again into large centers at the end of this period. However, thinks are not that simple. On one hand, settlements, both of new foundation and already existent in LC 4-5 experienced an exponential growth while other settlements that had been important, namely Tell Brak or Tell al-Andalus, witnessed an important decrease in the first case, and a total disappearance in the second one. These fluctuations may be pointing to a loss of importance of previously central sites due to the failure of the economic and political system that held them, while new centers attracting population developed into new political realities.

The fact that, in the cases of the regions of Tell Brak and Leilan, most of the regional LC centers decreased or completely disappeared, and new centers grew during Ninevite 5 period is an evidence for a crack in the LC organization system. This abrupt discontinuity could have provoked the exodus of population from these old urban centers, and the establishment of another new order to substitute the older, and thus explaining the movements of population. Otherwise, it is to be expected that the people would remain in their own cities if they had the possibility, and such a massive changes required a good reason to force most of the population of a site to leave. This event could explain why

population preferred to move to the new enlarging cities, even more considering that the living conditions at LC 4-5 urban sites would have not been so different from those in the Ninevite 5 centers, In the case of Tell Feres, for example, excavators found a complete sequence of a gradual abandonment of a rural settlement and the pacific transition of its population to another location, whatever it was (Vallet 2018). Perhaps, the failure on the previous structures that held the LC society made the live in this villages more difficult, as the Uruk system crumbled. This fact can explain the abandonment of sites, but it is also true that other sites give us an opposite vision. The clearest example is Hamoukar, a site that was previously important during LC, but then, in the Ninevite 5 period, agglomerated a great mass of population leaving nearby villages and gathering together in the site, that reached a massive size. The fluctuation of the population is so evident, as only a bunch of sites survived the transition to Ninevite 5 period.

It seems logic that a city cannot grow at such a rate without an input of new settlers, newcomers that needs to come from villages somewhere in the surroundings, so that is no realistic to believe in the existence of high mobility networks in the Early Bronze Age that allowed people to migrate to furthest destinations. Then, it would be expected that the newly arrived population most probably came from nearby sites. In the case of Tell Beydar, for example, it doesn't seem casual that the loss of hectares of surrounding sites fit with those that the site itself grew during the first half of the third millennium, when it was founded. This low mobility of the populations could explain why several cities grew across the Ninevite 5 extension, so the former inhabitants of villages would have preferred to gather together at sites closer to their previous homes, given the logic limitations in the communication networks already stated. For the southern Mesopotamia's case, many theories about the enlargement of cities have come out, but its application on the casuistic happened in northern Mesopotamia has to be carefully examined. For instance, it has been claimed that, during times of growing violence and instability, bigger cities would have been a good option for people to find security (Wright et al. 1975), but it is difficult to prove that growing social tensions and violence was a major point that prompted significant migrations of populations. Perhaps, the development of fortifications surrounding major urban sites at the end of the Ninevite 5 period and coinciding with the enlargement of the lower towns at sites such as Leilan and Mozan, could be pointing in that direction, but no clear evidence of important episodes of violence and warfare have been found at these sites.

The evidence for warfare discovered for the Ninevite 5 period in northern Mesopotamia are not so abundant. In fact, one of the clearest possible events relating to a violent event comes from the site of Tell Majnuna, a satellite mount that's part of the site of Tell Brak. There, three massive graves buried in a single episode were uncovered

and dated to the LC 3 phase, around 3800-3700 BCE. Despite being much earlier than the Ninevite 5 period, evidences for previous conflictivity could have support this as a cause for the restructuration of the urban settlements. However, no other site in the whole northern Mesopotamian region have yielded similar evidences. Also, the identification of the mass grave of Tell Brak as a product of a warfare or violent episode is not out of doubt: first of all, no clear traces of violent death have been retrieved among the deceased's remain, but healed past injuries and malnutrition evidences have been indeed located. The lack of direct evidence does not deny the possible warfare origin of this massive mortality, but it also left the door open to other possible explanations such as famines and diseases caused by the climate change, a possibility also considered by the authors of the study, thus relating the violence with internal conflictivity instead of the action of an invader foreign army attacking the inhabitants of Tell Brak (McMahon, Soltysiak and Weber 2011). However, given the scarcity in the archaeological register, it would be reasonable to consider the violence as a consequence of a deeper crisis rather than a consequence for the end of the LC order.

Also, the growing at expense of the rural centers surrounding large urban settlements has been interpreted as one of the factors that supported the attraction of new population. According to these theories, the competition between the elites of large urban centers for accumulating clients would have favored the migration of population from villages in the hinterland of cities, as these elites where willing to enlarge their pool of clients (Algaze 2018: 31). For the northern Mesopotamia, competition between urban centers does not seem far-fetched, as the spatial analysis show separated influence regions for every urban center, but the plain will of an elite to compete against other urban elites seems more likely to be just a possible factor rather than a determinant reason to explain the population mobility.

Nevertheless, our knowledge on population migrations is very much limited by the nature of the archaeological data. The fluctuation of the population is difficult to state as it doesn't left much register at the sites itself, but in the vast majority of the cases, it can only be inferred by indirect data. The variation in the sizes of sites across the territory is one of the most important elements to glimpse a change in the population inhabiting a site. Also the complexity of the site's architecture is a relevant point, but this data can only be taken into account when a significant portion of a site has been excavated (Postgate 1994: 48), and that is not common enough to compare the evolution between sites losing population and others gaining it in the same chronological periods. For instance, the site of Tell Brak has yielded important results for the LC period, but only limited results when it comes to the Ninevite 5 remains. However, different techniques have been applied to maximum population capacity calculation for a site or an entire

region using different variations, such as the carrying capacity and the thresholds of productivity regarding the technology available for each period (Zimmermann, Hilpert and Wendt 2009).

Following the Tell Brak example, a population of some 20.000 inhabitants has been proposed for the LC 4-5 (Diffey et al. 2023: 4), but this data is difficult to verify because it takes into account large portions of the lower town that has never been excavated. Also the estimation of population living in the upper town, even when most of excavations had concentrated on it, is difficult because not all the dimension of it has been tested. Then, it is impossible to assess how much of the site was occupied by dwellings and how much of it were other kind of buildings. When comparing sites, one would note that some settlements stand out for larger residential quarters in an urban scale such as stated in Tell Melebiya, while other sites in the Middle Khabur region have proved to be mostly occupied by storage or primary resources' transformation facilities. Then, in cases such as Tell Raqa'i or Tell Gudeda, the calculations of population without taking into account the special significance that these facilities play in the internal configuration of the site, could have led to misinterpretation of the material register. In addition, we cannot be sure of how much of the site has survived to the present, or even the original limits of each site for each historical period (Postgate 1994: 50-1).

However, other indirect elements could help evidencing population fluctuations. For example, the detection of low to moderate manuring activities in agricultural fields around urban centers determined by analysis on archeobotanical samples and the physical extension of intensive agriculture is consistent with the enlargement of sites and, probably, also with a growing population. Also, the presence of a network of 'hollow ways', fossilized paths that often display a radial pattern around large sites, have been identified as either communication routes with other surrounding sites, but also paths used by the peasants for the agricultural exploitation of the lands surrounding the site (Wilkinson 1994; Ur 2003; Wilkinson 2007; Menze, Mühl and Sherratt 2007; Deckers and Riehl 2009; Ur 2009; Wilkinson et al. 2010; Menze and Ur 2013). However, the dating of these elements is problematic, as no empirical evidence for the periods in which these paths could have been in use or even originate have been attested. Even though, the presence of these secondary elements may be pointing to a growth of population, in accordance with the enlargement of urban scale settlements (Styring et al. 2022: 847).

Nevertheless, it seems obvious that some cases of extreme growth in terms of hectares such as Tell Leilan from 2600 BCE onwards, are very unlikely to present an equal proportion of growing on its population. It's hard to believe that the settlement increase from 15 to 90 hectares occurred alongside a proportional population growth,

though the origin of such a massive income of newcomers seems difficult to assess. Then, in the case of Leilan, other uses of the constructed soil rather than the establishing of dwellings should be considered.

The issue of the population fluctuations during throughout all the Ninevite 5 period is a very difficult matter. On one hand, it is evident that the populations of some sites had to necessarily suffer a reduction (for instance, sites that completely disappeared after the LC 4-5 period), other witnessed an increase, as the enlargements are not understandable without population's displacements. However, the relative importance of these fluctuations is somewhat more difficult to assess: Exact estimations of population are very difficult to state at most of the sites due to the discrete excavated surface of many of them, but also due to the focus of excavations in the upper towns of these sites and the lesser attention dragged by lower towns. Even considering the difficulties, it may be said that the migrations and population movements were an important factor during the transition to the Ninevite 5 period, and also a determinant factor in driving the development of urban settlements that played a leading role in the future urban expansion in northern Mesopotamia.

5.4. Producing, Storing and Preparing. The Management of Alimentary Resources During the Ninevite 5 Period

Undoubtedly, the correct management of alimentary resources is one of the most important elements that a city need to solve in order to ensure the nutritional security of its population. The augment of the population also comes with an enlarging demand for food, and the ways to obtain it are not always easy. Luckily for the inhabitants of northern Mesopotamia, the fertile and extensive plains characterizing those lands were capable of sustaining agricultural and grazing activities that could produce enough resources to feed a large population. However, in newly grown cities, the development of a management system was required to ensure a proper network that prevented the urban centers from experiencing scarcity.

5.4.1. Management of Fields: Work, Manuring and Producing

The management of agricultural lands could have had an origin in Uruk times judging by the existence of similar structures prior the dismantling of the Uruk system. Tell Brak is, as we have seen before, one of the clearest examples of this continuity. This site not only preserved a similar empty surrounding area that's evidenced for the LC period to Ninevite 5, but also several common features that must be taken into consideration. First of all, despite the total settled area of the site being drastically reduced by an impressive 69% (from 130 hectares to 40), the surrounding empty area maintained all its are intact and empty of minor sites throughout the Ninevite 5 period. The continuity on this concept of settlement pattern is even more clear when focusing the history of the surrounding sites. Although the huge drop in the number of sites experienced between both phases and the low percentage of new sites founded during Ninevite 5, all of the occurrences have similar locations with regard to Tell Brak. Also, some sites retain almost the exact positions that the previous LC settlements, namely the aforementioned examples of S6 (Tell Feres) and S411/412 (Tell Zuweikat 1/2). That means that, very little or nothing seems to have changed between LC and Ninevite 5 in terms of settlement pattern as the agricultural area of Tell Brak is equally respected, even to the point of keeping exactly how it was in LC times. That also lead to an interesting question relating to the population of the site of Tell Brak: if a such a big city required that amount of land to feed their population, what is the point in maintaining the same surrounding land if the population has decreased as well? Ma Also, many questions on the function and the focus of the surrounding villages have rose as their position besides these greater urban centers

expanded. Perhaps, the response for the second question can be found in the first one: The Agriculture.

In order to evaluate the importance of the small rural villages in the management of the agricultural exploitation of the abundant fertile ground of the Northern Mesopotamian plains, one need to focus in several variants that points to a site devoted to this economic activity. This evidences comes directly from archaeological excavations. Assemblages linked with an agricultural production have appeared at many sites throughout the Ninevite 5 extension: in the Middle Khabur area, great amounts of flint probably utilized for harvesting appeared at the site of Tell 'Atij (Fortin 1998b: 236) and grinders are also common, like the sets reported at Tell Raqa'i (Schwartz 2000: 164) or Tell 'Atij (Fortin 1998a: 19). However, elements linked with agricultural activities are common in many periods, and its sole presence at a site does not signify that the agriculture was its main economic activity. Other small finds are way more relevant in that sense: the retrieving at Tell 'Atij of a set of tokens linked with a grain storage facility (a silo), and a tablet at a short distance of it proves the presence of counting activities, probably related to the stored surplus (Fortin 1998a: 18).

In this sense, the production ratio and the labor of fields was a major issue. The inexistence of a channel systems in the northern Mesopotamia prevented people from developing an agriculture based on a model of generation of surplus through the artificial irrigation, similar to that of the Southern Mesopotamia (Weiss 1977), and had to mostly rely on the dry farming, even considering propositions that point to the existence of a limited use of the artificial irrigation (Zeist 2015: 566). This reality seems mostly coincident with the area of Mosul and the plain of Erbil during the early third millennium and, probably, also at the plains surrounding Tell Afar (Weiss 1986: 82). These conditionsor aridity demanded the adaptation of strategies to ensure the survival of these growing communities. According to the settlement distribution, it appears that the productive system was mostly based on the intensive exploitation of the land as seen in the distribution of sites around urban settlement's agricultural areas. An interesting example of this fact is the territory around Tell al-Hawa, that is overcrowded with sites that scattersaround, but never invading the agricultural territory of Tell al-Hawa. Other evidences from Tell Leilan seems to be pointing to a diversification in the land managing strategies in regard to maximize the productivity of the dry farming area surrounding the site. Evidence for the usage of different crops that resisted different climate conditions duringthe EJ 3a phase, prove the intention of adaptation of Leilan's population to diverse weather conditions, and thus ensure a source of food for the city's inhabitants throughoutthe year (Wetterstrom 2003: 393).

In this very same sense, the cultivation of barley and the more extended presence of this cereal instead of wheat could be related to this intention of empowering the cultivation of more resistant crops, and barley makes lower demands upon soil and climate conditions, thus resisting better the drier weather and lower rainfall (Zeist 2015: 564). This intention for adaptation could be pointing to a self-sufficiency in the alimentary production at this site. However, dry farming had many inconveniences compared to the irrigation system used in the south (Weis 1977). Dry farming is highly dependent on an adequate level of rainfall (Schwartz 2015: 3-4; Kalayci 2016: 224; Diffey et al. 2023: 2) and, even when conditions could be adequate in most of the Syrian Jazeera for practicing this agricultural system, the high inter-annual variability in these rainfall ratios made droughts relatively frequent. Thus, years with low harvests were also present, and had to be much more usual than in the south (Weiss 1986: 72; Wilkinson, Gibson and Widell 2013: 14). In consonance, evidence for the enrichment of lands through manuring was attested at Tell Brak during the mid-third millennium B.C.E., perhaps as an attempt by farmers to maximize the productive potential of dry farming. (Diffey et al. 2023) and also probably obtain enough surplus to get through seasons of crop failure, that, otherwise, might have been usual (Charles et al. 2010: 186)

Some scholars have pointed to the existence of evidences for a drastic change in the climatic conditions in Northern Mesopotamia during the transition between the 4th and third millennium BCE. As we have seen before, dry farming is completely dependent on the rain ratio, and an aridification, perhaps accompanied by a descend in the raining and the atmospheric moisture could have negatively affected Northern Mesopotamian LC 4-5 sites. Climatic influence on depopulation of sites have been proposed for sites such as Tell Brak (Charles et al. 2010) and other sites in the region, but not only during the early third millennium transition, but throughout the Middle Bronze Age period (Wossik2009). Some studies seem to be pointing out that, despite of the evidences suggesting such a changes in the climate conditions, the relation of this element and the variation ofthe settlement pattern could be more pronounced during the Ninevite 5 period than in later phases (Charles et al. 2010). However, it is also true that the regional conditions arenot always the same throughout all the Ninevite 5 settlements and within its phases. A climate change could have been a valid explanation, but it does not justify why some Ninevite 5 sites relatively flourished at the beginning of the period apparently out of nowhere (namely Tell Beyda). Also, the massive enlargement of sites such as Leilan or Hamoukar from the EJ 3 phase (2600 BCE), need further explanations as it will be discussed in next sections. Then, even when climate could have been a relevant condition, it probably was only one of the many pieces of the urbanization process' puzzle in Nothern Mesopotamia.

5.4.2. Granaries and Dwellers in the Hinterlands: An Equilibrium Between Living and Storing

For instance, the site of Tell ar-Raqa'i (S33) is interesting because its chronology its almost exclusively restrained to the early to mid-third millennium B.C.E. (Schwartz 2000: 164). There, an Early Bronze Age village featuring a large rounded building was unearthed, and characterized as a small rural site less than 0,5 hectares in size. The levels 5-7 of the site, directly founded over virgin soil and dated to the early to middle Ninevite 5 periods (EJ 1-2) by their excavators (Schwartz 2000: 164) contained very few architectural remains consisting mostly on some 'grill structures', elements that have been identified as grain storages (Curvers and Schwartz 1990: 19-20; 1992: 415-416; Paulette 2015; Lawecka2019:141). The rounded building has been identified as a structure with a cultural purpose, a temple, but also as a grain storage facility, a characteristic with not so many parallels in northern Mesopotamia.

Another structure of a similar nature was found at Tell an-Naml, but no other parallels are to be found in the Northern Tigridian Region (Lawecka 2019: 145). The excavator stated that the building was a temple due to comparison with other sites in the region and the Diyala basin, but no clear evidence for a 'ritual' purpose was found during the excavation (Suleiman 2001/2; 2010). Anyway, the example from Naml is regarded as a 'clearly' southern-influenced structure (Lawecka 2019: 145), despite of the presence of Ninevite 5 pottery elements in the necropolis associated and inside the building. Another closer parallel was found at the site of Tell Khazna (S133), a site excavated by a Russian team and located in the Ninevite 5 area, some twenty-two kilometers north of Hassakah. In this site, a huge round building dated to the Ninevite 5 phase has been documented. The excavators reported the presence of burned crops and possible storages at the site (Munchaev et al. 2015: 7-8; Lebedeva and Antipina 2016: 508). At this site, a large grain storage was identified and interpreted as a public building for redistribution of crop (Munchaev, Merpert and Amirov 2004; Munchaev and Amirov 2016: 17, 79). Also, the site of Khazna represents the only example of round building in the full Ninevite 5 area, but the configuration of the site presented several differences when compared to Tell Raqa'i. The site of Khazna is small, 2 hectares at most, but it is almost completely occupied by this round building. However, opposite to Tell Raqa'i, Khazna presented domestic structures as well as other facilities interpreted as temples and storages inside the round 'building', so, it could be considered an urban plan instead of a single building with religious purposes at a whole.

In the case of the 'grilled' structures also featured at Raqa'i, opposite to the rounded building, have many parallels in the Ninevite 5 domain (Figure 40). These

structures often present a very similar plan, with parallel low row of mudbricks built at regular distances and their walls and floors use to be covered in plaster, common features in the granaries of the Ancient Near East (Stede 2010: 304). Within the Ninevite 5 culture, this structures have been identified at sites such as Telul ath-Thalathat V (Fukai, Hariuchi and Matsutani 1974, plt. XLVI, 1. 2.), and also at sites in the Eski Mosul Dam region such as Rijim (Bielinski 1987b: 31), the early Ninevite V levels at Tell Karrana 3 (Wilhelm and Zaccagnini 1987a: 196-8, 1987b; 1991: 6-8; 1993) or Siyana Ulya (Ball and Gill 2003: 24), and also a possible occurrence at Mohammad Arab (Roaf 1984: 155). However, most of the occurrences at the Eski-Mosul region where dated to the Late Uruk period. In the Middle Khabur region, Early Bronze Age grain storages have been identified at Tell 'Atij (Fortin 1989; 1998a: 19; 1998b), Mashnaqa (Beyer 1993; 1998), Tell Kerma (Saghieh 1991), Tell Kneidij (Klengel-Brandt et al. 1997) and Zidayeh (Hole 1999: 273). However, the evidences retrieved in the Middle Khabur are more interesting for the topic of this thesis because the population in this regions seems to mostly concentrate in the first quarter of the Early Bronze Age, while previous periods are less prominent, and remains of the second half of the third millennium are almost absent (Hole 1999: 268).

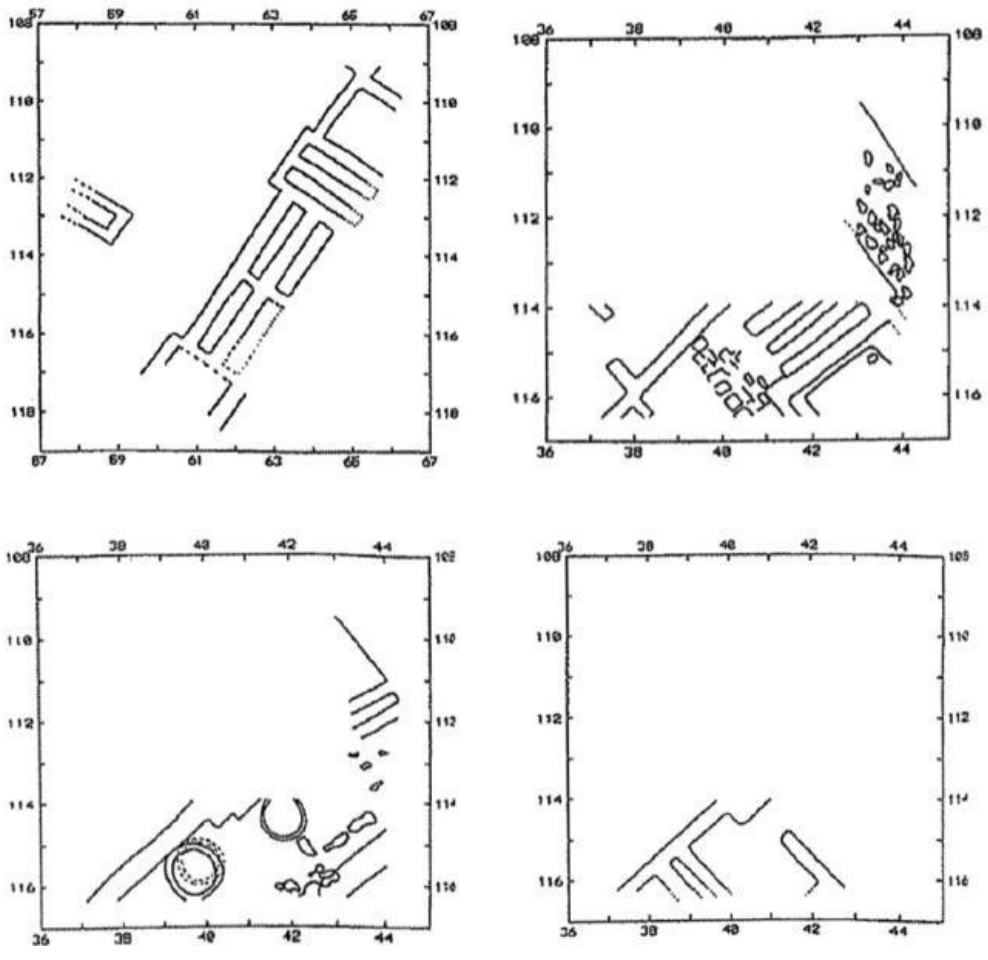

Figure 40. Reconstruction of the level 5 of Tell ar-Raqa'i (Bravo 2014a: 378).

Almost all of this structures are granaries of different sizes related to storage of agriculture surplus. The finding of such a structures in the Eski-Mosul region may be related to the remains found at Raqa'i and dated to the beginning of the EJ 2 period and, according to the data by the excavators, of equal small size in comparison to the larger EJ 3 settlement at the site (Schwartz 2000). These facilities were certainly used to store grain and other vegetal products, possibly for human or/and animal consumption (Fortin 1989a: 19). Additionally, storage structures used to be associated to productive structures, namely ovens, attached or close to the granaries; examples are to be found at rural sites such as Ziyadah, in the Middle Khabur region, or Telul ath-Thalatal, where a large kiln was uncovered close to a large granary compound (Renette 2019: 29). However, kilns and other productive structures have been found related to grain storage buildings also in large sites such as Tell Barri. Then, it seems clear that the granaries were generally related not only with storage functions, but also with the transformation of primary resources, possibly from the granaries.

Also from the beginning of the EJ 1-2, the occupation at Tell Zidayeh was characterized by the presence of a large 'grill' structure, a tannur (oven) attached to its walls and another building, also attached to the 'grill' structure, with no evident entrances and possibly of semi-subterranean nature. Regarding all the buildings found, the fact that all the structures where arranged in the same orientation and the absence of entrances at the building attached to the 'grill' structure and also to this building itself (probably because it was acceded from above) suggests a storage and row material transformation purpose for all the facilities uncovered (Hole 1999). Other granaries, like the one at Telulath-Thalathat V or 'Atij, also share this doorless condition. In the case of the granary of Telul eth-Thalathat V, evidences for two doors leading to a superstructure above the grillstructure were identified (Stede 2010: 308), leading to the conclusion that the substructure, the place where the surplus was stored, would be a space without direct access, maybe to better control the access to the resources, and also to better control plagues.

At most of the examples from the Eski-Mosul area and also the Earliest level at Tell Raqa'i, the small sizes of the 'grilled' structures made very unlike to find for them a use other than the small scale storage of resources for a single household, or maybe for a couple of them. However, in comparison, the granary unearthed at Telul ath-Thalathat V is much bigger than the aforementioned parallels, and also its structure has formal differences. The granary is trapezoidal in shape, and also its façade has buttresses on the outer face (Fukai, Horiuchi and Matsutani 1974; Stede 2010). The interpretation of this structure as a storage facility is mostly accepted among scholars because a layer of carbonized stored grain caused by a fire that destroyed the structure, was found during

the excavations (Sievertsen 2005: 406-9; Lawecka 2019: 1433). In this case, also a usage for the full community resident at the Tell V of Telul ath-Thalathat has been proposed (Lawecka 2019: 143), as its capacity is excessive for a single household usage (Stede 2010: 310). However, the studies on the total capacity of the storage facilities, set around 65.000 kg of grain (Stede 2010: 309), seems excessive for a rather small community. It is also true that there is no information at all about possible residential quarters at the site, because the Japanese team that worked at the site only dedicated one campaign, from October 1965 to January 1966, to the excavation of the Tell V, and no other architecture was identified aside of the storage and productive quarter (Stede 2010: 304). However, a substantial residential area that could justify the local consumption of the grain stored at such a large granary seems unlikely if only the Tell V, a rather small settlement, was occupied during the Ninevite 5 period. Then, in this case, it seems reasonable to consider the possibility that this surplus was intended to be consumed outside of Telul eth-Thalathal V, whatever the conditions of this 'external consumption' were, and wherever the final destination of the grain was.

Regarding the spatial role of these kind of structures in the Middle Khabur basin settlements, Fortin reported that Tell 'Atij featured no clear domestic spaces compared to other sites in the same region, but 'grill' structures were identified. The scholar, following other author's thesis, interpreted this fact as a method used by pastoral nomads to ensure a source of stored resources in case of famine (Lebeau 1993: 610; Fortin 1998b: 236-7), but this explanation seems too simple to me. If we compare this situation with the one at Raqa'i, one would see that the urban plan of this site was very simple during the earliest stage of the site, but 'grill' structures were documented anyway. This evidences that the urban evolution of these sites is very much dependent to the agricultural managing strategies developed at every stage of the first quarter of the third millennium B.C.E, and the sites' physiognomy changed as these strategies were developed.

An element that could explain the phenomenon of these sites without domestic architecture is the short distances between sites with domestic spaces like Melebiya and sites exclusively devoted to agricultural labors. Even when the steppes to the east of the Middle Khabur could have been inhabited by nomadic peoples since time immemorial, there is no strong evidence to validate the presence of these nomadic peoples in permanent or seasonal settlements in the Middle Khabur flow, instead of considering the people using large storage facilities at small sites to be permanently settled at other sites with bigger dwelling quarters. The specialization of sites and the short distances separating one from another on the river basin leaves as a possibility the existence of a workforce, whatever its origin was, not in the capitalist sense of the word, but as a population contingencies living at sites like Melebiya with high mobility between closer sites. These

populations extended their activities throughout the Middle Khabur basin to make the most of the available agricultural surface, thus creating these settlements as storage facilities for the surrounding agricultural lands.

The case of Melebiya is important regarding the presence of two activity levels for the investigated sites in the Middle Khabur area. Melebiya is not only the biggest site for the early third millennium, but also featured the larger and more complex urban plan ofall the sites in the region. The habitational contexts found at the site had a very clear urban arrangement, with streets dividing quarters of domestic structures (Lebeau 1993: 41-66). Other sites with more discrete urban plans are Tell Bderi (Pfälzner 1986-7a; 1986b; 1990), or the aforementioned Tell ar-Raqa'i. Melebiya, contrary to the cases of Tell Kerma, 'Atij or Raqa'i, did not presented any evidence of grain storages, so, the domesticarchitecture was dominating over any other possible productive activity present at the site. Then, these examples evidence the existence of a division in the functions of contemporary settlements in a small area (Melebiya is located in a range of 5 kilometers from most of the other early third millennium sites in the region). In addition to these divisions already stated, the site of Tell Gudeda, also in the Middle Khabur region, has been defined as a possible center for small-scale production activities based in the transformation of raw materials, perhaps from other close settlements. The occupation of this site was restricted to the later phase of the Ninevite 5 period, according to the excavator, making it contemporary to the rounded building at Raqa'i (Fortin 1991b: 69).

Either way or another, it doesn't seem reasonable to think these rural sites as a separate reality independent from the bigger sites. In the site of Raqa'i, for instance, the evolution from the discrete storage structures in the Early Ninevite 5 period (EJ 1-2) to a more developed urbanism at the end of the period (EJ 3) seems coincident with the urban development at cities like Leilan. The functionality-oriented structure of the Earliest Settlement at Raqa'i, based on storages for agricultural surplus and a low-structured urbanism (Del Bravo 2014a: 371), greatly contrasts with the more elaborated and planned urban structure of the later phase of the site. Also, the construction of the round building supposed a major restructuration on the urban planning of the site, and obliterated large spaces from the previous settlement. This urban development happened with the erection of this rounded building in the level 3 of this site (Figure 41), with no earliest precedent of a similar building in the site. This structure has been compared with temples in other sites from Southern and Northern Mesopotamia and many scholars assumed, due to similarities with these other examples, that this building might have had this same purpose (Schwartz 2000). However, none of them doubts at the same time that the rural and agricultural devotion of this site had to had an important role even in the religious sphere.

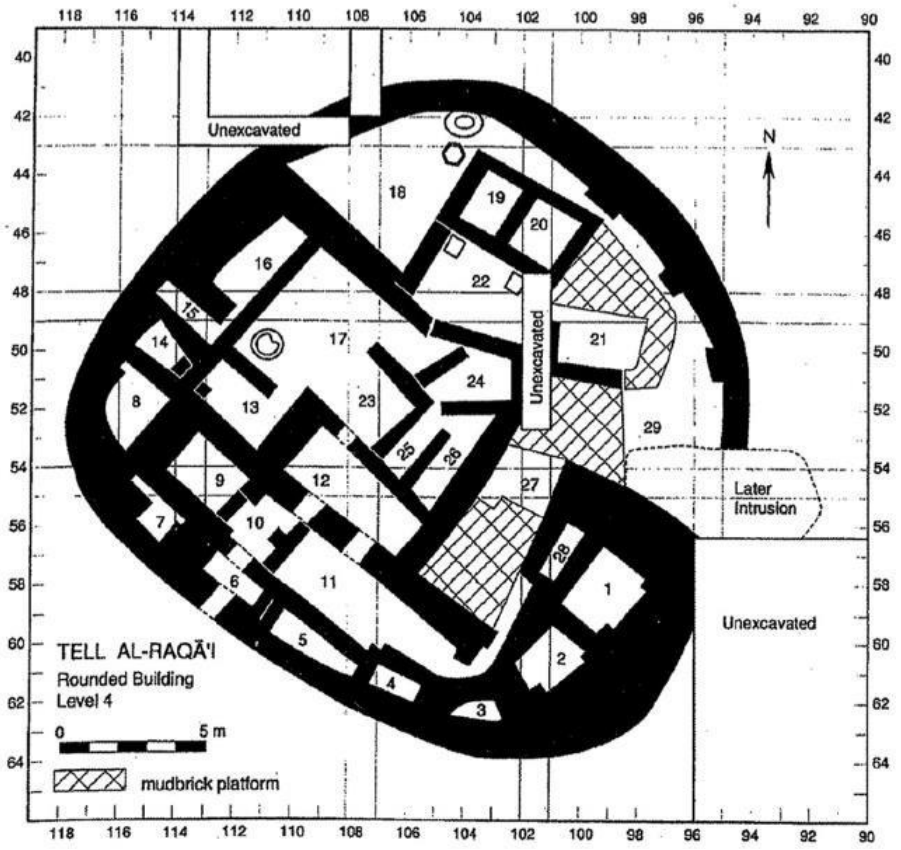

Figure 41. Plan of the level's 4 rounded building at Tell ar-Raqa'i (Schwartz and Curvers 1993/94: Abb. 70).

However, even accepting a religious purpose for this building, the evidences that link it with some sort of storage activities has been attested as well in the excavations. An oven and several siloes sunken into the ground of the building attested its storage purpose (Del Bravo 2014a: 371). The investigators noticed these evidences, leading to several theories about the role of storing agricultural surplus in religious and elite-linked activities (Schwartz 2000). However, the most interesting part, as well as in the case of the storage facility at Telul ath-Thalathat, is that the capacity of the rounded building of Tell ar-Raqa'i seems disproportionate in relation with the tiny settlement that accompanied it. It looks like the capacity of such a big storage facility would have exceed by far the necessities of the population of Raqa'i, thus leading a door open for theorizing on what the inhabitants of this site did with the surplus stored there, and also points to the site as almost exclusively devoted to agricultural activities (Curvers and Shwartz 1990; Scwartz and Curvers 1992). Also at the site of 'Atij, the 'grill' structure was accompanied by a large mudbrick platform, making a facility that has been interpreted by the excavator in these terms: 'This type of construction is much too large to be interpreted as a domestic

storage installation…' (Fortin 1998a: 17). At Tell Kerma, a massive storage facilities were reported, in which great quantities of carbonized barley grains were retrieved (Saghieh 1991). Yet another example is to be found at Tell Zidayah, whose large scale storage facilities seems excessive for a rather small community, represented only by the presence of some modest possibly domestic quarters. In this case, the responsible for the excavation even proposed this site to be a part of a major network based on the storage of grain and led by a local government settled at a major site in the region, function for which Tell Brak is proposed (Buccellatti, Buia and Reimer 1991: 35). However, this site had a large cemetery settled atop of the main mound, condition that prevented the excavators from extending the works towards de south, where, according to them, the domestic quarters could have been identified (Hole 1999: 272). Alongside with the granaries, large surrounding walls have been documented at Tell Bderi (Pfälzner 1990) and Tell Kerma (Saghieh 1991), but the relation of these structures with the possible protection of the granaries is unclear.

This disproportion between storage capacity and population at each site has been noticed before, and according to estimations from all storage facilities which size are known, it has been attested that this is a systematic issue throughout the entire Middle Khabur region (Schwartz 1994: 28). However, Frank Hole tried to reply to this argument and defend a local usage theory for these surplus: firstly, according to this author, the storage capacity of the granaries at sites like Raqa'i or 'Atij could have been no excessive, and secondly, he questions it the available arable lands surrounding sites would be enough to fill the enormous capacities of the storages (Hole 1999: 275). Also, Hole assumes that each community had an operating range that could not interfere with the ranges of other sites. In my opinion, nevertheless, nothing assures that the populations of each site where different people with something similar to a 'delimited space' for each. Regarding the capacity of the storages, Hole showed himself skeptic when it comes to the content of the storages: he accurately states that no proportion between the contents destined to human consumption and animal consumption have been made to this date, a clarification already pointed by Fortin at Tell 'Atij (1998a: 19). In this very same line, McCorriston argumented that the storages in the Middle Khabur could have been related to a specialized pastoralist communities during the first half of the third millennium BCE that stored surplus that exceeded human consumption (then, assuming that the surplus of the storages indeed exceeded the needs of the settled community), and then this surplus could have been used to herd animals during arid seasons in which forage was restricted (McCorriston 1995: 36).

It has been stated that Barley was the predominant crop at that times (McCorriston and Weisberg 2002: 485), a statement also tested in the Syrian Jazeera (Wetterstrom

2003), and it was also the predominant crop at the granary of Telul ath-Thalathat V (Schwartz 1987: 95), and that of Tell Raqa'i (Zeist 2015: 560). Nevertheless, it is also true that this crop has not only a usage for human consumption, but also for animal feeding. Also, the presence of tokens and other elements linked with a systemic administration is explained by the fact that nomadic peoples could have used these elements as well. Schwarz, however, stated that the presence of administrative elements such as cylinder seals are evidence for a centralized administration related to the storage of surplus (Schwartz 1987: 96-7). Relevant corpus of glyptic elements has appeared in urban centers such as Tell Brak (Matthews 2003: 100–22), Tell Arbid (Bielinski 2012: 553) or Tell Leilan (Rova 2003b; Parayre 2003; Calderone and Weiss 2003: 194), as well as, in minor quantities, at smaller sites like Tell Melebiya (Lebeau 1993:505-6) or Tell Raqa'i (Schwartz 2015) in the Middle Khabur region and Tell Khazna and Kashkashok III (Munchaev and Amirov 2019). Also, Hole does not clarify the existence of a site like Melebiya, a settlement clearly dealing with permanent dwellers and domestic architecture, with quarters devoted to the settlement of people, if the region was dominated mainly by nomad people[8]. However, Peter Pfälzner considered the existence of urban planning in the Middle Khabur to support the theory of the local consumption defended by Hole and other authors, but assuming that the communities utilizing these storage facilities might have been sedentary settlers rather than nomads roaming around a large territory (Pfälzner 2002).

Also it is noteworthy to focus on the transformation happened at the site: the small storages of the earliest stages of the EJ 1 period would have been enough to cover the alimentary needs for a small population like that could have been held by a tiny village like this one, but the enormous growth of the storage capacity during EJ 1-2 surpassed greatly the necessities of that population. Furthermore, the fact that the urban enlargement was only developed during the latest period of Raqa'i suggests that the round building's activities conditioned the growth of the domestic structures. Then, the development of larger storage spaces with greater capacity in small rural sites during the Ninevite 5 period could have been conditioned by the growing needs of the incipient urban centers in Northern Mesopotamia. However, it is also true that we have no actual element that could connect the site of Raqa'i or any other site in the Middle Khabur with neither of the enlarging urban Ninevite 5 centers to the north (Schwartz 2000), and the lack of evidences at contemporaneous sites surrounding this centers prevents us to stablish direct connections. In fact, some authors have questioned if the actual connections of the sites in the Middle Khabur are to be found in the south, in the city of Mari, in the main course of the Euphrates (Fortin 1989b: 237-38; Schwartz 2000). In this sense, some authors

[8] For further information on this debate, see Hole 1991, responded by Schwartz 1994, responded back by Hole 1999.

argued that the area of Upper Khabur (the areas around Tell Brak or Leilan) is fertile enough to satisfy the needs of its population, and the urban centers would not be in need of importing grain. On the other hand, the area around Mari is rather unfertile and unproductive, conditions that could have forced the city to import grain from upstream of the Khabur (Curvers and Schwartz 1990: 22; Lebeau 1993: 610). Later contacts with the city and regions upstream the Khabur are known from later registers of Mari, so, it is not disposable that this contacts had an origin in an earlier period (Fortin 1998: 237-38). However, it is also true that the text referred are dated to the second millennium, and a direct relation could not be inferred given the long span of time and given the fact that the city of Mari did not see a relevant urban expansion as early as the beginning of the third millennium (Hole 1999: 276). Also, the Middle Khabur region stands as a rather unproductive and relying on a low annual level of precipitation (Zeist 2015: 552), making difficult to take this region as a grain source for a sizeable urban center such as Mari.

Moreover, if we accept that the storage activities reached a religious dimension during the Early Bronze Age, it is also arguable that the process related to agricultural production and surplus using had to necessarily suffer a transformation. It is well known that, as the social complexity grown, the religious matters tend to grow alongside with the stratification of the society (Schwartz 2000). Then, the complexification of these relations could be pointing to a society that's been evolving and become more and more stratified, but also a society that got into a network of interrelated settlements, probably linked with the emergence of the Ninevite 5 urban centers and the enlargement of the agricultural surplus use from a local or even a household dimension to a broader regional extension (del Bravo 2014a: 373). When it comes to the comparison with the modest 'grill' structures found at Late Uruk contexts in the Eski-Mosul Dam area or the EJ 1 context in Tell Raqa'i, this very same idea of augment of the storage capacity comes to the mind, but, sadly, no Ninevite 5 occurrences had been documented at the Eski-Mosul area.

However, even considering the existence of a net of small specialized sites in the early third millennium, and some of this sites like Raqa'i may present evidences of incipient hierarchy in the agricultural production and resource management, it is difficult to state how important the religious aspect was for the control over this resource's management. It is not clear whether the local elites' control was more or less conditioned or strengthened by the emergence of religious-related storage, but is undeniable that these elements contributed to the change in the model or urban development in the Northern Mesopotamian region. Also, the relation with these regional elites with their counterparts in the urban centers is unclear: no clear public architecture has been found at any site in the Middle Khabur, and in the Eski-Mosul area, only the platform at Tell Fisna could

have hosted a monumental public building of which no remain has been preserved Fujii et al. 1987: 45. The presence of massive mudbrick platforms are present at enlarging sites like Mohammad Diyab, the EJ 2 phase of the acropolis of Leilan (Weiss 2003: 609-15) or the EJ 2 phase at Tell Mozan (Dohmann-Pfälzner and Pfälzner 1999: 25-39). The virtual absence of elite-related buildings makes difficult to establish whether a locally-located elite evolved in the shadow of the urban elites, or if the urban centers itself could have exercised an effective dominion over the rural settlements.

Also, the cemeteries in investigated rural areas does not offer clear signs for the presence of a dominant elite, although some richer tombs indeed speak out about the hierarchization of the Ninevite 5 society. From this point of view, rich tombs, even when appearing at some sites like Rijim (Bielinski 2003), are not so abundant, and even rare in the Middle Khabur region, in which the tombs at sites like ‘Atij are rather modest (Fortin 1998b). Other sites like Tell Khazna (Munchaev et ali 2004: 337–343) or Tell Arbid (Szelag 2012) also yielded modest tombs.

5.4.3. Feeding the City: Storage Facilities and Subsistence Solutions in Urban Centers

On the other side of the coin, storage buildings are also expected finds in urban centers, as the storage of accumulated surplus surely required larger facilities. At Leilan, evidences for storing and processing of crop have been documented (Wetterstrom 2003: 388), and also some crop storage contexts from Late Ninevite 5 period have been identified in excavations (Calderone and Weiss 2003: 389-90). One interesting example is a granary found at Tell Beydar and dated to the EJ 3a, the very end of the Ninevite 5 period: this granary was found on the edge of the main mound of the site and had approximately 100 sq. m of surface area, with an estimated capacity between 250 and 375cu m (Lebeau and Suleiman 1997). This facility was found to be separated from the domestic spaces but close to a large building interpreted as a private house. It is clear that the size of this facility exceeds the needs of a single household. However, unlike the small-scale rural settlements in Northern Iraq and the Middle Khabur, the population of Beydar at that time had a need even greater than what this granary alone could cover. Additionally, the presence of this large 'private' building clearly relates to the function of the granary, but its exact interpretation is not clear. Some authors have interpreted this as evidence of the presence of 'wealthy' families who could hoard the resources stored in the granary (Hole 1999: 274). However, as far as we know, this building could also have acted as a center for redistributing the grain among the inhabitants of Tell Beydar, thus

pointing to the existence of emerging urban elites that could have controlled the cereal surplus through a series of centralized storages (Schwartz 1987).

One way or another, the difference in hierarchy between large sites with storage facilities and small sites with similar facilities is clear when comparing the capacity of these spaces with the maximum population of each site. This comparison suggests that the agricultural surplus of small rural sites could not be intended to satisfy the needs of their own populations, and it was probably meant to be sent to another location.

However, as the lands surrounding large sites in the Syrian Jazeera could have been enough to cover the needs of the population, even considering the theory of the export, the relation between the Middle Khabur region and the north is all but clear, and the sole presence of crop surplus is not enough to support any position. If the sites in the Middle Khabur were actually devoted to the export of surplus, the northern way of this surplus is hard to believe because of this availability of resources in those areas, and also because the calculated productivity average for the soil of areas to the north of the Middle Khabur is expected to be higher than in this area (Zeist 2015: 565). The enlarging settlements to the north would have clear food necessities, but the overall sizes and estimated populations of these sites, though large, were by no means larger than previous Late Chalcolithic urban settlements. Then, the production of the surrounding lands would have been enough, but a certain arrival of production from the Middle Khabur is not disposable. However, the concept of a self-sufficient regional networks could also fit with the arrangement of sites seen around Mohammad Diyab, Tell al-Hawa or Dugir.

Perhaps the drying climatic conditions experienced in the region from the LC 4-5 period and discussed in the 4.3.3.1 section, was an important element that pushed urban centers to maintain centralized control over the granaries and the redistribution of food among their populations to avoid internal crises during periods of shortage caused by years of low harvests. Then, attending the evidence, the existence of large surplus storage facilities in the urban centers could have resulted attractive to villagers living in rural areas (Algaze 2018: 31) that, as a consequence of the aridifiying climate and the harsh conditions in northern Mesopotamia, could have considered these surplus as an attractive source of resources, a need that also could have conditioned the consolidation of the elite as a class that had control over the stored goods. This theory may also be supported by the existence of large storage rooms at rural settlements in the Middle Khabur region, structures that evolved during the Late Ninevite 5 period, perhaps coinciding with the growing necessities of the local population to ensure reliable sources of food that could elude eventual disasters.

However, it is difficult to assert if the concentration of population in a large center is the best strategy for a society to survive harsher conditions and worst harvestings. On one hand, bigger populations have more labor force and could have worked more land and in a more intensive way. On the other hand, more population also means more people that must be fed, then it is obvious that also the minimum amount of food required to sustain an enlarging population need to be ensured. However, the expansion of the arable land surrounding large urban centers, the improving manuring techniques and the storage facilities could be favoring the hypothesis that some of the smaller rural sites acted as satellite compounds or even agricultural 'facilities' to improve and extend the exploitation of lands beyond the immediate surroundings of the urban centers (Diffey et al. 2023: 21). However, it has also been considered that the expansion of large urban centers was more related with the enlargement of agricultural fields further from the settlement than with an intense manuring of the fields as a practical way to obtain more surplus (Styring et al. 2022: 847). Other evidences for the intensive work of surrounding fields by urban centers are the chipped stone assemblage retrieved at the Level III of Tell Leilan, tools that were probably used for harvesting (Gijn 2003).

In order to test this hypothesis, it is important to infer in the production capacity of the dry farming areas: it is true that this factor is difficult to assess because of a lack of data for the Ninevite 5 period, but some insights can be inferred from the settlement pattern. The agricultural land surrounding larger sites are an important hint, but the site's growth not always fits in percentage with its agricultural area, and also the productivity of these soils and the techniques used are to be considered (Kalayci 2016: 231). Then, more than one factor is to be taken into account in order to establish the sufficiency of the agricultural land and stating if these lands were enough for a large settlement to live in a self-sufficient way or relied in a surplus network. For instance, even when one could consider that elements such as the manuring of the fields could be pointing to an improvement of the field's productivity, the truth is not as simple. Archeobotanical studies from Brak considered that barley samples from the second half of the Early Bronze Age presented a low manuring and management, a condition that could push the settlement to seek the more fertile and easily irrigated lands around the Jaghjagh River (Bogaard et al. 2018b: 319). These evidences, though a bit later than the Ninevite 5 culture, could also be consistent with the surviving rural settlements on the riversides of the Jaghjagh River during this period. Nevertheless, it raises the question on, if the sites had any productive relation to Tell Brak, why are all of them located in the opposite riverside and not on the other side, where the laboring fields would have been far more accessible. Maybe, the maintenance of a minimum amount of free agricultural terrain was considered more important.

Considering all the evidences, however, the sole existence of these catchment areas and the evidences for storing and manuring activities, could be evidencing the self-sufficiency of large sites, perhaps backed up by smaller rural settlements dedicated exclusively to storage and surplus managing (following the evidences from the Middle Khabur region). However, the absence of comprehensive archaeological excavation deprives us from holding a deeper knowledge on the matter.

5.4.4. Some Final Remarks

In light of the evidence presented, it seems clear that the early third millennium represented a period in which emergent societies relied on dry farming to hold their subsistence system. The fact that granaries or 'grill' structures are present throughout all Northern Mesopotamia, to the Syrian Jazeera and the Middle Euphrates to the north of Iraq points out to a high degree of standardization on the techniques used to preserve and store agricultural surplus. Even considering the variation of constructions, from circular and even tower-like storage rooms to large storage facilities that easily exceeded the necessities of a local population (understood as simple dwellers at each site). Also, the presence of granaries at bigger sites linked to administrative and 'elite' compounds also supports the idea of a highly hierarchic society in which this incipient elite could have dominated this surplus.

However, it is also true that the assimilation of all this reality with the exact extend of what we could understand as 'Ninevite 5' culture does not coincide with the reality. The relevant region of the Middle Khabur, in fact, presented very low ratios of presence of Ninevite 5 decorated pottery among its material assemblages. Nevertheless, the parallels for that 'grill' granaries found in the Eski-Mosul area, Telul ath-Thalathat and the Syrian Jazeera are undeniable, and thus links that region with areas with fully developed Ninevite 5 assemblages. Also, the strategies of subsistence are virtually the same, as the dry farming had to be as well the only system used in the Middle Khabur due the lack of a canal system that could allow the irrigation.

Regardless of regional particularities, the land exploitation during the Ninevite 5 period tells us about a system focused on the intense exploitation of lands surrounding the urban centers. Sadly, not so many evidences can clarify the exact function of the small villages surrounding this sites. However, it is assumable that the agricultural character that presented all of the rural settlements stated above could also characterize the rural settlements placed in the countryside of sites such as Tell Brak or Mohammad Diyab. Sadly, a possible relation between ones and the other cannot be inferred without further

excavations at some of these sites. Regarding the relation of other small settlements further from the urban centers, perhaps is hard to believe that a network of sites scattered around a huge land could have been held up by this incipient urban elite. Also, the possibilities for this sites for a self-sufficient existence when trusting on manuring and different types of plantations could seem contrary to this idea of a wider supply network. Perhaps this networks actually existed, as evidenced in the Middle Khabur region, but were only limited to local relations between urbans or, at least, larger regional sites like Tell Melebiya, but also Leilan, Tell al-Hawa, Dugir or Mohammad Diyab, given these local consumption possibilities. Either way, the extensive us of agricultural soil and the intensive labor seems clear, and these elements could be linked with the emergence of a stratified society as have been pointed out. It has been stated that economies involving a labor-limiting agriculture (the system in which the production threshold is determined by the labor force available, Bogaard 2018a: 202) tent to relate with more egalitarian social organizations, while systems based on land-limiting agriculture (systems limited by managed land) tent to be more related to hierarchical and unequal societies (Bogaart, Fochesato and Bowles 2019: 1134). Then, it could be logic to state that the necessity of managing the agricultural surplus and the intensification of the exploitation systems was linked to the emergence of this 'urban' elite that grew thanks to the management of the surplus, but also possibly of the agricultural lands surrounding the settlements (Styring et al. 2022: 832-33).

5.5. Prestige and Settlement Management: An Incipient 'Urban Elite' and a Plan for Enlarging Cities in the Ninevite 5 Period

As we have already seen, the emergence and rapid development of urban agglomerations was a determining factor during the Ninevite 5 period. The rise of urban populations that, in some cases, emerged from nothing, required a good urban plan to maintain its population as a sustainable collective capable to hold the newborn political system. In concordance to the enlarging of these sites, the evidence for growing urban networks is also clear at all of the urban sites identified. These urban enlargements weren't necessarily dwelling quarters, but also other kinds of facilities that identify some degree of hierarchization and control, thus pointing to this new urban elite as an emergent power. Unfortunately, excavations at target sites have often offered very partial views of the architecture of the Ninevite 5 period, and most of the recorded buildings have been only partially recorded (Roaf 2003: 311). Nevertheless, the field work done in Syria in the second half of the 2000s increased the amount of available archaeological information.

To get started, we first need to define what could be considered as 'public' architecture, and what was public space, in contrast with that considered 'private'. First, the residential quarters are determined by urban arrangement, the existence of streets and certain degree of spatial organization. Also, domestic activities are linked to small scale facilities for transformation of food resources. On the other hand, public spaces are linked to activities that surpass the domestic sphere or suppose an excessive labor dedication, both to build or maintain, that a single household or even an extensive family could afford only relying its own labor force. Temples, shrines or city walls are examples in this category, but also mudbrick platforms and other forms of managing and preparing large flat space for further construction activities could be considered public enterprises as well. As we absolutely lack of written documents for the Ninevite 5 period, temples and shrines need to be identified by other means. On the architectural side, cultic buildings are identified by the appreciation of constructed elements such as benches and podia, elements that have been considered as pointing to a sacred meaning in Mesopotamia and Syria (Bielinski 2019: 61). Also the appearance of non-utilitarian and other kinds of objects such as terracotta statuettes have been identified as a temple furniture. However, it is also true that temples have not been yet identified with absolute certain, and only evidences have been retrieved at some sites that could support its identifications as temple compounds (Roaf 2003: 311).

Other kind of structures such as administrative centers are quite reliably identified due to the presence of good quantities of accounting items such as totems. Also big granaries, as opposite to smaller granaries probably linked to household activities, are to be considered as 'public' architecture, as its purpose surpasses the limits of what we consider as 'domestic' (Chiti 2011), and also because, at least, a communal administration had to exist over these places as the maximum surplus capacity exceeds the need of a single family. Then, the debate about the filiation of large granaries found at sites in the Middle Khabur(whether the surplus was dedicated to internal consumption or to the exportation) is mostly trivial for this question because, either way, either the community itself or an administrative elite had to managed this surplus.

Most of the sites discussed in previous sections in the Ninevite 5 area of influence showed much small occupations during the Early Ninevite 5 phase, but then witnessed enlargements during its later phase. Tell Mozan, Leilan or Beydar are only among the examples of urban centers that greatly grew during the last century of the period, thus revealing these tendency as a constant among these settlements during the Late Ninevite 5. The appearance of monumental and public architecture such as massive mudbrick platforms, temples, or city walls at these settlements has been linked to an increasing hierarchization of the society, inequalities that would have favored the emergence of the urban dimension in the northern Mesopotamia. The amount of time and the difficulty of managing all the labor necessary to coordinate the construction of such a large structure could have demanded some sort of centralized administration to manage it all.

However, opposite to the Southern Mesopotamian case, we do not have any written source from the north stating similar organizations within the Ninevite 5 period (Ristvet 2007: 199-200). Also, we perhaps are committing over interpretation when exclusively trust our western capitalist background to analyze past events and evaluate relations of past societies regarding only the necessities of large constructions. It is also known that societies with no clear hierarchy, or even equalitarian, are capable to organize themselves to participate in a communitarian building project. For instance, the proposition made regarding the possible nomadic and mostly egalitarian character of the communities that populated the Middle Khabur could pose an interesting example of communities managing to cover labor force and communitarian use buildings, perhaps with some degree of hierarchization, but not depending on urban elites. However, the capacity of societies to organize themselves could have not been enough to achieve massive constructions such as the defensive wall of Tell Leilan. In addition to that fact, the appearance of administrative elements and great domestic/administrative buildings controlling the access to storage facilities like in the case stated from Tell Beydar, makes

very much probable the existence of this urban elite with incipient control over the surplus and also probably over the labor force that the settlement disposed.

Also, is not of lesser importance to consider that the construction of public building structures required dedication from citizens, that had to complement the work on the fields with the work on these kind of enterprises. In this sense, various strategies are to be contemplated. In the case of the ancient Egypt, for example, the periods of Nile's floods were used for the pharaoh's administration to involve the peasants in the construction of the royal funerary monuments, as this annual event left the fields overflowed and unable until the water level had decreased and prepared the fields to the new harvest season. In the case of Northern Mesopotamia, the fields in a dry farming strategy were not unable during entire seasons, but some space could be found after sowing, when workload was reduced. However, the lower productivity of the dry farming area over other regions made that augmented the amount of work needed to ensure a sufficient surplus of food. Then, the administration of the urban settlements had get through the intrinsic difficulties of Northern Mesopotamian conditions in order to succeed in the commitment to create these public and monumental architecture without compromising the survival of the entire community, thus prompting social instability that could even end up the stablished social order.

In the spatial sense, the classical Mesopotamian studies have considered that huge differences between the lower and upper towns, the areas outside and on the main mounts of each settlement respectively, are evident for later periods. In fact, in classical cities in southern Mesopotamia, the public elements such as temples or palaces were systematically placed on the highest points of the settlements, while the lower parts were mostly dedicated to dwelling quarters and other facilities related to domestic or economic activities. In the south, the upper town's public buildings organization is supported by the existence of a well stratified and hierarchic society, but this does not mean in any way that the upper towns were a forbidden space for domestic quarters, on the contrary, southern Mesopotamian urban centers developed to dense urban agglomerations with messed domestic quarters connected by narrow streets around these temples, that acted as a central core for the city's activity (Ur, Kasgaard and Oates 2011: 1). In the case of the site of Khafaja (old Tuttub), for example, domestic quarters coexisted side by side with the oval temple, but the architectural organization is far from egalitarian, as the temple had a preeminent position over the other architectural elements, was way bigger than any other structure and it was physically separated from the dwellings by a huge surrounding wall. This division of the space has been compared to the arrangement with that found Tell ar-Raqa'i, where its temple-storage had a surrounding wall separating the

building from the domestic buildings, and it also occupied a preeminent role in the internal organization of all the settlement (Del Bravo 2014a).

Then, it is worth asking if these coincidences are enough to state that, at least at a smaller scale, the distribution at Raqa'i is hinting out the existence of a sort of hierarchical organization, or why the distribution of this site seems so coincident with a site so far away in the south of Mesopotamia. However, this case is far from common in the north, and other casuistic are worth mentioning. For example, the circular building of Tell Khazna could hold some similarities, but the internal distribution of the settlement had nothing to do with that of Raqa'i (Munchaev and Amirov 2016: plate 1). Sadly, we have a huge lack of data on the special organization and the building activities at the uppermost part of most of the larger Ninevite 5 sites due to the accumulation of sediment and later structures over its remains. On the other hand, Ninevite 5 buildings tend to be more accessible in the settlement's slopes, as the erosion affects much more the edges of the mounded sites, thus washing away later occupations and setting the earlies occupations closer to the surface, where they are more accessible, as seen in the case of Tell Barri.

The aforementioned case of Leilan is only one of the many examples, but it seems one of the most characteristic and representative for the whole period. In the lower town, in addition to the wall, the construction of neighborhoods related to the city's expansion during the Late Ninevite 5 period respond to a well-planned urban structure, while the settlement on the upper town shifted from a mix residential and public arrangement to focus only in public building occupying the whole space (Ristvet 2007: 204). This situation seems coincident with the arrangements observed in southern Mesopotamia, and good parallels could be stablished. However, the differences between the lower and upper towns in Leilan goes further than the sole urban dimension, for example, in the faunal register. The animal remains uncovered varies significantly between one and the other: in the upper town, the goat represents 62% of the sample, and in the lower town, pigs are the ones that represent 60% of the register. This disparity could be pointing to a diversity in the diet of the inhabitants of both of the upper and lower towns, and could represent a difference between the elite and the common people rather than some sort of subsistence strategy (Zeder 1995: 29).

This history, however, is a bit different in Tell Mozan, where dwelling quarters coexist with a temple in the upper city at least from the EJ 2 period or 2800-2700 BCE (Pfälzner 2010: 2). Also a singled-room building was tentatively identified as a temple of Ninevite 5 chronology at the city of Ninevite, but its cultural adscription remains unclear (Reade 2005: 355-6). In Tell Brak, not much is known about the Ninevite 5 urbanism of the upper town, but the presence of a temple attested through excavations have proven

that the usage of the uppermost places on all urban centers were used to locate the same kind of public or cultural structural elements. Also, the occupations of Arbid in the first quarter of the third millennium, restricted to Late Ninevite 5 period (Lawecka 2006; Kolinski 2009; Reiche 2014) yielded, among the architectural remains uncovered at the site, a cluster of domestic buildings with a clear urban characteristic in a lower mound, a possible shrine and a street leading from the outskirts of the site to the main mound (Lawecka 2006). Tell Mohammad Diyab, as well as in other cases, interesting Ninevite 5 platform system and also domestic quarters in one of the mounds, as well as more Ninevite 5 remains in the lower town (Durand 1992; Nicolle 2006: 227-31; 2010). Also a domestic quarter and some tannurs were documented on the western slope of the site of Tell Barri (S169), thus indicating a residential function with household transformation of raw material, and also a possible embankment that could have acted as a defensive wall that enclosed the whole upper town (Pecorella 1983). The settlement quarters were found to have been settled from the EJ 2-3a period, the very first period of occupation of this side of the site (Pecorella and Salvini 1984: 116), and, after the Ninevite 5 period, the dwellings seem to suffer a shift in its usage (Pecorella and Benoit 2005: 5-6). The Area G of Tell Barri, located in the southern slope of the upper town, showed interesting evidences of reformulation of the space (Pecorella and Benoit 2005: 14-55) that could be linked with Tell Leilan. These two areas defined suffered resignifications by the end of the Ninevite 5 period, but this particular zone is especially interesting as yielded evidences that were interpreted as a 'sacred' area, with two buildings interpreted as shrines, an open space and storage facilities. In any case, the most relevant things are that all the compound was planned and founded on virgin soil and over a mudbrick platform during the EJ 2-3a phase (Valentini 2019: 370), and, once again, the public monumental spaces are related to surplus storage and possibly also to a religious dimension, supported by the finding of figurines and other non-practical objects in relation contexts with the 'temple' area (Valentini 2008a: 345), as seen in other sites like Tell Khazna or Tell Raqa'i. In any way, the planned character of this sector seems undeniable.

The religious aspect was particularly important in the public aspects both in urban and rural dimensions, but it was not necessarily excluding the domestic sphere. In fact, temples have appeared in Ninevite 5 large settlements both in dwelling quarters and in public areas (in plazas or 'temenos'), either as freestanding buildings or surrounded by residential areas, inserted in the urban net of streets and houses, and the contexts clearly differentiate between both cases. Examples of free standing temples are to be found in Raqa'i (Scwartz 2000; 2015), Kashkashok 3 (Munchaev, Amirov and Suleiman 2011: 32-34) or Tell Barri, even when the last example does not occupy an apparently dominant place in the settlement. On the other hand, a one single room EJ 2 temple discovered in the lower western slope at the site of Tell Arbid was found to be almost completely

bordered by domestic quarters except for the site in which the entrance to the building was located, an alley heading to the main street of the compound (Bielinski 2019: 65-6). However, the excavators interpreted the temple as possibly having been erected as a freestanding structure, and then the domestic quarter could have been added in a subsequent phase (Bielinski and Bielinska 2019: 57). Yet another larger temple was uncovered in the southern slope of Tell Arbid, relatively close to the first one (Bielinski 2010; 2012; 2019: 66). This temple, opposite to the eastern one, appeared to be surrounded mostly by later structures, and an open space and a mudbrick terrace (Bielinski 2012: 530-3) has been identified in relation with this structure, and the only structure attached to it has been interpreted as a granary (Bielinski 2012: 551). At Tell Brak, the small temple discovered presented serious analogies with the one at Tell Arbid, but, unfortunately, the limited space uncovered around it do not allow to know if it was a freestanding structure or not. However, an interesting data is that the temple was associated to sealing activities (Matthews 2003).

This structure's connection with administrative activities is coincident with the usage as storage rooms, and also with the sense of temple in Mesopotamia as a center of religious and also economic relations. At Tell Arbid, both of the temples were related to respective rooms without entrance, and, in the case of the southern temple, this room's floor was notoriously deeper than the temple's, that have been interpreted as a granary (Bielinski and Bielinska 2019: 57), a feature that matches with temples at Tell Beydar and Raqa'i, and possibly also Tell Khazna. It is interesting that both of the temples of Arbid had two similar granary structures, so the link between the religious and economic spheres, if the archaeologist's interpretations are correct, would be rather clear there. Moreover, the courtyard of the southern temple of Tell Arbid had a kiln associated, so it could be stated that some economic activities were also carried out, probably in relation with the processing of grain, perhaps from the nearby granary (Szelag 2009/10). At Raqa'i, also some ovens are stated to have been found near the interior face of the outer wall of the rounded building, proving the existence of production activities at the site (Curvers and Schwartz 1990: 11–12). Also the temple structures of Tell Kashkashok III were related to economic activities according to the excavators (Munchaev, Amirov and Suleiman 2011: 31), due to the large amount of cylinder seals associated to the temples (Munchaev and Amirov 2019). The fact that the Tell Arbid's western shrine stands out due to its apparently modest location and lower dimensions could be pointing to this building as a local religious building, maybe serving to the spirituality of the neighboring structures, but also fulfilling economic purposes at a local dimension inside de urban net of the site, thanks to its relation with a rather discrete granary (Bielinski 2019: 66).

Another interesting feature is that evidences at EJ 2-3 temples at Tell Brak, both temples at Arbid (Bielinski 2010: 551; Bielinski and Bielinska 2019: 57) and Tell Raqa'i (Schwartz 2000) is that the buildings were carefully cleaned and probably filled in upon abandonment, as evidence for an extended religious custom that should be considered common in Northern Mesopotamia.

On another aspect, settlement walls around urban sites like Leilan, Beydar, Mozan or Bassetki also demanded a huge labor force and a planned schedule in order to not to interfere with other structures. In fact, one of the problems that walls have presented throughout history is that these infrastructures prevented cities from growing, and a good plan was required for enlarging Ninevite 5 cities to construct them with no affection to other planed buildings. Indeed, in the case of Leilan, the city wall was constructed in the same period in which a complete restructuration of the city was carried on, thus a good management was required in order to manage to complete the different sectors of the city. Also smaller sites such as Tell Bderi yielded evidences of surrounding walls (Pfälzner 1990). The purpose of these walls could have been multiple. The defensive use is the most obvious one, but the context of the period, apparently not affected by large-scale conflicts, perhaps is pointing to the existence of other complementary functions. In the case of Tell Bderi, this function has been proposed as a way of defending the surplus storage at the site (Fortin 1998b). Maybe, these walls complemented a pragmatic function with a more symbolic one, as them could have acted as an elements of prestige or display of wealth (Ristvet 2007).

Among the public architecture, evidences of administration and other built elements suggest the presence of some sort of authority that manages the amount of labor required for the completion of such building enterprises, but also to manage the arrangement and the structuration of the urban plan and the open spaces, thus keeping this open spaces free of other structures. In this sense, it is interesting that the open courtyard located in the public space of Tell Barri was not immediately invaded in the period after the end of the Ninevite 5 phase, and it seems like it was respected for some reason (Valentini 2019: 370). At Tell Arbid, for instance, a structure was found in relation to cylinder seals, and even a sealed jar, most probably intended to have been exported sometime soon (Badra 2015b: 32)

Another distinctive element seems to be the platforms and terracing at sites such as Mohammad Diyab (Nicolle 2006; Nicolle et al. 2006) or the aforementioned case related to the southern temple at Arbid. These terracings have been found, for example, at Tell Fisna in the Eski-Mosul region, but, unfortunately, not much data was preserved at that site, as well as other sites in Northern Mesopotamia. These terraces are necessary

to level the terrain of the upper towns, and obtain a flat surface on which the larger buildings could be constructed without any danger of crumbling due to the instability of the vulnerable mound's surface. Then, these kind of supportive structures were of great importance and reveal a great interest in ordering the available space in the upper towns at many urban sites.

Also, the fact that most of the public constructions and platform arrangements appeared from the EJ 2 phase and greatly expanded during Late Ninevite 5 or EJ 3a points out to a clear development of these elites, that managed to conduct great and planed enlargements that included foundation of public buildings in the cases of Mohammad Diyab, Tell Leilan or Tell Beydar. Also, the internal evolution of the construction capacity from the Early Ninevite 5 and its extremely poor remains, to the massive arrangements of the EJ 3a period, only four hundred years after and getting through the LC 4-5 collapse. Then, the evidences speak of this period as an evolving transitional phase, through which the settlements showed a parallel development until its very end, when some of this sites became true urban centers.

On the other hand, administrative elements seem to not to be as helpful to investigate the urban elites. Evidences such as tokens seem to not be unique to urban centers, as evidences of administration related objects have been found at several sites in the Middle Khabur area and also from the Eski-Mosul region, specially a set of seals found at Tell Jikan, but the possibility for this site to have been a center of urban dimension limit us to adjoin it to a determined label. In fact, the large amount of administrative objects found there could be a solid evidence for considering it a large urban center (Ii 2003). The great corpus of administrative elements at sites in the Middle Khabur such as 'Atij or Raqa'i also evidence the importance of the surplus management, and also perhaps points to the existence of some sort of 'elite' class in rural sites, but it doesn't seem as conclusive as the constructive development of urban sites. Then, particular administrative objects could have been used as well in less stratified societies, as stated in prehistoric cultures all through the Middle East.

Other interesting dimension to explore regarding the social division is the funerary sphere (Stein 1993; Bold and Green 2003). It is evident that the world of the dead is, paradoxically, one of the most notorious spaces in which the differences in live are on display, as the privileged ones will to boasttheir status in the afterlife, and thus preserve the social differences even in the afterlife. Differentiate tomb structures, eminent positions in the necropolises or sumptuous grave goods are the main elements that allow us to identify members of the former elite from regular people. In the case of the Ninevite 5 culture, it is equally interesting to put the focus on the differences between members of a same society, but also on differences

between rural and urban settlements that could allow us to evaluate the presence or absence of a local ruling elite in small settlements as well. The archaeology revealed that he reality of urban centers appears to be somehow different from the rural sphere, but the differences are not as exaggerated as expected for a more complex hierarchical society. richer tombs have been widely identified at sites such as Tell Leilan (Calderone and Weiss 2003: 201), Mozan, Chagar Bazar and Kashkashok III (Rova 2013: 114), thus evidencing the presence of a socially divided elite. The grave goods accompanying these deceased use to be decorated pottery or other types that are less frequent in other contexts, just as we have noticed before for the tombs at Aşagi Salat (Akçay 2017). Also the presence of metal objects or other exogenous goods and raw materials (Valentini 2019: 282). However, in general, it is also true that this 'elite' burials do not exhibit a high degree of differentiation, at least compared to the massive distinctions found in Southern Mesopotamia during the same period (Schwartz 1987: 94; Valentini 2003: 282). This lower differentiations, even when suggesting the existence of a hierarchical society, could be symptom for a culture that presented also a lower degree of complexity.

After this review of the archaeological data available, it is clear that many things left to do regarding the knowledge of prestigious and elite building in the Ninevite 5 period, but, after all, continuous excavations and the great work done by scientific teams have shed light on this matter. First of all, the relation between religious and administrative and storage activities is crystal clear at the Syrian Jazeera and the Middle Khabur: many sites have yielded temples or shrines associated with storages or administrative compounds. Also, the high degree of coincidence in the plan of the temples and also the finding of granaries and other administrative centers led to the conclusion that this character was not unique to one particular urban center, but it was widespread throughout the Syrian Jazeera. However, not the same think can be said about northern Iraq and Kurdistan of Iraq Region, where, aside of some isolated elements, one can hardly infer a similar pattern to that obtained after a century of archaeological works in the Syrian side.

Also, the existence of large prestige buildings, platforms, walls and other public compounds, alongside of planed urban extensions at sites such as Leilan and Mozan, evidences the existence of an urban elite that controlled all this urban expansions during the latter part of the Ninevite 5 period, thus evolving as a social class in the second half of the third millennium BCE. Perhaps, these urban elites were the same that managed and controlled the access to the resources stored at granaries near the temples, controlled the centralized production in order to ensure the provisioning for the city's dwellers, enforcing the control over the common people. The finding of a sealed jar at Tell Arbid could be suggesting a centralized management of the surplus exchange, but, in this case,

it is unclear whether the jar arrived in Arbid, or was prepared at the site to be exported. Then, once again, the existence of this urban elite does not solve the issue of the relation of the urban centers with the rural spaces, as the evidences only point to the urban site's management over agricultural surplus, but do not offer any evidence on the origin of this surplus. Either way or another, the Ninevite 5 society was very much likely to be stratified and, somehow, ruled by an emerging elite that posed the first basins for the urban development in the next centuries and millennia in northern Mesopotamia.

Chapter 6. Conclusions

6.1. General Conclusions

The archaeological studies in northern Mesopotamia are relatively young in the history of the modern research in the Middle East. As a consequence, much of the work remains to be done, and many fields suffer from important gaps, lack of information and also lack of comprehensive works compiling and interpreting extensive corpus of documentation available from past and present research projects that develops their activities on the terrain. The settlement pattern of the Ninevite 5 culture was one of the topics that largely lacked a spatial study that included all the regional dimension involved in its development. However, even when the objectives of the study were crystal clear, its consecution has not been easy for many reasons, and the first one was the very same that prompted this study: the lack of previous works on the whole extension of the Ninevite 5 culture was problematic and challenging, and required a great labor of compiling all the information available and mostly scattered on dozens of different publications with different formats. These conditions let the investigation as a largely untouched field, with a lot of things to discover, but also with a lot of necessary works waiting to be done.

The work done in this thesis has satisfactory achieved its main objectives, and, through a thorough work of compilation, a very hard work of comparisons and theoretical analysis, a general view of the settlement pattern of the Ninevite 5 culture has been done. However, this thesis is only the starting point, and other scholar may take advantage of the archive work stored here as a database for future studies or new archaeological projects.

Another important point was the extension of the material culture, that was already previously been limited with precision, but the extension of the excavations at peripheral regions such as the Upper Tigris and the Middle Khabur region yielded some Ninevite 5 occurrences and forces scholars to consider a further extension of the material dispersion, but the character of peripheral seems clear for most of these regions. In the excavations performed in the Upper Tigris, for instance, the presence of Ninevite 5 ceramic was very discontinuous and was eminent almost only in funerary contexts such as the cemetery of the site of Aşagi Salat (southeastern Anatolia), alongside with other pottery styles. This fact points to the existence of the Ninevite 5 material in that region as an exogenous prestige good that probably arrived there through trading routes heading to the north from the southern Ninevite 5 core region in the Iraqi Tigridian region or the Syrian Jazeera.

6.2. Settlement Patterns

Studies on the settlement pattern of the entire Ninevite 5 culture remain one of the fields that need more attention and are still largely unexplored. Some regional approaches have been made by teams according to regional surveys, mostly focused on studying areas around large sites. One of the most useful sources of information has been the survey around Tell Leilan (Ristvet 2005), along with the subsequent studies based on the information obtained from the survey. These studies are of great importance because the team investigating this site developed a detailed ceramic sequence and distinguished division periods within the Ninevite 5. This has allowed for the investigation of the changes in settlement patterns detected within the culture, thus enabling the reconstruction of history from the end of the LC 4-5 to the beginning and the decline of the Ninevite 5.

Other sites such as Tell Brak or Hamoukar have also been the focus of other regional surveys. However, in the first case, the information concerning this survey has never been released, and in the second, internal divisions of the Ninevite 5 period are till in course of completion. Despite these limitations, all previous efforts by scholars have laid the groundwork for the current study, which has emerged from comparing different models both in space and time.

The results of comparing the investigations of the team from Tell Leilan (Weiss 1986; 1990a; 2013, Weiss et ali. 2002) with those from other known regions have yielded interesting results that, in some way, mostly confirm the generally established vision of the settlement pattern of the Ninevite 5 culture. The distribution shows the emergence of urban centers that flourished after the disappearance of the Late Chalcolithic 4-5 society, and the sudden depopulation of previously important settlements, some of which were even more significant than future cities like Leilan. During these times of transition, the LC pattern based on a few large urban centers shifted to a model based on smaller settlements scattered across the landscape. However, this atomization did not last long, and during the Late Ninevite 5 period, new urban centers began to stand out among other sites.

As these previously prominent urban centers lost their populations and fell into irrelevance, with some even vanishing completely, new urban centers such as Leilan, Mozan, and Beydar emerged and elevated themselves to the status of true cities. However, some of the LC 4-5 urban sites retained their importance to some extent, as in the case of Tell Brak, or even grew during the Ninevite 5 period, as seen at Hamoukar. Although this disparity suggests some regional variability, the general pattern seems obvious.

At the same time, small rural settlements existed on the hinterlands of the larger cities, and their distribution on the landscape could also have followed established patterns that were closely related to the urban centers, thus creating parallel and complementary realities that deserve further attention. Large urban settlements tended to retain large, empty areas of arable land around them, and the rural sites close to the cities respected these urban-free areas while locating themselves outside the city radius. This observable pattern raises several questions: The empty areas around urban sites were fertile and had enough resources to support the establishment of new communities, but the smaller settlements respected these areas and did not invade them, instead locating at a certain distance from the main urban center. It is clear, then, that the urban centers must have had some degree of authority to keep these agricultural lands free and available for agriculture. This poses a first step toward understanding the relationship between these two types of sites.

It is also noteworthy that there were sites that were somewhat larger than small rural sites but much smaller than urban centers, yet the settlement pattern for these 'secondary' sites is less clear. Sites like Tell Melebiya yielded urban plans and dwelling quarters, indicating the existence of a resident community. Additionally, the absence of productive facilities or granaries suggests that this site functioned more as a residential center than as a productive rural site. However, the lack of excavations at medium-sized sites leaves this as a working hypothesis that needs to be tested in the future.

From a chronological point of view, the Leilan region shows a depopulated landscape immediately after the end of the LC 4-5 period (EJ 0) and minor urbanism during the Early Ninevite 5 period (EJ 1). Some sites grew to discrete sizes, but according to their results, the settlement pattern concerning relatively large sites with large, empty agricultural lands surrounding them and rural centers on the periphery seems to have already been present. Around Tell Leilan, two other sites of equal size, Dugir and Tell Mohammad Diyab, presented similar characteristics regarding the landscape and spatial distribution, with similar agricultural spaces and rural centers at some distance. These conditions may be compared to those found at other sites in northern Mesopotamia such as Tell Brak or Tell al-Hawa, both of which exhibit the same situations and hierarchical relationships with surrounding minor sites.

After this initial period, which could be considered a true transition, the Late Ninevite 5 (EJ 2 – EJ 3b) represented a genuine explosion of the urban dimension of settlement in the Ninevite 5 culture. In the Leilan region, while the sites of Dugir and Mohammad Diyab remained the same size, Leilan itself grew from 15 hectares in 2800 BCE to an impressive 90 hectares in 2600 BCE, over approximately two centuries.

Moreover, this city's growth was planned, with a surrounding wall and dwelling quarters built in a single construction event. This late expansion was not unique to Leilan; other sites experienced even more dramatic expansions: Hamoukar massively grew to 130 hectares, Mozan experienced a similar expansion, from 15 hectares to 120, than Hamoukar, and Tell al-Hawa, Tell Barri, Tell Arbid, and probably Bassetki also expanded. Rather than being a peculiarity, the evolution of the urban landscape appears to be a generalized pattern observed throughout all of Ninevite 5 culture. Perhaps this event could be considered a revival of the old urbanism lost due to the collapse of the old Uruk system and the disappearance of the previous social order. However, it seems undeniable that the emergence of this new social order led to the birth of something entirely different from the old LC 4-5 society.

Additionally, it is important to note that the pattern based on urban settlements leading or managing agricultural areas and secondary rural settlements does not represent the entirety of the Ninevite 5 cultural patterns. Some regions, such as the Eski-Mosul region or some areas in the province of Erbil, such as the Upper Great Zab, do not show an evident hierarchy, with the presence of small sites scattered throughout the territory. Their settlement patterns seem to be more motivated by geographical reasons (proximity to water sources or agriculturally or husbandry-suitable land) rather than political reasons. Also, the hierarchical reading based on size is unclear, as no distinctly urban sites are present in these areas. Several possibilities emerge as explanations for these seemingly discordant regions: Perhaps they were under the influence of a nearby regional urban center, or maybe these areas were peripheral and relatively marginal. Another possibility is that there was a certain degree of political independence in these rural landscapes.

Sites like Gird-î Lashkir (S424) showed a certain degree of complexity and developed the same economic activities than other sites of the same chronology but, in these cases, no clear urban center is to be found in its immediate vicinity. It is true that the role of the site of the Erbil's Citadel (S297) is arguable as a possible urban center, but no archaeological evidence can prove this statement for now. The evidences do not show any clear hierarchy in these case, and the question of how the people of these kind of rural centers organized themselves in an apparent pattern so different from that developed by large urban centers and surrounding rural sites. Perhaps, this model simply was never developed in some regions, while succeed in others due to factors that, for now, are difficult to explain.

6.3. Subsistence, Management and Elite

Three pillars have been discussed regarding the requirements that urban settlements had to fulfill in order to succeed and provide enough stability to ensure the city could survive a period of deep change.

Regarding the population of the cities, it has been stated that, considering the hygienic conditions of the cities in the ancient Near East and the huge risk of spreading diseases, urban settlements needed to attract constant influxes of new dwellers—immigrants who were most likely abandoning rural settlements surrounding expanding sites. However, the reasons that led those people to leave their former homes and start a new life in a new city remain doubtful. The massive abandonment of LC 4-5 settlements leads to some conclusions: the population that abandoned those settlements did not disappear; they probably switched their old way of life in favor of a new and, undoubtedly, more promising future. Also, it is noteworthy that, to favor such a massive abandonment, the old regime had to suffer a huge crack, a crisis that had effectively faded all remnants of the old order. This statement is supported by the fact that people would have remained in their old settlements if the conditions had been favorable—that is, if the old social systems had remained in some way, even if weakened by the deep crisis that ended the LC 4-5 period and gave birth to the Ninevite 5.

Even so, if we consider climatic conditions and political changes that could affect people in such a radical way, they still needed a strong reason to populate new settlements, especially as these spaces became more overcrowded and more prone to epidemics. Subsistence seems to be one of the key reasons, and probably the factor that differentiated life in small rural communities from life in large urban centers. An increasing population was, at the same time, the cause of increasing alimentary demands, but also the solution, as new dwellers also brought new labor force to complement the preexistent one, a factor that could signify an increase in productivity. Thus, it can be said that the existence of these early cities in northern Mesopotamia depended on a correct equilibrium between the necessary population increase and the possibility to acquire enough resources to meet their vital needs. In that sense, the role played by the rural settlements is unclear due to lack of excavations, but a supportive role may not be ruled out.

The production and storage of surplus, then, was one of the major pillars on which the first urban settlements were built. Evidence for grilled-plan granaries and storage facilities has been found from the Eski-Mosul region to the Jazeera and the Middle Khabur region during the Early Bronze Age. Some of these facilities stand out due to their size, such as in the case of Telul eth-Thalathat V or Tell Beydar, and others because of their shape, such as the rounded building at Tell Raqa'i, which is one of the most unique

granaries in northern Mesopotamia. These facilities appeared in all kinds of sites, from the smallest rural settlements to the largest urban sites, but, in all cases, their functions are believed to be mostly the same. Evidence of carbonized grains points to the storage of agricultural surplus as one of the main functions of these structures, while leaving the door open for them to fulfill other complementary activities such as the transformation of that primary surplus into secondary products on some scale. This is supported by evidence of the connection of storage areas with ovens and other productive facilities, and even their use as temples, as has been proposed for the rounded building of Tell Raqa'i.

All the effort that the inhabitants of these regions put into the storage of surplus shows the importance that it had. Also, the granaries in rural settlements grew far beyond the physical needs of the maximum population that these sites could have held, and the storage facilities in the cities needed to keep enlarging their storage capacity to feed a growing population that demanded more and more resources. Among all these signs of subsistence, a third pillar appeared within urban society: the elite, as an element of control and management, probably based on the trading of foreign goods and the hoarding of agricultural surplus. Some evidence, like the presence of a large residence attached to the granary discovered at Tell Beydar, points to the existence of an elite that could have controlled access to the surplus, and perhaps also distributed it among the population.

Other evidence for the emergence of this urban elite includes the well-planned and structured cities massively enlarged from the Late Ninevite 5 period onwards, evidence of coordinated administration, and the existence of an important program of public construction enterprises at sites such as Tell Leilan, Tell Beydar, Brak, or Mohammad Diyab. Additionally, the funerary world shows a distinction between classes, as some tombs are richer than others, with exogenous materials as grave goods, or greater amounts of decorated pottery.

All these elements together decisively assisted the emergence of cities throughout the Ninevite 5 period. This important landmark was reached through an evolution along the Ninevite 5 period, which is often presented as a transitional period, but, according to the evidence, it also has an unexpected complexity, with many factors that led to the birth of the urban world in northern Mesopotamia.

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Annex: Catalog of Archaeological Sites

Some remarks on the Catalog

The coordinates of this catalog are in WGS 84. The coordinates are consigned in X, Y system. In order to locate a side using this coordinates, one may accede the Google Maps services and introduce the coordinates on the searching panel.

Important: The coordinates are displayed in the catalog in the following way;

-X, Y: 4195749, 3681515.

In order to correctly display the coordinates using GM, the second number must be placed first and the first one in second place like in this example:

-36.81515, 41.95749

Note that the dots after the first two numbers and the comma separating them both are required.

The Location of some sites identified using the AASI and sources like Ibrahim 1986 or Abu al-Soof 1968 may be doubtful, and these situations are stated in the catalog. Also, Abu al-Soof or the TAVO map present several errors of cataloguing or misallocated sites. When it happens to the TAVO, a note is added to the site object of the error. However, the errors in Abu al-Soof are often not stated as they use to be simple problems of coincidence with the AASI catalog, that can be tested only by consulting the paper by Abu al-Soof and compared to the AASI numbers, that are also stated.

Regarding the AASI, two different documents of cataloguing exist: a list of sites and maps with the location of this sites. The cataloguing numbers are different in both sources, but in this catalog only the list's catalog number is given. The identification of all sites with the mao register of the AASI is a work that exceeded the pretension of this thesis, and may be completed in the future.

Site number: S4

Name(s): Tepe Gawra

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4195749, 3681515.

Maximum height (in meters): ? m.

Measures (in hectares): 1,1 ha.

Damages and threatens: Agriculture.

Description: Small mound excavated in the 30s of the past century. Up to three levels were found related to Ninevite pottery (VIII - VI), but it is now believed that the two later ones were actually a mess of different periods.

Bibliography: Speiser 1929; 1935; Lloyd 1938.

Images:

S24. Taken from Google Earth (02/2014)

Site number: S5

Name(s): Tell Brak

Occupation(s): LC, Ninevite 5, later periods.

Coordinates: X, Y: 4105833, 3666725.

Maximum height (in meters): 45 m.

Measures (in hectares): 130 ha (40 N5)

Damages and threatens: Agriculture, erosion, housing. The lower town is suffering from intensive agriculture, the surrounding satellite mounds are all of them badly damaged by modern construction and agriculture.

Description: Massive site that reached its peak size during the LC period, but during the LC 4-5 phase, started to decrease until the Ninevite 5 period.

Bibliography: Matthews 1998, 2003; Oates 2002; Wright et ali. 2006/7.

Images:

S5's main mound. Taken from Google Earth (06/2023)

Site number: S6

Name(s): Tell Feres

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4106796, 3674216.

Maximum height (in meters): 7 m.

Measures (in hectares): 4 ha.

Damages and threatens: Housing. The western mound is in the middle of a modern town.

Description: This site is divided into two, a low but extensive LC site to the east, and a high but smaller Ninevite 5 site to the west. The LC site was excavated by a French team, and it turned out that this village was progressively abandoned by the end of the LC 4-5.

Bibliography: Baldi 2013; Vallet 2018.

Images:

S6, the excavated site to the east, the unexcavated Ninevite 5 mound to the west, in the middle of the village. Taken from Google Earth (06/2023)

Site number: S12

Name(s): Tell Chuera / Huera / Huwaira / Khuwera

Occupation(s): EBA, LBA.

Coordinates: X, Y: 3949798, 366466.

Maximum height (in meters): 18 meters.

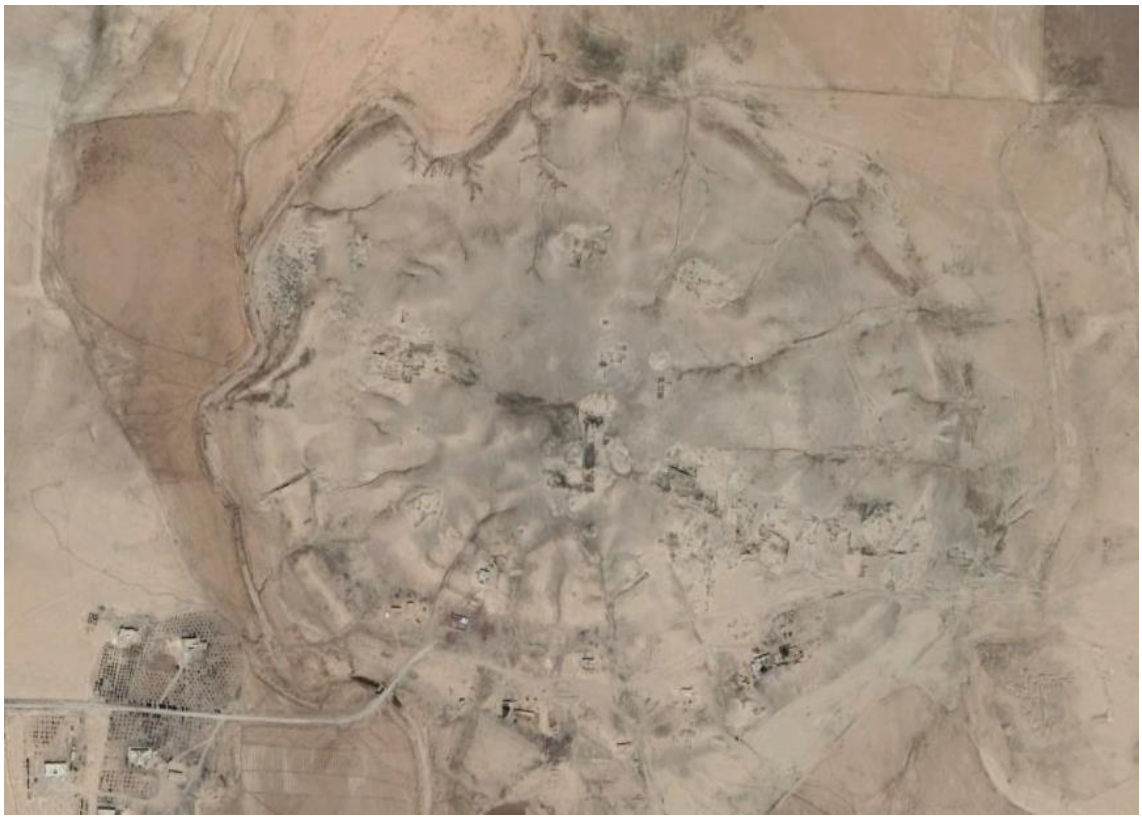
Measures (in hectares): 40 ha.

Damages and threatens: Agriculture, housing.

Description: A huge site with a long history of occupation. It is considered to be outside of the Ninevite 5 core area, but some Ninevite 5 material has been retrieved during excavations (Grossman 2013: 56)

Bibliography: Dohmann-Pfälzner and Pfälzner 2002b; Meyer 2021; Meyer and Tamm 2023.

Images:



S12. Taken from Google earth (09/2024)

Site number: S13

Name(s): Tell Beydar

Occupation(s): EBA, Mitanni, neo-Assyrian, Hellenistic.

Coordinates: X, Y: 4058698, 367379.

Maximum height (in meters): 12 meters.

Measures (in hectares): 50 ha (24 EBA)

Damages and threatens: Agriculture, housing.

Description: High fortified mound that had its origins during the EBA, when the site appeared and rapidly grew to 24 hectares. Ninevite 5 pottery has been retrieved from it.

Bibliography: Ur and Wilkinson. 2008: 307, 320; Lyonnet (ed.) 2000: 31-40; Lebeau and Suleiman (eds.) 2005.

Images:

S13, the excavations are visible on its surface. Taken from Google Earth (09/2024)

Site number: S18

Name(s): Baqrta

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4391000, 359520.

Maximum height (in meters): 20 m.

Measures (in hectares): 80 ha (4 N5)

Damages and threatens: Agriculture. Not serious damage.

Description: Extensive mounded site that was probably much smaller during the Ninevite 5 period.

Bibliography: Kopanias et.ali. 2013; Ur et.ali. 2013: 97; AASI 325, p. 14.

Images:

S14. Taken from Google Earth (01/2022)

Site number: S20

Name(s): Baş Tepe

Occupation(s): Ninevite 5, Assyrian.

Coordinates: X, Y: 4400569, 358812.

Maximum height (in meters): 25 m.

Measures (in hectares): 4 ha.

Damages and threatens: Not serious damages aside of affectations from agriculture.

Description: A high tell with a rather discrete settlement. Excavated by a French team, yielded interesting Ninevite 5 occupations.

Bibliography: Marti, Nicolle and Shawaly 2015; AASI 386, p. 14

Images:

S15. Taken from Google Earth (10/2020)

Site number: S23

Name(s): Qasr Shemamok / Gird-î Sahidawa (local name)

Occupation(s): Ninevite 5, Neo-Assyrian.

Coordinates: X, Y: 4375181, 3610580.

Maximum height (in meters): 30 m.

Measures (in hectares): 132 ha.

Damages and threatens: Agriculture, cemetery. It has some modern tombs on top.

Description: Huge walled site during later periods, it was supposed to be occupied during the Ninevite 5 period.

Bibliography: Ur et.al. 2013; Rouault et.ali. 2018: 241-245; Rouault 2023; Maseti-Rouault and Calini 2016

Images:

S23 and its defensive wall. Taken from Google Earth (02/2014)

Site number: S24

Name(s): Tell Kilik Mishik

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4397756, 3615773.

Maximum height (in meters): ? m.

Measures (in hectares): 7 ha.

Damages and threatens: Housing. The side is surrounded by the modern city of Erbil, but the mound is protected.

Description: Medium-sized site that yielded only one piece of painted Ninevite 5 pottery without archaeological context. A Ninevite 5 occupation is supposed, but its layers have never been reached.

Bibliography: Rouault 2013; Rouault and Calini 2016.

Images:

S24. Taken from Google Earth (02/2014)

Site number: S25

Name(s): Tell Leilan

Occupation(s): LC, third millennium (Ninevite 5 included), MBA.

Coordinates: X, Y: 4150394, 3695912.

Maximum height (in meters): ? m.

Measures (in hectares): 90 ha.

Damages and threatens: Housing, agriculture. Most of the high mount is occupied by modern houses. The lower town is under cultivation.

Description: A mound with a lower town that was a major urban center during the last phase of the Ninevite 5 period. During the EJ 2, the site was restricted to the main mound, but the expanded towards the east and the north and built up a surrounding wall around 2600 BCE. The site reached 90 hectares during the EJ 3a period.

Bibliography: Weiss 1983, 1985; Meijer 1986: 9; Eichler, Wäfler and Warburton 1990: 160.

Images:

S25, the mound and the lower town. Taken from Google Earth (11/2019)

Site number: S26

Name(s): Hamoukar

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4195749, 3681515.

Maximum height (in meters): ? m.

Measures (in hectares): 130 ha.

Damages and threatens: Housing. Construction activities have damaged the site getting advantage of the limited control by the authorities during the Syrian civil war.

Description: Massive site with urban dimension during the LC 4-5 period, but enlarged to 130 hectares during the latter part of the Ninevite 5 period.

Bibliography: Ur 2002 ; Grossman 2013.

Images:

S26. Taken from Google Earth (06/2023)

Site number: S27

Name(s): Tell Chagar Bazar

Occupation(s): Neolithic, Ninevite 5.

Coordinates: X, Y: 4089801, 3687624.

Maximum height (in meters): ? m.

Measures (in hectares): 12 ha.

Damages and threatens: Housing. The side is surrounded by the modern city of Erbil, but the mound is protected.

Description: Two mounds, one much bigger, with important Neolithic occupations. Some Ninevite findings have been reported.

Bibliography: Mallowan 1936; S. Eichler et ali. 1985: 19

Images:

S27. Taken from Google Earth (02/2014)

Site number: S28

Name(s): Tell Arbid

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4102175, 3687262.

Maximum height (in meters): 30 m.

Measures (in hectares): 38 ha.

Damages and threatens: Agriculture. Some secondary mounds have been destroyed by agricultural activities.

Description: An important Ninevite 5 site that flourished specially during the its last phase with excavated domestic quarters and a possible temple.

Bibliography: Ławecka 2006; Bielinski 2007, 2010, 2012, 2019. http://www.tellarbid.uw.edu.pl/.

Images:

S28. Taken from Google Earth (06/2023)

Site number: S29

Name(s): Kani Shaie

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4517623, 3555817.

Maximum height (in meters): ? m.

Measures (in hectares): 7 ha.

Damages and threatens: Agriculture.

Description: A very small but high mound with transitional layers between LC and Early Ninevite 5 period.

Bibliography: http://www.kanishaie.org/; Tomé, Cabral and Renette 2016.

Images:

S29. Taken from Google Earth (06/2023)

Site number: S30

Name(s): Girê Gomel

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4348041, 3659289.

Maximum height (in meters): 30 m.

Measures (in hectares): 35 ha (15 N5)

Damages and threatens: Housing, erosion.

Description: A large mound and a lower town with interesting Ninevite 5 occupations, period in which the site seems to have been one of the most important and larger centers in its region.

Bibliography: Simi 2020; http://www.terradininive.com/projects/tell-gomel/?lang=en.

Images:

S30. Taken from Google Earth (04/2023)

Site number: S33

Name(s): Tell ar-Raqa'i

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4085213, 3644019.

Maximum height (in meters): ? m.

Measures (in hectares): 0,5 ha.

Damages and threatens: Barrage. Partially drowned.

Description: An important but small site with a large granary compound dating to the EJ 2-3 period.

Bibliography: Curvers and Schwartz 1990; Schwartz and Curvers 1992; Del Bravo 2014; Schwartz, G. 2000, 2015.

Images:

S33. Taken from Google Earth (04/2023)

Site number: S37

Name(s): Tell Nader

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4407549, 3617328.

Maximum height (in meters): ? m.

Measures (in hectares): 1 ha.

Damages and threatens: Housing. The side is surrounded by the modern city of Erbil, but the mound is protected.

Description: A very low mound that yielded remains of Ninevite 5 material, mostly out of context.

Bibliography: Kopanias et ali. 2013; Kopanias et.ali. 2014; Beuger 2016.

Images:

S37. Taken from Google Earth (04/2023)

Site number: S43

Name(s): Kawrasor 3

Occupation(s): Hassuna, Ninevite 5, middle to neo-Assyrian and Sassanian.

Coordinates: X, Y: 364522, 4382720.

Maximum height (in meters): Unknown.

Measures (in hectares): 4,2 ha.

Damages and threatens: The site has been affected mainly by agricultural activities that affects most of its surface. There is also a small cemetery in the northern part of the site.

Description: This is a short tell with a lower town just to the east of the village of Xeruk Piçûk, a hundred meters south of the riverside of the Great Zab. This site did not reveal continuous occupations, but there is material from very separated periods.

Bibliography: Upper Greater Zab Archaeological Reconnaissance Project Report 2012: 11.

Images:

Taken from bing maps.

Site number: S44

Name(s): Kawrasor 4

Occupation(s): Ninevite 5, Parthian, Roman, Sassanian.

Coordinates: X, Y: 364526, 4382865.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 2,3 ha.

Damages and threatens: Not serious damages aside of affectations from agriculture.

Description: This is a flat settlement close to the tell of the site S43, south of the riverside of the Great Zab. As well as it happens in the Kawrasor 3 site, in this one the survey works identified that the main occupations are from Parthian times onwards, but isolated materials from Ninevite 5 period were also found.

Bibliography: Upper Greater Zab Archaeological Reconnaissance Project Report 2012: 12.

Images:

Taken from bing maps.

Site number: S45

Name(s): Gird Şeh Raş

Occupation(s): Ninevite 5, old Babylonian, middle Assyrian, Early Islamic.

Coordinates: X, Y: 365094, 4386858.

Maximum height (in meters): ? m.

Measures (in hectares): 2,5 ha.

Damages and threatens: Not serious damages. It seems that there are some small modern tombs on top. Some buildings from the modern settlement stand so close to the site.

Description: Conical tell with a low town located south of the Great Zab riverbank, near the town of Gopal.

Bibliography: Upper Greater Zab Archaeological Reconnaissance Project Report 2012: 13.

Images:

Taken from bing maps.

Site number: S46

Name(s): Gird-î Qalata

Occupation(s): Ninevite 5, old Babylonian (khabur ware), middle Assyrian, Early Islamic.

Coordinates: X 365271, Y 4392459.

Maximum height (in meters): Unknown.

Measures (in hectares): 0,28 ha.

Damages and threatens: Damaged by modern housing and roads that have affected primarily the western and southern parts of the tell. There is also a tiny graveyard on the eastern slope.

Description: The site is a conical tell with a lower town completely surrounded by the modern settlement of Mandawa. Unlike other examples from the same region studied in the same survey, surface finds evidence a continued occupation from Ninevite 5 until middle Assyrian times.

Bibliography: Upper Greater Zab Archaeological Reconnaissance Project Report 2012: 14.

Images:

Taken from bing maps.

Site number: S47

Name(s): Raşuan

Occupation(s): Ninevite 5, middle Assyrian.

Coordinates: X 364289, Y 4390684.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 5 ha.

Damages and threatens: Not serious damages. The whole site is being ploughed.

Description: The site is a huge flat settlement located west of the village of Raşuan, north riverside of the Bastura Çay river (affluent of the Great Zab) The evidences found by the survey team were scarce, so they could only document two periods, both Early and Late Bronze Age. The site is so close to two other sites, including a tell (Qala Raşuan), and it is possible for this site to be a lower extension of it.

Bibliography: Upper Greater Zab Archaeological Reconnaissance Project Report 2012: 17.

Images:

Taken from bing maps.

Site number: S48

Name(s): Khirbet Şeh Usu

Occupation(s): third millennium (Ninevite 5 included), middle to neo Assyrian, Seleucid, Sassanian.

Coordinates: X 364330, Y 4389072.

Maximum height (in meters): Unknown.

Measures (in hectares): 4,5 ha.

Damages and threatens: Not serious damages. The whole site is being ploughed. There is an isolated modern building on top of it, to the west.

Description: The site is a tell with two main areas where archaeological material was collected. The tell is located immediately south of the road that connects the towns of Xabat (to the Great Zab river) and Bastora, 400 meters north of the Bastora Çay river and other 400 meters west of the town of Malawan.

Bibliography: Upper Greater Zab Archaeological Reconnaissance Project Report 2012: 19.

Images:

Taken from bing maps.

Site number: S49

Name(s): Khirbet Qara Qacin

Occupation(s): third millennium (Ninevite 5 included)

Coordinates: X 4399678, Y 3639945.

Maximum height (in meters): Unknown.

Measures (in hectares): 2,5 ha.

Damages and threatens: Not serious damages. The lower part of the site is under cultivation.

Description: Small mounded site with a lower town, over a terrace.

Bibliography: UZGAR Catalog number S022

Images:

The mound of the site S49, taken from Google Earth (12/2022)

Site number: S50

Name(s): Gird-î Serkwar

Occupation(s): Ninevite 5, Old Babylonian, Sassanian.

Coordinates: X 4393231, Y 3642342.

Maximum height (in meters): Unknown.

Measures (in hectares): 0,28 ha.

Damages and threatens: Housing, gravel mine. The site has suffered from heavy damage after 2021. Most of its surface has been removed by a gravel mine, and the northern part of the site has been destroyed by a pond and a huge housing complex.

Description: Mounded site with a small lower extension just north of the course of the Bastora Chai flow.

Bibliography: UZGAR catalog number S026

Images:

The remains of the site in 2022. All that remains is the green dot between the housing complex and the gravel mine. Taken from Google Earth (12/2022)

Site number: S51

Name(s): Keyle Spî

Occupation(s): Ninevite 5, Old Babylonian, Assyrian.

Coordinates: X 4397357, Y 3641325.

Maximum height (in meters): Unknown.

Measures (in hectares): 0,77 ha.

Damages and threatens: Not serious damages. The whole site is being ploughed. Two dirty roads get through the site.

Description: A low and small mound to the north of the Bastura Chai flow.

Bibliography: UZGAR catalog S029

Images:

The site stands out in the middle of the flat fields, even considering its low elevation. Taken from Google Earth (12/2022)

Site number: S48

Name(s): Qala Deira

Occupation(s): Ninevite 5, Islamic.

Coordinates: X 4409691, Y 3642261.

Maximum height (in meters): Unknown.

Measures (in hectares): ? ha.

Damages and threatens: Not serious damages or threads.

Description: This site holds an Islamic fortification that probably covers a much more ancient site, but the ruins of the castle itself prevent from accessing the lower levels of the site. The Ninevite 5 period was de only pre-Islamic period attested, but there is no way to prove it without proper excavations.

Bibliography: UZGAR catalog S033.

Images:

The visible remains of the Islamic castle. Taken from Google Earth (12/2022)

Site number: S53

Name(s): Gird-î Mikrdan/Makrdan

Occupation(s): Halaf, Ubaid, LC 1-2, LC 3-5, third millennium (including Ninevite 5), Old Babylonian.

Coordinates: X 364330, Y 4389072.

Maximum height (in meters): Unknown.

Measures (in hectares): 0,85 ha (0,85 N5).

Damages and threatens: Housing. The site has been extensively damaged by building activities of the modern village in which the site is included.

Description: A mound located over a terrace of the Great Zab River that had continuous occupations from the Halaf period to the Old Babylonian.

Bibliography: UZGAR catalog S037.

Images:

The site and the modern houses of the Mikrdan Village. Taken from Google Earth (11/2022)

Site number: S56

Name(s): Gird-î Kelek/Kalak 1

Occupation(s): III millennium (Ninevite 5 included), Old Babylonian.

Coordinates: X 4371131, Y 3673253.

Maximum height (in meters): Unknown.

Measures (in hectares): 1,9 ha.

Damages and threatens: Not serious damages. The whole site is being ploughed.

Description: A flat site consistently occupied until the Ninevite 5 period to the Old Babylonian without any gap. It is located just in front of site S57, on the other side of a stream.

Bibliography: UZGAR catalog S053

Images:

Site S56. Taken from Google Earth (12/2022)

Site number: S57

Name(s): Gird-î Kelek/Kalak 2

Occupation(s): Halaf, LC 3-5, Third millennium (Ninevite 5 included).

Coordinates: X 364330, Y 4389072.

Maximum height (in meters): Unknown.

Measures (in hectares): 4,5 ha.

Damages and threatens: Not serious damages. The whole site is being ploughed.

Description: Another flat settlement just 100 meters west of S56, with similar occupations, but it seems that this site had an earlier foundation than its counterpart.

Bibliography: UZGAR S054.

Images:

Site S57. Taken from Google Earth (12/2022)

Site number: S59

Name(s): Xerabe Kengr/Xrab-î Kngr

Occupation(s): Hassuna, Ninevite 5, Neo-Assyrian, Seleucid-Islamic.

Coordinates: X 4366679, Y 3666847.

Maximum height (in meters): Unknown.

Measures (in hectares): 16,6 ha (0,85 N5).

Damages and threatens: Not serious damages. The whole site is being ploughed.

Description: A mounded site with a lower town with a long story of occupations. It reached its maximum dimension during the Sassanian-Islamic period, and little evidences from prehistoric phases were recovered (only 1 Ninevite 5 sherds).

Bibliography: UZGAR Tome 3, S060.

Images:

Site S59. Taken from Google Earth (12/2022)

Site number: S60

Name(s): Xrab-î Sê Grdek 1

Occupation(s): Ninevite 5, Old Babylonian to Early Islamic.

Coordinates: X 4366647, Y 3662994.

Maximum height (in meters): 10 meters.

Measures (in hectares): 0,65 ha (0,65 N5).

Damages and threatens: Housing, **Cemetery**, **Roads**. The site has been severely affected by a modern cemetery that covers the mound. The lower town is under cultivation.

Description: An elongated mound with a lower town that extends towards de east. It seems that the most importan occupation of the sites was during the Ninevite 5 period, as most of the material retrieved belonged to that phase. Other phases are attested with minor amount of material.

Bibliography: UZGAR Tom 3, S061.

Images:

The mound of site S60, the lower town extends under the plantation to the east. Taken from Google Earth (12/2022)

Site number: S61

Name(s): Gird-î Rovia

Occupation(s): Ubaid to Neo-Assyrian, Seleucid to Islamic

Coordinates: X 4370348, Y 3662341.

Maximum height (in meters): Unknown.

Measures (in hectares): 3,2 ha.

Damages and threatens: Housing, **Pits**. Great parts of the site have been affected by modern constructions and pits. Most of the tell is occupied by modern structures.

Description: High tell with a long history of occupations. It seems that the most important occupation occurred during the Old Babylonian period.

Bibliography: UZGAR Tome 3, S063.

Images:

The high tell of S61, the top is mostly occupied by modern houses. Taken from Google Earth (9/2024)

Site number: S62

Name(s): Gird-î Şîx Berekat/Barakat

Occupation(s): LC 1-2, Ninevite 5, Neo-Assyrian to Sassanian.

Coordinates: X 4370065, Y 3660098.

Maximum height (in meters): Unknown.

Measures (in hectares): 4,5 ha.

Damages and threatens: Cemetery. The site is densely occupied by a modern cemetery.

Description: A low mound on a natural elevation. Onli 1 Ninevite 5 fragment was retrieved.

Bibliography: UZGAR Tom 3, S066.

Images:

Site S62. Taken from Google Earth (9/2024)

Site number: S63

Name(s): Gird-î Malkaua

Occupation(s): Ninevite 5, Neo-Assyrian, Partian and Islamic.

Coordinates: X 4370872, Y 3658269.

Maximum height (in meters): Unknown.

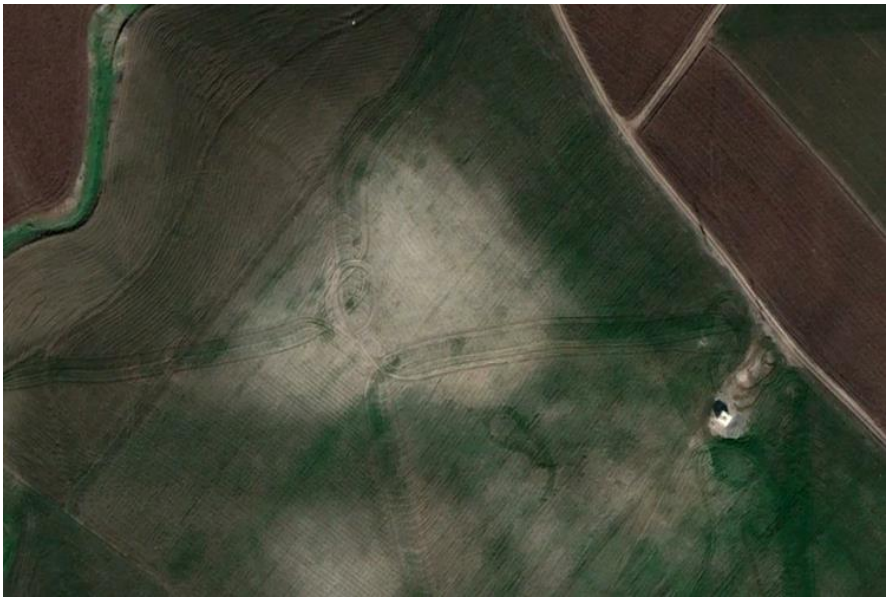
Measures (in hectares): 5 ha (0,5 N5).

Damages and threatens: Not serious damages. The whole site is being ploughed.

Description: A mounded site with lower town with a disperse history of occupation. The most important occupation occurred during the Neo-Assyrian period, while only 1 piece testified the Ninevite 5 presence.

Bibliography: UZGAR Tom 3, S067

Images:



Site S63. Taken from Google Earth (12/2022)

Site number: S64

Name(s): Xrab-î Dostek

Occupation(s): Halaf, LC 1-2, Ninevite 5, middle to neo-Assyrian, Islamic.

Coordinates: X 4367387, Y 3657362.

Maximum height (in meters): Unknown.

Measures (in hectares): 3,7 ha (1,4 N5).

Damages and threatens: Cemtery, **Agriculture**. A small cemetery is located atop of the mound. The lower town is under cultivation.

Description: A mounded site with a large lower area and a rather disperse history of occupation. The site yielded only 2 pieces from the Ninevite 5 period, but the amount of material for all of the remaining occupations was scarce as well.

Bibliography: UZGAR Tome 3, S069.

Images:

Site S64. Taken from Google Earth (12/2022)

Site number: S66

Name(s): Xerab-î 'Ali Şane

Occupation(s): Halaf, Ubaid, Ninevite 5, Seleucid to Islamic.

Coordinates: X, Y: 4368975, 3663398.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 1,09 ha.

Damages and threatens: Agriculture. The whole site is under cultivation.

Description: Two low mounds mostly occupied during later periods. Only 1 sherd belonging to the Ninevite 5 period was retrieved, and it seems that the main occupation was during Islamic times.

Bibliography: Kolinski 2019, Vol. 3, Navkur Plain: 81.

Images:

Both of the mounds are visible as separated white strains in the cultivated fields. Taken from Google Earth (12/2022)

Site number: S67

Name(s): Gorrestan-î 'Ali Şane

Occupation(s): LC 1-2, Ninevite 5, Parthian and Sassanian.

Coordinates: X, Y: 3663576, 4369408.

Maximum height (in meters): ?.

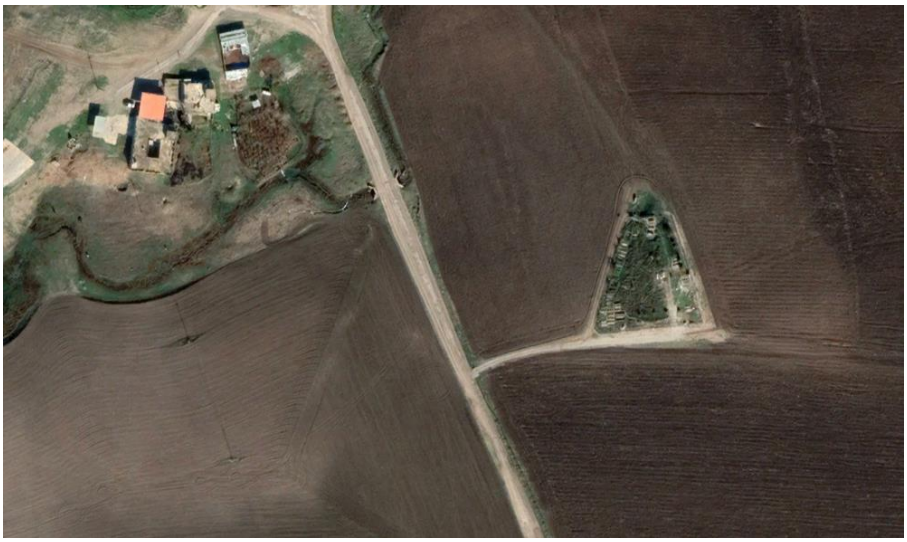
Measures (in hectares): 5 ha (1,15 N5).

Damages and threatens: Cemetery, **Agriculture**. The whole site is under cultivation. The top of the mound is covered by a modern cemetery.

Description: Low mound with a lower village. The site yielded scarce material, but the main occupation seems to be located around LC 1-2 and the Ninevite 5 period. This site is located some 100 meters east of S66, and could be considered as part of the same site.

Bibliography: Kolinski 2019, Vol. 3, Navkur Plain: 81.

Images:



The cemetery covering S67 is visible to the left, the eastern mound of S66 is visible to the right, just by the road. Taken from Google Earth (12/2022)

Site number: S68

Name(s): Gird-î Çeme Geure / Kird Ghmt Kura (AASI)

Occupation(s): Halaf, LC 1-2 to neo-Assyrian (including Ninevite 5), Seleucid to Islamic.

Coordinates: X, Y: 4381889, 3649756.

Maximum height (in meters): 15 m.

Measures (in hectares): 10 ha (1,2 N5).

Damages and threatens: Agriculture, **soil extraction**. The site, as well as other sites in the margins of the Karbik River (a tributary of the Greater Zab), has suffered damage from villagers digging up the archaeological layers for soil extraction in order to use it to repair their mudbrick houses. The lower town is under cultivation. A huge trench also cuts through the lower town.

Description: Large mound with a low settlement that had a very long history of occupations. The site grew and flourished from the second half of the third millennium onwards. The Ninevite 5 presence is attested by the presence of only six pottery pieces, and the layers are probably obscured by later occupation on them.

Bibliography: Kolinski 2019, Vol. 4: 491-547.

Images:

The large mound of S68. The aggressions on its surface are clearly visible. Taken from Google Earth (12/2022)

Site number: S69

Name(s): Xerabe-î Sûrk

Occupation(s): Ninevite 5, old Babylonian to middle Assyrian, Seleucid to Islamic.

Coordinates: X, Y: 4381670, 3649958.

Maximum height (in meters): ?.

Measures (in hectares): 0,5 ha (0,26 N5).

Damages and threatens: Agriculture, **dirty roads**, **soil extraction**. The whole site is under cultivation.

Description: The site is very close to the north-west of S68. S69 resembles a tell, but it seems that is an accumulation of cultural layers on top of a natural outcrop. The Ninevite 5 is attested as the oldest layer of the site, but it yielded an overall scarce material.

Bibliography: Kolinski 2019, Vol. 4: 481-9.

Images:

S69. Taken from Google Earth (12/2022)

Site number: S70

Name(s): Xrabe Bxraua / Tell Bahraua (AASI)

Occupation(s): Ninevite 5 to neo-Assyrian, Seleucid to Islamic.

Coordinates: X, Y: 4378567, 3650754.

Maximum height (in meters): ?.

Measures (in hectares): 10 ha (1 N5).

Damages and threatens: Agriculture, **Cemetery**, **illicit excavations? Soil extraction**. The whole site is under cultivation. The mound has a notorious extraction mark on its northern slope, that has destroyed about one quarter of it. The western side of the mound is affected by pits that may be the result of illicit diggings, and a cemetery is settled atop.

Description: Small circular mound with a substantial lower town. It seems that the site was densely occupied during the second half of the third millennium, and this layers may be covering the ones from the Ninevite 5. Only two fragments were retrieved from this site.

Bibliography: Kolinski 2019, Vol. 4: 81.

Images:

The mound and the lower extension of S70. Taken from Google Earth (2/2022)

Site number: S71

Name(s): Bxraua

Occupation(s): Halaf, Ninevite 5, Mitanni to neo-Assyrian, Parthian, Sassanian, Islamic.

Coordinates: X, Y: 4378409, 3649866.

Maximum height (in meters): ?.

Measures (in hectares): 1,5 ha (0,4 N5).

Damages and threatens: Housing. The site has been seriously affected by modern construction.

Description: A low mound or maybe a settlement atop of a natural hill. The site yielded scarce material for all the periods, but the Ninevite 5 was specially poor, with only one sherd.

Bibliography: Kolinski 2019, Vol. 4: 439-49.

Images:

S71, mostly under the modern village. Taken from Google Earth (12/2022)

Site number: S72

Name(s): Gird-î Aş-î Kçke / Harabat aş-î Saghir (AASI)

Occupation(s): Hassuna, Ubaid to neo-Assyrian (including Ninevite 5), Seleucid, Parthian.

Coordinates: X, Y: 4377021, 3649851.

Maximum height (in meters): ?.

Measures (in hectares): 2,8 ha (0,6 N5).

Damages and threatens: Agriculture, **soil extraction**. The lower town is under cultivation. The mound has suffered from soil extraction and also probably from looting activities.

Description: A conical mound with a lower town to the west, with a long history of occupations. It was an important prehistoric site, with large occupations from the old Babylonian period. However, only one Ninevite 5 sherd was retrieved at the site.

Bibliography: Kolinski 2019, Vol. 4: 309-31.

Images:

S72, mound and lower town, visible as a white strain in the fields. Taken from Google Earth (12/2022)

Site number: S75

Name(s): Xarabe-î Qraqaz

Occupation(s): Ninevite 5, neo-Assyrian, Parthian.

Coordinates: X, Y: 4370019, 3642718.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 2 ha (1,1 N5).

Damages and threatens: Agriculture. The whole site is under cultivation.

Description: A site that offered scarce material culture relating to isolated and separated periods. Only one painted Ninevite 5 sherd was recovered on the ground. It was probably a small village.

Bibliography: Kolinski 2019, Vol. 5: 76-83.

Images:

S75. Taken from Google Earth (12/2022)

Site number: S76

Name(s): Şiu-î Biran 5

Occupation(s): Halaf, Ubaid, Ninevite 5 to old Babylonian, Islamic.

Coordinates: X, Y: 4368767, 3642659.

Maximum height (in meters): ?.

Measures (in hectares): 1,9 ha (1,9 N5).

Damages and threatens: Agriculture, erosion. The whole site is under cultivation.

Description: A mound on a high edge of a river terrace. A probably prehistoric site (low quantity of sherds) that was resettled during the Ninevite 5 period, that seems to be one of the most important occupations (nine sherds) and the later third millennium.

Bibliography: Kolinski 2019, Vol. 5: 104-13.

Images:

S76. Taken from Google Earth (12/2022)

Site number: S77

Name(s): Xarabe-î Girdapan / Harabat Kirdapan (AASI)

Occupation(s): Ninevite 5 to Parthian, Islamic.

Coordinates: X, Y: 4365398, 3641557.

Maximum height (in meters): ?.

Measures (in hectares): 10,5 ha (0,88 N5).

Damages and threatens: Agriculture, erosion. The whole site is under cultivation.

Description: A mound with an extensive lower town founded most probably from a tiny village during the Ninevite 5 period and grew uninterruptedly until its maximum peak during the Mitanni period.

Bibliography: Kolinski 2019, Vol. 5: 163-87.

Images:

S77. The mound stands out over the surrounding landscape. Taken from Google Earth (12/2022)

Site number: S78

Name(s): Gorestan-î Asxaba

Occupation(s): LC 1-2, Ninevite 5, Mitanni, middle Assyrian.

Coordinates: X, Y: 4383581, 3645691.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 0,9 ha (0,78 N5).

Damages and threatens: Agriculture, cemetery. The whole site is under cultivation. There is a small cemetery on the north-eastern corner of the site.

Description: A very small flat settlement more densely occupied during middle Assyrian times. Only three fragments of Ninevite 5 chronology were recovered.

Bibliography: Kolinski 2019, Vol. 6: 191-204.

Images:

S78, to the north of the main flow of the Greater Zab. Taken from Google Earth (12/2022)

Site number: S79

Name(s): Hamrin

Occupation(s): LC 3-5, Ninevite 5, second half of the third millennium, neo-Assyrian.

Coordinates: X, Y: 4379777, 3639821.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 2,87 ha (0,5 N5).

Damages and threatens: Agriculture, gravel mining. The whole site is under cultivation. The site is seriously threatened by a gravel mine that extends from the south following the riversides of the Greater Zab. Another site to the south had been partially destroyed in 2019 (S80), and this one could also be damaged or destroyed in the near future.

Description: Tiny flat settlement that concentrates almost all of its occupations in the third millennium, including the Ninevite 5 period. 15 sherds were retrieved from this period, compared to only one beveled rim bowl from the LC 3-5 period.

Bibliography: Kolinski 2019, Vol. 6: 303-17.

Images:

S79, under cultivation. The gravel mine is visible in the south-western corner. Taken from Google Earth (11/2023)

Site number: S80

Name(s): Sense Nom (south Hamrin)

Occupation(s): Ninevite 5, old Babylonian, Seleucid to Sassanian.

Coordinates: X, Y: 4379666, 3639695.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 0,4 ha.

Damages and threatens: Soil extraction. Half of the site has been destroyed by a gravel mine that threatens the other half.

Description: Very small flat site located just south of S79. Only two Ninevite 5 fragments that could be even stray finds from S79.

Bibliography: Kolinski 2019, Vol. 6: 318-23.

Images:

S80, completely bisected by a gravel mine. Taken from Google Earth (12/2022)

Site number: S82

Name(s): Gird-î Xrab

Occupation(s): Ninevite 5 to neo-Assyrian, Seleucid, Sassanian, Islamic.

Coordinates: X, Y: 4365402, 3634981.

Maximum height (in meters): ?.

Measures (in hectares): 18 ha (0,75 N5).

Damages and threatens: Housing. The lower town has been severely affected by the modern village, many houses cut through archaeological layers. The main mound have a ruined construction on top.

Description: Huge settlement with a mound and an extensive lower town, probably founded as a small village during the Ninevite 5 period. The maximum extension was reached during Islamic times.

Bibliography: Kolinski 2019, Vol. 5: 195-227.

Images:

S82, the main tell to the north, and the extensive lower town to the south, affected by the modern settlement. Taken from Google Earth (12/2022)

Site number: S83

Name(s): Xrab-î Haci / Gird-î Şamsaxar

Occupation(s): Ninevite 5 to neo-Assyrian, Islamic.

Coordinates: X, Y: 4369243, 3635888.

Maximum height (in meters): ?.

Measures (in hectares): 3,8 ha (0,8 N5).

Damages and threatens: Agriculture, cemetery, housing. The main mound is affected by modern houses and a cemetery on its eastern slope. The lower town is also affected by the same circumstances.

Description: A mound with a lower town of discrete size. Again, the site seems to have been founded as a tiny Ninevite 5 village and then expanded and reached its maximum peak during the Mitanni and middle Assyrian periods.

Bibliography: Kolinski 2019, Vol. 5: 231-57.

Images:

S83, cut by cultivation and roads. Taken from Google Earth (12/2022)

Site number: S84

Name(s): No Name (South Khendek)

Occupation(s): Ninevite 5, middle Assyrian.

Coordinates: X, Y: 4375250, 3634959.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 0,9 ha (0,38 N5).

Damages and threatens: Agriculture. The whole site is under cultivation.

Description: Very small site with very scarce evidences of Ninevite 5 occupations.

Bibliography: Kolinski 2019.

Images:

S84, under intensive cultivation. Taken from Google Earth (12/2022)

Site number: S86

Name(s): Gird-î Kaulok

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4419018, 3657535.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 1,77 ha.

Damages and threatens: Agriculture. The whole site is under cultivation.

Description: Small flat settlement with some Ninevite 5 evidences.

Bibliography: Kolinski 2019.

Images:

S86. Taken from Google Earth (12/2022)

Site number: S87

Name(s): Gird-î Qalata

Occupation(s): Ninevite 5 to neo-Assyrian.

Coordinates: X, Y: 4418061, 3659084.

Maximum height (in meters): ?.

Measures (in hectares): 0,37 ha (0,28 N5).

Damages and threatens: Housing, cemetery. The site has suffered damage from modern structures that have occupied the western slope, and a modern cemetery.

Description: A very tiny site that consists of a mound probably founded during the Ninevite 5 period but, this time, it seems to be the most important period.

Bibliography: Kolinski 2019, Vol. 6: 655-63.

Images:

The small S87. Taken from Google Earth (09/2020)

Site number: S88

Name(s): Gorestan-î Armandan

Occupation(s): Ninevite 5, Islamic.

Coordinates: X, Y: 4368975, 3663398.

Maximum height (in meters): ?.

Measures (in hectares): 0,3 ha.

Damages and threatens: Housing, illicit digging. The site is moderately affected by modern infrastructure.

Description: A very small tell with isolated Ninevite 5 occupations.

Bibliography: Kolinski 2019.

Images:

S88. Taken from Google Earth (03/2021)

Site number: S89

Name(s): No name (east Rikawê)

Occupation(s): Ninevite 5, middle Assyrian.

Coordinates: X, Y: 4428687, 3658202.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 0,7 ha.

Damages and threatens: Agriculture. The whole site is under cultivation.

Description: Isolated Ninevite finds in a mostly middle Assyrian site.

Bibliography: Kolinski 2019.

Images:

S89. Taken from Google Earth (12/2022)

Site number: S90

Name(s): Gird-î Xera

Occupation(s): Ninevite 5, Seleucid.

Coordinates: X, Y: 4428258, 3656173.

Maximum height (in meters): ?.

Measures (in hectares): 1,2 ha.

Damages and threatens: Agriculture, housing. The site is severely affected by a modern house built on top. The rest of the site is under cultivation.

Description: Small tell with a lower town in which only isolated Ninevite 5 and Seleucid occupations were identified.

Bibliography: Kolinski 2019, Vol. 3, Navkur Plain: 81.

Images:

S90. Taken from Google Earth (03/2021)

Site number: S91

Name(s): Gird-î Til-ê

Occupation(s): Ninevite 5, middle Assyrian.

Coordinates: X, Y: 4432229, 3655786.

Maximum height (in meters): ?.

Measures (in hectares): 30 ha (? N5).

Damages and threatens: Agriculture. The whole site is under cultivation.

Description: A large tell with an extensive lower town that reached its maximum peak of extension after the middle Assyrian period. The evidences of the Ninevite 5 presence are scant.

Bibliography: Kolinski 2019.

Images:

S91, presents an impressive shape and a massive size. Taken from Google Earth (02/2021)

Site number: S92

Name(s): Başuri Xuaru 5

Occupation(s): Halaf to Ninevite 5.

Coordinates: X, Y: 4432779, 3652493.

Maximum height (in meters): ?.

Measures (in hectares): 5,7 ha (? N5).

Damages and threatens: Agriculture, road. The whole site is under cultivation. A dirty road cuts the site in half.

Description: Prehistoric site consisting of one low mound with a lower settlement. The site was continuously occupied during Halaf times to Ninevite 5.

Bibliography: Kolinski 2019.

Images:

Both of the mounds are visible as separated white strains in the cultivated fields. Taken from Google Earth (12/2022)

Site number: S93

Name(s): Gird-î Pa

Occupation(s): Ninevite 5, middle Assyrian to neo-Assyrian.

Coordinates: X, Y: 4435625, 3650965.

Maximum height (in meters): ?.

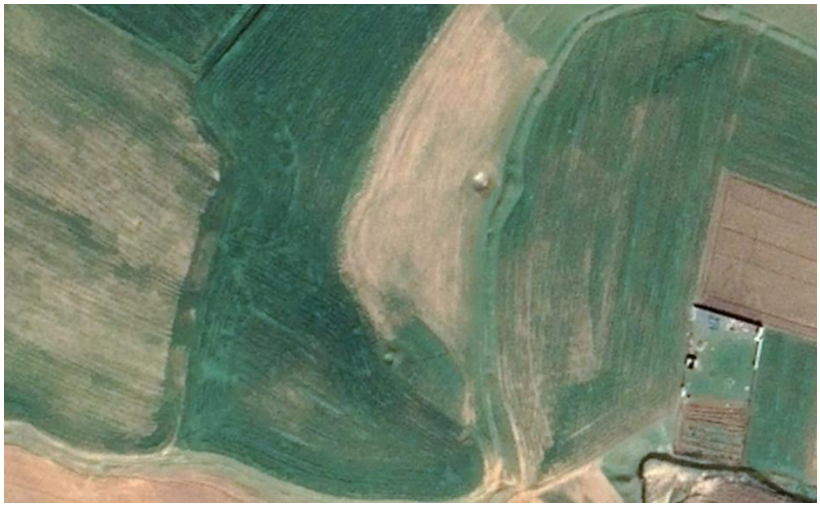
Measures (in hectares): 4,8 ha.

Damages and threatens: Agriculture. The whole site is under cultivation.

Description: A low tell with a flat settlement with abundant middle Assyrian remain onwards. Some Ninevite 5 remains.

Bibliography: Kolinski 2019.

Images:



S93. The tell is so low that is imperceptible on the satellite. Taken from Google Earth (12/2022)

Site number: S94

Name(s): Mutraua 2

Occupation(s): Ninevite 5, middle Assyrian to Seleucid.

Coordinates: X, Y: 4436478, 3650896.

Maximum height (in meters): ?.

Measures (in hectares): 4,8 ha.

Damages and threatens: Agriculture, cemetery. The whole site is under cultivation. A cemetery covers the top of the mound.

Description: A low mound and lower settlement only 750 meters east of S93. The history of occupation is similar to the last site, with some Ninevite 5 remains and important later occupations.

Bibliography: Kolinski 2019.

Images:

S94. The top of the mound with the cemetery's fence. The rest of the site is under the cultivated fields. Taken from Google Earth (02/2021)

Site number: S95

Name(s): Bani Mutkan

Occupation(s): LC 1-2, Ninevite 5, Sassanian.

Coordinates: X, Y: 4437322, 3650152.

Maximum height (in meters): ?.

Measures (in hectares): 3,3 ha.

Damages and threatens: Agriculture. The whole site is under cultivation.

Description: A low mound completely under cultivated fields. The periods of occupation are highly dispersed, and the surface material does not yield many clues on the history of the site. Perhaps it was a tiny village for all the periods attested.

Bibliography: Kolinski 2019.

Images:

S95, barely visible on the satellite. Taken from Google Earth (02/2021)

Site number: S98

Name(s): Tell Billa (Shinabiba)

Occupation(s): EBA (Including Ninevite 5), LBA.

Coordinates: X, Y: 4334788, 3643409.

Maximum height (in meters): ?.

Measures (in hectares): 12 ha.

Damages and threatens: Military constructions. The top of the mound has been affected by military trenches and other facilities.

Description: Important settlement during later periods, excavations revealed Ninevite 5 occupations.

Bibliography: Speiser , 1932, 1933; Lloyd 1938

Images:

The huge mound of S98 stands out over the surrounding fields. Taken from Google Earth (01/2021)

Site number: S119

Name(s): Girê Mozan / Tell Mozan

Occupation(s): LC, Ninevite 5, Akkadian, MBA, LBA.

Coordinates: X, Y: 4099707, 3705702.

Maximum height (in meters): 30 m.

Measures (in hectares): 135 ha.

Damages and threatens: Agriculture, erosion.

Description: Important mound with an extensive lower town that was an important political center in later periods. During the latter phase of the Ninevite 5 period, it reached its maximum size peak.

Bibliography: Dohmann-Pfälzner, H. and Pfälzner 1999; 2000; 2001; 2002a.

Images:

S199's main mound. Taken from Google Earth (11/2022)

Site number: S132

Name(s): Tell Mohammad ‘Arab

Occupation(s): LC 4-5, Ninevite 5, middle Assyrian.

Coordinates: X, Y: 4287869, 3662980.

Maximum height (in meters): ? m.

Measures (in hectares): 2 ha.

Damages and threatens: Barrage. Permanently drowned under the Eski-Mosul lake.

Description: The site lied on a cliff, just north of the Eski-Mosul barrage. The excavations uncovered an important (but incomplete) sequence from the LC 4-5 and the Ninevite 5 period.

Bibliography: Roaf 1983; Roaf, M. 1984.

Images:

The site as seen in CORONA satellite.

Site number: S133

Name(s): Tell Khazna I

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4089547, 3666139.

Maximum height (in meters): ? m.

Measures (in hectares): 2 ha.

Damages and threatens: Agriculture, erosion.

Description: Small mound founded during the LC period and abandoned during the Ninevite 5 period. The Ninevite 5 site contained a singular circular settlement similar to the one found at S134, and some granaries and possible temples were identified.

Bibliography: Munchaev, Amirov and Magomedov 2015; Munchaev and Amirov 2016; 2019.

Images:

S133's mound. Taken from Google Earth (09/2021)

Site number: S119

Name(s): Tell Kashkashok III

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4064146, 3663726.

Maximum height (in meters): 22 m.

Measures (in hectares): 4,3 ha.

Damages and threatens: Barrage. Partially drowned.

Description: Group of four mound of which only the third, the largest one, contained Ninevite 5 occupations. The site yielded an interesting settlement with rounded plan and possible temples and granaries.

Bibliography: Munchaev, Amirov and Suleiman 2011.

Images:

S119, visibly affected by eroion. Taken from Google Earth (06/2021)

Site number: S137

Name(s): Tell Bderi

Occupation(s): Ubaid, LC 4-5, Ninevite 5, Akkadian, MBA.

Coordinates: X, Y: 4081362, 3638732.

Maximum height (in meters): ? m.

Measures (in hectares): 5,8 ha.

Damages and threatens: Barrage. Partially drowned under the Middle Khabur lake.

Description: Interesting site in which a surrounding wall from the EBA period was found.

Bibliography: Pfälzner 1986-7, 1987, 1990, 2000; TAVO.

Images:

The site as an island in the middle of the Khabur barrage. Taken from Google Earth (02/2022)

Site number: S138

Name(s): Tell Melebiya

Occupation(s): Ninevite 5, Akkadian-

Coordinates: X, Y: 4081167, 3640541.

Maximum height (in meters): ? m.

Measures (in hectares): 7 ha.

Damages and threatens: Barrage. Partially drowned under the Middle Khabur lake.

Description: The site was founded during the Ninevite 5 period and abandoned during the Akkadian period. French-lead excavations found an important urban net dating from the first half of the third millennium.

Bibliography: Lebeau 1993.

Images:

The site affected by the erosion and partially drowned. Taken from Google Earth (02/2022)

Site number: S139

Name(s): Tell Kerma

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4083693, 3644790.

Maximum height (in meters): ? m.

Measures (in hectares): 1 ha.

Damages and threatens: Barrage, agriculture. Partially drowned under the Eski-Mosul lake.

Description: Small site excavated by a Lebanese team. A large granary compound with carbonized levels of seed was found and excavated.

Bibliography: Saghié 1991.

Images:

The site affected by erosion and a former modern cemetery. Taken from Google Earth (02/2022)

Site number: S140

Name(s): Tell 'Atij

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4086443, 3643039.

Maximum height (in meters): ? m.

Measures (in hectares): 2 ha.

Damages and threatens: Barrage. Partially drowned under the Eski-Mosul lake.

Description: Elongated large mound and a secondary elevation. The site yielded interesting remains of a granary settled atop of a massive mudbrick platform dated to the first quarter of the third millennium.

Bibliography: Fortin 1988, 1991, 1997: 104-106; TAVO.

Images:

The site, heavily affected by erosion. Taken from Google Earth (02/2022)

Site number: S141

Name(s): Tell Mashnaqa

Occupation(s): LC 4-5, Ninevite 5, middle Assyrian.

Coordinates: X, Y: 4079343, 3629056.

Maximum height (in meters): ? m.

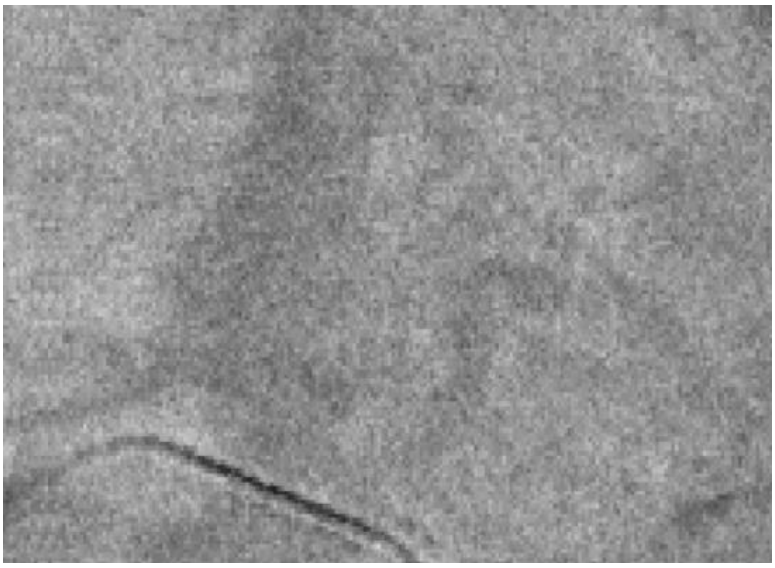
Measures (in hectares): 2 ha.

Damages and threatens: Barrage. Permanently drowned under the Eski-Mosul lake.

Description: Site with important occupations from the first quarter of the third millennium. Remains of granaries were found, similar to many sites in the Middle Khabur region.

Bibliography: Monchambert 1985, 1986; Pfälzner 1990: 67; Hole 1991: Hole and Kouchoukos 1992: 1-15; Beyer 1993; 1998.

Images:



The site as seen in the CORONA satellite.

Site number: S142

Name(s): Tell Ziyadah

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4084402, 3641124.

Maximum height (in meters): ? m.

Measures (in hectares): 0,8 ha.

Damages and threatens: Barrage. Partially drowned under the Eski-Mosul lake.

Description: Another small site that yielded rather interesting and large grain storace facilities from the first quarter of the third millennium.

Bibliography: Hole and Arzt 1998; Hole 1999; Hole 1999; 2001.

Images:

S142, heavily affected by erosion. Taken from Google Earth (02/2022)

Site number: S143

Name(s): Tell Karrana 1 and 3

Occupation(s): Ninevite 5

Coordinates: X, Y: 40.38400, 3.61135.

Maximum height (in meters): ? m.

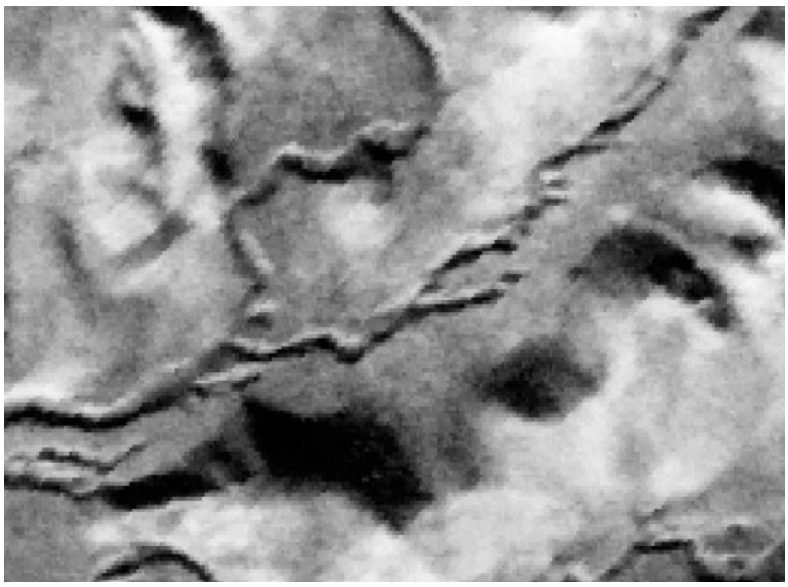
Measures (in hectares): 0,2 ha.

Damages and threatens: Barrage. Permanently drowned.

Description: Very small site consisting of 3 mounds of which the 1 and 3 had interest for the Ninevite 5 period. The site yielded interesting remains of the transition between the LC 4-5 and the Early Ninevite 5 period.

Bibliography: Schwartz 1987; Wilhem and Zaccagnini 1991; Wilhem, Gernot and Zaccagnini. 1993.

Images:



The site as seen in the CORONA satellite.

Site number: S148

Name(s): Harba

Occupation(s): EJ 2-3a.

Coordinates: X, Y: 40.38400, 3.61135.

Maximum height (in meters): 5 m.

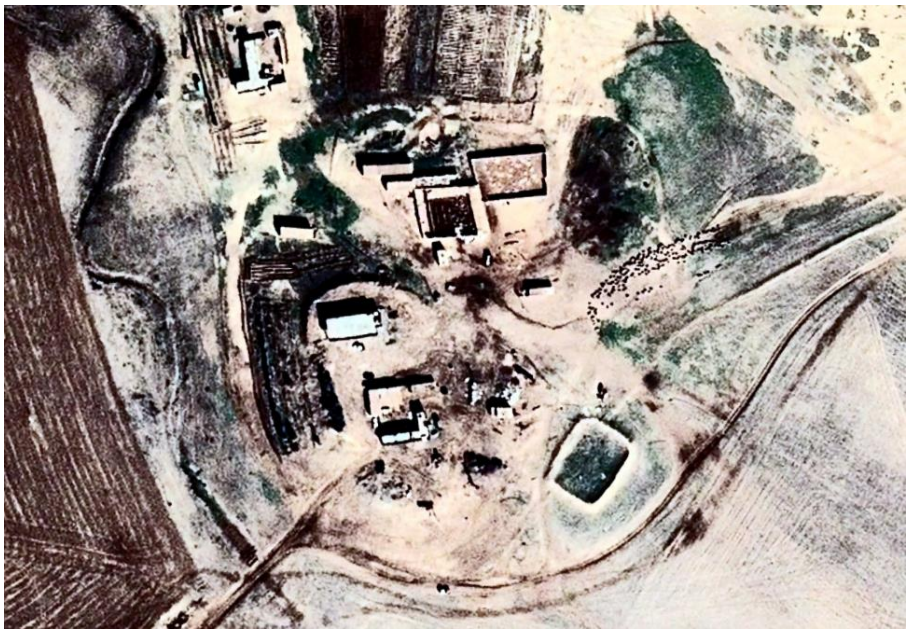
Measures (in hectares): 0,6 ha.

Damages and threatens: Housing, erosion, agriculture. Most of the site is badly damaged and overshadowed by modern town constructions. It is surrounded by agricultural fields.

Description: Small conical mound where only 2 fragments belonging to Late Ninevite 5 where retrieved from surface collections. Identified as K178 by the Khabur Basin Survey project.

Bibliography: Koubková 2015: 40, 64-66; Koubková i Wygnanska 2018.

Images:



The site of Harba, the conical shape of this mound is slightly visible under the modern constructions.
Taken from Google earth, 2/2021.

Site number: S149

Name(s): Joys Spring.

Occupation(s): Neolithic, EJ 2-3a/b (Ninevite 5).

Coordinates X, Y: 41.03117, 3.64103.

Maximum height (in meters): flat.

Measures (in hectares): 20 m in length.

Damages and threatens: Erosion, soil removal. There are some soil removal spots near the site, but it looks like it has not been affected yet.

Description: Flat and very small site with a natural lake to the east that, according to Koubková (2015: 40), was only 20 meters in length and was probably a surface artifact scatter with no archaeological layers underground. Four pottery pieces from Ninevite 5 were recovered from this site—two decorated and two non-decorated, all indicative of a late Ninevite 5 or post-Ninevite 5 period (EJ 2-3a/b). Identified as K1 by the Khabur Basin Survey project.

Bibliography: Koubková 2015: 41; Koubková i Wygnanska 2018.

Images:

Joys Springs highlighted. Taken from Google Earth, 9/2021.

Site number: S150

Name(s): Tell Kneidij

Occupation(s): Ninevite 5, Akkadian.

Coordinates: X, Y: 4079154, 3635170.

Maximum height (in meters): ? m.

Measures (in hectares): 3 ha.

Damages and threatens: Barrage. Partially drowned.

Description: Small mound occupied during all the Ninevite 5 period (EJ 1-3a), and abandoned after the Akkadian period (EJ 3b). The site yielded storage facilities and a defensive wall surrounding it.

Bibliography: Klengel-Brandt et.ali. 1998; Koubková 2015: 40.

Images:

The site stands as a visibly eroded island in the middle of the Middle Khabur lake.
Taken from Google Earth (02/2022)

Site number: S151

Name(s): Tell Metyaha

Occupation(s): Ninevite 5

Coordinates: X, Y: 4045846, 3619086.

Maximum height (in meters): ? m.

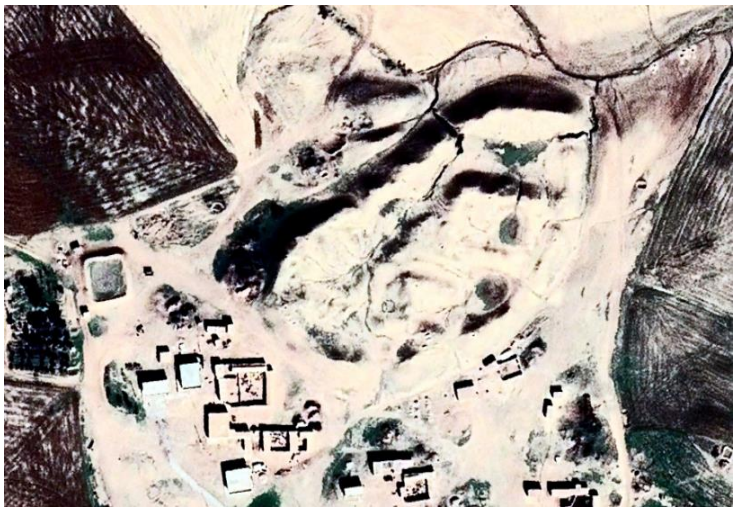
Measures (in hectares): 7 ha.

Damages and threatens: Housing. The site is at the northern edge of a modern village, but it doesn't seem that the modern houses have affected it that much.

Description: This site looks like an impressive high mound on the satellite, but, according to the surveys, it is actually a four meters high mound placed on top of a natural hill, so, the archaeological features are much lower than they appear to be. Regarding the occupations, a single fragment sherd tentatively identified as of Ninevite 5 tradition has been identified so far.

Bibliography: Koubková 2015: 43; Koubková and Wygnanska 2018: 550.

Images:



Site S151. Taken from Google Earth (02/2021)

Site number: S152

Name(s): Tell Mulla Matar

Occupation(s): Halaf to EJ 3b (Ninevite 5 included)

Coordinates: X, Y: 4083289, 3645047.

Maximum height (in meters): ? m.

Measures (in hectares): 0,4 ha.

Damages and threatens: Cemetery, agriculture. Most of the mound is covered by a modern cemetery.

Description: Very small and low mound with a prehistoric origin and occupations during the Ninevite 5 period. Painted Ninevite 5 pottery was found during the excavations, but the stratigraphy related to this material was never reached (perhaps because of the limited surface available due to the presence of this massive modern cemetery on top)

Bibliography: Sürenhagen 1990; Koubková 2015: 43.

Images:

The mound of S152, mostly covered by graves. Taken from Google Earth (02/2022)

Site number: S153

Name(s): Tell Rad Shaqrah

Occupation(s): Halaf, EJ 2-4 (Late Ninevite 5).

Coordinates: X, Y: 4083241, 3646781.

Maximum height (in meters): ? m.

Measures (in hectares): 1,3 ha.

Damages and threatens: Housing, erosion. The site is very badly damaged by modern constructions, most of the tell is occupied by houses and cut by roads.

Description: Small mound in which a defensive wall belonging to the Late Ninevite 5 period (EJ 2-3a) was found, probably it was linked with another grain storage facility, like many other sites in the Middle Khabur.

Bibliography: Bielinski 1991, 1995; Szelag 2013.

Images:

The mound of S153, cut and leveled. Taken from Google Earth (02/2022)

Site number: S154

Name(s): Tell Alarbidi

Occupation(s): Ninevite 5

Coordinates: X, Y: 4048414, 3647411.

Maximum height (in meters): ? m.

Measures (in hectares): 0,4 ha.

Damages and threatens: ?

Description: This site has been impossible to locate due to a mistake on the coordinates in the sources. Koubková located this site with the coordinates of another completely different site. The error is notorious when one compares the description offered by her (Koubková 2015: 46) whith the appearance of the site pointed (a much bigger site that is not in this catalog because it has no evidence of Ninevite 5 pottery). However, only a single Ninevite 5 base was found at this site, and the occurrence must be considered as isolated. The coordinates stated are a possible location according to the indications offered by Koubková.

Bibliography: Koubková 2015: 46; Koubková i Wygnanska 2018: 549, 561.

Images: -

Site number: S155

Name(s): Tell Burqa

Occupation(s): EJ 1 (Early Ninevite 5), Third millennium (no specifications).

Coordinates: X, Y: 40.06072, 3.61913.

Maximum height (in meters): Unknown.

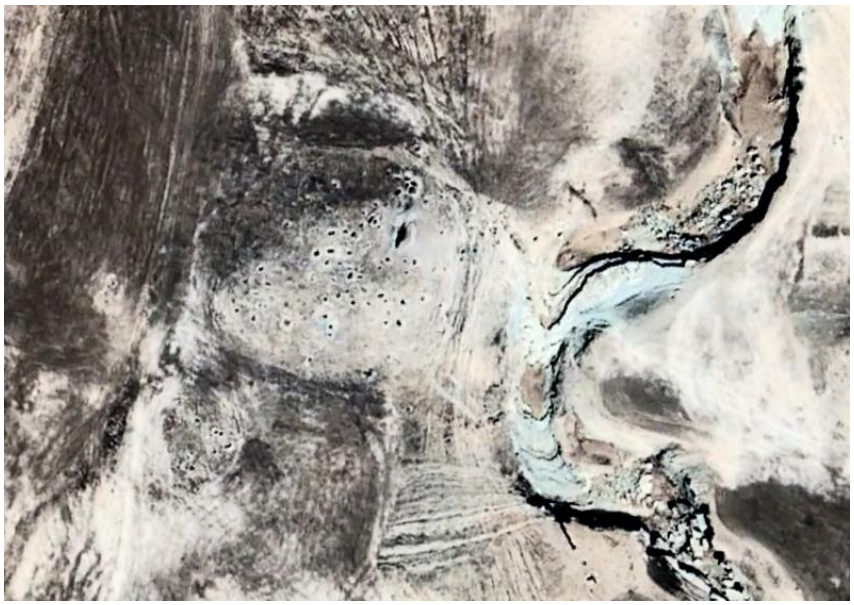
Measures (in hectares): 1,5 ha.

Damages and threatens: Looting, agriculture. The site had an extensive cemetery on top, referred to by the Middle Khabur Survey team, but it appeared mostly destroyed by looters. The smuggler's pits are clearly visible all long the mound's surface on the satellite. Agricultural activities don't affect the site but it's immediate surroundings.

Description: This site looks like a tell; however, according to the Middle Khabur survey, it seems to be a mostly natural gypsum hill with human occupation on top. The authors point out the presence of tombs cutting through third millennium layers, but they provide no information on the dating of these tombs. It has a deep wadi to the east. Identified as K174 by the Khabur Basin Survey project.

Bibliography: Koubková 2015; Koubková i Wygnanska 2018.

Images:



The site with the many looter's pits on top. Taken from google maps, 8/2021.

Site number: S156

Name(s): Tell Mabtuh East (Sharqi)

Occupation(s): EJ 2 (Ninevite 5) to EJ 5 (end of the third millennium)

Coordinates: X, Y: 40.14097, 3.64945.

Maximum height (in meters): ?

Measures (in hectares): 44 ha (upper town 9 ha).

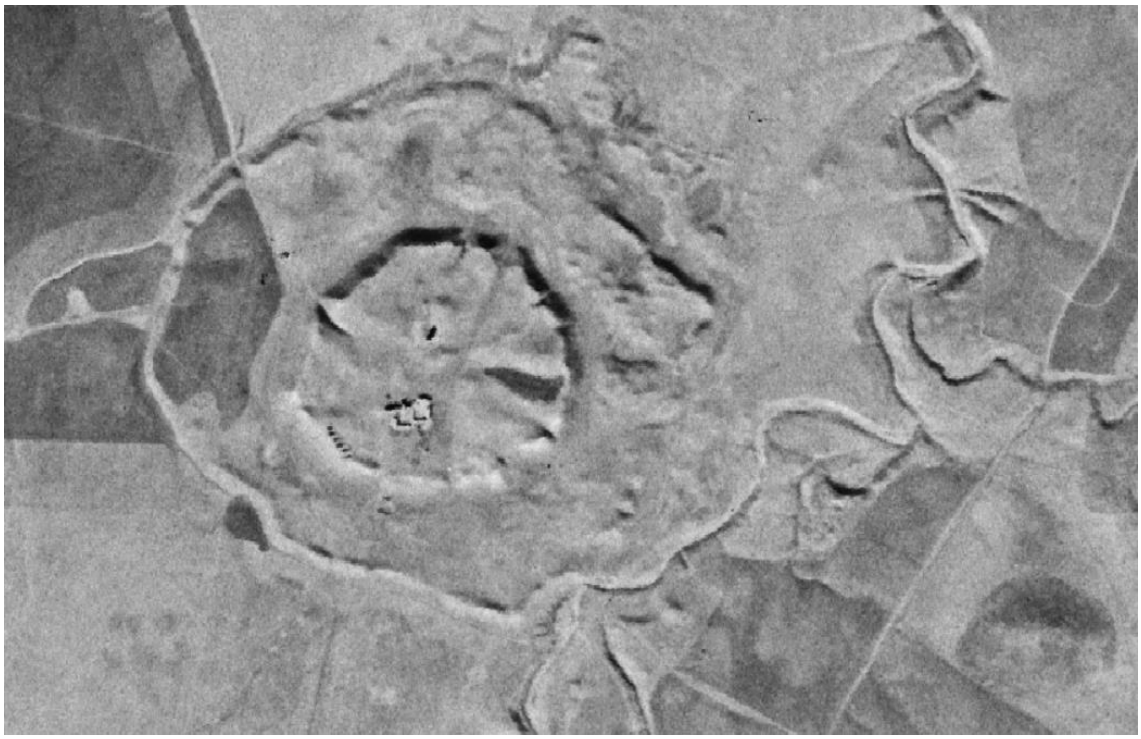
Damages and threatens: Agriculture, road. This site is in quite good condition and it is only affected by agriculture (lower town and surrounding wall) and by a tiny road that cut through the western side of the lower town. There is a single isolated rectangular modern building near It's northern edge.

Description: This large site is located north of the Jebel Abdul Aziz, west of the Middle Khabur region. The upper town was excavated by Antoine Souleiman, but much of the information retrieved remained unpublished following his death in 2012. Ninevite 5 pottery fragments from EJ 2 were found, but the peak of this site occurred during EJ 3-IVa, marked by the construction of a large temple structure in the upper town. The occupation of the site appears to have ceased at the end of the third millennium. This site is classified under the category of 'kranzhügel' or crown-like settlements with a circular upper town surrounded by a lower space enclosed by a rounded wall. Identified as K128 by the Khabur Basin Survey project.

Bibliography: Gernez and Suleiman 2013; Smith 2015: 69-70; Koubková 2015: 47; Koubková i Wygnanska 2018: 549, 561; Smith 2022.

Images:

Tell Mabtuh Sharqi as seen in google earth's satellite. The excavation's trenches are clearly visible on top of the upper town. Taken from Google earth, 8/2021.



Tell Mabtuh Sharqi as seen in CORONA imagery, before the archaeological excavations took place. The surrounding wall is clearly visible. There is also another possible mound at the low right corner of the image.

Site number: S157

Name(s): Tell Tuenan/Tuainan

Occupation(s): EJ 1 (Smith 2015: 407), EJ 2-3a (Late Ninevite 5), third millennium. Iron Age, Roman/Bizantine (Smith 2015: 407).

Coordinates: X, Y: 40.50503, 3.62898.

Maximum height (in meters): ?

Measures (in hectares): 4 ha (Koubková and Wygnanska 2018: 561) or 1,6 ha (Smith 2015: 407).

Damages and threatens: Cemetery, river erosion. A modern cemetery occupies the north-western quarter of the mound's summit. Also the big wadi that flows to its northern side has cut through and continuous to erode archaeological layers. Nevertheless, the overall condition is good.

Description: It is a big mound of irregular shape and nearly flat summit with tall slopes, limited by a river to the north and agricultural fields. Koubková 2015 states that this site yielded a single decorated (decoration not specified) piece of pottery dating to EJ 2 (Late Ninevite 5). Smith (2005) also says that the site had occupation in EJ 1. It is possible that, regarding the scarce evidence of Ninevite 5 material, EJ 1 was not stated by Koubková as long as his work focuses only on that specific material. Identified as K181 by the Khabur Basin Survey project.

Bibliography: Koubková 2015: 48;

Images:

Tell Tuenan/Tuainan. Taken from Google earth, 8/2021.

Site number: S158

Name(s): Tell Tuneinir

Occupation(s): Continuously occupied from EJ 2-3 (2700 BCE) to 1400 BCE.

Coordinates: X, Y: 4086639, 364221.

Maximum height (in meters): 20 m.

Measures (in hectares): 40 ha (? N5)

Damages and threatens: Barrage. Partially flooded.

Description: Huge site with a long story of occupations, excavated in several campaigns. The later period layers cover much of the earliest ones, as the site was supposedly founded during the Late Ninevite 5 period. Not much is known of the earliest phase at this site, and the area occupied cannot even be estimated.

Bibliography: Sarre and Herzfeld 1911: 194; Fuller and Fuller 1998.

Images:

S158, the high tell. Taken from Google Earth (09/2021)

Site number: S160

Name(s): Tell Abu Hufur

Occupation(s): Ubaid, EBA (including Ninevite 5)

Coordinates: X, Y: 4066123, 366073.

Maximum height (in meters): 16 m.

Measures (in hectares): 3 ha.

Damages and threatens: Barrage. Partially drowned.

Description: Prominent but small mound with a secondary elevation that was considered as a separate site by the excavators and was not included in this catalog because it has no Ninevite 5 remains.

Bibliography: Kolinski and Lawecka 1992.

Images:

The main mound of S160 can be seen to the right, the lower eastern mound is visible to the west. The both of them are visibly affected by erosion. Taken from Google Earth (09/2021)

Site number: S162

Name(s): Tell Abu Hijarah 1, 2 and 3

Occupation(s): Uruk?, Late Ninevite 5.

Coordinates: X, Y: 4048414, 3647411.

Maximum height (in meters): 14 m.

Measures (in hectares): 5 ha (mound 1).

Damages and threatens: Barrage. All three mounds are partially drowned.

Description: Three mounds in close vicinity. The first one is the bigger one and the most prominent. This mound yielded incised/excised Ninevite 5 pottery in relation with Metallic ware sherds.

Bibliography: Martin and Tietze 1992.

Images:

The three mounds of S162. Taken from Google Earth (09/2021)

Site number: S163

Name(s): Tell Gasa al-Gharbi

Occupation(s): Ninevite 5

Coordinates: X, Y: 4067435, 365874.

Maximum height (in meters): 14 m.

Measures (in hectares): 0,5 ha.

Damages and threatens: Barrage. The site is almost permanently under water; it only emerges when the water levels are extremely low.

Description: Very small but high mound, and a secondary elevation to the west settled just west of the North Hassaka Barrage. The site was excavated between 1986 and 1990.

Bibliography: Daszewski and Stepniowski 1988-1989: 48; Bielinski 1990: 94-99.

Images:

The two mounds of S163. Taken from Google Earth (11/2022)

Site number: S164

Name(s): Qara Tepe

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4095702, 369791.

Maximum height (in meters): 6 m.

Measures (in hectares): 2 ha.

Damages and threatens: Soil extraction, housing. The houses of the modern village have cut through all the slopes except for the northern.

Description: Small mound with Ninevite 5 surface material. For some reason, is listed by Koubková as a site in the Khabur Basin Project, but the site is far away from this area.

Bibliography: Koubková 2015: 55; TAVO.

Images:

S164. Taken from Google Earth (11/2022)

Site number: S166

Name(s): Tell Zagan / Zeran (TAVO)

Occupation(s): Halaf, Ubaif, LC 4-5, Ninevite 5 (EJ 1-3).

Coordinates: X, Y: 4048414, 3647411.

Maximum height (in meters): ? m.

Measures (in hectares): 1 ha.

Damages and threatens: Cemetery, agriculture. The site is densely occupied by a modern cemetery.

Description: Small tell occupied since prehistoric times, probably was never more than a rural village. The excavators found Ninevite 5 excised pottery, but they point out that the site had occupations during the whole period.

Bibliography: Seeden 1991.

Images:

S166. Taken

Site number: S167

Name(s): Tell Nustell

Occupation(s): Ninevite 5

Coordinates: X, Y: 4048414, 3647411.

Maximum height (in meters): ? m.

Measures (in hectares): 1,75 ha.

Damages and threatens: Barrage. Partially drowned, but possibly is the least exposed site of the Northern Hassakah Dam. The site suffered from erosion that left the site like it was cut in half, and that's the reason for its name (Nus-tell means 'half mound')

Description: Low-sized main mound and other secondary mounds located north of the northern edge of the North Hassakah Barrage. The site was located in a village that was abandoned after the completion of the dam, but it seems that the site is only eventually submerged. Excavations in the 90s uncovered a rural Ninevite 5 village.

Bibliography: Seeden 1991; Wilkinson 1997-1998: 25, Ur and Wilkinson. 2008: 307 and 320.

Images:

The main mound of Nustell, the one that gives name to the site, is the northernmost. Taken from Google Earth (11/2022)

Site number: S169

Name(s): Tell Barri

Occupation(s): LC to later periods (including Ninevite 5)

Coordinates: X, Y: 4112713, 367391.

Maximum height (in meters): 36 m.

Measures (in hectares): 20 ha.

Damages and threatens: Cemetery, erosion, agriculture. A mall cemetery is placed atop. The erosion has affected the slopes of the main mound.

Description: Substantial mound with a long history of occupations. Modern excavations have uncovered Late Ninevite 5 neighborhoods in the northern and southern slopes of the site, as well as a structure identified as a possible temple with an open courtyard.

Bibliography: Pecorella 1983; Pecorella and Salvini 1984; Valentini 2003, 2008a, 2008b; Pecorella and Benoit 2005.

Images:

The substantial mound of S169, with the excavation trenches visible. Taken from Google Earth (11/2022)

Site number: S188

Name(s): Girharrin

Occupation(s): Halaf, LC 4-5, first half of the third millennium

Coordinates: X, Y: 4078407, 3722521.

Maximum height (in meters): ? m.

Measures (in hectares): 9,4 ha.

Damages and threatens: Housing, soil removal. The western slope has suffered heavy damage from soil extraction, a modern settlement surrounds the main mound.

Description: Substantial mound with prehistoric occupations. On the surface, Ninevite 5 pottery was recovered alongside with Metallic ware sherds.

Bibliography:
http://www.tayproject.org/TAYages.fm$Retrieve?CagNo=1059&html=ages_detail_e.html&layout=web.

Images:

The substantial mound of S188. Taken from Google Earth (09/2024)

Site number: S189

Name(s): Müslümantepe

Occupation(s): LC to first quarter of the third millennium.

Coordinates: X, Y: 4093640, 3780444.

Maximum height (in meters): ? m.

Measures (in hectares): 20 ha.

Damages and threatens: Barrage. Permanently drowned.

Description: The excavations revealed a good transitional sequence between the LC and the EBA. Some Ninevite 5 and Metallic ware sherds were recovered from these EBA layers.

Bibliography: Ay, Ay and Tarhan 2013.

Images:

The site S189 with the excavation trenches visible on its surface. Taken from Google Earth (04/2016)

Site number: S195

Name(s): Mehmetçik Höyük

Occupation(s): Halaf, LC 4-5, Ninevite 5.

Coordinates: X, Y: 4221887, 373199.

Maximum height (in meters): 36 m.

Measures (in hectares): 2,8 ha (0,5 N5)

Damages and threatens: Military facilities, urban development, erosion. There is a tower on top of the main mound. The mound limits to the west with the Tigris River, and to the east and north with the industrial area of the city of Cizre.

Description: Conical mound covering a discrete size, it was probably only a very small village during the Ninevite 5 period. Most of the Ninevite 5 here was of painted style.

Bibliography: Algaze et ali. 2012: 61.

Images:

S195. Taken from Google Earth (01/2023)

Site number: S195

Name(s): Hacı Sultan Höyük

Occupation(s): Ubaid, LC 4-5, Ninevite 5.

Coordinates: X, Y: 4224188, 372823.

Maximum height (in meters): ? m.

Measures (in hectares): 0,5 ha.

Damages and threatens: Military facilities. The site is affected by military constructions. It is located really close to the Syrian border.

Description: Very small conical mound with substantial prehistoric to Ninevite 5 occupations. The Ninevite 5 pottery found there was mostly incised/excised.

Bibliography: Algaze et ali. 2012: 61.

Images:

S195. Taken from Google Earth (06/2020)

Site number: S197

Name(s): Revini Harabe

Occupation(s): Ubaid, LC 4-5, Ninevite 5.

Coordinates: X, Y: 4231151, 372617.

Maximum height (in meters): ? m.

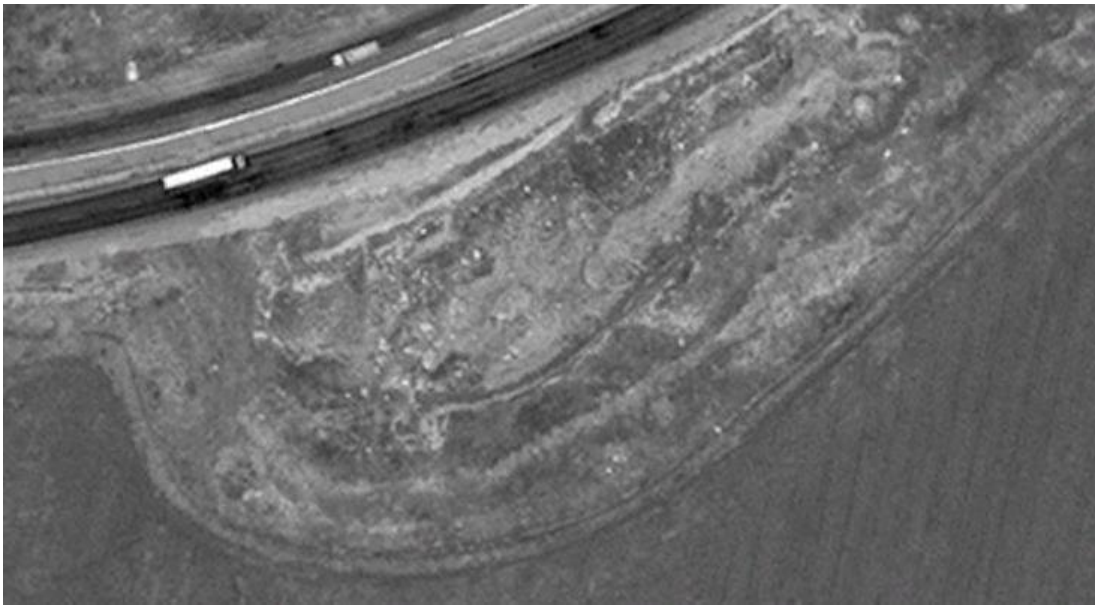
Measures (in hectares): 1,6 ha (1 N5)

Damages and threatens: Road, agriculture. The site has been damaged by a road.

Description: Low and tiny mound with substantial prehistoric and EBA occupations. It was probably a small village during the Ninevite 5 period.

Bibliography: Algaze et.ali. 2012: 61.

Images:



S197, to the south of the road Cizre-Silopi. Taken from Google Earth (05/2011)

Site number: S198

Name(s): Rubaikale

Occupation(s): Ubaid, LC 4-5, Ninevite 5, Ottoman.

Coordinates: X, Y: 4234580, 372280.

Maximum height (in meters): ? m.

Measures (in hectares): 1,76 ha (0,5 N5)

Damages and threatens: Agriculture, erosion.

Description: The site has an Ottoman castle on top. Aside of this historic structure, the site has a substantial prehistoric to EBA occupations. As well as other sites in the Silopi region, it may be considered no more than a tiny village during the Ninevite 5 period. The Ninevite 5 pottery was both painted and icised/excised.

Bibliography: Algaze et ali. 2012: 61.

Images:

The Ottoman castle of S198 is perfectly visible on the satellite imagery. Taken from Google Earth (05/2011)

Site number: S199

Name(s): Basorin Höyük

Occupation(s): Halaf, Ubaid, LC 4-5, Ninevite 5, Bizantine?

Coordinates: X, Y: 4234462, 371519.

Maximum height (in meters): ? m.

Measures (in hectares): 10,6 ha (5,3 N5)

Damages and threatens: Military facilities. A military compound and shelters for military armored vehicles have been dug on the main mound. Deep defensive trenches were dug in the western lower town.

Description: Substantial mound with a large low settlement with an interesting sequence of prehistoric occupations. It is the largest site during the Ninevite 5 period in the region of Silopi.

Bibliography: Algaze et ali. 2012: 61-62.

Images:

Damage in site S199, in the satellite imagery we can even see an armored vehicle inside one of the shelters dug on the high mound. Taken from Google Earth (04/2022)

Site number: S200

Name(s): Yankale Höyük

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4235221, 371364.

Maximum height (in meters): ? m.

Measures (in hectares): 2,5 ha (0,5 N5)

Damages and threatens: Agriculture, erosion.

Description: A very small site, probably a tiny village during the Ninevite 5 period.

Bibliography: Algaze et ali. 2012: 63.

Images:

S200. Taken from Google Earth (08/2005)

Site number: S201

Name(s): Ilıcalar Höyük

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4244049, 371432.

Maximum height (in meters): ? m.

Measures (in hectares): 5,4 ha (0,5 N5)

Damages and threatens: Military construction, agriculture. A small part of the site is interred under a military compound; the rest is under ploughed fields except for one of the mounds.

Description: Two low and quite extensive mounds, but only a small village during the Ninevite 5 period.

Bibliography: Algaze et ali. 2012: 63-4.

Images:

The main mound of S201 is visible as a green stain on the cultivated fields, the site extends towards the west, under the military base. Taken from Google Earth (05/2019)

Site number: S202

Name(s): Silopi Höyük

Occupation(s): Ubaid, LC 4-5, Ninevite 5, second half of the third millennium.

Coordinates: X, Y: 4247814, 372575.

Maximum height (in meters): ? m.

Measures (in hectares): 4,8? ha (0,5 N5)

Damages and threatens: Housing, erosion. The site lies in the center of the Silopi city, but the tell preserves some integrity. The topmost side is occupied by a modern structure. The lower parts of the mound are completely invaded by modern buildings.

Description: Large mound that, very similar to other large sites in the Silopi region, only yielded limited evidences from the Ninevite 5 period.

Bibliography: Algaze et ali. 2012: 61.

Images:

Site 202. Taken from Google Earth (05/2011)

Site number: S203

Name(s): Gre Musto

Occupation(s): Halaf, Ubaid, Ninevite 5.

Coordinates: X, Y: 4238771, 371589.

Maximum height (in meters): ? m.

Measures (in hectares): 4,8 ha (0,5 N5)

Damages and threatens: Agriculture, erosion.

Description: Relatively substantial site with interesting prehistoric to Ninevite 5 occupations. However, the prehistoric periods seem to be much more substantial than the Ninevite 5, that was reduced to a small part of the total size of the site.

Bibliography: Algaze et ali. 2012: 67.

Images:

S203. Taken from Google Earth (09/2022)

Site number: S204

Name(s): Girik Bedro

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4241896, 371793.

Maximum height (in meters): ? m.

Measures (in hectares): 5,7 ha (0,5 N5)

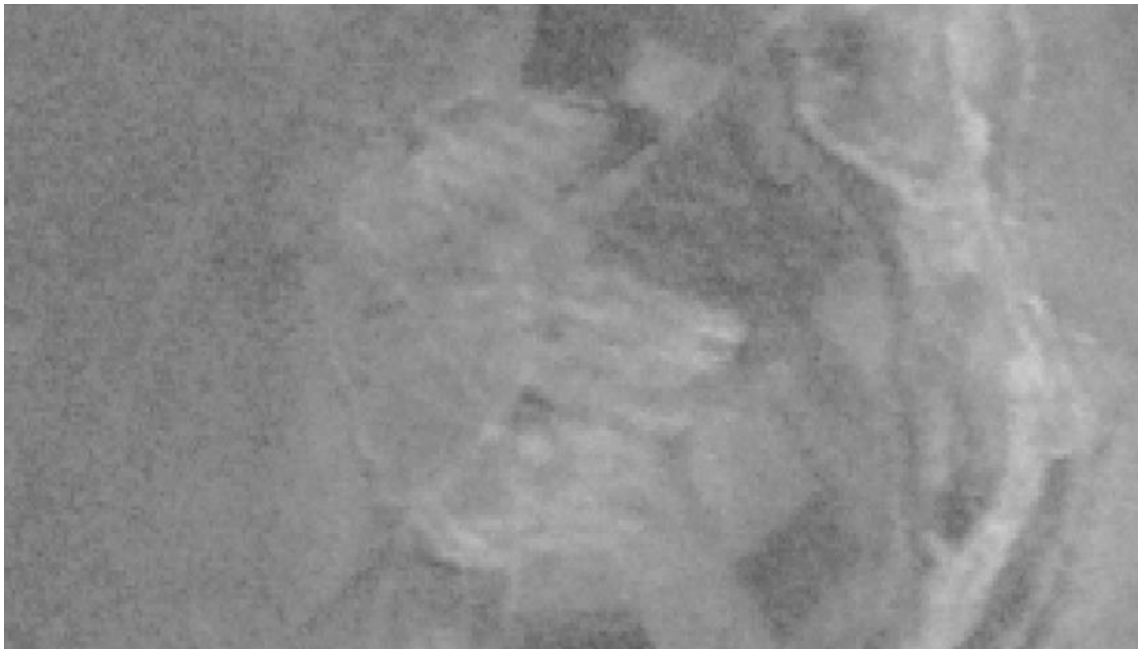
Damages and threatens: Housing. The site is almost completely covered by a modern village.

Description: Extensive and low mound that contained and interesting transition between the LC 4-5 and the Ninevite 5 period. However, the Ninevite 5 site seems to be restricted to a small percentage of the total site. The Ninevite pottery retrieved here was mostly painted.

Bibliography: Algaze et ali. 2012: 67-8.

Images:

S204 is invisible on the satellite imagery as completely covered by a modern village and a cemetery. Taken from Google Earth (09/2022)



S204 visible on the CORONA imagery as a white stain.

Site number: S205

Name(s): Nervan Höyük

Occupation(s): Halaf, Ubaid, LC 4-5, Ninevite 5, second half of the third millennium.

Coordinates: X, Y: 4242447, 372113.

Maximum height (in meters): ? m.

Measures (in hectares): 15,2 ha (1 N5)

Damages and threatens: Agriculture, roads. The site is in good state of preservation because the modern village has grown further to the north and has largely respected the site.

Description: A substantial mound and a lower town with a long history of occupations, beginning from prehistoric times. However, the Ninevite 5 occupation is reduced to a fraction of the total size of the site.

Bibliography: Algaze et ali. 2012: 68-9.

Images:

S205, the main mound and the lower town. Taken from Google Earth (09/2022)

Site number: S206

Name(s): Takyan Höyük

Occupation(s): Halaf, Ubaid, Ninevite 5.

Coordinates: X, Y: 4239595, 371795.

Maximum height (in meters): ? m.

Measures (in hectares): 10 ha (0,5 N5)

Damages and threatens: Agriculture, erosion. Most of the site except for the highest part of the main mound has been affected by intensive agricultural activities.

Description: A high mound with a substantial lower town originated in Halaf times. The Ninevite 5 period is attested by incised/excised pottery, but only a small fraction of the site was occupied at that time.

Bibliography: Algaze et ali. 2012: 69.

Images:

S206. Taken from Google Earth (09/2022)

Site number: S207

Name(s): Amarsava Höyük

Occupation(s): Halaf, Ubaid, Ninevite 5, second half of the third millennium.

Coordinates: X, Y: 4238203, 371722.

Maximum height (in meters): ? m.

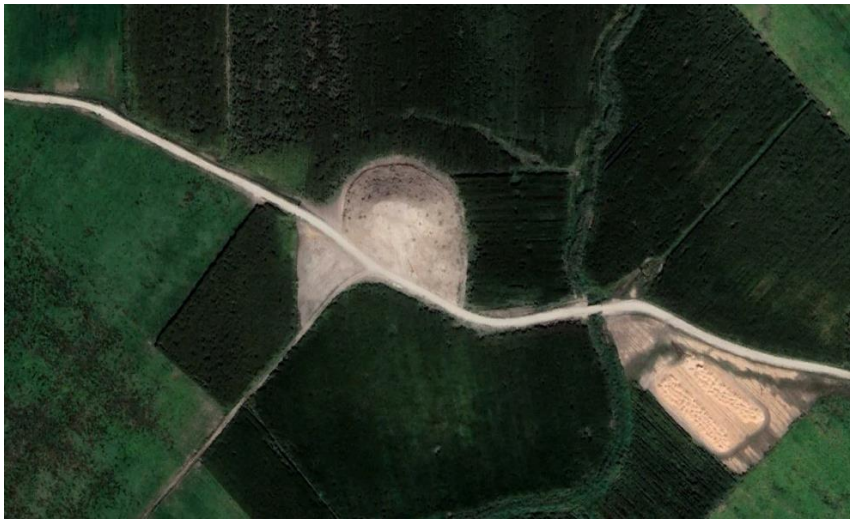
Measures (in hectares): 16,4 ha (1 N5)

Damages and threatens: Agriculture, roads, illicit diggings. The main mound's southern slope has been cut by a road. Illicit excavation have affected the site.

Description: A substantial mound with a lower town with a long history of occupations from the Halaf period almost uninterruptedly to the second half of the third millennium. As well as in other sites in the Silopi region, the Ninevite 5 occupations are very much restricted to a small fraction of the total size of the site.

Bibliography: Algaze et ali. 2012: 70.

Images:



The apparently small main mound of S207. Taken from Google Earth (09/2022)

Site number: S208

Name(s): Kütnüz Höyük

Occupation(s): Ubaid, Ninevite 5.

Coordinates: X, Y: 4235675, 372575.

Maximum height (in meters): ? m.

Measures (in hectares): 2 ha (0,5 N5)

Damages and threatens: Agriculture, erosion, soil extraction. The northern lower slope is under cultivation. Affected by soil extraction.

Description: High but discrete site with rather isolated occupations. It was probably a small village during the Ninevite 5 period.

Bibliography: Algaze et ali. 2012: 72.

Images:

S208. Taken from Google Earth (06/2023)

Site number: S210

Name(s): Hirbemerdon Tepe

Occupation(s): LC to Ottoman (Ninevite 5 included)

Coordinates: X, Y: 4101378, 377769.

Maximum height (in meters): ? m.

Measures (in hectares): 3 ha.

Damages and threatens: Barrage. Partially drowned.

Description: Extensive mound excavated from 2003 to 2013. The site had an impressive sequence of continuous occupation from the LC period (with beveled rim bowl pottery). Amounts of Ninevite 5 pottery have appeared in the EBA layers.

Bibliography: Laneri and D'Agostino 2008; Laneri and Ur 2010; Laneri 2016.

Images:

Hirbemerdon Tepe, visibly affected by erosion. Taken from Google Earth (06/2023)

Site number: S211

Name(s): Tell ‘aid

Occupation(s): Ninevite 5

Coordinates: X, Y: 4048414, 3647411.

Maximum height (in meters): ? m.

Measures (in hectares): 20 ha (variable Ninevite 5)

Damages and threatens: Military constructions, trenches, cemetery, agriculture, housing. The site has been severely affected by a military facility build on the main mound at some point between 2013 and 2016. A huge and deep trench was dug through the northern and western slopes, and a military compound was build atop. Also, two roads leading to the military compound affected the southern slope. The lower town is densely covered by a modern cemetery.

Description: Important site with a large mound and a lower village with occupations throughout all the Ninevite 5 period. During the earliest stage of the period, it could have been a regional center, but it progressively decreased in size. Up to 90 diagnostic sherds were found on this site during the surveys.

Bibliography: Meijer 1986: 19-20; Arrivabeni 2010: 35-36; Ristvet 2005: 227-231, 310.

Images:

S211, severely affected by modern constructions and a cemetery. Taken from Google Earth (11/2016)

Comparison with the state of the site in 2011. Part of the cemetery was removed to make space for the military compound. Taken from Google Earth (06/2011)

Site number: S212

Name(s): Aşağı salat

Occupation(s): EBA.

Coordinates: X, Y: 378181, 4092117.

Maximum height (in meters): flat.

Measures (in hectares): 1,5 ha.

Damages and threatens: Barrage. Permanently drowned.

Description: An EBA cemetery related to a small mound located under the modern village. The tombs contained Ninevite 5 pottery as grave goods.

Bibliography: Şenyurt 2002, 2004; Akçay 2017; Batihan, M. 2014. Saglamtimur, Batihan and Aydogan 2020: 437.

Images:

S212. Taken from Google Earth (06/2023)

Site number: S213

Name(s): Salat Tepe

Occupation(s): Halaf, Ubaid, LC, EBA, 2400-1400 BCE.

Coordinates: X, Y: 4089415, 378351.

Maximum height (in meters): ? m.

Measures (in hectares): 0,9 ha.

Damages and threatens: Cemetery. A modern cemetery covers the northern lower western slope.

Description: Very small mound excavated in the 2000 that yielded a very long history of occupations. It seems that no layers linked to the EBA occupations were uncovered.

Bibliography:

Images:

S213. Taken from Google Earth ()

Site number: S214

Name(s): Kenan Tepe

Occupation(s): Ubaid, LC, EBA.

Coordinates: X, Y: 4081331, 378306.

Maximum height (in meters): ? m.

Measures (in hectares): 4,5 ha.

Damages and threatens: Barrage. Permanently? drowned.

Description: Medium-sized mound with a complete sequence of occupation from the Ubaid period to the EBA, period in which the site reached its maximum size. Typical Ninevite 5 pottery forms were retrieved among the EBA sherds.

Bibliography: Creekmore 2007; Parker et.ali. 2008; Saglamtimur, Batihan and Aydogan 2020: 437.

Images:

S214, with the trenches from the excavations visible on its surface. Taken from Google Earth (02/2020)

Site number: S215

Name(s): Ziyaret Tepe

Occupation(s): EBA, MBA, LBA.

Coordinates: X, Y: 4079292, 377935.

Maximum height (in meters): ? m.

Measures (in hectares): 32 ha.

Damages and threatens: Barrage, agriculture, cemetery. Partially drowned.

Description: Massive site formed by a mound of three hectares is size and a substantial lower town that reached urban dimension during Assyrian times, when it became a provincial capital. The site was founded during the first quarter of the third millennium, but only one single Ninevite 5 sherd has been recovered so far. This only sherd could even be a local imitation, according to the archaeologists (Matney et.ali. 2003: 179).

Bibliography: Mantney et ali. 2003: 179; Matney and Rainville 2005.

Images:

The mound of S215. Taken from Google Earth (02/2020)

Site number: S236

Name(s): Tell Barham

Occupation(s): Ninevite 5 (Arrivabeni considered it to hold occupations from EJ 1-II, but the earliest ones are not supported by strong material evidence. Ristvet only points out this site to be occupied at EJ 2), early Second millennium (Old Babylonian).

Coordinates: X, Y: 369880, 4151548.

Maximum height (in meters): 10 m.

Measures (in hectares): 1,36 ha.

Damages and threatens: After 2019 the site was affected by soil removal. The marks of a bulldozer are clearly visible in the southern slope of the tell.

Description: Hight tell probably without a lower town, but this feature is not specified in the survey reports. This site is in a cluster of many sites that surrounds the small rivers north of the regional urban center of Tell Leilan. The site is nearby the village of Gundê Riha, but his name is taken after the village of Tell Barham, some 1,3 km to the north.

Bibliography: Arrivabeni 2010: 35; Ristvet 2005: 227-231, 312.

Images:

The site in a satellite photo before the damage.

Taken from google earth, 8/2019.

Site after earth removal works. The marks of the heavy machinery is clearly visible on the surface.

Taken from google earth, 1/2021.

Site number: S237

Name(s): Tell ‘Awda/Aoda

Occupation(s): Ninevite 5 (from EJ 2, ca. 2800 BCE to late third millennium) and Early second millennium (Old Babylon, 1900-1700 BCE)

Coordinates: X, Y: 369491, 4164000.

Maximum height (in meters): 20 m.

Measures (in hectares): 2 ha (Arrivabeni 2010: 34) or 3,52 (Ristvet 2005: 310)

Damages and threatens: Despite of being in the very center of a modern town, the site is in quite good state of preservation. The tell is surrounded by modern structures. It has a small cemetery on top, with just a bunch of tombs, and it has a sole evidence of soil extraction on its north-western slope.

Description: The sites is composed by a huge tell. The population of this site seems consistent for almost all the Third millennium, except for the last two centuries. Arribaveni (2010: 32) points out that the site is occupied for the first time in this period, but also says that it is abandoned after this initial fase. Nevertheless, Ristvet (2005: 310) adds the presence of other materials from the early Second millennium (Old Babylonian), aside of ones from all Third millennium.

Bibliography: Arrivabeni 2010: 30-39; Ristvet 2005: 227-231, 284-290, 312.

Images:

Photo from google maps, 8/2010.

Site number: S238

Name(s): Tell Maqbara

Occupation(s): Ninevite 5 (EJ 1), Early Second millennium (Old Babylonian), late Second millennium (Middle Assyrian)

Coordinates: X, Y: 369854, 4163412.

Maximum height (in meters): 5 m.

Measures (in hectares): 1,44 ha.

Damages and threatens: The site is almost completely covered by a modern cemetery that leaves only a small portion on top free from tombs. The edges of the cemetery are marked in the terrain with deep soil canals, but the limits of the site itself could not be coincident with this modern delimitations, and maybe it also extends beneath the ploughed fields.

Description: The word 'maqbara' in Arabic means cemetery, and that's exactly what this site has become nowadays. It is located some 400 meters west of the hamlet of Qubur Harb, but this place is probably used as a burial place by other people from other towns in the nearby proximities. The material evidence itself was scarce and thus difficult to interpret. The only occupation of the Third millennium was in the very beginning of the Ninevite 5 period, but the next one is as far as the early Second millennium. Probably, the bad condition of this site is the reason for that bad register.

Bibliography: Arrivabeni 2010: 33; Ristvet 2005: 227-231, 312.

Images:

Taken from Bing maps.

Site number: S239

Name(s): Tell Abu Farah

Occupation(s): Ninevite 5, second half of the Third millennium, early Second millennium (Old Babylonian), second half of the Second millennium (Mitanni, Middle Assyrian)

Coordinates: X, Y: 36.8925, 41.62451

Maximum height (in meters): 26 m.

Measures (in hectares): 6,38 ha.

Damages and threatens: It has not suffered recent damages. The site had been affected by modern housing and a mosque and it has at least two small cemeteries on top and in the western slope.

Description: A huge tell with an interesting settlement history. It seems that the site had been important during Ninevite 5 period until the fase 2300-2200 BCE when, according to Ristvet, the site was abandoned and only reoccupied at the beginning of the Second millennium. The author also remarks that the site was also a small village in Mitanni times, reaching about 5 ha at this time. No water courses are visible, but there is a number of dry streams that flowed in the past in the vicinity of the site. This site yielded a total of 208 fragments of pottery from the Third millennium during the survey (Arrivabeni 2010: 30)

Bibliography: Arrivabeni 2010: 30-39; Ristvet 2005.

Images:

From Bing maps.

Site number: S241

Name(s): Tell Toueil/Toueiyel

Occupation(s): Ninevite 5 (EJ 2 to EJ 4), early-mid Second century BCE

Coordinates: X, Y: 36.8666, 41.57475

Maximum height (in meters): 18 m.

Measures (in hectares): 4,08 ha.

Damages and threatens: The site has suffered some damage. There are trenches that travel through the southern slope and the top of the tell, alongside with others in the northern slope. They are probably military trenches. Aside of this, it seems that slower parts of the site are affected by modern paths, housing and agriculture.

Description: This site, according to Arrivabeni (2010: 35), was inhabited only since EJ 2 period (2800/2750 – 2600 BCE). The site was occupied throughout the Ninevite 5 period to EJ 4 (2350-2100 BCE) but later abandoned in the last century of the Third millennium. Arrivabeni states that this site could belong in a secondary importance scale of settlements at regional level. Also, Ristvet points out that the site is also occupied in the Second millennium.

Bibliography: Arrivabeni 2010: 30-39; Ristvet 2005: 25, 227-231, 311.

Images:

From bing maps

Site number: S243

Name(s): Tell as-Sha'ir / Chair / Til Şêhîr

Occupation(s): Fourth millennium, Ninevite 5 (EJ 1 to EJ 4, 3000-2500 BCE), second half of the Third millennium, Second millennium.

Coordinates: X, Y: 4143739, 3705285.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: The site is affected by modern paths and housing, that have affected specially the western slope. Also, there is a medium sized cemetery in the southern slope, and more modern structures build south of it. An archaeological trench from the former excavations is still visible in its surface.

Description: Arrivabeni names this site as Chair, but Sha'ir is more suitable. This site yielded 122 pottery fragments from the Third millennium BCE and was one of the richest sites in the Leilan region for this period. The site is occupied from EJ 1 to EJ 4 without any gap until the very las century of the Third millennium (Arrivabeni 2010: 31). Painted pottery was found in this site and, according to Arrivabeni, that fact points to an early occupation within the Ninevite 5 period. This site is probably a regional center, only behind the biggest sites like Leilan (S25) or Tell Haid (S211) During the EJ 4 period, like other similar sites like Abu Fara (S239) and Toueil (S241), the number of sherds decreases, probably evidencing a population decrease.

Bibliography: Elias 2004/5; Ristvet 2005: 58, 311; Arrivabeni 2010: 30-39.

Images:

The site in 2009 in a view from Google earth, 11/2009.

The site in 2020. Note that a portion of soil has been removed from the damaged western slope since the first photo but, luckily, no other affections are visible.

The site and village of Til Şêhîr/Sha'ir seen from the south-west.
https://www.welateme.net/kurdi/modules.php?name=News&file=print&sid=2299
[retrieved 20/07/2022]

Site number: S244

Name(s): Qasr Faris

Occupation(s): Ninevite 5 (EJ 1 and 2), late EJ 3-4 (ca. 2500-2200 BCE) and early second millennium (Old Babylonian)

Coordinates: X, Y: 36.8576, 41.47128.

Maximum height (in meters): 5 m.

Measures (in hectares): 1,56 ha.

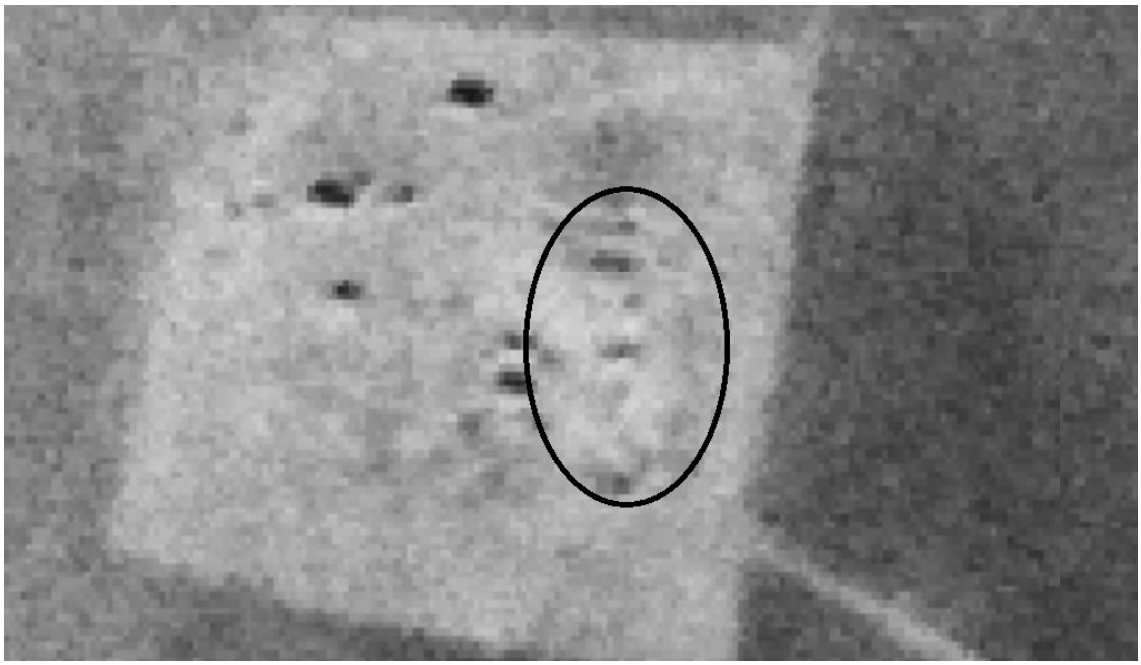
Damages and threatens: Housing, agriculture. The site has suffered severe damage due to modern housing. The town of al-Qasr has been the cause of the leveling of the whole site, that's now very badly damaged.

Description: A short amount of findings (3 pottery fragments according to Arrivabeni 2010: 30) points to its occupation in the EJ 1 and EJ 2 periods (2900-2600 BCE), otherwise the nuclear centuries of the Ninevite 5 period. However, the site yielded a too short amount of pottery for to generate strong arguments on its chronology. Ristvet argues that there are evidences for the late EJ 3 and EJ 4 (ca. 2500-2200), after Ninevite 5 period and also other less strong evidences for the early second millennium (Old Babylonian)

Bibliography: Arrivabeni 2010; Ristvet 2005: 227-231, 312. Site code 169 for the authors.

Images:

The site completely obscured by modern houses. Google earth, 6/2019.



The same site viewed in the satellite images from CORONA. The site is barely visible due to the bad resolution of the photography. https://corona.cast.uark.edu/

Site number: S245

Name(s): Tell Sharmukh

Occupation(s): Late Chalcolithic 1-5 (4200-3100 BCE) Ninevite 5: EJ 1-II (ca. 2900-2600 BCE), EJ 4 (ca. 2350-2100) and Early second millennium.

Coordinates: X, Y: 36.8872, 41.38506.

Maximum height (in meters): 23 m.

Measures (in hectares): 6 ha.

Damages and threatens: Military, **housing**, **erosion**, **agriculture**. In a time between 2013 and 2016, the site suffered considerable damages. Huge military trenches were carved around it severely damaged all its slopes except for the southern and south-western part, that were already occupied by modern houses. Yet another military trench was opened in the northern slope and leads to a defended artillery post that also heavily damaged parts of the top of the tell. In the satellite imagery there are some visible modern tombs on top, but they had been removed by the military outpost.

Description: This is another of the medium sized sites around Tell Leilan (S25) in EJ 1-II times, a group of settlements of ca. 5 ha located less than 13 km away from this regional center. Tell Sharmukh is located near the tiny stream called wady Breibitch, some 13 km south-west Tell Leilan. The site flourished in EJ 1-II (ca. 2900-2600 BCE) but it was probably abandoned during EJ 3 (ca. 2600-2350), and was occupied again in EJ 4 (ca. 2350-2100) Arrivabeni theorizes that, as well as the similar site of Tell Gazal, the abandonment in EJ 4 would have been conditioned by the rising of another regional urban center in Tell Haid (S211) at that time (Arrivabeni 2010: 31). However, the size of this settlement in the Ninevite 5 period is nothing when compared with its importance during the Late Chalcolithic. An overall of 963 diagnostic fragments were found in the site, of which 99 were fron Ninevite 5 times, but 533 were from LC times (Rova 2007: 24)

Bibliography: Arrivabeni 2010: 30-39; Ristvet 2005: 58-59, 227-231, 310; Rova 2007.

Images:

Image of the site in 2013. The modern houses were even over the southern and westerns slopes and there were some cuts on it. The graves aligned can also be observed on top. Google earth, 10/2013.

The site in 2016. The military trenches already affected the site, as well as some modern houses that seems to have been destroyed and the tombs are no longer visible on top, now occupied by the military outpost. Google earth, 10/2016.

Site number: S246

Name(s): al-Amri Kabir

Occupation(s): Ninevite 5 (EJ 2, EJ 3?), EJ 4, Early Second millennium?

Coordinates: X, Y: 36.8164, 41.41729.

Maximum height (in meters): 10 m.

Measures (in hectares): 2 ha.

Damages and threatens: Military, housing. Before 2013, a military outpost and a trench leading to it were build, damaging the top and the southern slopes. Also, some houses of a small hamlet are placed over the southern slope of the tell.

Description: There is a huge trouble in the identification of this site. Arrivabeni (2010: 39) locates it further to the south, but Rova (2007: 3) marks this location as the actual one. I consider this to be the correct site because of the name of the nearest town, located only 500 north, al-Umari, that's perfectly coincident with the name al-Amri, regarding the volatile usage of vocals in Arabic language. Moreover, the size of the site of al-Amri Kabir is coincident with the size of this site (2 ha) and height (10 meters) On the archaeological matter, this site was a small town during the Third millennium. Was occupied for the first time in this period and, according to Arrivabeni (2010: 32) it was abandoned after it. The site of al-Amri Kabir offered a total of 20 sherds of Third. Arrivabeni also points out that the occupations were limited to EJ 2 and EJ 4 (Arrivabeni 2010: 34), while Ristvet states that it was occupied in a wider span, from EJ 2 to EJ 4, and also the early Second millennium.

Bibliography: Arrivabeni 2010: 30-39; Ristvet 2005: 227-231, 312; Rova 2007: 3. Code 165 in that survey.

Images:

Site in 2013, prior the damage. Google earth, 9/2013.

Site in 2016 with the military post already done. The hamlet had not grown in that time, but the military trenches had already damaged it. Google earth, 10/2016.

Site number: S247

Name(s): Tell Khodr/Khidr

Occupation(s): EJ 2 (Ninevite 5, 2800-2600 BCE), middle-late Third millennium, late Second millennium (ca. 1300-1000 BCE)

Coordinates: X, Y: 36.7255, 41.43660.

Maximum height (in meters): 17 m.

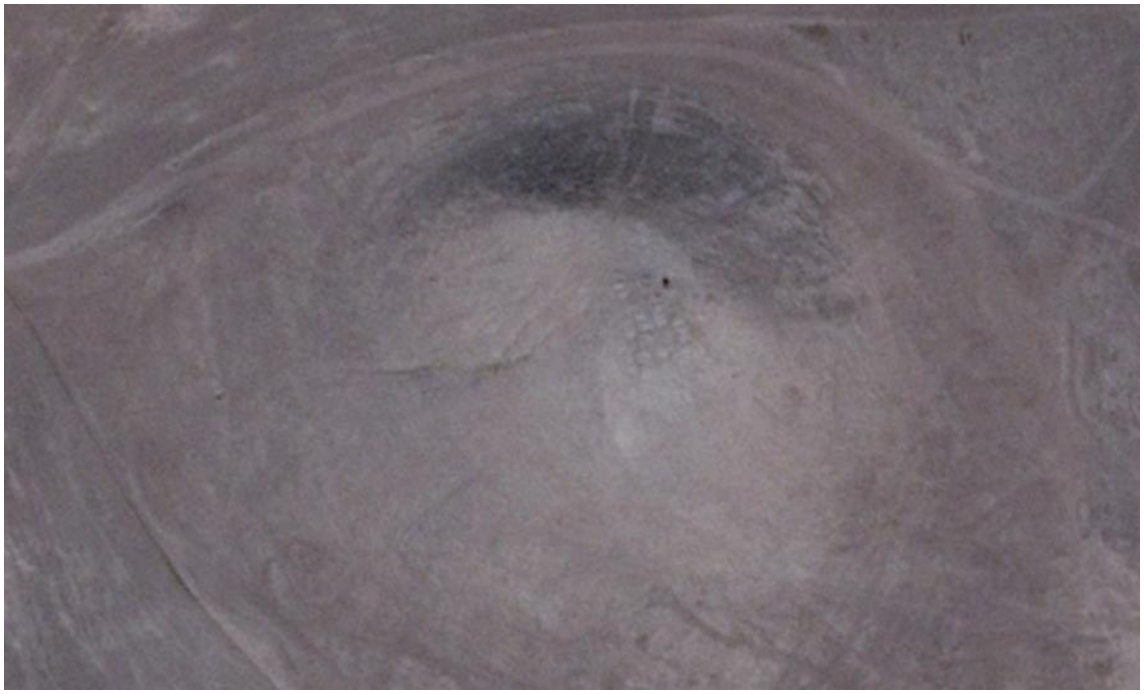
Measures (in hectares): 12,25 ha.

Damages and threatens: Military, cemeteries, housing, agriculture. the site has suffered a comparative small damage so far. However, it is important to notice that the last satellite image available of this site is from 2019 so, further damages could have been done. There is a small cemetery on top of the tell, but the greater damages (but still of limited extend) are a couple of military trenches and artillery positions carved on top and southern slope sometime between 2013 and 2016 (according to google earth satellite images) Agriculture has had a very limited impact on the site, as well as dirty roads that runs at some distance north and south of the tell.

Description: A huge tell in a good state of preservation. Ristvet (2005: 312) includes this site in the list of the ones inhabited during Ninevite 5, concretely in the EJ 2 period, although Arrivabeni (2010: 34) don't even mention this site to have held evidence of it. One way or another, it seems clear that the site has no substantial evidence of an important Ninevite 5 precense (surveys only found 20 pottery fragments, according to Arrivabeni 2010: 30, a small number compared with the large tell), but it had to exist. It is evident that the site was an important center at certain distance from Tell Leilan (S25), 27 km to the south, during the second half of the Third millennium, in EJ 4. Maybe, the earlier Ninevite 5 material is hidden beneath the more important later layers.

Bibliography: Arrivabeni 2010: 30-39; Ristvet 2005: 227-231, 312; Rova 2007: 3. Code 123 in that survey.

Images:



Tell Khodr in 2013. The small modern cemetery is visible on top. Google earth, 9/2013.

Tell Khodr in 2016. Damage from military structures on top and southern slope is perfectly visible. Google earth, 3/2016.

Site number: S248

Name(s): Abu Qassayeb, also spelled **Gassayib**.

Occupation(s): EJ 2-4 (ca. 2800-2100 BCE)

Coordinates: X, Y: 4136385, 36.8742

Maximum height (in meters): 12 m.

Measures (in hectares): 0,3.

Damages and threatens: Military. The site has suffered heavy damage from military activities since 2011. A huge trench surrounds the whole tell and runs to the east at certain distance. The top of it has been bulldozed and flattened in order to made it suitable to host military facilities like machine gun positions, trenches and other defense systems. The destruction of the site and its usage by the Kurdish YPG militia has been recorded in a report by the Ronahi news agency, now visible on youtube (https://www.youtube.com/watch?v=LVic0kJG-OU&ab_channel=mohammedhassan)
In that video, one can see militias from the Kurdish YPG using the military facilities on top of the tell. It looks like the tiny village of Abu Qassayeb, that stood just in front of the site, had been also partially destroyed.

Description: It is surprising that this site, despite of having a major high (12 meters) it is only reported to have some 0,3 ha. According to Arrivabeni (2010: 32) and Ristvet (2005: 312), Abu Qassayeb was first occupied in the Third millennium and abandoned at the end of it. However, the amount of pottery obtained in this site is quite low, only 13 diagnostic fragments. Arrivabeni (2010: 34) does not mention the EJ 2 occupation, but Ristvet (2005: 312) does.

Bibliography: Arrivabeni 2010: 30-39; Ristvet 2005: 227-231, 312; Rova 2007: 3. Code 13 in that survey.

Images:

Abu Gassayeb in 2011. Google earth, 6/2011.

The same site in 2016 (the damage was already done at least since 2013). Notice the deep trenches and the huge military positions built on top. Google earth, 10/2016.

Images of some damaged parts of the site. Trenches, bunkers and vehicles. Unknown source (https://wikimapia.org/#lang=es&lat=36.873158&lon=41.366894&z=17&show=/32085214/Tell-Abu-Qasayib/photo/4566147)

Site number: S249

Name(s): Tell Arbat

Occupation(s): EJ 1-2, early second millennium.

Coordinates: X, Y: 36.9872, 41.30684.

Maximum height (in meters): 12 m.

Measures (in hectares): 1,08 ha.

Damages and threatens: Housing, erosion. The tell is completely surrounded by the modern village. The northern slope had been cut and levelled to accommodate modern buildings. However, no important damage has been reported in the late decades.

Description: The tell is high but of limited extension. Also, the diagnostic pottery finds were extraordinary low, only one fragment. However, according to Arrivabeni (2010: 33-34), this evidence is clear enough to classify Tell Arbat as a EJ 1-II site, probably (but not explained in her papers) the pottery belonged to a type chronologically located in between the both periods.

Bibliography: Arrivabeni 2010: 30-39; Ristvet 2005: 227-231, 312; Rova 2007: 3. Code 120 in that survey.

Images:

The site in 2020. Google earth (3/2020)

Site number: S250

Name(s): Tell Qarassa/Gharassa

Occupation(s): EJ 2, EJ 4, Second millennium (middle and late bronze age), Hellenistic, Roman, Persian.

Coordinates: X, Y: 36.8315, 41.46124.

Maximum height (in meters): 31 m.

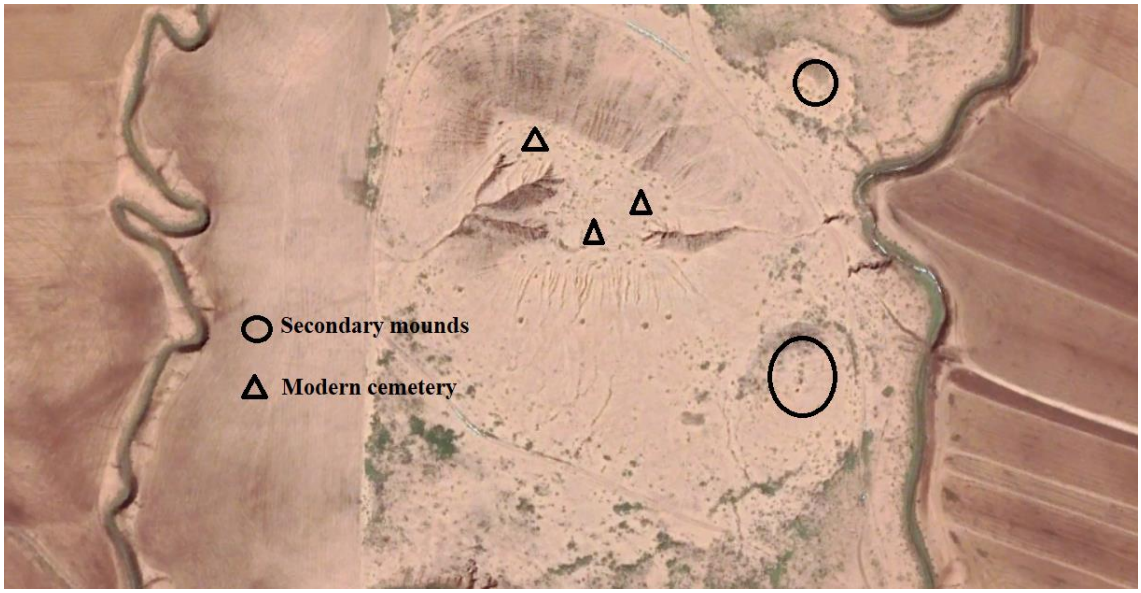
Measures (in hectares): 10,9 ha.

Damages and threatens: Cemetery, erosion, looting. No important damage is visible on this site. There are a few clusters of tombs on top, and rain erosion is affecting western and eastern slopes. Looting has been reported on this site (al-Khabour 2016: 95)

Description: This site must not be confused with another Tell Qarassa, also in Syria, but located far away to the south, in as-Suwayda province. It is a huge tell with at least two minor mounds in its vicinity in very good state of conservation. Only 3 diagnostic pottery fragments from the Third millennium was found in the tell. According to Ristvet (2005: 311), the occupations date back to EJ 2, while Arrivabeni (2010: 34) only mentions a single occupation in EJ 4. However, it seems clear that Tell Qarassa was an important settlement during the whole Second millennium so, it wouldn't be rare that the later layers hide the oldest Ninevite 5 materials. Al-Kabour claims that a team lead by doctor Diederik Meijer conducted some soundings on the site, but I have not been able to check this information because this author does not mention his source.

Bibliography: Arrivabeni 2010: 30-39; Ristvet 2005: 227-231, 312; Rova 2007: 3; al-Khabour 2016: 95. Code 49 in that survey.

Images:



The big tell Qarassa with its secondary mounds and modern cemeteries. Google earth, 5/2018.

LIDAR image of Tell Qarassa, with the secondary mounds marked.
https://corona.cast.uark.edu/

Site number: S251

Name(s): **Girê Himara**, also spelled **Himmarah** (https://www.facebook.com/watch/?v=603547073544217 in Kurdish, at min. 4:45 it is said that the correct name in Kurdish is Himara, but the inhabitants know it as Himmarah. Consulted in August 15th 2022), other sources also uses the name of **Hesne** (https://umap.openstreetmap.fr/de/map/pre-civil-war-demographics-of-rojava-archive-do-no_151640#17/36.89966/41.48737 consulted in August 15th 2022. In order to see the source, it is necessary to activate the layer 'Al-Hasakah governorate' on the left)

Tell Hamara or **Hammarah**.

Occupation(s): EJ 2-3 (Ninevite 5, ca. 2800-2300 BCE), Second millennium.

Coordinates: X, Y: 36.9000, 41.48798.

Maximum height (in meters): 11 m.

Measures (in hectares): 2 ha.

Damages and threatens: Housing, soil extraction, cemetery, erosion. The site is inside a modern village and almost completely surrounded by modern structures. There is a cemetery on top of it. Its northern slope has suffered greatly due to soil extractions. Heavy erosion marks are visible around the whole mound.

Description: High tell in the village that wears the same name. It is only mentioned by Ristvet (2005: 310), who dates the site in Ninevite 5 period (EJ 2-3), also adjoining important evidences of occupations in almost all the second millennium.

Bibliography: Ristvet 2005: 227-231, 312.

Images:

Girê Himara/Tell Hamara in 2011. Google earth, 3/2011.

Site number: S252

Name(s): Qutba Tahtani

Occupation(s): EJ 2-3 (Ninevite 5, ca. 2800-2300 BCE), Early Second millennium (ca. 1900-1700 BCE)

Coordinates: X, Y: 36.9724, 41.48423.

Maximum height (in meters): 3 m.

Measures (in hectares): 2,25 ha.

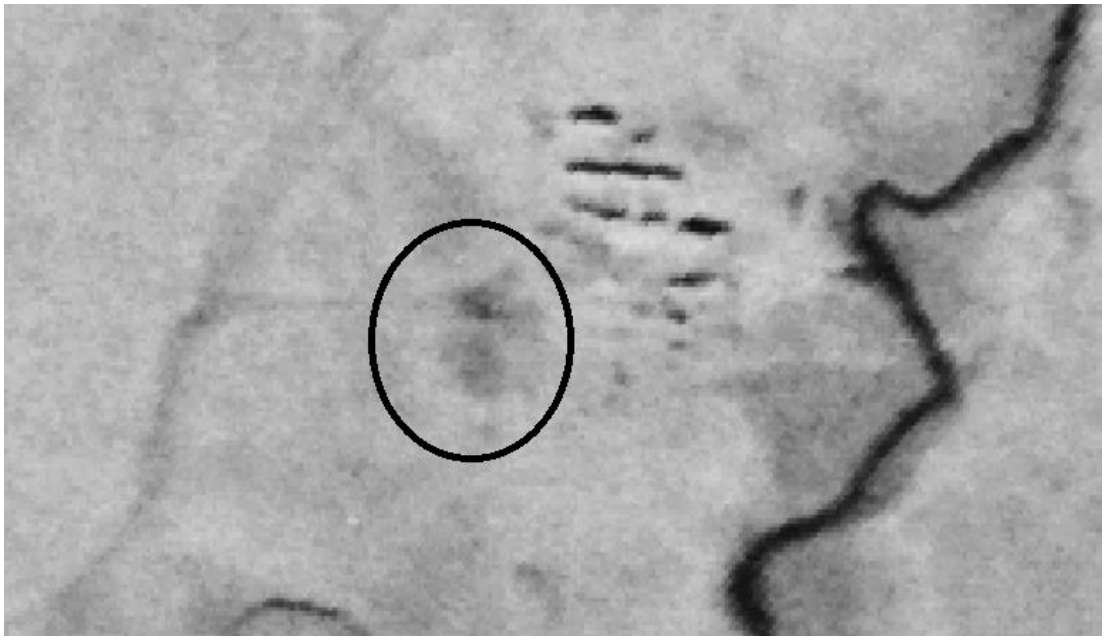
Damages and threatens: Agriculture, roads, housing? The site is at the immediate vicinity of the village that wears the same name, yet is unclear whether the site has been affected by housing or not. In the LIDAR imagery it seems that the site is not affected yet, but really close to the first houses of the small hamlet. Agriculture and dirty road have had a limited impact on it.

Description: It is a small tell (maybe levelled due to agricultural activities), no more than 3 meters high, almost invisible on the map but evident on LIDAR imagery. Ceramics from EJ 2-3, belonging to Ninevite 5 and late Ninevite 5 where found. Judging the material evidence, it seems that the occupations in the late Third millennium and Second millennium are not so relevant.

Bibliography: Stein and Wattenmaker 2003: 381; Ristvet 2005: 227-231, 312.

Images:

Satellite imagery with the site identified by a circle. Google earth, 3/2011.



LIDAR imagery of the site. The tell is quite evident as a feature on the ground.
https://corona.cast.uark.edu/

Site number: S253

Name(s): Mathlutheh Tawila

Occupation(s): Ninevite 5 (EJ 1, ca. 2800-2600 BCE), EJ 4.

Coordinates: X, Y: 36.8183, 41.40421. (approx.)

Maximum height (in meters): 8 m.

Measures (in hectares): 7,5 ha.

Damages and threatens: Agriculture, **housing?**

Description: This site has been impossible to identify because there are too many possibilities that fits with the description given by the authors of the Tell Leilan regional survey. Although, the maps offered by these scholars gives different locations for this site: Arrivabeni (2010: 36) locates it close to the eastern bank of the wadi Breibich, while Rova (2007: 3) locates it at some distance, near the western bank of the same river. However, despite its big size (7,5 ha), the occupations of Ninevite 5 culture are scarce and of minor importance, having been offered 8 pottery fragments from this period in the whole area. The evidences only allow us to know that the site was occupied in EJ 1 (ca. 2800-2600 BCE) and the beginning of EJ 4. It is important to note that Arrivabeni states that the site is cataloged as EJ 1 due to the total absence of incised/excised Ninevite 5 material, because only less characteristic pottery from the period was identified in the field (Arrivabeni 2010: 33).

Bibliography: Arrivabeni 2010: 33, 34; Ristvet 2005: 227-231, 312; Rova 2007: 3.

Images:

Possible location of S253

Site number: S254

Name(s): Tell Koubeiba/ Kubaybah

Occupation(s): EJ 1-3 (Early Ninevite 5 to late Ninevite 5), first half of the second millennium.

Coordinates: X, Y: 36.9142, 41.38104.

Maximum height (in meters): 10 m.

Measures (in hectares): 2,64 ha.

Damages and threatens: Erosion, soil extraction, housing. Despite of been located in the middle of a hamlet, neither it's houses nor an evident cemetery has affected it greatly. The site is in quite good state. The only damages are a small soil removal on the north-eastern slope and erosion.

Description: Small tell with important occupations during the whole Ninevite 5 period. The second millennium is present on it, but is scarce and definitely less important. This may be a secondary site, ruled by the much bigger site of Tell Sharmukh (S245), just 3 km south of Tell Kubaybah.

Bibliography: Ristvet 2005: 227-231, 312; Rova 2007: 3. Code 166.

Images:

Satellite image of the site, in good conditions. Google earth, 5/2018.

Site number: S255

Name(s): Tell Ahmed

Occupation(s): EJ 1-2 (Ninevite 5, ca. 3000-2600 BCE), middle-late Third millennium (post Ninevite 5), early second millennium.

Coordinates: X, Y: 36.8533, 41,35094.

Maximum height (in meters): 10 m.

Measures (in hectares): 2,25 ha.

Damages and threatens: Cemetery, housing, erosion, military (caution) The site has suffered heavy damages from military activities from 2013. Huge and deep trenches have been dug around all the mound's perimeter. The top of the mound has been leveled to accommodate an outpost, or maybe an artillery position. Some houses of the modern village have been built so close to the southern slope. There was a modern cemetery on top, but it seems to have been removed by the military facilities.

Description: Small tell, so close to another Ninevite 5 sites like Abu Qassayeb (S248), only 2,6 km north and a bigger site, Tell Ghazal (S258), located 3 km north, or Tell Qarassa/Garassa (S250), 10 km to the east. This site has important occupations in the core periods of Ninevite 5, lasting almost all it except for its terminal part (at least according to the pottery types registered) It seems that the settlement decayed after Ninevite 5, wearing only a limited amount of evidences for the second half of the Third millennium and the early Second millennium.

Bibliography: Ristvet 2005: 227-231, 312; Rova 2007: 3. Code 189.

Images:

Tell Ahmed in 2011. The cemetery was still visible on top, as well as a small building (a water tank?) Google earth, 3/2011.

Tell Ahmed in 2016. In an imprecise moment after 2013, the site suffered heavy damage from military activities. A lot of soil from the tell has been removed, trenches goes deep into the archaeological layers. The cemetery seems to have been disappeared, unlike the water tank on top. Google earth, 10/2016.

Site number: S256

Name(s): Tell Farfara

Occupation(s): Uruk, EJ 3. Late Ninevite 5 (ca. 2600-2500), middle-late Third millennium, Second millennium.

Coordinates: X, Y: 36.8247, 41.33251.

Maximum height (in meters): 20 m.

Measures (in hectares): 176 ha.

Damages and threatens: Cemetery, housing, erosion, looting?. The site is in quite good conditions, mainly because its massive size. A big cemetery is placed on top. Some modern houses have been placed over the easternmost section of the tell, while others are so close to the western and southern slopes. Deep erosion marks are also visible all around.

Description: Massive site located half a way of two of the biggest sites of the region during the Third millennium, Tell Brak and Leilan. However, the site grew considerably only from the second half of the Third millennium, and only some material from Late Ninevite 5 (2600 BCE) have been recovered from the site. According to Ristvet (2005: 59) this was a second-tier site, but was still prominent at this time.

Bibliography: Ristvet 2005: 59, 227-231, 312; Rova 2007: 3. Code 186.

Images:

Taken from Google earth (10/2016)

Site number: S257

Name(s): *Ar.* **Tell Doueitch** or **Duwaysh**

Occupation(s): EJ 1-2 (Ninevite 5, 3000-2600 BCE), minor occupations in mid-late Third millennium.

Coordinates: X, Y: 36.7958, 41.33845.

Maximum height (in meters): 8 m.

Measures (in hectares): 0,24 ha.

Damages and threatens: Cemetery, garden. There is a cemetery placed on top, but the site is in an overall good condition. There is a garden and a modern house build close to the southern slope.

Description: Small site, similar to other close EJ 1-II sites like Abu Qassayeb (S248) or al-Amri Kabir (S246) Tell Doueitch is primarily a Ninevite 5 settlement that, despite of not been fully abandoned after the end of this period, decreased greatly and offered only scarce evidence for middle-late Third millennium and late Second millennium.

Bibliography: Ristvet 2005: 59, 227-231, 312; Rova 2007: 3. Code 187.

Images:

Taken from Google earth (05/2018)

Site number: S258

Name(s): Tell Ghazal

Occupation(s): EJ 2 to EJ 5 (Ninevite and post Ninevite 5 to early Second millennium, ca. 2800-1700 BCE)

Coordinates: X, Y: 36.8800, 41.34115.

Maximum height (in meters): 10 m.

Measures (in hectares): 11,95 ha.

Damages and threatens: Housing, pond, military? The tell is in quite good condition. It is not clear if the top of the site has been leveled for military reasons, but a buttress could be built on top. A modern structure existed on top, near the southern slope, but it disappeared sometime between 2013 and 2016, alongside with most of the houses of this village. The modern town seems to be mostly abandoned.

Description: This is an important Ninevite and post-Ninevite 5 regional center. The site is a tell with a probable low town that grew during EJ 2, and survived until early Second millennium. There are other minor Ninevite 5 period sites in its vicinity, Abu Qassayeb (S248), 2km east and Tell Ahmed (S 255), 3km south. Tell Ghazal could be a second rank regional center at that time.

Bibliography: Ristvet 2005: 59, 227-231, 312; Rova 2007: 3. Code 180.

Images:

Tell Ghazal in 2011. Near the top there is a modern structure. In the north-western slope, there is a fish pond filled with water and some houses and gardens. The top seems flattened. Google earth, 6/2011.

Tell Ghazal in 2019. The structure that stood on top is now completely gone and ruined. The pond is empty and out of use, and most of the houses are now abandoned and ruined. Google earth, 9/2019.

Site number: S259

Name(s): Tell Mohammad Diyab

Occupation(s): Undisrupted from EJ 2 to the end of the Second millennium. All Ninevite 5 period.

Coordinates: X, Y: 36.9243, 41.56289.

Maximum height (in meters): 25 m.

Measures (in hectares): 43 ha.

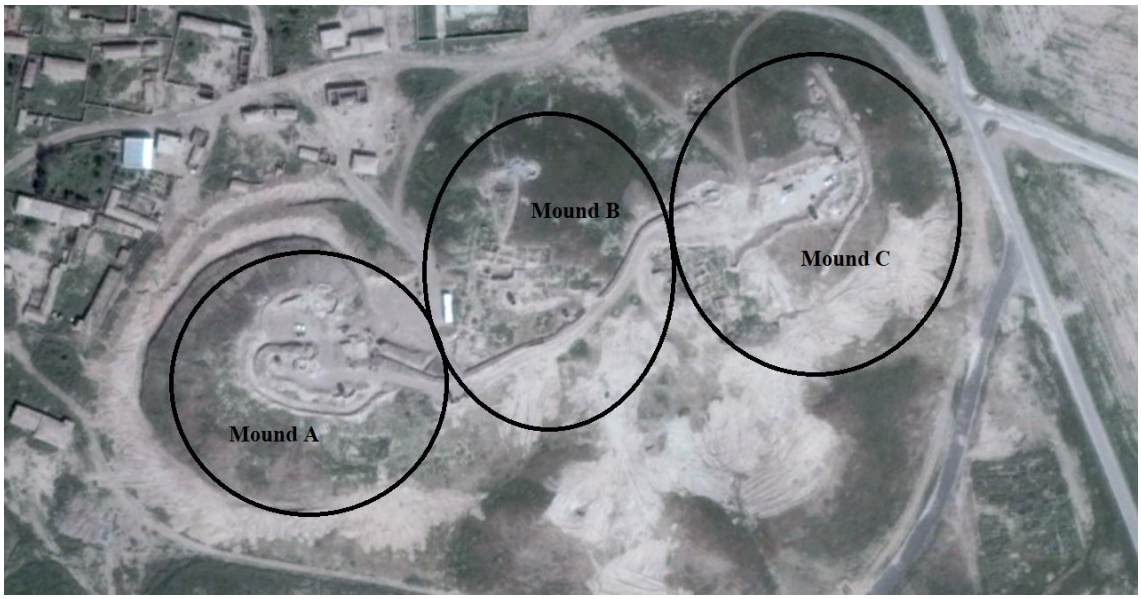
Damages and threatens: Military (caution) The site have been suffering constant and severe destruction since 2013. The top is completely leveled and destroyed, a great part of the northern slope is also cut and absolutely destroyed. Deep trenches have been dug along all its perimeter. Only some parts of the center and south slope survives nowadays in relatively good conditions. The archaeological soundings made in several campaigns between 1987 and 2005 have been washed away and destroyed by the military activities. Of the three main mounds that forms the site (A, B and C), A and C have been mostly destroyed, while B is damaged.

Description: This huge site is composed by 3 bigger and 6 smaller mounds, all of them heavily affected by military construction. The height of the site depends on the mound, but the bigger one (A, the westernmost) reaches 25 meters. Its first occupation dates back to EJ 2 and lasts all the Ninevite 5 period, surviving as an inhabited town until roman times. It certainly was a regional center of importance.

Bibliography: https://digitorient.com/?page_id=463; Bachelot, Castel, Charpin, Durand 1990; Ristvet 2005: 227-231, 311; Nicolle, C. 2006; Verardi 2006; Nicolle, Engel, Verardi, Criaud 2006; Arrivabeni 2010.

Images:

Tell Mohammad Diyab in 2013, just before the destruction started. The soundings are perfectly visible all along the site. Google earth, 10/2013.



Tell Mohammad Diyab in 2014. Mound A, the bigger one, is already heavily damaged by military activities, while mound B and C have suffered from comparative smaller damage. Google earth, 4/2014.

Tell Mohammad Diyab in 2019. After 2017, mound C was also heavily destroyed by military terracing, dug of trenches and military facilities on top. The northern slope of mound B is also levelled.

Site number: S260

Name(s): Tell Abbas

Occupation(s): EJ 2.

Coordinates: X, Y: 36.9628, 41.61826.

Maximum height (in meters): 10 m.

Measures (in hectares): 0,78 ha.

Damages and threatens: Housing, **cemetery (caution)** The whole site is covered by a modern cemetery. Only the top of the tell is free from modern tombs. There is a small hamlet near the southern slope that could affect archaeological layers.

Description: Small conical mound with low evidence of occupation in the Third millennium. The only definite ceramics belonged to EJ 2, but this occupation is absolutely isolated and no other materials from Ninevite 5 where recovered.

Bibliography: Ristvet 2005: 227-231; Rova 2007: 3. Code 110.

Images:

The site in 2017. Google earth, 10/2017.

Site number: S261

Name(s): Girê Mêrgê / Gir Marge

Occupation(s): EJ 2-V (ca. 2800-2000 BCE), early Second millennium.

Coordinates: X, Y: 37.0003, 41.64891.

Maximum height (in meters): 16 m.

Measures (in hectares): 2,52 ha.

Damages and threatens: Housing, garden, cemetery, soil extraction (caution) This site has been dramatically cut and taken away. It is in the middle of a modern village after which the tell was named, and the houses of one of its neighborhoods is invading the mound's perimeter. Some parts, especially on eastern, western and northern slopes have been cut and leveled by construction activities and for accommodate a garden. It also seems that some parts of the eastern and western slopes have been used as a soil mining area (the sharp shape of this mound's edges, unlike the ones that were cut for house building, evidences this use) There is a small cemetery on the southern slope.

Description: Tell with lower town invaded by the modern village. The Third millennium occupations of this site are so extensive and important, ranging from Ninevite 5 (EJ 2-3) to the early Second millennium, encompassing almost all the Third millennium. It could have been a secondary settlement alongside with other similar sites of similar size like Girdem Halime (S272) or Tell Awda (S237) It is relatively close to Tell Leilan (S25) 12 km south-east.

Bibliography: Ristvet 2005: 227-231; Rova 2007: 3. Code 34.

Images:

The main tell of Girê Mêrgê in 2011. The sharp edges are clearly visible and are easy distinguishable from the lined cuts made for the houses and the gardens. No further damage has been done to this day. Google earth, 8/2011.

Site number: S262

Name(s): Ger Sheran / Gir Sheyran. In the case that this was the correct form in Arabic language, it has to be an adaptation of the original from the Syriac/neo-Aramaic language. This village is mostly inhabitated by syriac Christians (https://umap.openstreetmap.fr/de/map/pre-civil-war-demographics-of-rojava-archive-do-no_151640#14/37.0128/41.5326, it is necessary to activate the layer 'al-Hassaka governorate' in order to see the source).

Occupation(s): EJ 2-3 (Ninevite 5, ca. 2800-2500/2300 BCE) early Second millennium.

Coordinates: X, Y: 37.0080, 41.52547.

Maximum height (in meters): 14 m.

Measures (in hectares): 3,9 ha.

Damages and threatens: Erosion. The tell of Ger Sheran village is in quite good condition and it is only slightly affected by natural erosion of the nearby Harran river. The houses of the modern village are still away from the site, and are not affecting it.

Description: A medium sized site located near al-Qataniyah/Tirbespiyê city, just west of the syriac hamlet of Ger Sheran. The tell is elongated and it extends over the eastern river bank, feature that conditioned the inhabited space. The pottery recovered points out to this site to have been a populated center during EJ 2-3, during most of the Ninevite 5 period except for its earliest stage. According to Stein and Wattenmaker (2003: 370), the bigger Ninevite 5 sherd concentration was found at the northern part of the Tell.

Bibliography: Stein and Wattenmaker 2003: 370; Ristvet 2005: 227-231; Rova 2007: 3. Code 20.

Images:

The site of Ger Sheran in 2009, just by the eastern bank of the Harran river. To the east, the tiny hamlet of Ger Sheran, in which the syriac church of Mor Augin stands out. The site has not suffered any further damage since then. Google earth, 11/2009.

Site number: S263

Name(s): Tell Aziz

Occupation(s): Ninevite 5, EJ 2-4 (ca. 2800-2200 BCE), early second millennium.

Coordinates: X, Y: 37.0266, 41.54459.

Maximum height (in meters): ?

Measures (in hectares): 2,5 m.

Damages and threatens: Housing (**caution**) The site lies in the middle of the city of al-Qataniyah/Tirbespiyê, and that's the reason for its destruction. The tell seems to have been completely leveled and nowadays it is almost impossible to detect any feature of the old site in the surface. Some remains of the tell could had been survived until 2019, when, through google maps imagery, it is visible that a small earth mound of unknown nature was flattened during the construction of a parking site for cars. However, the fact that Ristvet don't give the height of the tell might be an evidence for us to believe that the site was already completely leveled by the time in which the survey had been carried on.

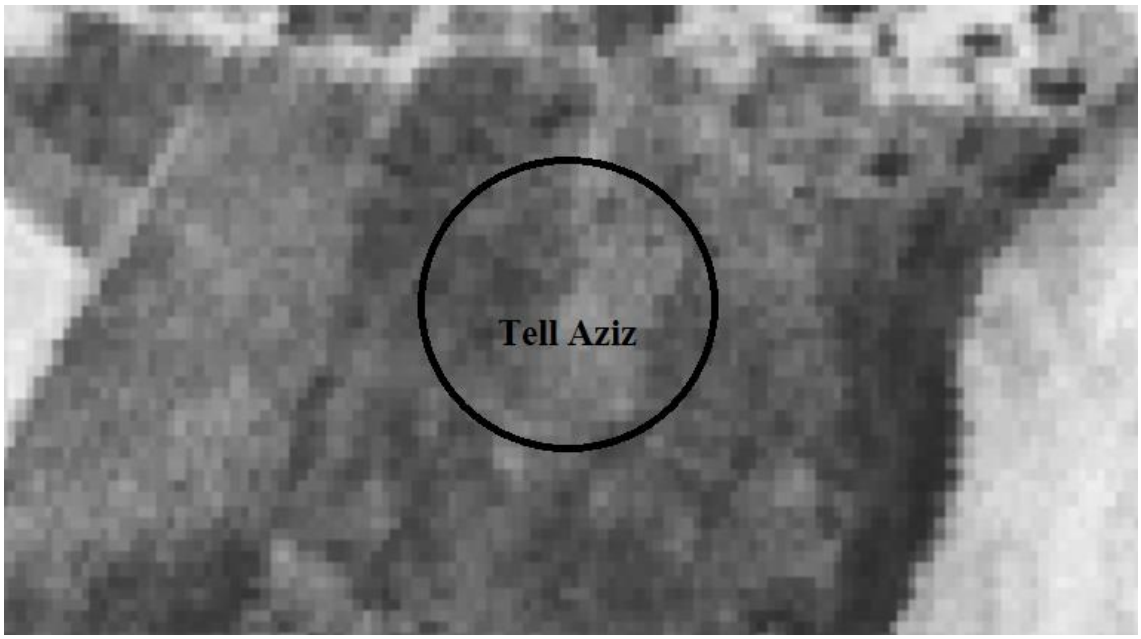
Description: Small to medium sized site comparable to lots of other sites near the center of Tell Leilan (8 km to the south) of similar size that could form a net of secondary settlement villages. The pottery found at Tell Aziz evidences that it was settled all along the Third millennium, with the only exception of the EJ 1, the first stage of the Ninevite 5 culture.

Bibliography: Ristvet 2005: 227-231; Rova 2007: 3. Code 52.

Images:

The site of Tell Aziz in September 2019. The possible tell is marked. This is the exact place in which the site once stood, now overshadowed by the modern city. Google earth (08/2019)

The same location, 2 months later, in process of demolition. Nothing of it survived. Google earth (11/2019)



Archaeological feature of Tell Aziz viewed through LIDAR satellite. Despite of the bad quality and the unclear surroundings, the tell is visible in the same neighborhood of al-Qataniyah/Tirbespiyê. The location is very close to the possible mound destroyed in 2019. https://corona.cast.uark.edu/atlas#zoom=18&center=4624666,4442871.

Site number: S264

Name(s): Tell Digire / Dugir / Duqur (**Dougird**) / **Dugirê**. Probably, all forms come from the Kurdish *Dû gir*, 'two mounds'. This would have sense because there are two main tells inside the village that would have granted its name.

Occupation(s): Late Uruk? Ninevite 5 EJ 2-3a (ca. 2800-2300 BCE), early second millennium.

Coordinates: X, Y: 37.0354, 41.49624.

Maximum height (in meters): Not specified.

Measures (in hectares): 17,16 ha.

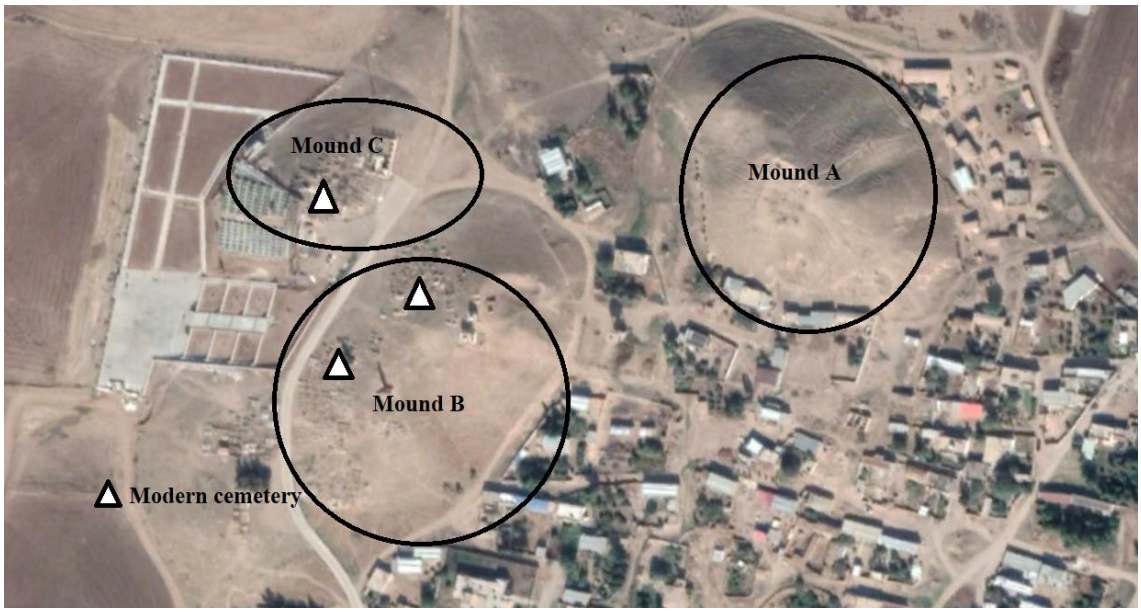
Damages and threatens: Cemetery, housing, soil removal. As long as the site is divided in several mounds, there are different integrity issues that affect each one. The main tell, the bigger one of the site, is located east of the site. This mound (I will name it mound A) is in overall good condition, but its western slope have been seriously affected by soil extraction, activity that has left a deep serrated mark on it. Moreover, the southern and eastern slope were also cut by modern constructions. The northern and the top are in very good conditions. The other two main mounds (B and C), to the west, are partially covered by a modern cemetery and there is a huge modern (agricultural?) complex built a few years ago close to mound C, the northernmost. There are other minor mounds scattered all around the village. The ones located on the northern part are still in good conditions, but the ones that lies in the village have been overshadowed by modern housing. In general, however, the preservation of the site is good.

Description: This is an important regional site inhabited during the Ninevite 5 period (there are no evidences for EJ 1 times) At least it has 3 main mounds alongside with minor elevations in between and around. It is unclear how much of the site was actually used during Ninevite 5 period because no archaeological excavation has been undertaken here. Also, it is important to note that Ristvet's PhD only covers material culture until the very end of the second millennium so, there is no information from iron age settlement onwards. According to Stein and Wattenmaker (2003: 363-367), by the late Ninevite 5 period, Dugire reached 15 ha, same size that Leilan (S25) at that time, thus of equal importance. Then, it can be said that Dugire could act as a regional center of population much like Leilan, a central settlement with some other Ninevite 5 smaller villages on its hinterlands. In the case of Dugire, the site is surrounded by a number of smaller villages (S243, S262, S263, S265 and S266) ranging 0,9 to 9,5 ha. Following this authors, Jason Ur also characterizes this site as a major site in Ninevite 5 period in the Jazira region.

Bibliography: Stein, G. and Wattenmake, P. 1990: 12-13; Stein, G. and Wattenmake, P. 2003; Ur 2004: 54, 166, 304; Ristvet 2005: 227-231; Rova 2007: 3. Code 16. Binker 2016: 377. Tübingen Atlas des Vorderen Orients.

Images:

The site of Dugir in 2017. Google earth, 10/2017.



Mound distribution at Dugire site. West of mound C we can appreciate the newly constructed facilities. Google earth, 11/2019.

Site number: S265

Name(s): Gir Swar/Souar

Occupation(s): EJ 2-5 (Ninevite 5, ca. 2800-2000 BCE), early second millennium.

Coordinates: X, Y: 36.9965, 41.44152.

Maximum height (in meters): 23 m.

Measures (in hectares): 5 ha (ca. 0,9 ha during Ninevite 5)

Damages and threatens: Housing, **agriculture**. The site is in quite good condition. The main mound has no important aggressions. The houses of the nearby village are close to the mound, but the affectation is not so important. A small mound east to the main tell has some small structures on top, maybe they are tombs or small mausoleums.

Description: High mound with a secondary elevation to the east. Despite of having grown to 5 ha to the second half of the Third millennium, during Ninevite 5 it reached roughly 0,9 ha. Stein and Wattenmake (2003: 363-367) pointed out that this site, due to its proximity to Dugire (S264) could have been a secondary settlement linked to it.

Bibliography: Stein, G. and Wattenmake, P. 2003: 375; Ristvet 2005: 227-231, 310; Rova 2007: 3. Code 13. Tübingen Atlas des Vorderen Orients.

Images:

Gir Swar, the central mound and the minor eastern mound divided by a depression, just north of the modern village. Google earth, 9/2020.

Site number: S266

Name(s): Tell Bayandur / Girê Beyandûr. https://www.youtube.com/watch?v=Ff7AOacby5I&ab_channel=NefelProduction the site is visible at 8:20.

Occupation(s): EJ 2-4 (ca. 2800-2200 BCE), early-mid second millennium, lesser occupations in the last centuries of the second millennium.

Coordinates: X, Y: 37.0297, 41.44021.

Maximum height (in meters): 14 m.

Measures (in hectares): 9,5 ha (0,73 ha)

Damages and threatens: Cemetery, housing. The top and southern slope is covered by a modern cemetery. The construction of some houses of the modern village has cut small portions of the tell.

Description: Small rural village at Ninevite 5 times, probably linked with Dugire (S264) As other similar sites in the same region, no trace of early Ninevite 5 was found, but it was inhabited during most of the Third millennium.

Bibliography: Stein, G. and Wattenmake, P. 2003: 367; Ristvet 2005: 227-231, 310. Code 14. Tübingen Atlas des Vorderen Orients.

Images:

Girê Beyandûr in 2020. Google earth (9/2020)

Site number: S267

Name(s): Gir Tav

Occupation(s): EJ 2-3 (ca. 2800-2500 BCE)

Coordinates: X, Y: 37.0254, 41.38299.

Maximum height (in meters): -

Measures (in hectares): 6 ha.

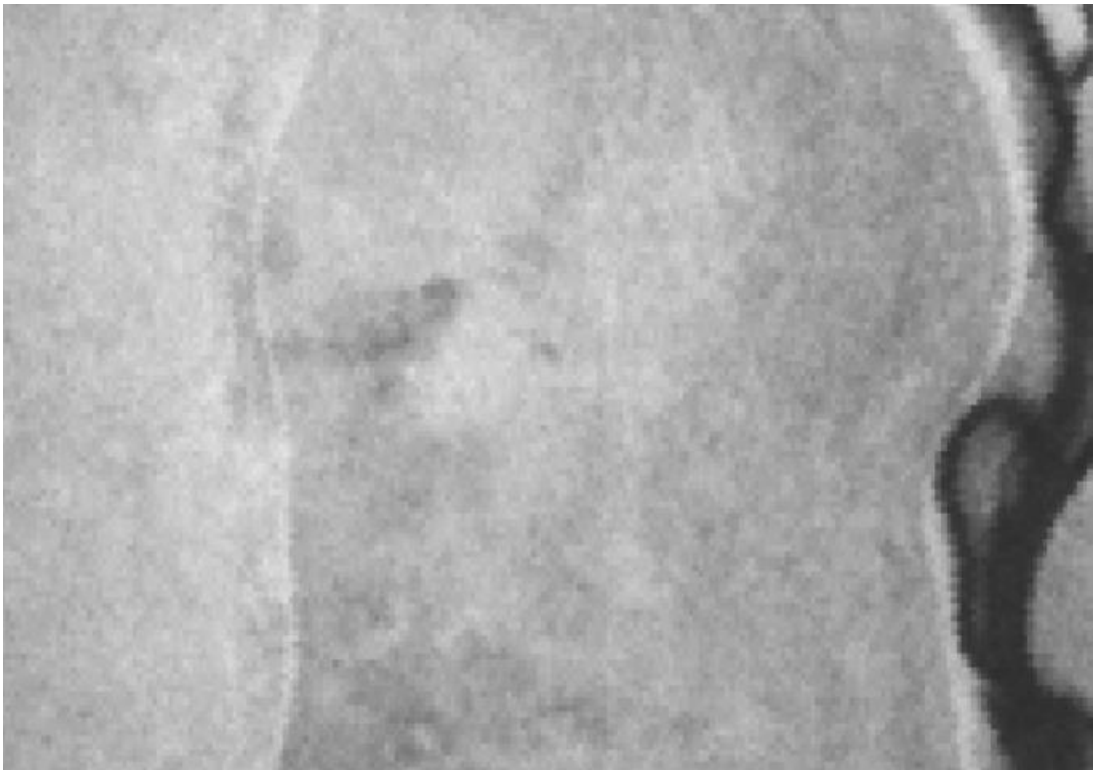
Damages and threatens: Agriculture, road. The site is in good condition and only affected by ploughing.

Description: There is an issue with the location of this site. Comparing the maps in Rova (2007: 3) and Arribaveni (2011), one can see that the site has a slightly different position. It is not clear if the site in this cathalog is the actual Gir Tav, but, to me, seems logic to believe that the correct map has to be the one in Arribaveni 2011 because other sites like Girê Beyandûr (S266) or Dugire (S264) are also clearly misallocated in Rova (2007: 3). Only Ninevite 5 pottery was found on that site, and that could point out this to be a small rural village with no continuity after this period. The other site is 1,8 km to the north.

Bibliography: Ristvet 2005: 227-231, 310; Rova 2007: 3. Code 136.

Images:

The site in 2020. Google earth, 10/2020.



The mound is clearly visible with LIDAR.
https://corona.cast.uark.edu/atlas#zoom=17&center=4605574,4444439.

Site number: S268

Name(s): Tell Blaij/Bilej/Bulay/Balig

Occupation(s): EJ 2-4 (ca. 2800-2200), early second millennium.

Coordinates: X, Y: 36.9261, 41.43886.

Maximum height (in meters): 24 m.

Measures (in hectares): 6,2 ha (1,75)

Damages and threatens: Cemetery, housing. The site is in good condition. Small parts of the lower parts of the western slope has been cut to accommodate some modern houses. There are also a few tombs scattered on the southern slope and on top.

Description: Small village located at some distance to major centers like Leilan (S25) or Tell ‘Aid (S211). For its position, it is possible for this site to have been related to Leilan, maybe as a rural village. The site was inhabited during almost all the Ninevite 5 period except for its earliest phase.

Bibliography: Stein, G. and Wattenmake, P. 2003: 376; Ristvet 2005: 227-231, 310; Rova 2007: 3; Arrivabeni 2010: 30-39. Code 15. Tübingen Atlas des Vorderen Orients.

Images:

The site in 2011. Google earth (3/2011)

Site number: S269

Name(s): *Ar.* **Kulurah**.

Occupation(s): Ninevite 5 to the second half of the third millennium, Early second millennium (ca. 1900-1700 BCE)

Coordinates: X, Y: 36.9060, 41.42902.

Maximum height (in meters): unknown.

Measures (in hectares): 2 ha.

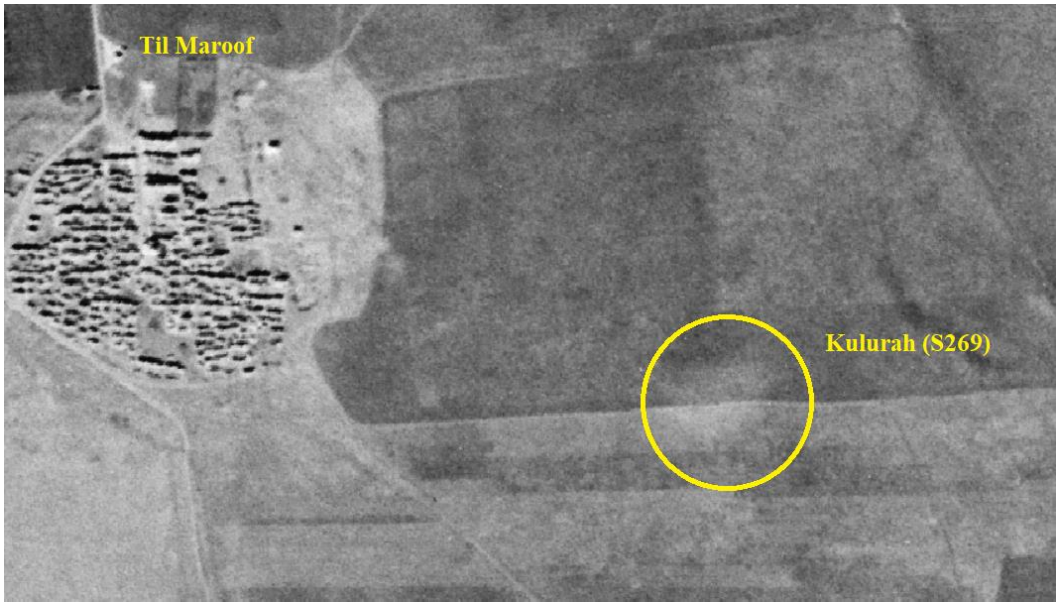
Damages and threatens: Agriculture, roads. The whole site is under cultivation and it is cut in half by a modern road.

Description: Very low tell just outside the city of Til Maruf. According to Ristvet, the site, despite of its lesser extension, was inhabited during all Ninevite 5 period onwards. Close to this site, just 800 meters to the south, there is another small archaeological mound.

Bibliography: Stein, G. and Wattenmake, P. 2003: 376; Ristvet 2005: 227-231, 310; Rova 2007: 3; Arrivabeni 2010: 30-39. Code 17.

Images:

The site as seen in corona.cast.uark.edu



Site number: S270

Name(s): Tell Tartab 3 (Kabir)

Occupation(s): Late Chalcolithic 1-3 (4200-3500 BC), Ninevite 5 to late Third millennium (2800-2200 BC), early Second millennium (1900-1700 BC)

Coordinates X, Y: 3.70129, 41.23201.

Maximum height (in meters): 35 m.

Measures (in hectares): 6,4 ha.

Damages and threatens: Military, housing, roads. The northern summit of the main mound is affected by soil removal and a village road. The site extends to the south, under the houses of the village. The top of the tell is affected by military trenches and an outpost.

Description: High tell with a large low town mostly covered by a modern settlement. According to the scholars, this site yielded a total of 121 sherds of which only 9 were from LC and 17 were from the third millennium. According to Ristvet (2005: 312) and Arrivabeni (2010: 24) the site was occupied during the EJ 2 period (2800-2600 BC) and the second half of the third millennium, but the evidences for EJ 3 were so scarce that Arrivabeni does not even mention it.

Bibliography: Ristvet 2005: 227-231, 312; Rova 2007: 3; Arrivabeni 2010: 30-39. Code 179.

Images:

Aerial image showing the main tell, north to the village of Tartab. Google earth, 9/2021.

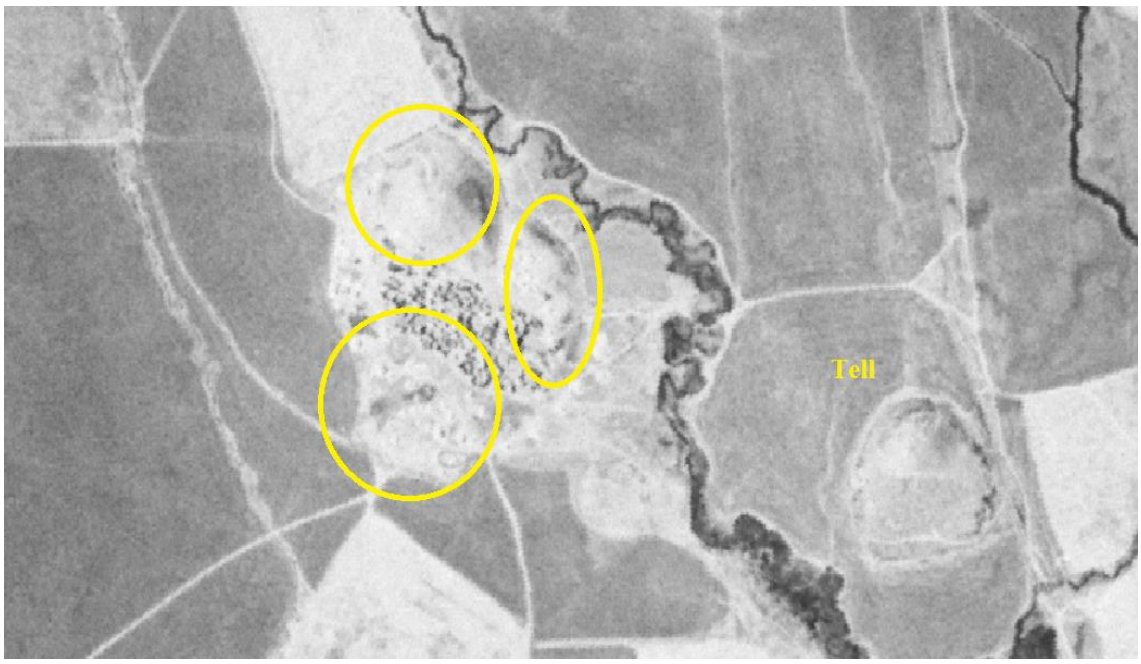


Image from CORONA website showing the site of Tartab 3, the main tell to the north and other secondary elevations, now covered by the modern village. corona.cast.uark.edu.

Site number: S271

Name(s): Tell Tartab 1 (Saghir)

Occupation(s): Late Ninevite 5 (only EJ 3, 2600-2350 BCE), early second millennium (1900-1700 BCE), Late first millennium (1300-1000 BCE)

Coordinates X, Y: approximately 3.70100, 41.23972.

Maximum height (in meters): Unknown.

Measures (in hectares): 6 ha (Ristvet 2005: 312) or unknown (Arrivabeni 2010: 30)

Damages and threatens: Military facilities? cemetery? The site has been heavily affected by military activities related to a base located in the vicinity of the site, more than a half of the site has been already wiped out. All of its slopes have disappeared, and only the core of the tell persists. Also, a military facility has been built on top. The site was already affected in 2004, according to satellite imagery.

Description: According to Ristvet, the site provided very scarce evidences of Ninevite 5 occupations. Only 10 sherds belonging to the Third millennium were found on it, showing a doubtful occupation during EJ 3 period.

Bibliography: Ristvet 2005: 227-231, 312; Rova 2007: 3, 24, 26, 30; Arrivabeni 2010: 30-39. Code 17.

Images:

Tell Tartab 1 in a terrible shape (S271). The original contours of the site can still be seen as bare marks on the ground. Taken from Google Earth (04/2023)

The site of Tell Tartab 1 in 2004. The site was already affected by soil removal, but no military facility was built on top. Taken from Google Earth (08/2004)

Site number: S272

Name(s): Girdem Halime. Probably an Arabic adaptation for a Kurdish name.

Occupation(s): Ninevite 5 (EJ 2-3, 2800-2500 BC), EJ 4 (2500-2100 BC), early second millennium (1900-1700 BCE)

Coordinates X, Y: 3.70278, 41.62322.

Maximum height (in meters): 19 m.

Measures (in hectares): 5 ha (total), 2,01 ha in Ninevite 5 (Stein, G. and Wattenmake, P. 2003: 367)

Damages and threatens: Cemetery, housing, soil removal. The northern slope is heavily damaged by soil removal. Two huge cemeteries cover south and eastern slopes. The modern houses of the village are also affecting west and southern slopes.

Description: Medium sized site, seems to have been way smaller during Ninevite 5 (around 2 ha.) but, according to Ristvet (2005: 310) it yielded sherds from EJ 2-3 periods. The site is 12 km east of **Dugirê** (S264) and it is close to other similar sites like **Girê Mêrgê** (S261), with which **Girdem Halime** could be related.

Bibliography: Stein, G. and Wattenmake, P. 2003: 367-368, 379; Ristvet 2005: 227-231, 310. Code 35.

Images:

The main tell. Google Earth (02/2017)

Site number: S273

Name(s): *Ar.* **Tell Abu Qadeir**

Occupation(s): Ninevite 5 (EJ 1, 3), EJ 4-5 (2350-2000 BC), early second millennium, late second millennium (1300-1000 BCE)

Coordinates X, Y: 3.68535, 41.66629.

Maximum height (in meters): ?

Measures (in hectares): 6,25 ha.

Damages and threatens: Cemetery, housing, agriculture, roads. There is a cemetery on top, also the houses of the modern village damaged western and southern submits of the main tell. After 2016, new buildings were erected near the eastern slope.

Description: Medium sized site with very low Ninevite 5 evidences. Ristvet (2005: 313) pointed out that the main occupation periods were Early Jazira 4 and 5, during the second half of the Third millennium. Only scarce evidences for EJ 1 and 3 were found, but this period remains obscure for this site. Morphogicaly, the tell is slightly elongated east-west and has several peaks.

Bibliography: Ristvet 2005: 227-231, 310.

Images:

The site as seen in 2021. Google earth, (08/2021)

Site number: S274

Name(s): Tell Lazzaga/Lazaqa.

Occupation(s): Late Chalcolithic, EJ 3-4, Early second millennium.

Coordinates X, Y: 3.68766, 41.60647.

Maximum height (in meters): 4.

Measures (in hectares): 16,2.

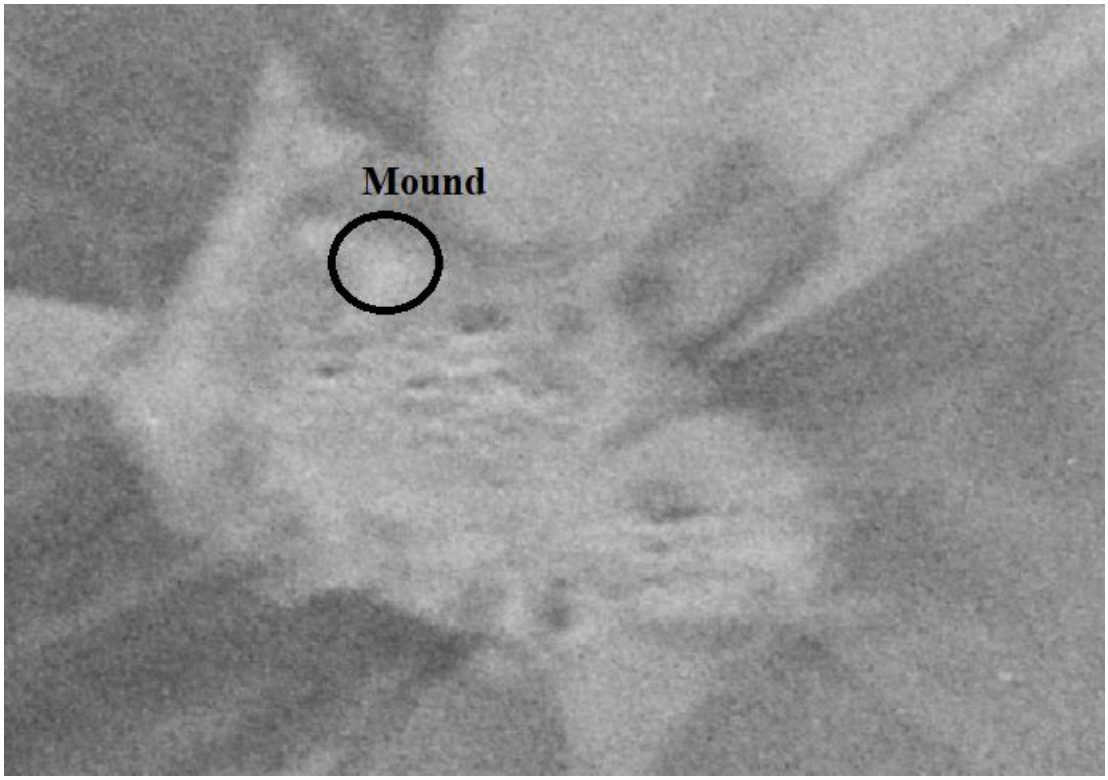
Damages and threatens: Cemetery, housing. The site is occupied by a small hamlet and most of its extension is now covered by modern houses. The tallest mound, to the northern edge of the site, is also affected by some modern tombs on top.

Description: Low but extensive site with quite restricted occupations during late Ninevite 5 and the century after it. According to Ristvet, the site reached its biggest extension on EJ 3. According this data, this seems to be an unusually big site regarding that it has only one or two low mounds. According to Arrivabeni (2010: 31-32) the collection on this site retrieved a limited number of EJ 3-IV pottery fragments (only 16), that's the Reason for Ristvet to classify the second half of the Third millennium occupations as 'limited'.

Bibliography: Ristvet 2005: 227-231, 312; Rova 2007: 29; Arrivabeni 2010: 30-39.

Images:

The village of Lazzaqa has almost the same size of the archaeological site and extends on it. Taken from Google Maps.



A view of the site with CORONA imagery. The same mound of the first image is outstanded with a black circle.

Site number: S275

Name(s): *Ar.* **Tell Hansa (Zeki al-Kabir village)**.

Occupation(s): LC, EJ 2, EJ 4-5, early second millennium, middle second millennium.

Coordinates X, Y: 3.66496, 41.42023.

Maximum height (in meters): 14 m.

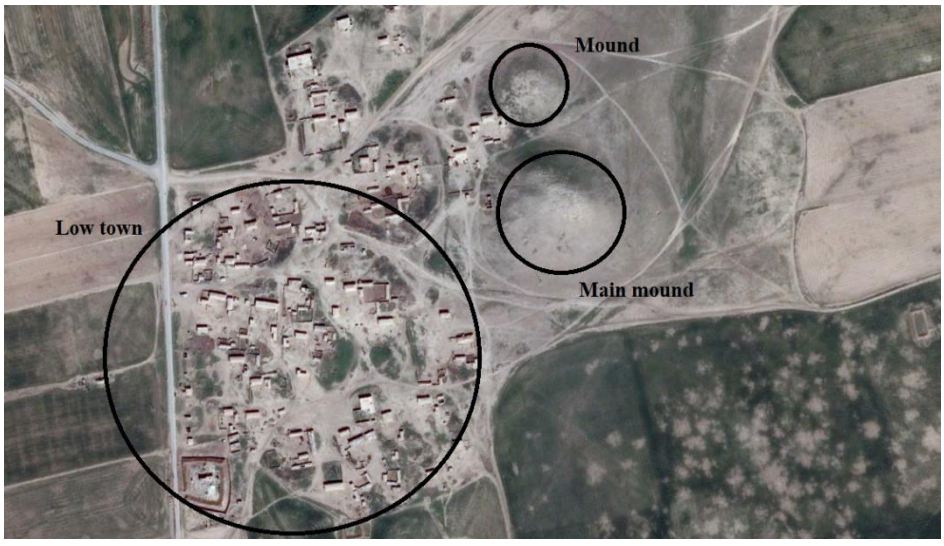
Measures (in hectares): 32,5 ha.

Damages and threatens: Cemetery, housing, roads. The main mound has a cemetery on top and the northern slope. The low extension is partially covered by the village of Zeki al-Kabir and some dirty roads. Site is in overall good condition.

Description: The site is located in an apparently marginal area for the Ninevite 5 culture. Sites near the area of the Wadi al-Radd are far more numerous in the section between the city of Hasake and the area of influence of Tell Brak. The section of the river east of Brak, south Tell Hamîs, has a much lower density and there is only a bunch of Ninevite 5 sites. Tell Hansa is a big site, but the Ninevite 5 evidences are more than scarce as long as there are only elements from EJ 2. Most of the site belongs to the second half of the Third millennium, time when Tell Hansa reached its maximum size.

Bibliography: Ristvet 2005: 227-231, 313; Arrivabeni 2010: 30-39.

Images:



Tell Hasna in an image of google earth (03/2016)

Site number: S276

Name(s): Gre Pre (Girê Pirê, Girê Beri?) / **Qir Barri** or **Kari Barri** (it depends on the spelling) Ristvet writes the name as **Gre Pre**, that's most probably a spelling (in Arabic?) of the kurmanji Kurdish form **Girê Pirê**.

Occupation(s): LC 3-4, EJ 3-4, early to middle second millennium.

Coordinates X, Y: 3.70034, 41.60164.

Maximum height (in meters): 12 m.

Measures (in hectares): 4,8 ha.

Damages and threatens: Housing, cemetery. The site has suffered extensive damage from the modern village in which it is located. There is a large house with a garden on top of the main mound, the western and southern slopes are also covered by modern buildings and the northern part is deeply cut by a road. The eastern slope is yet in good condition. Another small mound to the east is almost completely covered by a cemetery.

Description: This site yielded a good amount of pottery sherds, 248 (Arrivabeni 2010: 24), but only a very limited number of them could be related to a Ninevite 5 occupation. The evidences for LC period is, as well, scarce, with only 3 sherds among all the findings (Rova 2005: 24) Ristvet classifies this site as EJ 4 and points out only to a brief late Ninevite 5 occupation. Maybe it was a small village just besides the huge site of Tell Leylan, that is only 10 km away to the west.

Bibliography: Ristvet 2005: 227-231, 312; Rova 2007: 24, 30; Arrivabeni 2010: 30-39. Code 151.

Images:

Overview of the village with both of the visible mounds of Girê Pirê site. Google earth, 11/2009.

Site number: S278

Name(s): Farsuk Kabir

Occupation(s): EJ 3?-4, Early Second millennium.

Coordinates X, Y: 3.68620, 41.47824.

Maximum height (in meters): 14.

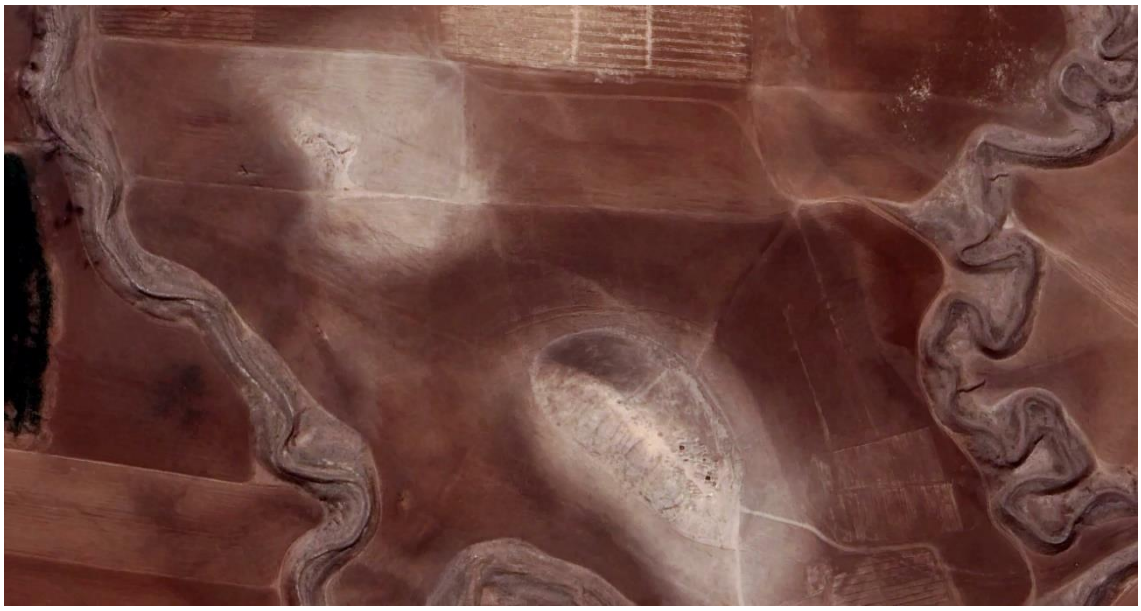
Measures (in hectares): 2,36 (0,93).

Damages and threatens: Cemetery, agriculture. The main mound is partially covered by a modern cemetery (specially the southern summit and the top) A small secondary mound to the north is slightly affected by soil removal and ploughing activities.

Description: There is a problem with the chronology of the occupations of this site. Stein and Wattenmake (2003: 267-268) point out this site to be a very small rural village (only 0,93 ha) near the area of two other major sites, Leylan and Mohammed Diyab. However, neither Ristvet (2005) nor Arrivabeni (2010) seems to reach the same conclusions about it. The first scholar treats **Farsuk Kabir** as an EJ 4 site (from 2500 to 2200), but he doesn't mention any Ninevite 5 occupation. The second scholar, in fact, doesn't even mention it in her paper about the early bronze age in the Leylan region (2010) Perhaps this site was inhabited during the very last part of the Ninevite 5 culture, but it is not clear whether this is supported by material evidence or not, as long as none of the scholars describe the pottery found in there during any survey.

Bibliography: Stein, G. and Wattenmake, P. 2003: 367-368, 377; Ristvet 2005: 227-231, 310.

Images:



The site is placed in between the rivers Jarrah and ‘Abbas, around 300 meters north of the Ninevite 5 site of **Qasr Faris** (S244) The satellite image shows the main mound to the south and a much lower but even bigger extension to the norh. The modern cemetery is visible to the south of the bigger tell. Google earth (08/2021)

Site number: S280

Name(s): *Ar.* **Barham Qadim**.

Occupation(s): LC, EJ 3 (2500-2300), early Second millennium.

Coordinates X, Y: 3.70148, 41.52469.

Maximum height (in meters): ?

Measures (in hectares): 5,45 (2,57 for Ninevite 5?)

Damages and threatens: Agriculture, Oil field. The site is in agricultural land, just south of an oil pumping zone. It is unclear whether the construction of the oil field affected the site or not.

Description: Extensive but low site with which, like in the case of **Farsuk Kabir** (S278), it is mentioned by Stein and Wattenmake (2003: 267-268) as a Ninevite 5 site, yet Ristvet specifies that no Ninevite 5 material, but very late EJ 3 (ca. 2500-2300) was found. Perhaps this is another very late Ninevite 5 site, but exact material has not been published. Anyway, the occupations are very restricted to LC (according to Stein and Wattenmake 2003: 267), EJ 3 and the first centuries of the Second millennium. The limited occupations and the short height of the site could be pointing out that this place was inhabited during very specific periods. It is also interesting that, according to the measurements by Stein, G. and Wattenmake, P. 2003: 367, the site could have had the same size during Ninevite 5 and post Ninevite.

Bibliography: Stein, G. and Wattenmake, P. 2003: 367-368; Ristvet 2005: 227-231, 25.

Images:

The site is quite visible as an outstanding clearer stain in the middle of a darker ground ploughed field. Google earth (8/2021)

Site number: 288

Name(s): Mathlutheh Hillal

Occupation(s): EJ 2-3a?, early-late Second millennium.

Coordinates X, Y: 36.8441, 41.40763.

Maximum height (in meters): 4 m.

Measures (in hectares): 1,96 ha.

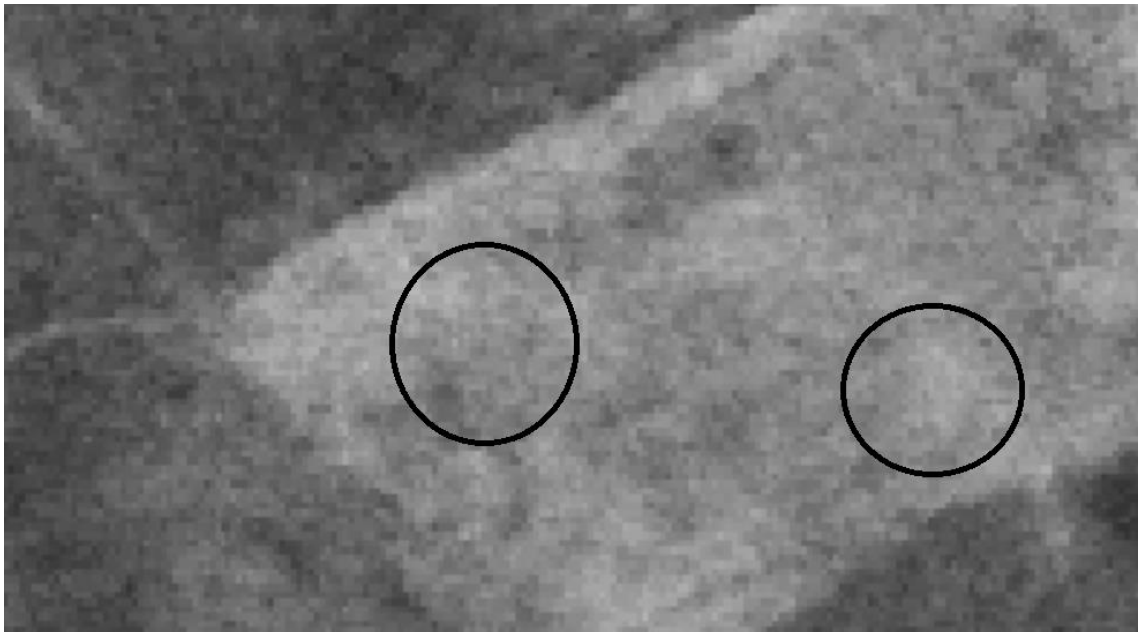
Damages and threatens: Agriculture, roads. The northern edge of the site has been affected by a dirty road.

Description: A small tell with several heights perfectly visible with LIDAR, located north of a bigger one called Mathlutheh Halag (Ristvet 2005: 312; Rova 2007: 3. Code 162) The overall occupations in the site seems quite scarce in general terms. Arrivabeni (2010: 34) states that there are doubtful evidences for EJ 2-3a occupations, while Ristvet (2005: 312) points to little evidence for Second millennium occupations, without even mention the Ninevite 5 period.

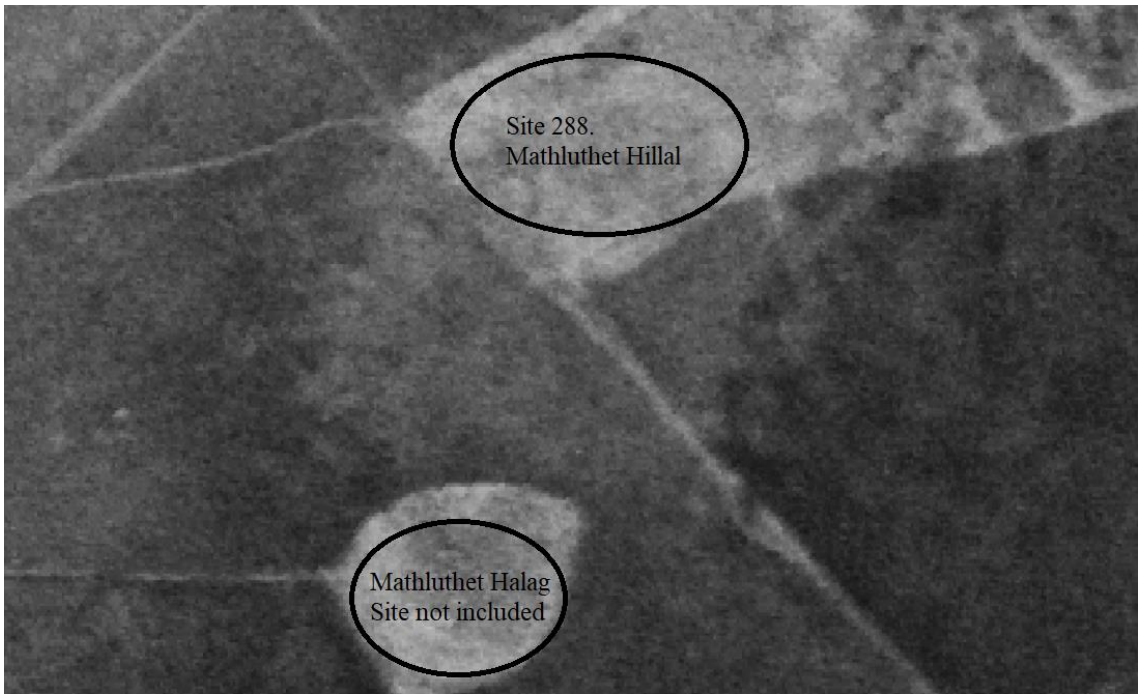
Bibliography: Arrivabeni 2010: 30-39; Ristvet 2005: 227-231, 312; Rova 2007: 3. Code 161 in that survey.

Images:

Two elevations of this site are clearly visible on the surface of the fields. Taken from Bing maps.



The elevations seem on LIDAR image taken in the 60’s, alongside with other features that are also visible with this system. https://corona.cast.uark.edu/



Site 288 and the small tell called Mathluthet Halag are located only 300 meters from each other, but the second one has no evidence of Ninevite 5, according to Arrivabeni and Ristvet. https://corona.cast.uark.edu/

Site number: S289

Name(s): Tell al-Sara

Occupation(s): Halaf, LC 3-5 (Ubaid-Uruk) Ninevite 5, middle to late Third millennium, early Second millennium/old Babylonian (Khabur ware) late bronze age, neo-Assyrian, Hellenistic, Sassanian to early Islamic and Abbasid.

Coordinates X, Y: 3.68158, 41.98348.

Maximum height (in meters): 10 m.

Measures (in hectares): 11,3 ha.

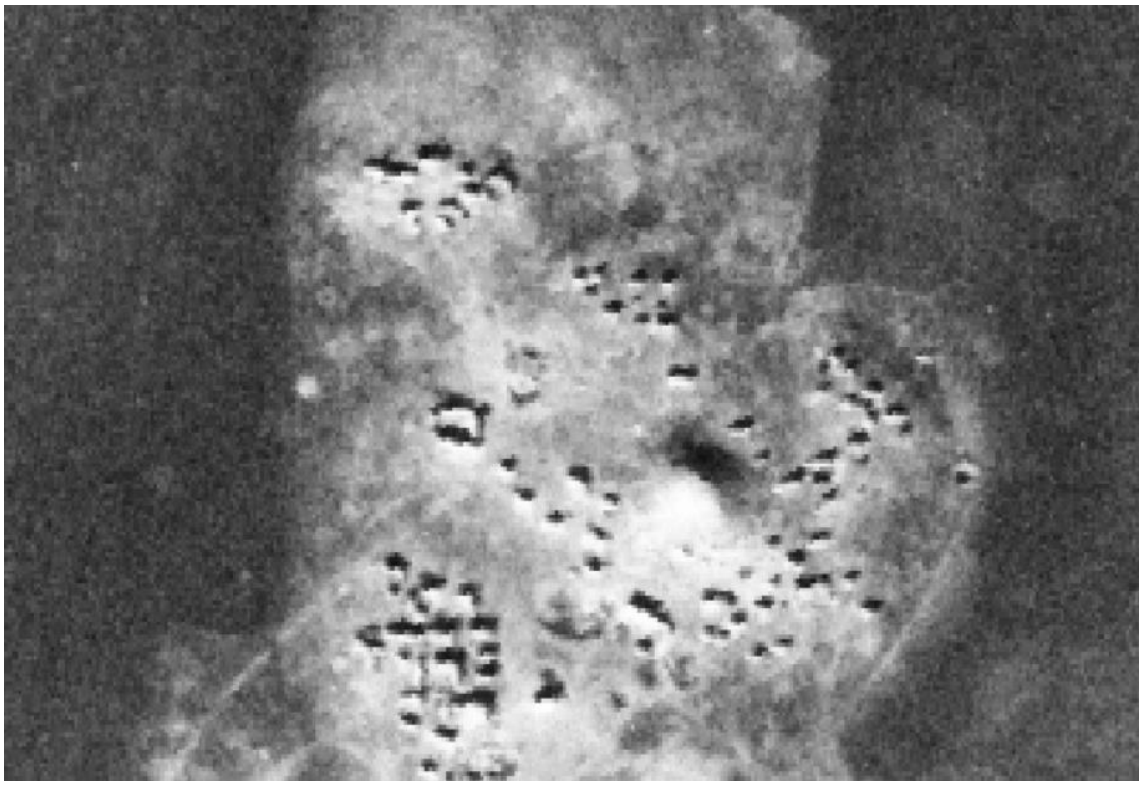
Damages and threatens: Cemetery, housing. The site is a big low mounded complex with a main mound 10 meters high. Almost all the low town is covered by a modern village and the higher tell has a modern cemetery that is covering almost all its perimeter except for the northern summit.

Description: Extensive site with a long history of occupations. Regarding Ninevite 5 period, only one diagnostic undecorated sherd was recorded on the main mound. This site could have been a secondary settlement attached to Hamoukar due to the closeness of both sites (**Tell al-Sara** is only 2,5 km east of Haoukar) It is impossible to determinate the size of the village in Ninevite 5 period. Only 4 diagnostic pottery fragments were found during the survey, but none of them was decorated.

Bibliography: Ur 1999-2001: 105, 351. Code 16.

Images:

The main mound is visible to the lower part of the image, covered by the cemetery. All the other features are covered by a densely populated village.



The low mounded area surrounding the main mound as seen in CORONA imagery.
https://corona.cast.uark.edu/atlas#zoom=17&center=4673482,4413519

Site number: S290

Name(s): *Ar.* **Tell Na'ur**

Occupation(s): Halaf, LC 3-4, Ninevite 5, second half of the Third millennium, old Babylonian (khabur) late bronze age, iron age, Hellenistic, Partian, Sassanian-early Islamic.

Coordinates X, Y: 3.67518, 41.91656.

Maximum height (in meters): 12,6.

Measures (in hectares): 25,8 (0,7).

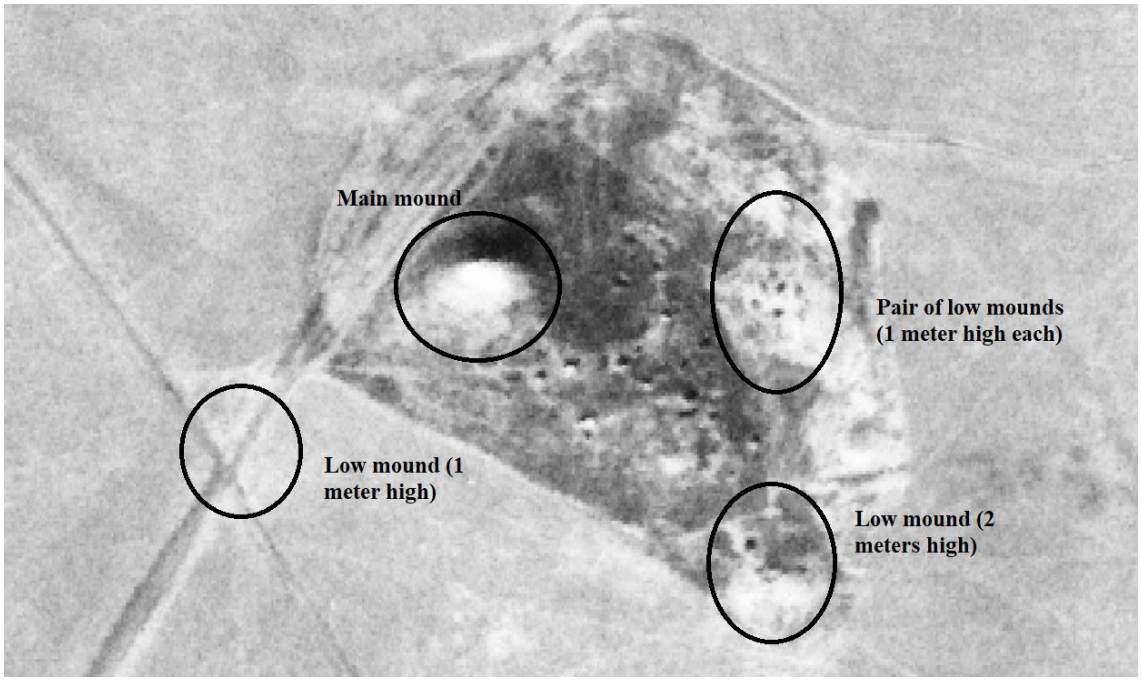
Damages and threatens: Housing, roads. The entire southern extension is beneath the modern town. Two smaller mounds are partially covered by modern houses, while another one is densely covered.

Description: Extensive site with a high mound and a number of low secondary tells scattered near it. According to Ur (1999-2001: 197) Ninevite 5 occupations are limited to the main mound, the higher one, that was abandoned after Khabur period. The rest of the site is more recent. The Ninevite 5 village would have been a very small settlement with less than 1 ha. A total of 17 diagnostic pottery fragments were found at this site during the survey, of which four of them wear painted decorations.

Bibliography: Ur 1999-2001: 196-197, 368. Code 41.

Images:

The main mound of **Tell Na'ur** is in the center of the image. To the south, the houses of the modern village cover the low extension. To the north, some discrete low mounds are barely visible. Google earth, 8/2021.



The site as seen in CORONA imagery. The Ninevite 5 occupation is restricted to the main mound, while is inhabited from iron age onwards.

Site number: S291

Name(s): No name (Hamoukar point 51)

Occupation(s): Halaf, Ninevite 5, second half of the Third millennium, Hellenistic.

Coordinates X, Y: 3.68156, 41.94304.

Maximum height (in meters): 1.

Measures (in hectares): 1,2.

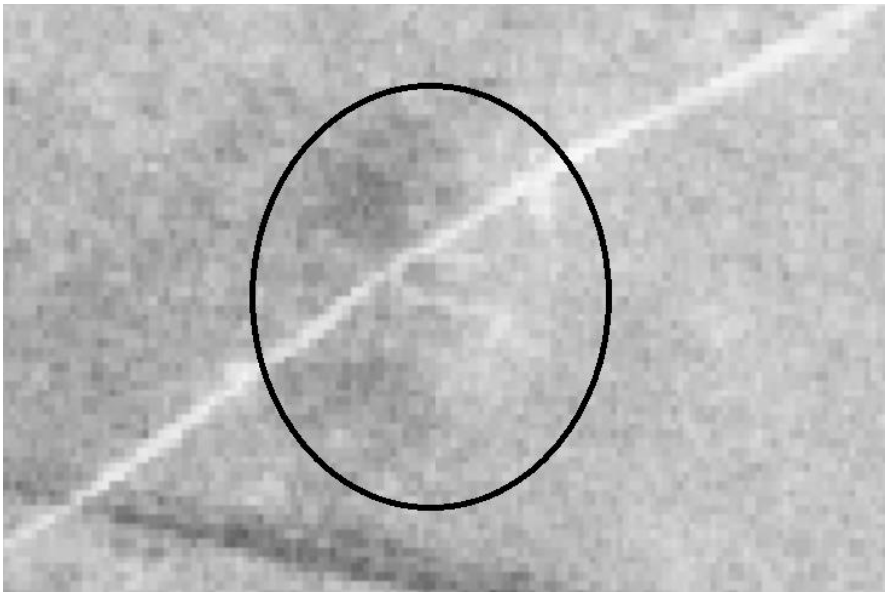
Damages and threatens: Agriculture. The whole site is under a ploughed cereal field.

Description: Very small and low site occupied during very sparse period of time, with long periods of abandonment. According to Ur (1999-2001: 204) the site could have been reoccupied in late Ninevite 5 period because it could be coincident with Hamoukar urban expansion at that time. Anyway, it is clear that this site was a secondary center under Hamoukar control. Survey yielded only two diagnostic fragment, yet undecorated.

Bibliography: Ur 1999-2001: 204, 374. Code 51.

Images:

The site is barely visible, even though CORONA imagery. https://corona.cast.uark.edu/atlas



Site number: S292

Name(s): Gird Bardastee. Meaning the hill of the flint.

Occupation(s): Early Ninevite 5 (EJ 1)

Coordinates X, Y: 4493492, 362031.

Maximum height (in meters): ?.

Measures (in hectares): 1?.

Damages and threatens: Lake. The site is partially submerged under the waters of the lake Dokan.

Description: Small mound with interesting occupations belonging to the Early Ninevite 5 period. Nowadays excavated by a team from the Nederland.

Bibliography: http://www.nino-leiden.nl/projects/rania-plain-gird-bardastee.

Images:

The site of Bardastee, visibly affected by erosion. Taken from Google Earth (08/2022)

Site number: S293

Name(s): Araban

Occupation(s): Halaf, Ninevite 5, second half of the Third millennium, Hellenistic.

Coordinates X, Y: 4495903, 361165.

Maximum height (in meters): flat settlement.

Measures (in hectares): 8 ha (but the Ninevite 5 is restricted to an unknown small percentage)

Damages and threatens: Lake. The site is entirely submerged under the waters of the lake Dokan.

Description: Relatively large flat settlement, mostly from LC 3-5 (presence of beveled rim bowls), and also a transition to the Early Ninevite 5 (EJ 1)

Bibliography: Eidem et. Ali. 2016: 100; http://www.nino-leiden.nl/projects/rania-plain-survey.

Images: -

Site number: S294

Name(s): Basmusian

Occupation(s): Early Ninevite 5 (EJ 1)

Coordinates X, Y: 4491851, 361587.

Maximum height (in meters): ?.

Measures (in hectares): 9 ha.

Damages and threatens: Lake. The site is partially submerged under the waters of the lake Dokan.

Description: Relatively large tell excavated in the 60s of the past century and again explored by the NINO team from the Nederland.

Bibliography: Eidem 2011: 81-87.

Images: -

Site number: S295

Name(s): Tell Shemshara

Occupation(s): Early Ninevite 5 (EJ 1), second millennium.

Coordinates X, Y: 4493942, 361995.

Maximum height (in meters): 19 m.

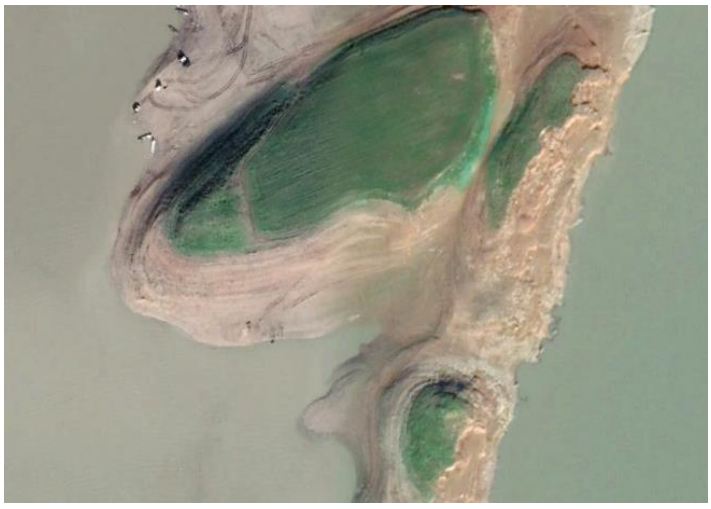
Measures (in hectares): 3 ha.

Damages and threatens: Lake. The site is partially submerged under the waters of the lake Dokan.

Description: This site looks like a chain of mounds. The site has been the center of a project by the NINO team from the Nederland, who found out that the most relevant period of occupation in the second millennium. However, remains of Early Ninevite 5 painted pottery have been found. The site is close to the south of Bardastee.

Bibliography: Al-Soof 1970: 2; Rova 1988: 8; Annual Report of NINO and NIT 2015: 11-13; Eidem 2011.

Images:



The site of Shemshara, just south of Bardastee (S292). Taken from Google Earth (12/2018)

Site number: S296

Name(s): *S.Kur.* **Kandara Qal**

Occupation(s): Ninevite 5, 3nd half of the Third millennium.

Coordinates X, Y: 3.60988, 43.77399.

Maximum height (in meters): 3.

Measures (in hectares): 6,6

Damages and threatens: Agriculture, looting. Almost all the site is under cultivated land. When visited in 2021, the author could observe pits from looters

Description: This is a low but extensive site, mostly belonging to Ninevite 5 culture. It was first surveyed by Ur (et.ali. 2013) who defined this as a huge cluster of third millennium small mounds near Qasr Shemamok. According to the author, this cluster is roughly contemporary and suggests to the existence of an urban net at this time (sites 33-37 and 87) Then, the site was excavated by a French team between 2018-19 and confirmed the abundance of painted Ninevite 5 pottery with the lower presence of excises/incised pottery of the same period. Late third millennium is attested only by some remains of tombs carved in the walls of an older Ninevite 5 structure.

Bibliography: Ur, J. Et.ali. 2013: 98-99; Rouault et.ali. 2018: 241-245; Dolce 2020.

Images:

The main mound of the site (Site 33) seen from the north. In the middle, a sounding performed by the French team. Photo taken in 2021.

Fragment of the rim of an incised jar, probably from late third millennium, found near the French sounding at Kandara Qal in 2021 by the author.

Satellite image showing the cluster of sites described by Ur, just 1 km east of Qasr Shemamok (S23)

Site number: S297

Name(s): Erbil's Citadel

Occupation(s): Ubaid, Uruk?, Ninevite 5?, second half of the Third millennium, Second millennium, Mittani, middle to neo-Assyrian, Hellenistic, Parthian, Sassanid, Islamic.

Coordinates: X, Y: 3.61912, 44.00923.

Maximum height (in meters): 30 m.

Measures (in hectares): ?

Damages and threatens:

Description: The Citadel of Erbil lays on top of a 30 meters high mound with a wide history of settlements. This was an important city during a lot of epochs as a regional capital. However, the evidences for early stages are unclear, yet only material from Ubaid period has been found so far. For that reason and in spite of its importance, the Ninevite 5 period in the Citadel remains doubtful.

Bibliography: Nováček et al. 2008: 276; Ur, J. Et.ali. 2013: 99; Nováček et al. 2013; Al-Yaqoobi, D. et.ali. 2016.

Images:

The Citadel of Erbil as seen in satellite image. Taken from Google Earth (11/2021)

Site number: S298

Name(s): Grai Reş. The name means ‘black hill’.

Occupation(s): LC 2-3 (Ubait to Early Uruk, ca. 4200-3600), Ninevite 5, Second millennium.

Coordinates X, Y: 3.63187, 41.91875.

Maximum height (in meters): 12 and 20 m.

Measures (in hectares): 30 ha.

Damages and threatens: Agriculture, roads. A road sectioned the site in half and separated the two mounds. Today, this road is abandoned. Kepinski stated that the archaeological layers around the cut made by the road had been used by the farmers as a source of fertilizer for their fields, thus extending the road’s destruction. It was said that the archaeological team managed to stop this destruction, but it is unknown whether the farmers started it again after the ending of the mission.

Description: Big site composed by two mounds separated one from the another by a hundred meters. **Grai Reş** was excavated first by Lloyd (1940) and after by a French archaeological mission in Sinjar province (Kepinski 2011) According to them, the site was an important pre-urban Ubaid to Uruk settlement until its suddent abandonement around 3600. However, Lloyd stated that layers from Ninevite were found immediatly above the Uruk layers, but did not give so much information due to its bad state of preservation as the uppermost layer (Lloyd 1940: 18; Kepinski 2011: 48). This author also states that the Ninevite 5 pottery was all undecorated. The most important findings in this site were, by far, from Uruk and Ubaid period. Also, the French team has theorized that this site could have been a city callod *Kûrda* during the Second millennium (Kepinski 2011: 50)

Bibliography: Lloyd 1940; Abu al-Soof 1975: 22; Kepinski 2011.

Images:

The two tells as seen in satellite imagery. The soundings of the excavations are still visible on top of the mound B. Taken from Google earth (03/2021)

Site number: S299

Name(s): Tell Khoshi

Occupation(s): Ninevite 5?, second half of the third millennium, early-mid second millennium (large amount of Khabur wares)

Coordinates X, Y: 4183383, 361949,.

Maximum height (in meters): 20 m.

Measures (in hectares): 92 ha.

Damages and threatens: Agriculture.

Description: This is a huge fortified site with a row of mounds and a huge walled enclosure that surrounds a low town almost 100 ha in size. This place was first excavated by Lloyd and he stated that Ninevite 5 incised pottery was found there (Lloyd 1940: 21) However, the modern surveys by Kepinski showed no Ninevite 5 pottery on surface and she added the possibility of a mistake by the first scholar, who could have had identified as Ninevite 5 pottery actually belonging to Akkadian period (Khaled 1990: 277)

Bibliography: Lloyd 1938: 126; Hughes, Cameron and Dubberstein 1941; Khaled 1990: 275-278; Kepinski C. 2001; Dessene and Tenu 2002; Kepinski 2008.

Images:

The huge walled perimeter of **Tell Khoshi** is clearly visible on the satellite imagery. Google earth (03/2021)

Site number: S300

Name(s): Tell Hadhail

Occupation(s): Ninevite 5, second half of the third millennium.

Coordinates X, Y: 4205398, 361498.

Maximum height (in meters): ? m.

Measures (in hectares): 90 ha.

Damages and threatens: Cemetery, housing, erosion. Various cemeteries are covering some of the mounds, especially the central mound, and the northern section. Minor affectations.

Description: Large fortified side with a surrounding wall and several mounds inside the enclosure. Only a single incised Ninevite 5 piece has been found on surface. There is a satellite mound to the south.

Bibliography: Lloyd 1938: 126; Reade 1968: 236; Weiss 1983.

Images:

S300, the main mound in the center of the image and the secondary mound to the south. Taken from Google Earth (11/2021)

Site number: S301

Name(s): *Ar.* **Tell al-Rimah,** spelled **ar-Rimah**.

Occupation(s): Ninevite 5, second half of the Third millennium, Old Babylonian, Middle to Neo-Assyrian.

Coordinates: X, Y: 3.62569, 42.45005.

Maximum height (in meters): 30 m.

Measures (in hectares): 25 ha.

Damages and threatens: Military, cemetery? Some probable military trenches and bulldozer earthworks are visible on the surface of the site, mainly in the northern wall. Also another big trench was dug outside the eastern wall is visible on google earth since October 2016. However, the damage seems minor and the site is in good state of preservation.

Description: This is a huge site, tentatively identified as either the city of Karana of the settlement of Qatara, that flourished from old Babylonian times to reach its maximum size during neo-Assyrian period, of which a palace complex was unearthed in the 70's by Oates's team (Oates 1968 and 1970). The site is surrounded by a polygonal wall that encloses all its perimeter. The excavators also point the biggest mount in the site, near the center of the enclosure, to be a Ziggurat and this tell could actually be hiding a single structure rather than a layer sequence. The site is close to the main course of the Tharthar river and a tributary, so the water source was secured. Lloyd (1978: 137) states that during his survey, the *ziggurat*-mount yielded a number of fragment of Ninevite 5 and Akkadian chronology, yet all the remaining areas provided only sherds from the Iron Age. However, Oates's investigations on the earlies stages of the site, more concrete about the remains under the main temple, only retrieved Khabur pottery thus dating the site back to early Second millennium (Oates 1970: 11-14, Palmisano 2012). Also it is important to note that material dating back to the third millennium was documented as well, but, according to the diggers, the fragments could be both from both Ninevite 5 or Akkadian periods (Oates 1970: 12-14, Postgate, Oates and Oates, 1998) The excavations of this earlies phases were ballasted by the harsh conditions of the soundings, that had to avoid the walls of the upper temple and only a limited test trenches could be open (Oates 1970: 11) Moreover, the pottery came from badly altered contexts.

Bibliography: Lloyd 1938: 137-138; Oates 1968; Oates 1970; Postgate, Oates and Oates, 1998.

Images:

The huge walled site of **Tell Rimah**. In the center of the image, a tall mound where the neo-Assyrian palace was found in the 70's excavations. The largest mound is meant by Lloyd (1938) and Oates (1968, 1970) to be a large Ziggurat. The whole site is surrounded by an impressive wall that's still visible and clear. Taken from Google Earth (03/2021)

Site number: S302

Name(s): *Ar.* **Eski-Mosul**

Occupation(s): Ubaid, Ninevite 5, Early second millennium, Islamic.

Coordinates: X, Y: 3.65158, 42.73922.

Maximum height (in meters): ?

Measures (in hectares): ?

Damages and threatens: Roads, **modern town**. The site is in good state. Some dirty roads cut it on some points, but in general the deserted town is mostly free of modern structures.

Description: A mostly later deserted town, probably from Islamic period, with some identified remains of material culture belonging to earliest phases, among them, Ninevite 5 sherds were identified. Despite of being close to the Eski-Mosul Barrage and effectively give it its name, the site lies just outside of the lake, and it has not been affected by the rising waters.

Bibliography: Lloyd 1938: 133; Ibrahim 1986: 63.

Images:

Overview of the extensive medieval ruins of the Eski-Mosul site. Google earth, 2/2017.

Site number: S303

Name(s): NJP 5

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4234463, 367508.

Maximum height (in meters): 2 m.

Measures (in hectares): 1,8 m (0,4 N5)

Damages and threatens: Agriculture.

Description: Small tell to the west of a tiny stream and surrounded by fields.

Bibliography: Ball, W., Tucker, D., Wilkinson, T.J. and J. Black, A. 1989: 12; Wilkinson, T.J. i Tucker, D. 1995: 125.

Images:

The site is visible on the fields as a white strain. Taken from Google Earth (02/2022)

Site number: S304

Name(s): Tell Kuran/Gharan

Occupation(s): Hassuna, Halaf, Ninevite 5.

Coordinates: X, Y: 4234510, 367657.

Maximum height (in meters): 8 m.

Measures (in hectares): 6,5 ha.

Damages and threatens: Housing, agriculture. The site is partially under the modern village.

Description: Small mound with an extensive lower town. The Ninevite 5 period represents an epoch of expansion of the previous Hassuna and Halaf villages.

Bibliography: Ball, W., Tucker, D., Wilkinson, T.J. and J. Black, A. 1989; Wilkinson, T.J. i Tucker, D. 1995: 125.

Images:

The mound as seen in the CORONA imagery.
https://corona.cast.uark.edu/atlas#zoom=17&center=4713780,4406420.

The state of the site, completely altered by modern constructions, irrigation channels and agriculture. Taken from Google Earth (02/2022)

Site number: S305

Name(s): NJP 10

Occupation(s): LC 3-5, Ninevite 5, MBA, neo-Assyrian.

Coordinates: X, Y: 4235943, 367592.

Maximum height (in meters): ?

Measures (in hectares): 4,5 ha (2,2 N5)

Damages and threatens: Agriculture. In 1990 the site had already suffered heavy destruction caused by the usage of heavy machinery to flat the mounds and allow cultivation on them. The actual state of the site is unknown, but the upper layer are most likely completely wiped out.

Description: Two low mounds. The larger occupations are those of the MBA and neo-Assyrian, and the earlier remains, including the Ninevite 5, seems to belong to a smaller village.

Bibliography: Warwick, B. Trucker, D. i Wilkinson, T.J. 1989: 12; Wilkinson, T.J. i Tucker, D. 1995: 125.

Images:

The site is perfectly visible on the satellite. Taken from Google Earth (02/2022)

Site number: S306

Name(s): NJP 11

Occupation(s): Ninevite 5.

Coordinates: X, Y: 3.61912, 44.00923.

Maximum height (in meters): 3,3 m.

Measures (in hectares): 7,5 ha (0,7 N5).

Damages and threatens: Agriculture.

Description: Three low mounds clustered together with a large total size, but only testimonial Ninevite 5 occupations.

Bibliography: Warwick, B. Trucker, D. i Wilkinson, T.J. 1989: 12; Wilkinson, T.J. i Tucker, D. 1995: 125.

Images:

S306 as a white strain. Taken from Google Earth (02/2022)

Site number: S307

Name(s): NJP 12

Occupation(s): Uruk, Ninevite 5.

Coordinates: X, Y: 4235932, 367409.

Maximum height (in meters): 2,5 m.

Measures (in hectares): 3,6 ha (1,5 N5)

Damages and threatens: Agriculture.

Description: Three low mounds affected by the agriculture.

Bibliography: Warwick, B. Trucker, D. i Wilkinson, T.J. 1989: 12; Wilkinson, T.J. i Tucker, D. 1995: 125.

Images:

S307. Taken from Google Earth (11/2021)

Site number: S308

Name(s): Tell Wardan

Occupation(s): Halaf, LC 3-5, Ninevite 5, second half of the third millennium.

Coordinates: X, Y: 4235120, 367152.

Maximum height (in meters): 14 m.

Measures (in hectares): 5 ha (4,2 N5)

Damages and threatens: Housing. Some houses cut the eastern and western slopes, while the others are affected by roads.

Description: Middle-sized tell in the middle of a modern village. The major occupation occurred during the Ninevite 5 period, when the majority of the site was occupied. Only traces of the remaining periods.

Bibliography: Warwick, B. Trucker, D. i Wilkinson, T.J. 1989: 12; Wilkinson, T.J. i Tucker, D. 1995.

Images:

Tell Wardan. Taken from Google Earth (02/2022)

Site number: S310

Name(s): NJP 13

Occupation(s): Ninevite 5

Coordinates: X, Y: 4230044, 367174.

Maximum height (in meters): 2,5 m.

Measures (in hectares): 4 ha (2 N5)

Damages and threatens: Agriculture. The site has been flattened with heavy machinery, cut by deep irrigation channels to the west and north-east.

Description: Three elongated mounds with a low concentration of surface pottery.

Bibliography: Warwick, B. Trucker, D. and Wilkinson, T.J. 1989: 12; Wilkinson, T.J. and Tucker, D. 1995.

Images:

S310 perfectly visible. Taken from Google Earth (02/2022)

Site number: S311

Name(s): NJP 14

Occupation(s): Ubaid, LC 3-5, Ninevite 5.

Coordinates: X, Y: 4231160, 367153.

Maximum height (in meters): 5 m.

Measures (in hectares): 4 ha (3,8 N5)

Damages and threatens: Agriculture, housing. The site is affected by the construction of agriculture facilities on the tallest parts of the mound.

Description: Small mound and a lower town with lower Ubaid and LC and major Ninevite 5 occupations. This is another site that grew during the N5 period.

Bibliography: Warwick, B. Trucker, D. i Wilkinson, T.J. 1989: 12; Wilkinson, T.J. i Tucker, D. 1995.

Images:

S311. Taken from Google Earth (02/2022)

Site number: S312

Name(s): Mowasha/Mushiya

Occupation(s): LC 3-5, Ninevite 5, MBA.

Coordinates: X, Y: 4232725, 367170.

Maximum height (in meters): 3,5 m.

Measures (in hectares): 2 ha (1,3 N5)

Damages and threatens: Housing. Most of the site is beneath the modern town.

Description: Four small mounds with major occupations during Ninevite 5 and MBA periods.

Bibliography: Abu al-Soof 1968: 77; Abu al-Soof 1975: 23; Warwick, B. Trucker, D. and Wilkinson, T.J. 1989: 12; Wilkinson, T.J. and Tucker, D. 1995: 126.

Images:

The two bigger mounds inside the village. Taken from Google Earth (02/2022)

Site number: S314

Name(s): NJP 18 (Biyada Foqani)

Occupation(s): Ninevite 5, MBA.

Coordinates: X, Y: 4226819, 367292.

Maximum height (in meters): 3,5 m.

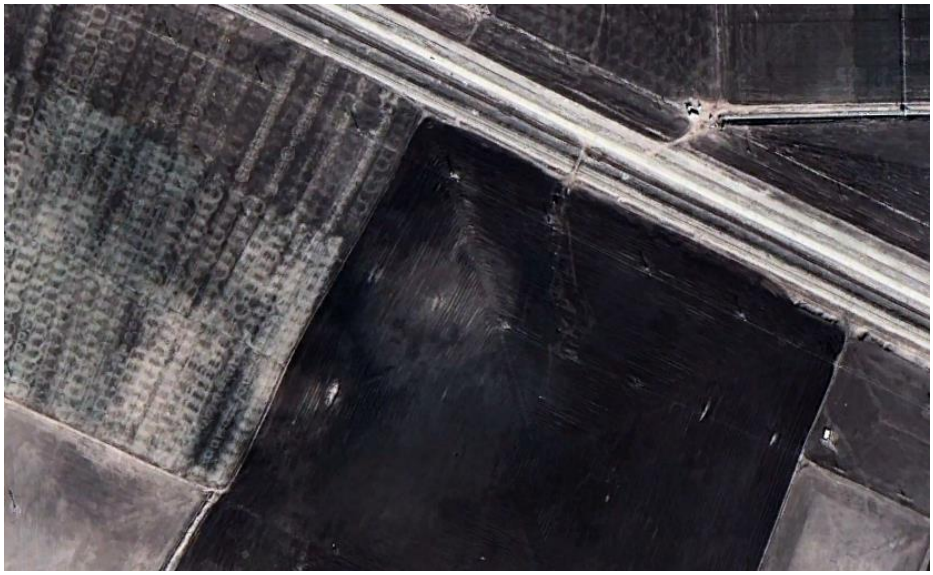
Measures (in hectares): 2,5 ha (1,3 N5)

Damages and threatens: Agriculture. Heavily affected by ploughing.

Description: Two low mounds with important Ninevite 5 occupations.

Bibliography: Warwick, B. Trucker, D. and Wilkinson, T.J. 1989: 12; Wilkinson, T.J. and Tucker, D. 1995: 126.

Images:



S314. Taken from Google Earth (02/2022)

Site number: S315

Name(s): Tell Qarayah (Qariat) al-Botha

Occupation(s): Hassuna, Halaf, LC, Ninevite 5, neo-Assyrian.

Coordinates: X, Y: 4225811, 367205.

Maximum height (in meters): ? m.

Measures (in hectares): 19,9 ha (6 N5)

Damages and threatens: Housing, cemetery. The site is surrounded by modern houses.

Description: A group of multi-period mounds that cluster together in and around a modern village, with continuous and long sequences of occupations. Some partial excavations in the 90s revealed Hassuna and neo-Assyrian layers.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Warwick, B. Trucker, D. and Wilkinson, T.J. 1989: 12; Wilkinson, T.J. and Tucker, D. 1995: 126; AASI 1053, p. 258.

Images:

Partial view of S315, With some of the bigger mounds to the left. Taken from Google Earth (02/2022)

Site number: S316

Name(s): Qabi al-Biyadir/NJP 20

Occupation(s): Halaf, LC, Ninevite 5.

Coordinates: X, Y: 4227398, 367174.

Maximum height (in meters): 7 m.

Measures (in hectares): 7,9 ha (2,8 N5)

Damages and threatens: Agriculture, irrigation channels.

Description: This is one of the highest mounds in the Tell al-Hawa region that, moreover, also has a lower town. The Ninevite 5 occupations seem to be lower than the prehistoric ones at this site.

Bibliography: Warwick, B. Trucker, D. and Wilkinson, T.J. 1989: 12; Wilkinson, T.J. and Tucker, D. 1995: 126.

Images:

The high mound is well preserved, a rare feature in the Northern Jazeera due to the intensive agriculture. Taken from Google Earth (02/2022)

Site number: S317

Name(s): NJP 26

Occupation(s): Hassuna, LC, Ninevite 5.

Coordinates: X, Y: 4236121, 367033.

Maximum height (in meters): 3 m.

Measures (in hectares): 2,6 ha (1,5 N5)

Damages and threatens: Agriculture, soil extraction. The site has been recently affected by earth removal with heavy machinery.

Description: Low mound with important Ninevite 5 occupations. It is noteworthy to mention that, closer to the north, there is another mainly LC site, and both could actually be a cluster of successively occupied mounds.

Bibliography: Warwick, B. Trucker, D. and Wilkinson, T.J. 1989: 12; Wilkinson, T.J. and Tucker, D. 1995: 126.

Images:

S317. Taken from Google Earth (02/2022)

Site number: S318

Name(s): NJP 28 / Tell ad-Di'ab? / ath-Thiab?

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4225736, 367547.

Maximum height (in meters): 6,5 m.

Measures (in hectares): 7 ha (0,5 N5)

Damages and threatens: Agriculture.

Description: Low mound with a substantial lower town, with minor Ninevite 5 occupations. Perhaps this site could correspond with the site known as Tell ad-Di'ab in the AASI, but this is not clear.

Bibliography: Abu al-Soof 1968: 77; Warwick, B. Trucker, D. and Wilkinson, T.J. 1989: 12; Wilkinson, T.J. and Tucker, D. 1995: 126.

Images:

S318. Taken from Google Earth (02/2022)

Site number: S319

Name(s): Tell al-Hawa

Occupation(s): Halaf, Ubaid, LC, Ninevite 5, later periods.

Coordinates: X, Y: 4230152, 367475.

Maximum height (in meters): 20 m.

Measures (in hectares): 90 ha (24 N5)

Damages and threatens: Housing, cemetery. In recent times, the modern village has expanded and has covered most of the lower town, including the sounding made in the 90s. Erosion is also affecting the site. There is a cemetery on the top.

Description: Huge mounded site with a long history of occupations. The Ninevite 5 period was important and reached urban dimension.

Bibliography: Ibrahim 1986: 74; Warwick, B. Trucker, D. and Wilkinson, T.J. 1989: 12; Wilkinson, T.J. and Tucker, D. 1995: 125.

Images:

The site of Tell al-Hawa and part of the lower town. Taken from Google Earth (02/2022)

Site number: S320

Name(s): Tell Kaferu

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4064195, 367332.

Maximum height (in meters): 15 m.

Measures (in hectares): 1,75 ha.

Damages and threatens: Agriculture, housing, cemetery. The southern slope is covered by a modern cemetery. The northern slope is slightly affected by agricultural activities. The modern village is located just south and west of the site.

Description: High mound that covers a discrete area. According to the survey, the ste was occupied during the Ninevite 5 period with no further details given.

Bibliography: Wilkinson 1997-1998: 24-25, Wilkinson 1997-1998: 25; Lyonnet 2001; Ur and Wilkinson 2008.

Images:

S320 mound. Taken from Google Earth (03/2022)

Site number: S323

Name(s): Tatika

Occupation(s): Ubaid, EBA.

Coordinates: X, Y: 4186559, 375409.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 0,5 ha.

Damages and threatens: Barrage. Permanently drowned.

Description: A low and tiny settlement from the Ubaid period with some EBA remains. Ninevite 5 painted and incised/excised pottery appeared, especially as grave goods in some EBA tombs at this site.

Bibliography: Ökse 2019; Saglamtimur, Batihan and Aydogan 2020: 437; https://aktuelarkeoloji.com.tr/kategori/guncel-kazilar/tatika.

Images:

Excavations at S323 before its definitive drown. Taken from Google Earth (01/2018)

Site number: S326

Name(s): Başur Höyük

Occupation(s): LC 4-5, EBA.

Coordinates: X, Y: 4177906, 379800.

Maximum height (in meters): ? m.

Measures (in hectares): 2,9 ha.

Damages and threatens: Agriculture, erosion.

Description: Small mound with important remains of the transition between the LC 4-5 to the EBA. At this site, some burials with Ninevite 5 painted and incised/excised appeared as grave goods.

Bibliography: Saglantimur and Ozan 2014; Batihan 2014; Hassett and Saglamtimur 2018; Saglamtimur, Batihan and Aydogan 2018; 2020.

Images:

The mound of S326 with the archaeological excavations visible on its surface. Taken from Google Earth (01/2018)

Site number: S328

Name(s): Tilli (Çattepe)

Occupation(s): EBA, Roman.

Coordinates: X, Y: 4177876, 377309.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Barrage. Permanently drowned.

Description: An important roman fortification with a stone harbor. The roman site was believed to be covering an EBA settlement, probably of tinier dimensions. Painted Ninevite 5 pottery.

Bibliography: Algaze 1988; Batihan 2014; Saglamtimur, Batihan and Aydogan 2020: 437; http://www.tayproject.org/TAYmaster.fm$Retrieve?YerlesmeNo=565&html=masterengdetail.html&layout=web.

Images:

S328. Taken from Google Earth (01/2018)

Site number: S332

Name(s): Kuriki Höyük 1 i 2

Occupation(s): LC, EBA.

Coordinates: X, Y: 4102593, 377958.

Maximum height (in meters): ? m.

Measures (in hectares): 2 ha.

Damages and threatens: Barrage. Permanently drowned.

Description: Two very low mounds (affected by agriculture) with transitional Late Chalcolithic to EBA periods. Presence of Ninevite 5 pottery.

Bibliography: Genç, Valentini and D'Agostino 2012; Batihan 2014; Genç 2016, 2018; Saglamtimur, Batihan and Aydogan 2020: 437.

Images:

The barely visible S332 before it was drowned. Taken from Google Earth (08/2018)

Site number: S337

Name(s): Tell Jamaylu / Gamil (TAVO)

Occupation(s): Ubaid, LC 4-5, Ninevite 5.

Coordinates: X, Y: 4476334, 361696.

Maximum height (in meters): 15 m.

Measures (in hectares): 3,7 ha.

Damages and threatens: Agriculture, housing, ponds.

Description: Extensive mound with evidences of Ninevite 5 pottery. The TAVO only claims this site to have metallic ware.

Bibliography: Wilkinson 1997-1998: 24, Ur and Wilkinson 2008: 307, 320-321; Lyonnet ed. 2000: 31-40; TAVO.

Images:

S337. Taken from Google Earth (11/2022)

Site number: S338

Name(s): Tell Rajab

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4059777, 367106.

Maximum height (in meters): ? m.

Measures (in hectares): 1,68 ha.

Damages and threatens: Cemetery. A cemetery covers part of the top of the mound.

Description: High mound with Ninevite 5 evidences.

Bibliography: Wilkinson 1997-1998: 24; Ur and Wilkinson 2008: 307, 320-321.

Images:

S338. Taken from Google Earth (11/2022)

Site number: S339

Name(s): Tell Khatun

Occupation(s): Ubaid, LC 4-5, Ninevite 5.

Coordinates: X, Y: 4063000, 367811.

Maximum height (in meters): 10 m.

Measures (in hectares): 1,2 ha.

Damages and threatens: Agriculture, housing.

Description: A high mount with a lower town. The site had important LC 4-5 occupations (the lower town was exclusively occupied during that period), and Ninevite 5.

Bibliography: Wilkinson 1997-1998: 25; Ur and Wilkinson 2008: 307, 320-321; Lyonnet ed. 2000: 31-40.

Images:

S339. Taken from Google Earth (11/2022)

Site number: S340

Name(s): Tell Ghazal

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4065859, 368229.

Maximum height (in meters): ? m.

Measures (in hectares): 1,17 ha.

Damages and threatens: Agriculture, erosion.

Description: Very small tell with a secondary elevation to the south. Ninevite 5 occupations.

Bibliography: Wilkinson 1997-1998: 25; Ur and Wilkinson 2008: 307, 320-321.

Images:

S340. Taken from Google Earth (11/2022)

Site number: S341

Name(s): Girê Dawud

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4064629, 368006.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Erosion, agriculture.

Description: Small elongated mound with evidences of Ninevite 5 occupations.

Bibliography: Wilkinson 1997-1998: 25; Ur and Wilkinson 2008: 307, 320-321.

Images:

S341. Taken from Google Earth (01/2017)

Site number: S346

Name(s): Girê Effendi

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4069910, 367776.

Maximum height (in meters): 12 m.

Measures (in hectares): 8,5 ha.

Damages and threatens: Cemetery. There is a small modern cemetery on the mound.

Description: Large mound with important Ninevite 5 occupations.

Bibliography: Wilkinson 1997-1998: 25; Ur and Wilkinson 2008: 307, 320-321; Lyonnet ed. 2000: 31-40.

Images:

S346. Taken from Google Earth (11/2022)

Site number: S346

Name(s): Tell Hanou

Occupation(s): Halaf, LC, Ninevite 5, second half of the third millennium.

Coordinates: X, Y: 4063446, 368509.

Maximum height (in meters): 20 m.

Measures (in hectares): 7,5 ha.

Damages and threatens: Agriculture.

Description: Large mound that reached its maximum extension during the Ninevite 5 period.

Bibliography: Wilkinson 1997-1998: 25; Ur and Wilkinson 2008: 307, 320-321; Lyonnet ed. 2000: 31-40.

Images:

S346. Taken from Google Earth (10/2016)

Site number: S349

Name(s): Tell Hassek / Girê Hesek

Occupation(s): Ubaid, LC 4-5, Ninevite 5.

Coordinates: X, Y: 4056189, 367732.

Maximum height (in meters): 15 m.

Measures (in hectares): 5 ha.

Damages and threatens: Agriculture.

Description: Medium-sized mount with important Ninevite 5 occupations. Minor prehistoric occupations.

Bibliography: Ur and Wilkinson 2008: 307, 320-321; Lyonnet ed. 2000: 31-40.

Images:

S349. Taken from Google Earth (11/2022)

Site number: S350

Name(s): Girê Qozel Başur/Tell Ghazal al-Tahtani

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4476334, 361696.

Maximum height (in meters): 10 m.

Measures (in hectares): 1,5 ha.

Damages and threatens: Agriculture, soil extraction, housing. The site is surrounded by modern structures except for the northern slope, and this slope is affected by soil removal.

Description: Very small mound with Ninevite 5 documented occupations.

Bibliography: Wilkinson 1997-1998: 24, Ur and Wilkinson 2008: 307, 320-321; Lyonnet ed. 2000: 31-40; TAVO.

Images:

S337. Taken from Google Earth (11/2022)

Site number: S360

Name(s): Telul eth-Thalathat V / ath-Thalathat

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4239420, 366822.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha (0,3 N5)

Damages and threatens: Housing, cemetery. Most of the site seems to be covered by a dense modern population that prevented the archaeologists from observing surface material.

Description: Group of five mounds, the mound 5 has important Ninevite 5 occupations. Japanese excavations uncovered important remains of a large scale granary and an oven.

Bibliography: Fukai, Horiuchi and Matsutani 1974; Abu al-Soof 1975: 21-22; Numoto 1997; Hirotoshi 1998; Renette 2013: 28-9.

Images:

The mounds of Telul eth-Thalathat. Taken from Google Earth (02/2022)

Site number: S361

Name(s): Tell Jikan/Jekan

Occupation(s): Ninevite 5, second half of the third millennium, MBA, neo-Assyrian.

Coordinates: X, Y: 4290244, 3665794.

Maximum height (in meters): 12 m.

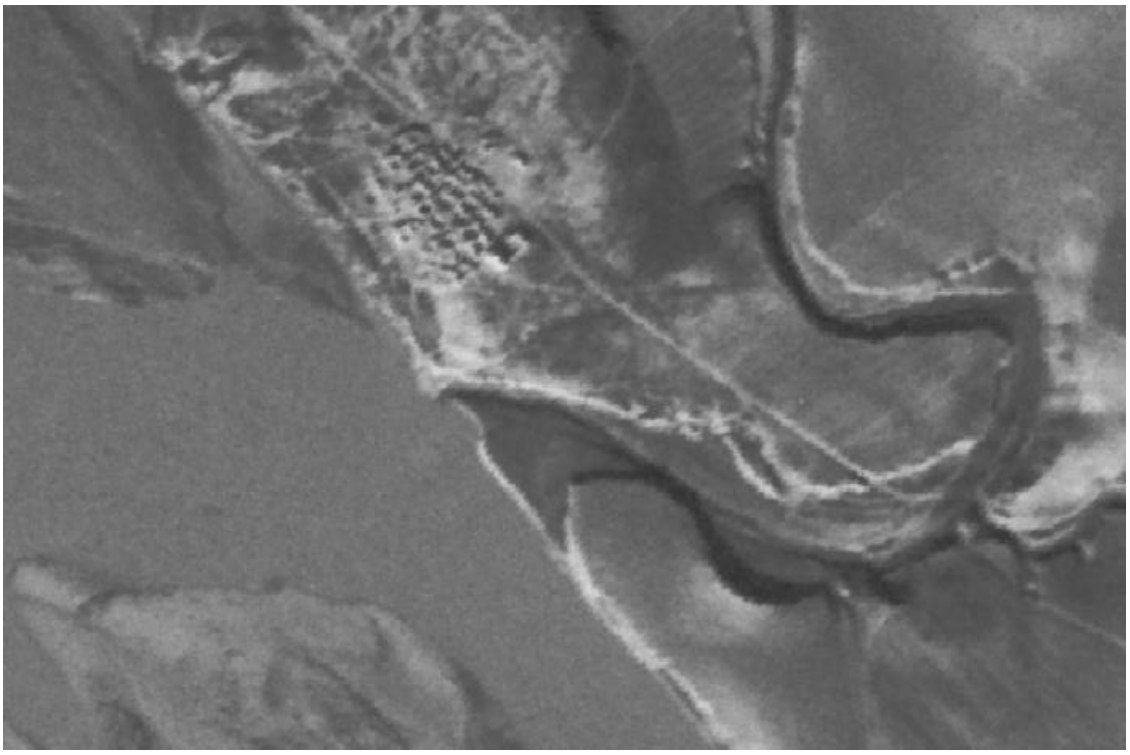
Measures (in hectares): 23,5 ha

Damages and threatens: Barrage. Permanently drowned under the Eski-Mosul lake.

Description: One of the most prominent sites in the Eski-Mosul region, it is supposed that most of its area was occupied during the Ninevite 5, but it is not certain to what extent (see 4.1.1.7.).

Bibliography: Kawamata et.ali. 1987; Fujii 1987a; 1987b; Fales, Tusa, Wilhelm and Zaccagnini 1987; Numoto 1992; Tusa 1993; Iraq 1985: 231.

Images:



CORONA imagery of the former location of the site, just south of the old Jikan village.

Site number: S362

Name(s): Tell Fisna

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4288996, 3670786.

Maximum height (in meters): 20 m.

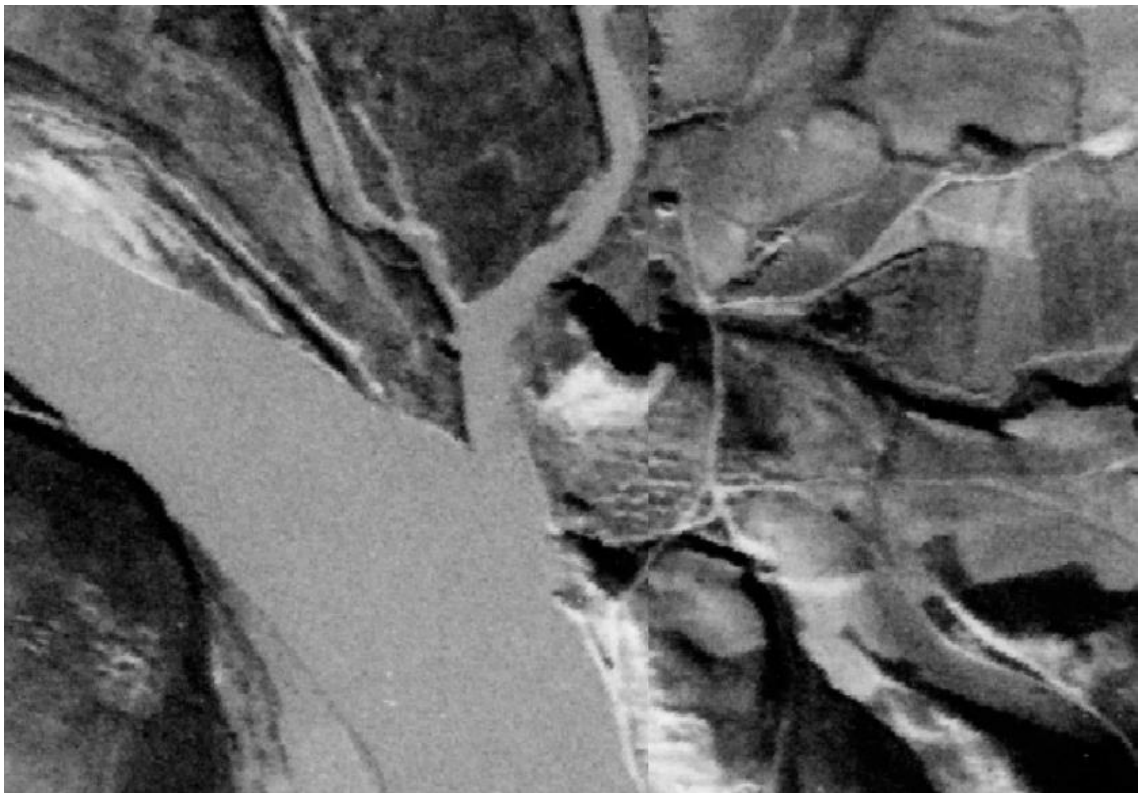
Measures (in hectares): 3 ha (0,3 N5)

Damages and threatens: Barrage. Permanently drowned under the Eski-Mosul lake.

Description: Prominent but rather small site, probably a tiny Ninevite 5 village. The Japanese team that excavated this site found a mudbrick platform, but they could not relate it with any structure built over it.

Bibliography: Fujii et ali. 1987; Wilhem and Zaccagnini 1991; Wilhem, Gernot and Zaccagnini 1993; Numoto 2003.

Images:



Fisna as seen in the CORONA imagery.

Site number: S363

Name(s): Tell Thuwaij

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4262233, 3678079.

Maximum height (in meters): ? m.

Measures (in hectares): 3 ha (1,5 N5)

Damages and threatens: Barrage. Partially drowned under the Eski-Mosul lake.

Description: High mound, provably with a lower town, but its limits are not clear because of the density of the modern population. The Ninevite 5 is one of the most relevant occupations at the main mound.

Bibliography: Fujii et ali. 1989-90; Numoto 2003.

Images:

Tell Thuwaij emerging from the lake’s waters. Taken from CORONA satellite.

Site number: S364

Name(s): Tell Baqaq 1

Occupation(s): Ninevite 5, MBA.

Coordinates: X, Y: 4293537, 3668293.

Maximum height (in meters): ? m.

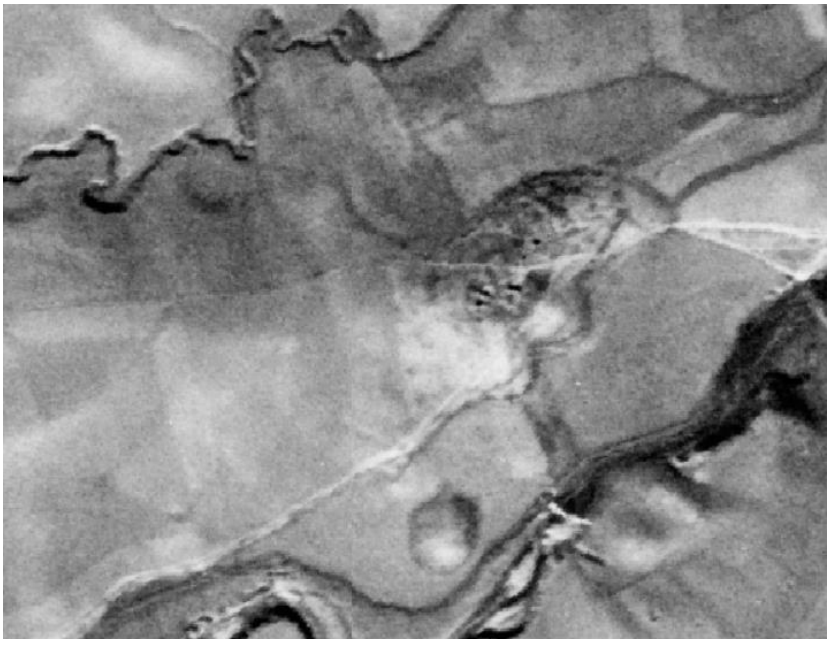
Measures (in hectares): 1 ha.

Damages and threatens: Barrage. Permanently drowned under the Eski-Mosul lake.

Description: Cluster of four mounds excavated by an Iraqi team. Only the first of the mounds contained a layer belonging to the Ninevite 5 period.

Bibliography: Iraq 1983: 207-8; Iraq 1985: 228; Toma 1987b; Rova 1988: 206.

Images:



The site as seen in the CORONA satellite.

Site number: S365

Name(s): Khirbet Hatara

Occupation(s): Halaf, Ubaid, Ninevite 5.

Coordinates: X, Y: 4296901, 3664544.

Maximum height (in meters): ? m.

Measures (in hectares): 2 ha

Damages and threatens: Agriculture, lake. Partially affected by the lake's waters.

Description: Group of small mounds with prehistoric and Ninevite 5 occupations. Excavated by an Italian team.

Bibliography: Fiorina 1997; Negro 1998; Iraq 1985: 231.

Images:

S365. Taken from Google Earth (02/2022)

Site number: S366

Name(s): Tell Kutan

Occupation(s): Halaf, Ninevite 5.

Coordinates: X, Y: 4294881, 3663522.

Maximum height (in meters): ? m.

Measures (in hectares): 6 ha.

Damages and threatens: Agriculture, lake. Partially affected by the lake's waters.

Description: Medium-sized mound with prehistoric (testified by a single Halaf tomb) and Ninevite 5 occupations.

Bibliography: Iraq 1985: 235; Forest 1987; Rova 1988: 207; Bachelot 1987; 2003.

Images:

S366. Taken from Google Earth (02/2022)

Site number: S367

Name(s): Tell Rijim

Occupation(s): Ninevite 5, MBA, Assyrian, neo-Assyrian.

Coordinates: X, Y: 4279106, 3671481.

Maximum height (in meters): 28 m.

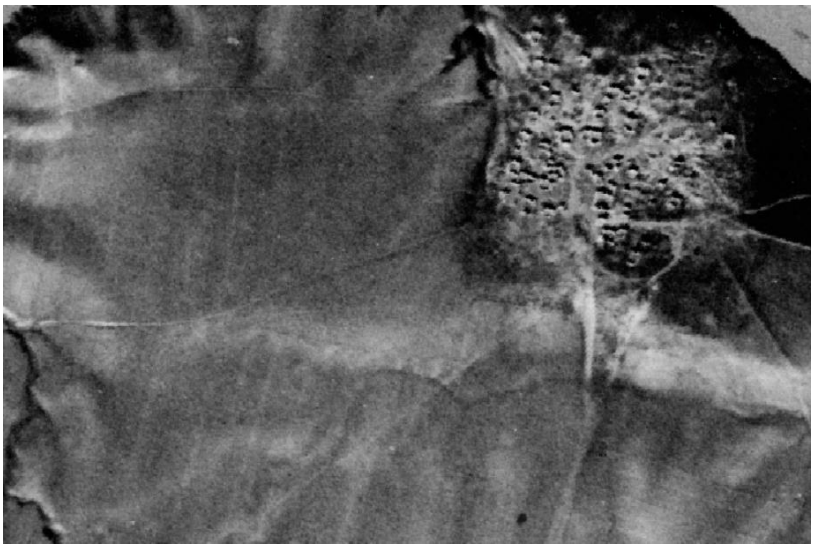
Measures (in hectares): 1,9 ha.

Damages and threatens: Barrage. Permanently drowned.

Description: Small site that resembled a huge high mound, but it was actually settled on top of a natural hill that conferred it an impressive shape. The site was mostly occupied after the MBA, but the Ninevite 5 phase stood up for some relevant Ninevite 5 tombs.

Bibliography: Bielinski et.al. 1985; Iraq 1985: 237: Bielinski 1987; Rova 1988: 207; https://pcma.uw.edu.pl/en/2019/01/08/tell-rijim-2/.

Images:



S367. Taken from Google Earth (02/2022)

Site number: S368

Name(s): Tell Selal / Salal

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4239420, 366822.

Maximum height (in meters): ? m.

Measures (in hectares): 4,7 ha.

Damages and threatens: Barrage. Partially drowned.

Description: It was excavated by a team from the University of Mosul, there is not much information on this site. It had Ninevite 5 occupations.

Bibliography: Ibrahim 1986: 76; Iraq 1983: 219-20; Iraq 1985: 238; Rova 1988: 207.

Images:

The site as seen in CORONA satellite.

Site number: S370

Name(s): Tell Abu Dhahir/Thahir/Zahir

Occupation(s): Ninevite 5, second half of the third millennium, MBA.

Coordinates: X, Y: 4239420, 366822.

Maximum height (in meters): 20 m.

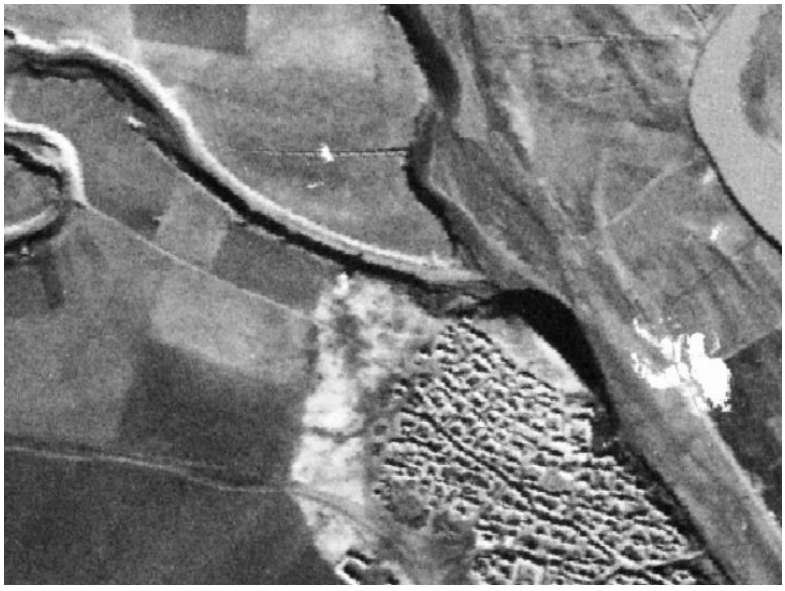
Measures (in hectares): 13,7 ha (? N5)

Damages and threatens: Barrage. Drowned almost all the year.

Description: One of the biggest sites in the Eski-Mosul region, but the Ninevite 5 layers were never reached. It is supposed that, at that time, the site was nothing but a very small village, even tinier than other much smaller sites in the vicinity.

Bibliography: Abu al-Soof 1968: 78; Iraq 1987: 234; Simpson and Ball 2007; TAVO.

Images:



S370 as seen in the CORONA imagery

Site number: S371

Name(s): Tell Gir Matbakh

Occupation(s): Ninevite 5, second half of the third millennium, MBA.

Coordinates: X, Y: 4239420, 366822.

Maximum height (in meters): 15 m.

Measures (in hectares): 1 ha.

Damages and threatens: Barrage. Partially drowned.

Description: Prominent mound with a rather small site. At the site, Late Uruk and Ninevite 5 pottery appeared under MBA layers. The site was not known in all it dimension because it was excavated in a single and short campaign in 1986.

Bibliography: Ball 1987: 79-80; Campbell 2003; Iraq 1987: 238.

Images:

S371, visibly affected by erosion. Taken from Google Earth (02/2022)

Site number: S372

Name(s): Tell Jessary / Jaisary

Occupation(s): LC 4-5, Ninevite 5, Akkadian.

Coordinates: X, Y: 4271649, 3675149.

Maximum height (in meters): 8 m.

Measures (in hectares): 3,2 ha.

Damages and threatens: Barrage. Partially drowned.

Description: Small site with interesting transition from LC 4-5 to the Ninevite 5 period.

Bibliography: Ibrahim 1986: 76; Fujii et ali. 1989-90; Numoto 1990; Iraq 1987: 240.

Images:

The site as seen in CORONA imagery.

Site number: S373

Name(s): Tell Shelgiya / Shelegiya

Occupation(s): Ubaid, LC 4-5, Ninevite 5.

Coordinates: X, Y: 4236647, 3704111.

Maximum height (in meters): 22 m.

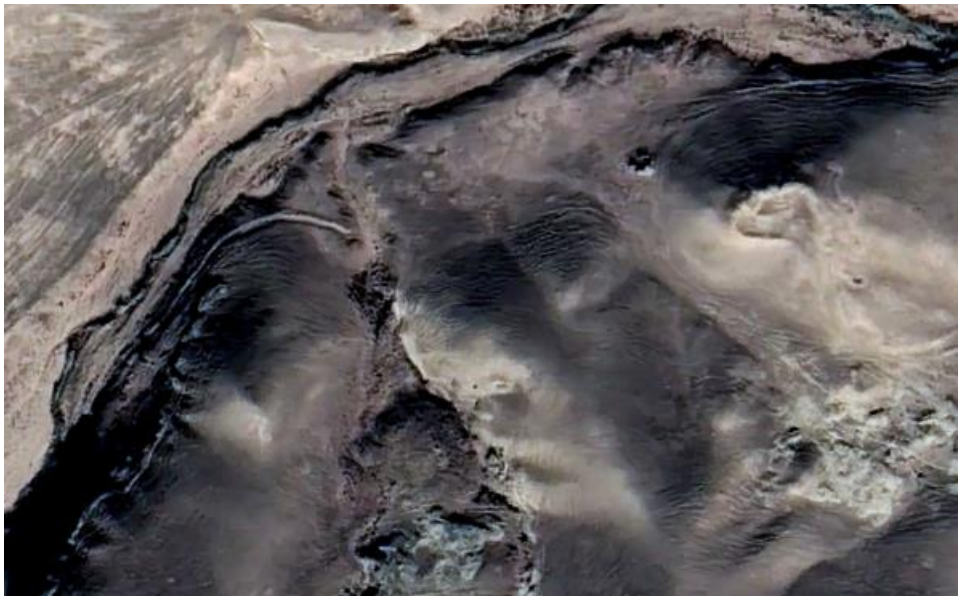
Measures (in hectares): 0,75 ha.

Damages and threatens: Erosion, agriculture.

Description: The site is far away to the north of the Eski-Mosul lake, but it was excavated to prevent possible future floods. The stratigraphy of the site turned out to be very badly altered.

Bibliography: Iraq 1987: 247; Ball and Pagan 2003; Battini, L. 2011: 116.

Images:



S373. Taken from Google Earth (02/2022)

Site number: S374

Name(s): Siyana Ulya

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4260096, 3679045.

Maximum height (in meters): ? m.

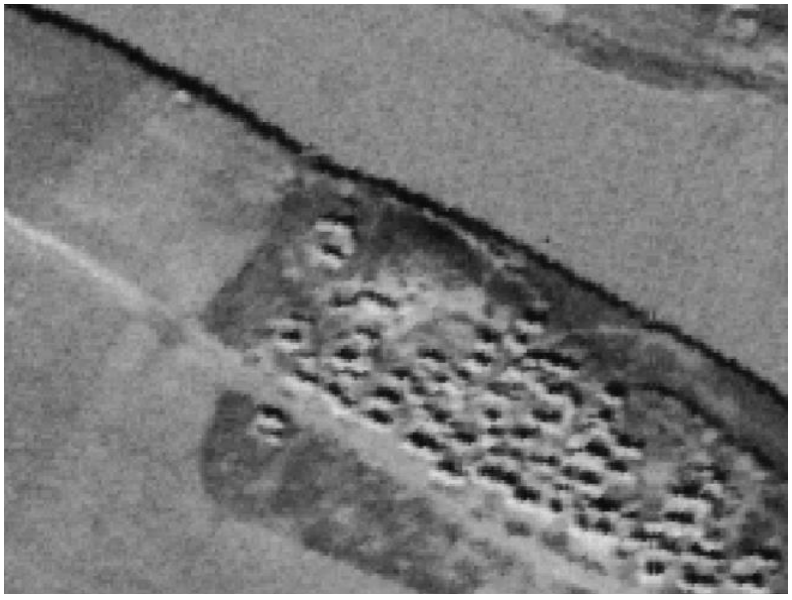
Measures (in hectares): 0,2 ha.

Damages and threatens: Barrage. The site has been completely eroded away by the lake.

Description: This small mound held a relevant rural village during the Ninevite 5 period. It has been reported that the lake has washed away all the site, and nothing remains of it.

Bibliography: Iraq 1987: 249; Rova 1988: 207; Ball and Stein 2003.

Images:



The site as seen in the CORONA imagery.

Site number: S375

Name(s): Tell Khazna

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4379348, 361039.

Maximum height (in meters): ? m.

Measures (in hectares): 72 ha.

Damages and threatens: Agriculture, erosion. The erosion of a river is affecting the mound.

Description: Massive site with a rather discrete mound by a streamflow and a large lower town. It is not clear how extensive the Ninevite 5 settlement was.

Bibliography: Iraq 1987: 249; Rova 1988: 207; Ball and Stein 2003.

Images:

S375. Taken from Google Earth (01/2022)

Site number: S376

Name(s): Tell Abu Mariya

Occupation(s): LC 4-5, Ninevite 5, Assyrian, Islamic.

Coordinates: X, Y: 4259730, 364301.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Housing, roads. The site is in good condition, but surrounded by a modern village.

Description: Massively large site with Ninevite 5 occupations. This was probably the place of the Assyrian city of Apqu. It has an Islamic fortification on top.

Bibliography: Lloyd 1938: 135; Oates 1968: 54-5; TAVO.

Images:

The massive mound of S376. Taken from Google Earth (01/2022)

Site number: S377

Name(s): Tell Jaduh/Ghaddu

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4254177, 365116.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Housing, soil extraction. Some modern structures are built on top of the mound's elevations.

Description: Irregular mound with surface evidences of LC 4-5 and Ninevite 5, both painted and incised/excised pottery. Some secondary mounds are also visible. There is a little information on this site.

Bibliography: Lloyd 1938: 136; TAVO.

Images:

S377, an apparently massive site. Taken from Google Earth (02/2022)

Site number: S378

Name(s): Tell Qara Tepe

Occupation(s): Samarra, Halaf, Ubaid, LC 4-5, Ninevite 5, middle Assyrian, Hellenistic, Parthian, Sassanian, Islamic?

Coordinates: X, Y: 4242693, 3634969.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Housing, military construction. The site is in good condition, but a military trench was dug in the close vicinity. Houses of a neighbourhood of the city of Tel Afar are close to one of the mounds, the southernmost one.

Description: Group of three mounds with a long history of occupations. There is not so much information on the site, and the only data available on the Ninevite 5 occupation is that painted and incised/excised pottery was found on the surface.

Bibliography: Lloyd 1938: 138; Reade 1968: 236; Ibrahim 1986: 66; Rova 1988; AASI 1097, p. 261.

Images:

S378. Taken from Google Earth (02/2022)

Site number: S379

Name(s): Dara at-Tall/Tell Dara

Occupation(s): LC 4-5, Ninevite 5, later periods.

Coordinates: X, Y: 4184849, 3630542.

Maximum height (in meters): ? m.

Measures (in hectares): 0,7 ha.

Damages and threatens: Barrage. The site has been completely eroded away by the lake.

Description: Very small elongated mound with a long story of occupations. There is no much information on the site, and the only information on the Ninevite 5 occupation is the finding of incised/excised pottery. Ibrahim knows the site as Tell Dara.

Bibliography: Lloyd 1938: 138; Ibrahim 1986: 77; TAVO; AASI 694, p. 274

Images:

S379. Taken from Google Earth (03/2021)

Site number: S380

Name(s): Tell al-Hilwa

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4224204, 367101.

Maximum height (in meters): 2 m.

Measures (in hectares): 1,4 ha (1 N5)

Damages and threatens: Agriculture. Heavily damaged by ploughing.

Description: Very small site with surface evidences of Ninevite 5 pottery. The site was excavated, but only LC 4-5 layers were identified.

Bibliography: Iraq 1989: 264; Wilkinson 1990: 56; Wilkinson and Tucker 1995: 129.

Images:

S380. Taken from Google Earth (02/2022)

Site number: S381

Name(s): Tell as-Samir

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4216599, 367520.

Maximum height (in meters): ? m.

Measures (in hectares): 28 ha (10 N5)

Damages and threatens: Hosing. Most of the lower town is covered by a dense modern village.

Description: Large site with a main mound and an extensive lower town, one of the biggest Ninevite 5 settlements in the northern Jazeera region of Iraq. According to the TAVO, there is painted Ninevite 5 pottery.

Bibliography: Wilkinson, T.J. 1990: 56, 181; Wilkinson, T.J. and Tucker, D. 1995: 127.

Images:

S381, the main mound in the center of the modern town. Taken from Google Earth (10/2021)

Site number: S382

Name(s): Xaraba Tibn/Tell Abu Hajar

Occupation(s): Ninevite 5, second half of the third millennium, Later.

Coordinates: X, Y: 4244979, 367303.

Maximum height (in meters): 16 m.

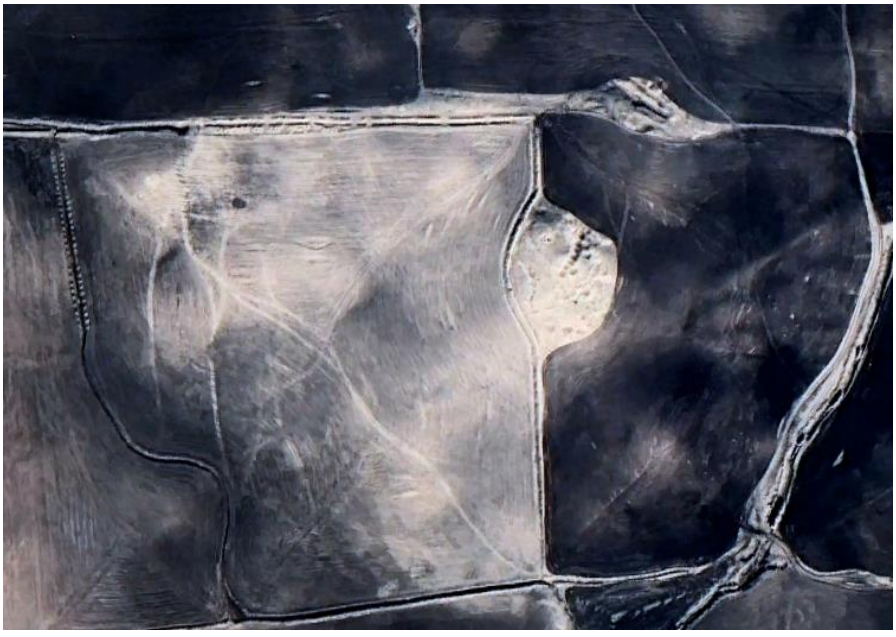
Measures (in hectares): 21 ha (5,5 N5)

Damages and threatens: Agriculture.

Description: One of the most extensive sites in the Northern Jazeera. It is a tell with a lower town with moderate Ninevite 5 occupations.

Bibliography: Wilkinson, T.J. 1990: 56, 181; Wilkinson, T.J. and Tucker, D. 1995: 127.

Images:



S382. Taken from Google Earth (02/2022)

Site number: S383

Name(s): Tell Abu Kalaha/Kula

Occupation(s): Ninevite 5, second half of the third millennium, MBA, Later.

Coordinates: X, Y: 4232685, 366676.

Maximum height (in meters): 15 m.

Measures (in hectares): 12 ha (0,5 N5)

Damages and threatens: Cemetery, soil extraction.

Description: A high mound with a lower town and two lower additional mounds. The Ninevite 5 occupations were very poor, probably founded at that period as a tiny village that grew in later periods.

Bibliography: Wilkinson, T.J. 1990: 56; Wilkinson, T.J. and Tucker, D. 1995: 131.

Images:

The high mound and secondary elevations. Taken from Google Earth (02/2022)

Site number: S384

Name(s): Tell Abu Hujairah

Occupation(s): Ninevite 5, second half of the third millennium.

Coordinates: X, Y: 4220926, 367672.

Maximum height (in meters): 15 m.

Measures (in hectares): 7,2 ha (6,1 N5)

Damages and threatens: Housing, agriculture, cemetery. The site is affected by modern constructions and a cemetery to the west, and ploughed to the east.

Description: High mound with a second lower one by a modern village. Important Ninevite 5 occupations.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 129-0.

Images:

The high mound. Taken from Google Earth (02/2022)

Site number: S385

Name(s): NJP 29

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4224809, 367678.

Maximum height (in meters): 6 m.

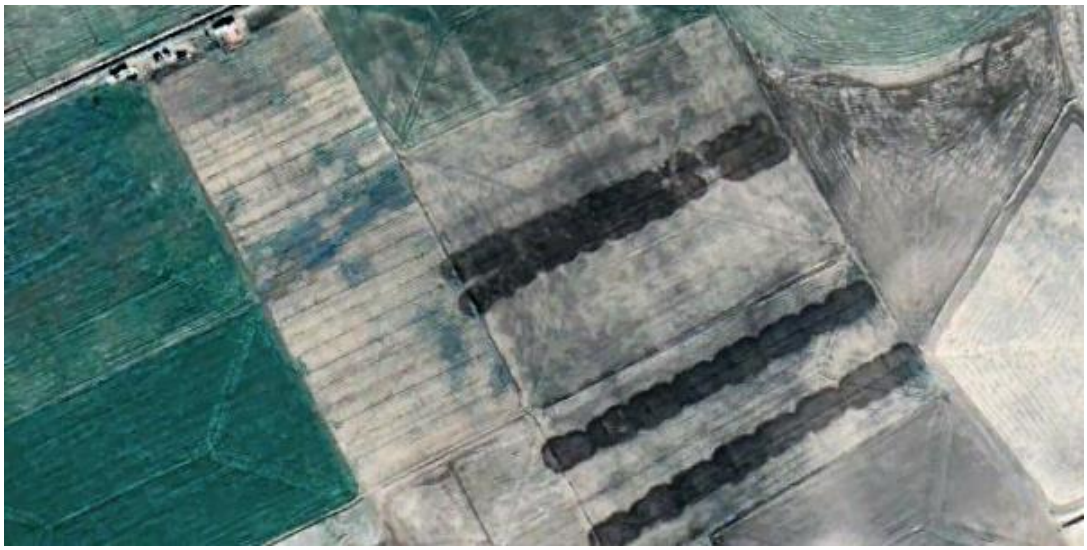
Measures (in hectares): 8,9 ha (7,2 N5)

Damages and threatens: Agriculture. The site was leveled using heavy machinery.

Description: Low but extensive group of mounds, with important occupations during the Ninevite 5 period (the most important ones at this site)

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 126.

Images:



The mounds of S385 are barely visible because of its heavy destruction. Taken from Google Earth (02/2022)

Site number: S386

Name(s): NJP 30

Occupation(s): Halaf, Ubaid, LC, Ninevite 5.

Coordinates: X, Y: 4223925, 367760.

Maximum height (in meters): 3,5 m.

Measures (in hectares): 5,7 ha (1,9 N5)

Damages and threatens: Agriculture. Heavily affected by intensive agriculture,

Description: Discrete group of low mounds with mainly prehistoric occupations.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 126.

Images:

S386. Taken from Google Earth (02/2022)

Site number: S387

Name(s): Tell Talab

Occupation(s): LC 3-5, Ninevite 5, second half of the third millennium.

Coordinates: X, Y: 4220145, 367453.

Maximum height (in meters): 16 m.

Measures (in hectares): 19,9 ha (5 N5)

Damages and threatens: Housing. Most of the lower town is covered by a modern town.

Description: High mound with an extensive lower town. Lesser Ninevite 5 occupations, larger extension during the second quarter of the third millennium.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 130.

Images:

Only the mound of S387 remains visible in the middle of the modern town. Taken from Google Earth (02/2022)

Site number: S388

Name(s): NJP 87

Occupation(s): Ninevite 5, neo-Assyrian, Hellenistic.

Coordinates: X, Y: 4222233, 367108.

Maximum height (in meters): 3 m.

Measures (in hectares): 2,8 ha (2,8 N5)

Damages and threatens: Agriculture. Heavily affected by ploughing.

Description: Three low mounds with important Ninevite 5 occupations. The later phases are much smaller, revealing an almost exclusive Ninevite 5 site.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 129.

Images:

S388, barely visible on the surface. Taken from Google Earth (07/2023)

Site number: S389

Name(s): NJP 60

Occupation(s): Ubaid, LC 3-5, Ninevite 5, Later.

Coordinates: X, Y: 4231187, 366914.

Maximum height (in meters): 4,5 m.

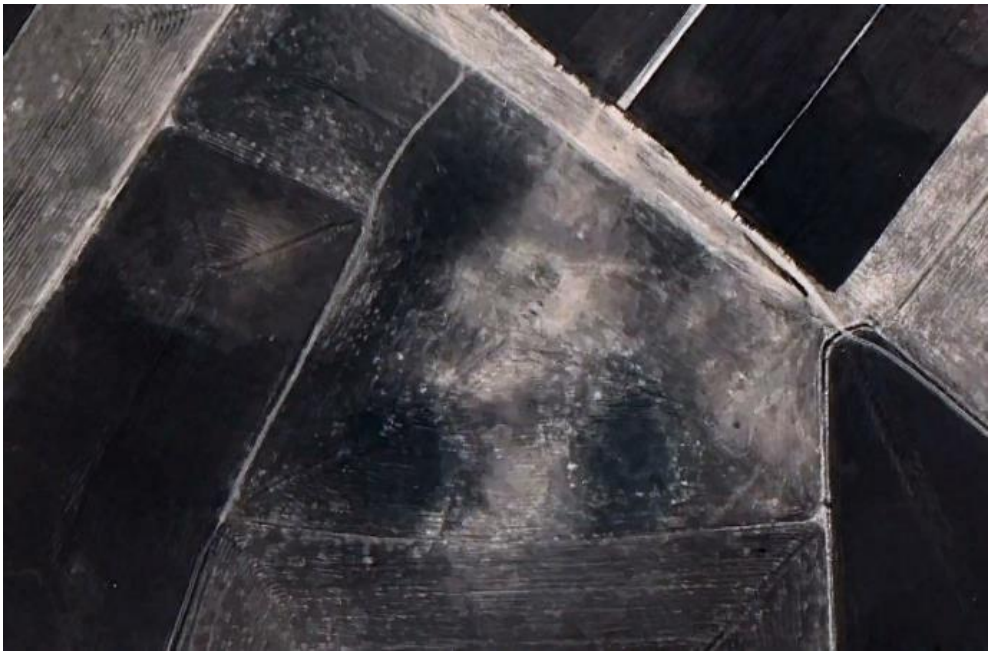
Measures (in hectares): 10,6 ha (1,6 N5)

Damages and threatens: Agriculture. Affected by ploughing.

Description: An extensive cluster of seven mounds, mostly later in date, with some lesser prehistoric and Ninevite 5 occupations.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 128.

Images:



S389. Taken from Google Earth (01/2022)

Site number: S390

Name(s): Tell Uwaynat

Occupation(s): Ninevite 5, second half of the third millennium, MBA.

Coordinates: X, Y: 4239420, 366822.

Maximum height (in meters): 8 m.

Measures (in hectares): 3 ha (1,5 N5)

Damages and threatens: Housing, cemetery. Most of the site seems to be covered by a dense modern population that prevented the archaeologists from observing surface material.

Description: High mound, provably with a lower town, but its limits are not clear because of the density of the modern population. The Ninevite 5 is one of the most relevant occupations at the main mound.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 130.

Images:

The main mound, artificially limited by the cemetery's fence. Taken from Google Earth (02/2022)

Site number: S391

Name(s): NJP 50

Occupation(s): Ninevite 5, neo-Assyrian.

Coordinates: X, Y: 4239950, 367098.

Maximum height (in meters): 3 m.

Measures (in hectares): 1,6 ha (1,4 N5)

Damages and threatens: Agriculture. Affected by ploughing.

Description: Small but interesting mound. The largest extension was reached during the Ninevite 5 period, followed by a long gap in which no other occupation is attested until it is resettled during neo-Assyrian times.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 128.

Images:

S391. Taken from Google Earth (02/2022)

Site number: S392

Name(s): Garsur

Occupation(s): Hassuna, Halaf, Ubaid, Ninevite 5, MBA.

Coordinates: X, Y: 4239373, 367228.

Maximum height (in meters): 6 m.

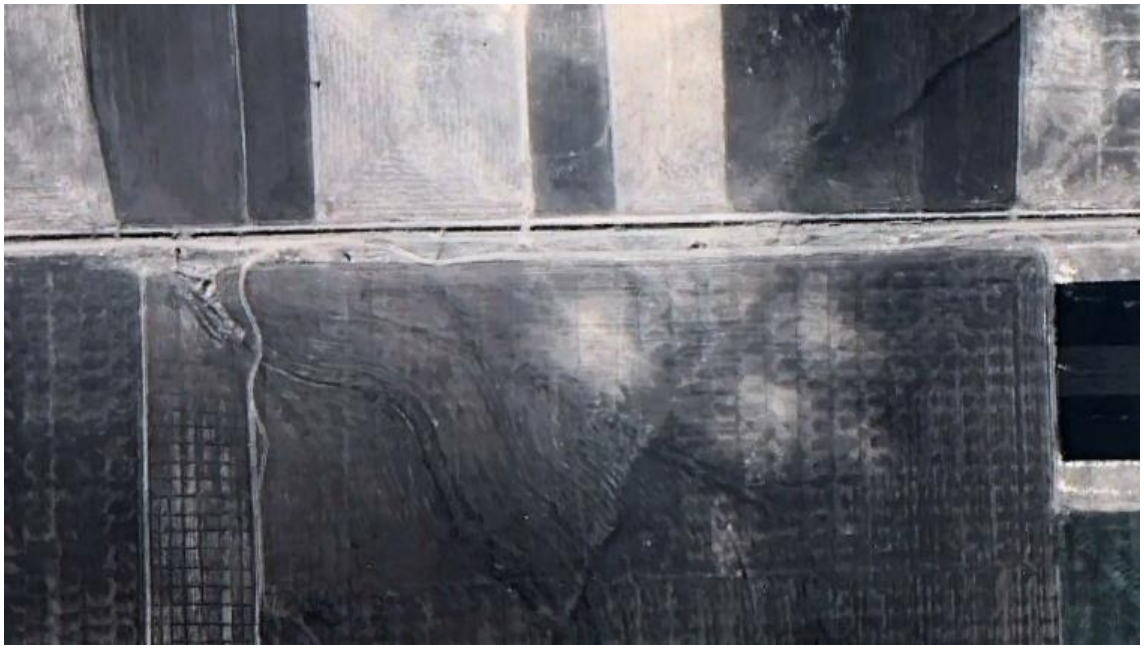
Measures (in hectares): 5,9 ha (traces N5)

Damages and threatens: Agriculture. Affected by ploughing.

Description: Medium-sized group of tells with interesting prehistoric occupations that reached its maximum size during the LBA. Only traces of Ninevite 5 occupation.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 127.

Images:



S392. Taken from Google Earth (02/2022)

Site number: S393

Name(s): Khirbet Garsur

Occupation(s): Hassuna, LC, Ninevite 5.

Coordinates: X, Y: 4240039, 367365.

Maximum height (in meters): 1,5 m.

Measures (in hectares): 2,1 ha (1,5 N5)

Damages and threatens: Housing, channels, agriculture. The site is heavily destroyed by modern construction and irrigation channels cutting through it.

Description: five small and low mounds with relevant prehistoric and Ninevite 5 occupations. The site was excavated in the 90s due to the high risk of suffer further damage.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 127; Campbell 1995-6.

Images:

S393, almost completely destroyed. Taken from Google Earth (01/2022)

Site number: S394

Name(s): NJP 49

Occupation(s): Ubaid, LC 3-5, Ninevite 5.

Coordinates: X, Y: 4241370, 367114.

Maximum height (in meters): 2 m.

Measures (in hectares): 5,4 ha (1,9 N5)

Damages and threatens: Agriculture.

Description: Two low mounds mostly of LC 3-5 in date, but also lesser Ninevite 5 occupations.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 127.

Images:

S394. Taken from Google Earth (02/2022)

Site number: S395

Name(s): Tell Garsur

Occupation(s): Halaf, LC 3-5, Ninevite 5, second half of the third millennium, MBA, LBA, neo-Assyrian.

Coordinates: X, Y: 4241553, 367200.

Maximum height (in meters): 11 m (former)

Measures (in hectares): 8 ha (2,1 N5)

Damages and threatens: Agriculture. The tell that once stood at this site was almost completely obliterated using heavy machinery. Almost nothing remains of it on the surface.

Description: A large mound and other minor elevations with a lower town with minor Ninevite 5 occupations. Latter occupations were much larger in size.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. and Tucker, D. 1995: 127.

Images:

The mark of the demolished site. Taken from Google Earth (02/2022)

Site number: S396

Name(s): Tell Hamida

Occupation(s): Halaf, Ninevite 5, second half of the third millennium, MBA.

Coordinates: X, Y: 4222706, 367244.

Maximum height (in meters): 7 m.

Measures (in hectares): 11,2 ha (0,5 N5)

Damages and threatens: Agriculture, housing.

Description: An extensive site with only minor prehistoric and Ninevite 5 occupations. The site was excavated in 1989, and extensive MBA remains appeared.

Bibliography: Wilkinson, T.J. 1990: 58; Wilkinson, T.J. i Tucker, D. 1995: 129.

Images:

S396. Taken from Google Earth (02/2022)

Site number: S397

Name(s): NJP 37

Occupation(s): Ubaid, Ninevite 5, Sassanian, Islamic.

Coordinates: X, Y: 4239722, 367477.

Maximum height (in meters): 4,5 m.

Measures (in hectares): 8,6 ha (traces N5)

Damages and threatens: Agriculture.

Description: Middle-sized mound with major Sassanian and Islamic occupations. Only traces of Ninevite 5 occupation.

Bibliography: Wilkinson, T.J. and Tucker, D. 1995: 127; Wilkinson, T.J. and Tucker, D. 1995: 127.

Images:

S397, barely visible. Taken from Google Earth (02/2022)

Site number: S398

Name(s): NJP 55

Occupation(s): Ninevite 5, Parthian, Islamic?

Coordinates: X, Y: 4242777, 367142.

Maximum height (in meters): 2,5 m.

Measures (in hectares): 2,2 ha (? N5)

Damages and threatens: Agriculture.

Description: A site with a later fortification that covers an earlier Ninevite 5 site.

Bibliography: Wilkinson, T.J. and Tucker, D. 1995: 127.

Images:

S398. Taken from Google Earth (02/2022)

Site number: S399

Name(s): Tell Hilawat/Tell Warada

Occupation(s): LC 3-5, Ninevite 5, second half of the third millennium.

Coordinates: X, Y: 4234473, 366920.

Maximum height (in meters): 10 m.

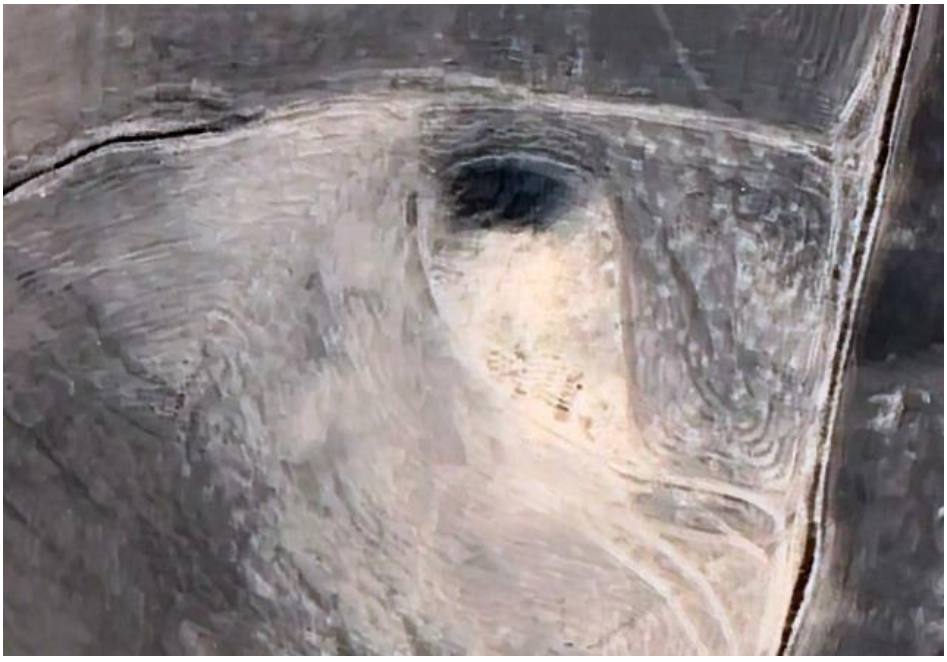
Measures (in hectares): 5 ha (5 N5)

Damages and threatens: Agriculture, cemetery.

Description: A tell with a lower settlement that is a major Ninevite 5 site, as well as LC 3-5. Lesser later occupations.

Bibliography: Wilkinson, T.J. and Tucker, D. 1995: 127.

Images:



S399. Taken from Google Earth (02/2022)

Site number: S400

Name(s): NJP 72

Occupation(s): Hassuna, Halaf, Ubaid, LC 3-5, Ninevite 5.

Coordinates: X, Y: 4241370, 367114.

Maximum height (in meters): 2 m.

Measures (in hectares): 3,1 ha (traces N5)

Damages and threatens: Agriculture.

Description: Low but important prehistoric mound, only traces of Ninevite 5 occupations.

Bibliography: Wilkinson, T.J. and Tucker, D. 1995: 129.

Images:

S400. Taken from Google Earth (02/2022)

Site number: S402

Name(s): NJP 80

Occupation(s): Ninevite 5, neo-Assyrian.

Coordinates: X, Y: 4221942, 367545.

Maximum height (in meters): ? m.

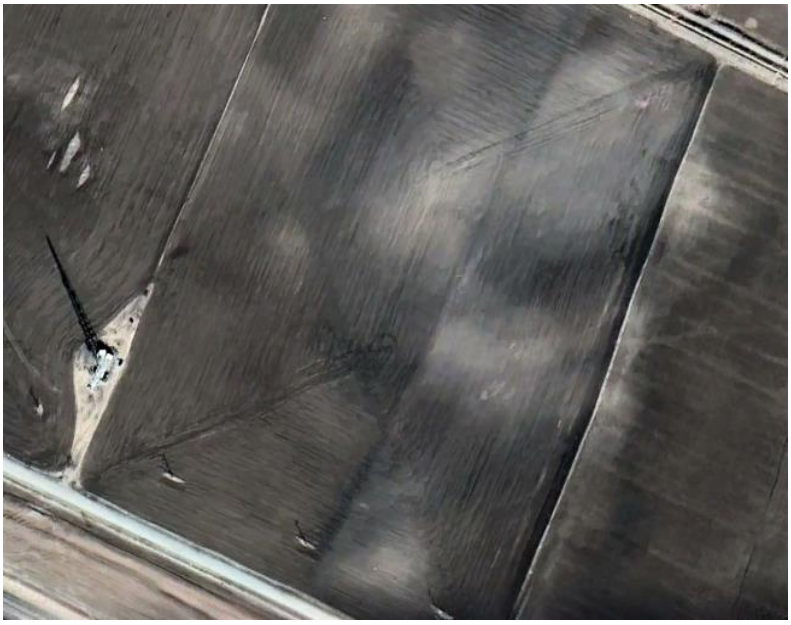
Measures (in hectares): 2,8 ha (2,8 N5)

Damages and threatens: Agriculture.

Description: A small mound founded during the Ninevite 5 period, when the site reached its maximum size. After that, the site was abandoned and only reoccupied from neo-Assyrian times, but with a significant minor size (only one hectare).

Bibliography: Wilkinson, T.J. and Tucker, D. 1995: 129.

Images:



S402. Taken from Google Earth (02/2022)

Site number: S404

Name(s): Tell Temmi

Occupation(s): LC 3-5, Ninevite 5, second half of the third millennium.

Coordinates: X, Y: 4106673, 366682.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha

Damages and threatens: Agriculture, hosing. The site is affected by modern constructions and leveling.

Description: Small mound close to the west of Tell Brak, most probably belongs to the other ring of the city. The site yielded some LC 3-4 remains and Ninevite 5 pottery. The site was excavated.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 59; Emberling et.ali. 1999.

Images:

S404, massively affected by modern constructions. Taken from Google Earth (02/2022)

Site number: S405

Name(s): Kaka Sa'id

Occupation(s): Ninevite 5, second half of the third millennium, Roman.

Coordinates: X, Y: 4102994, 366320.

Maximum height (in meters): ? m.

Measures (in hectares): 1,5 ha

Damages and threatens: Housing. The site is heavily damaged by the modern town.

Description: Small mound with important Ninevite 5 occupations.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 59.

Images:

The remains of S405. Taken from Google Earth (02/2022)

Site number: S407

Name(s): Sultaniyeh

Occupation(s): Ninevite 5 to old Babylonian.

Coordinates: X, Y: 4105381, 366371.

Maximum height (in meters): ? m.

Measures (in hectares): 3,2 ha.

Damages and threatens: Housing. The site is mostly destroyed by a modern settlement.

Description: Small and heavily wiped out mound founded during the Ninevite 5 period.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 59.

Images:

S407. Taken from Google Earth (02/2022)

Site number: S408

Name(s): Umm Husaywe 2

Occupation(s): Ubaid to second half of the third millennium (including Ninevite 5)

Coordinates: X, Y: 4104910, 366396.

Maximum height (in meters): ? m.

Measures (in hectares): 0,3 ha

Damages and threatens: Agriculture.

Description: Very low and tiny settlement where up to ten fragments of Ninevite 5 period were retrieved. The site is just north of S407.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 59.

Images:

S408. Taken from Google Earth (02/2022)

Site number: S409

Name(s): Tell Jeifin

Occupation(s): LC 3-5, Ninevite 5, second half of the third millennium, first millennium.

Coordinates: X, Y: 4112060, 367250.

Maximum height (in meters): ? m.

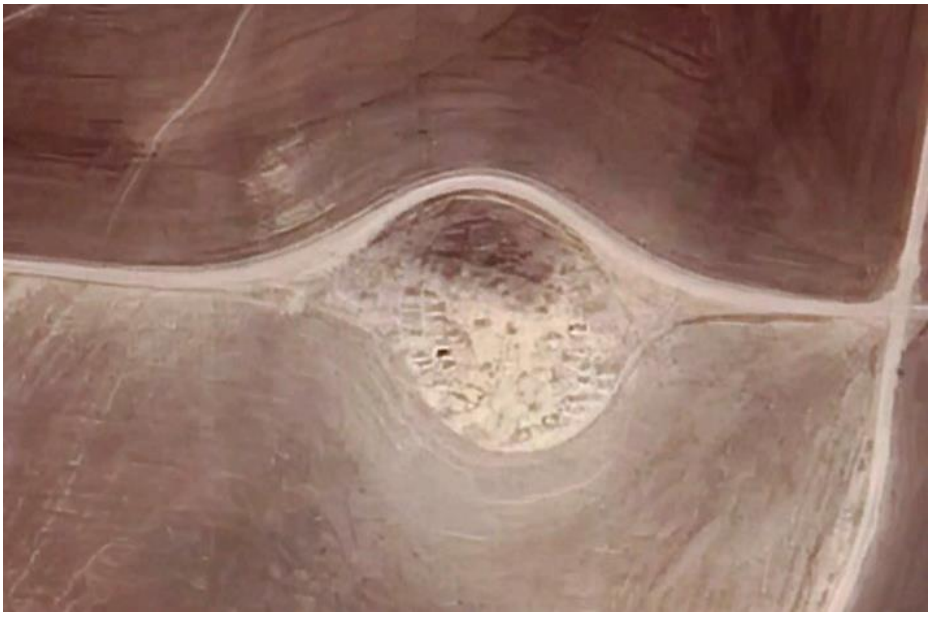
Measures (in hectares): 0,8 ha.

Damages and threatens: Agriculture, cemetery. The mound is completely covered by a modern cemetery.

Description: A very low mound with a lower settlement. The mound holds the earliest occupations, while the lower town is exclusively belonging to the first millennium.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 60.

Images:



S409. Taken from Google Earth (02/2022)

Site number: S410

Name(s): Tell Hamza

Occupation(s): LC 3-5 to Mitanni (Ninevite 5 included).

Coordinates: X, Y: 4111495, 367145.

Maximum height (in meters): ? m.

Measures (in hectares): 2,8 ha.

Damages and threatens: Agriculture.

Description: Medium-sized but low tell with continuous occupations.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 60.

Images:

S410. Taken from Google Earth (02/2022)

Site number: S411

Name(s): Tell Zuweikat 1

Occupation(s): Ninevite 5 to Mitanni.

Coordinates: X, Y: 4103057, 367114.

Maximum height (in meters): ? m.

Measures (in hectares): 1 ha.

Damages and threatens: Agriculture, housing. The site is in good state of preservation, affected by some houses of a tiny hamlet.

Description: One prominent mound that stands only 50 meters east of S412, founded a bit earlier.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 60.

Images:

S411. Taken from Google Earth (02/2022)

Site number: S412

Name(s): Tell Zuweikat 2

Occupation(s): Ubaid to middle second millennium (Ninevite 5 included)

Coordinates: X, Y: 4102892, 367123.

Maximum height (in meters): ? m.

Measures (in hectares): 1 ha.

Damages and threatens: Agriculture, cemetery. Part of the mound is covered by a modern cemetery.

Description: Similar to its counterpart, S411, but founded a bit earlier.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 60.

Images:

S412. Taken from Google Earth (02/2022)

Site number: S413

Name(s): Tell al-Adhan

Occupation(s): Halaf to Ninevite 5, Later.

Coordinates: X, Y: 4108292, 367142.

Maximum height (in meters): ? m.

Measures (in hectares): 2,8 ha.

Damages and threatens: Agriculture.

Description: Prominent mound with a lower town, with important and continuous prehistoric occupations until the Ninevite 5 period. There is also a later fortification of unknown date at the site.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 60.

Images:

S413. Taken from Google Earth (02/2022)

Site number: S414

Name(s): Tell Uwayja

Occupation(s): Halaf, Ubaid, LC 3-5, Ninevite 5, Akkadian.

Coordinates: X, Y: 4110187, 367009.

Maximum height (in meters): ? m.

Measures (in hectares): 1,5 ha.

Damages and threatens: Agriculture.

Description: Small low mound mostly prehistoric, Halaf and Ubaid, with minor LC 3-5 and Ninevite 5 occupations.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 60.

Images:

S414. Taken from Google Earth (02/2022)

Site number: S415

Name(s): Kharab al-'Id 2

Occupation(s): LC 3-5, Ninevite 5, Akkadian, first millennium.

Coordinates: X, Y: 4109881, 366933.

Maximum height (in meters): ? m.

Measures (in hectares): 1,5 ha.

Damages and threatens: Agriculture, cemetery. A modern cemetery covers the top of the mound.

Description: A small tell with another much bigger settlement (Kharab al-'Id 1) less than 100 meters north-east. The occupation at this site are very much restricted to the LC 3-5 and the third millennium, with a long abandonement.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 60.

Images:

S394. Taken from Google Earth (02/2022)

Site number: S416

Name(s): Suhaymkan as-Sharqi

Occupation(s): LC 3-5 to Mitanni (Ninevite 5 included).

Coordinates: X, Y: 4113197, 367005.

Maximum height (in meters): ? m.

Measures (in hectares): 2,5 ha.

Damages and threatens: Agriculture, hosing, roads. The site is on the edge of a modern town, with its northern slope cut by a road.

Description: Prominent but small mound with continuous occupations.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 60.

Images:

S394. Taken from Google Earth (02/2022)

Site number: S417

Name(s): Khirbet al-Muhzal

Occupation(s): LC 3-5, Ninevite 5, first millennium.

Coordinates: X, Y: 4109982, 366729.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture, trenches, pond. The mound is surrounded by deep trenches of unknown origin.

Description: There is no much information on this site. It seems that was founded during the LC 3-5 period and had a rather short life, abandoned after the Ninevite 5 period and no resettled again until the first millennium

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 60.

Images:

S417. Taken from Google Earth (02/2022)

Site number: S419

Name(s): Tell Sakman East

Occupation(s): LC 3-5, Ninevite 5.

Coordinates: X, Y: 4109597, 366404.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture, housing. The southern slope is invaded by the houses of the modern village.

Description: Small mound with restricted occupations during LC 3-5 and Ninevite 5.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 60.

Images:

S419. Taken from Google Earth (02/2022)

Site number: S420

Name(s): Tell Wajif 2

Occupation(s): LC 3-5 to early second millennium (Ninevite 5 included).

Coordinates: X, Y: 4112182, 366497.

Maximum height (in meters): 8 m.

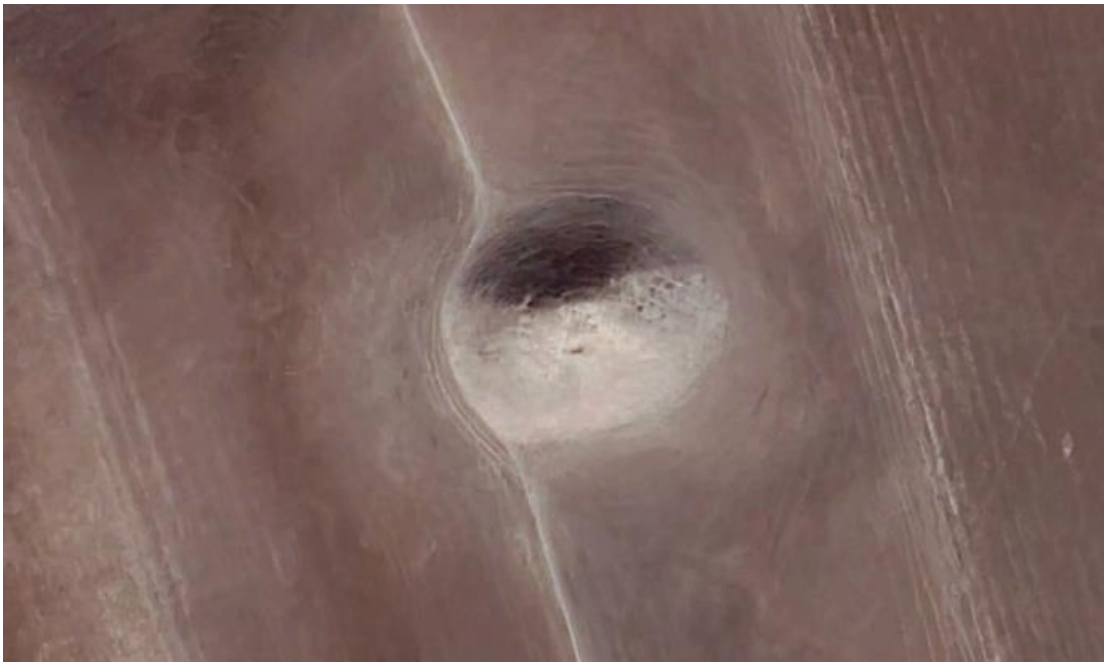
Measures (in hectares): ?

Damages and threatens: Agriculture.

Description: Prominent mound with lower town and a long history of settlement.

Bibliography: Eidem, J. and Warburton, D. 1996: 56-57, 60.

Images:



S420. Taken from Google Earth (02/2022)

Site number: S421

Name(s): Gird-î Lashkir

Occupation(s): LC 3-5, Ninevite 5, MBA, Iron Age.

Coordinates: X, Y: 4413239, 3618272.

Maximum height (in meters): 8 m.

Measures (in hectares): 4 ha.

Damages and threatens: Agriculture.

Description: Low mound with interesting and wide Ninevite 5 sequences.

Bibliography: Molist Montañà et ali. 2011 ; 2013.

Images:

S421. Taken from Google Earth (02/2022)

Site number: S425

Name(s): Tell Taya

Occupation(s): Ubaid, LC 3-5, Ninevite 5?, second half of the third millennium, old Babylon, neo-Assyrian.

Coordinates: X, Y: 4249353, 3633272.

Maximum height (in meters): 9 m.

Measures (in hectares): 20 ha.

Damages and threatens: Agriculture.

Description: Massive site with a discrete central mound large lower town. Excavations in the 70s talk about ED 2-3 occupations, but not specifically about Ninevite 5 material. According to Ibrahim (1986: 66), the site has Ninevite 5 material, but this claim is not absolutely clear.

Bibliography: Reade 1973; Ibrahim 1986: 66; TAVO.

Images:

S425, central mound and defensive perimeter. Taken from Google Earth (06/2021)

Site number: S426

Name(s): Bassetki

Occupation(s): Ninevite 5, MBA, Mitanni, middle Assyrian, neo-Assyrian, Hellenistic, Islamic.

Coordinates: X, Y: 4272152, 3695881.

Maximum height (in meters): ? m.

Measures (in hectares): 50 ha.

Damages and threatens: Agriculture, roads.

Description: High and massive mound that reached 50 hectares during the Ninevite 5 period. It was probably an urban center at that times.

Bibliography: Pfälzner and Sconzo 2015; Pfältzner and Qasim 2017, 2018.

Images:

S426. Taken from Google Earth (02/2022)

Site number: S427

Name(s): Gird-î Tle

Occupation(s): Halaf, Ubaid, Uruk, Ninevite 5, late bronze age, middle to late bronze age, neo-Assyrian, Hellnistic-Parthian, late Islamic.

Coordinates X, Y: 3.62546, 44.75600.

Maximum height (in meters): 30.

Measures (in hectares): 24.

Damages and threatens: Agriculture, roads, ponds. A road has affected the lower town to the east side. There are two big water ponds affecting western lower side.

Description: This a very big site, with a 30 meters high tell located over a natural hill and surrounded by an extensive low town. The form of the tell is due to a huge fortification made in neo-Assyrian times through Hellenistic and Islamic periods. However, traces of pre-historic occupations are attested in the tell yet the layers have not been reached in the ongoing Hungarian excavations in the site. Regarding Ninevite 5, the excavators mention that they found Ninevite 5 ceramics in one of the trenches dug out, but they are no related with a context at all. It is safe to say that it could be a Ninevite 5 settlement in **Gird-î Tle** but we cannot ensure it and we cannot know it's size or importance.

Bibliography: Hasegawa, A. et. al. 2016; Kalla, G. i Dezso, T. 2019; Viczián, I. 2020.

Images:

In the center of the image, the mound at **Gird-î Tle** and, surrounding it, the still visible low town, seen as a slightly elevated plateau over the plain. Google Earth, 8/2021.

Site number: S434

Name(s): Tell Sheikh Namis / Names

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4114004, 367861.

Maximum height (in meters): ? m.

Measures (in hectares): 5 ha.

Damages and threatens: Agriculture, cemetery. A modern cemetery occupies most of the southern and western slopes.

Description: Middle-sized mound with Ninevite 5 occupations.

Bibliography: Wright et ali. 2006-2007: 11, 15.

Images:

S434. Taken from Google Earth (09/2021)

Site number: S436

Name(s): Tell Ailun / Til Elûn

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4066867, 370796.

Maximum height (in meters): 35 m.

Measures (in hectares): 12 ha.

Damages and threatens: Cemetery, roads, housing, agriculture, erosion. The site is in good condition. A small modern cemetery is occupying a small portion of the southern slope. A road passes near the northern slope.

Description: Massive mound excavated in the 50s. The archaeologists found evidences for EBA occupations associated with incised/excised Ninevite 5 pottery, but not much data is available.

Bibliography: Wright et ali. 2006-2007: 11, 15.

Images:

S436. Taken from Google Earth (08/2021)

Site number: S462

Name(s): Tell Fatimi

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4077690, 367680.

Maximum height (in meters): 12 m.

Measures (in hectares): 2 ha.

Damages and threatens: Erosion, pond.

Description: Small mound with important LC 4-5 and Ninevite 5 occupations.

Bibliography: Lyonnet ed. 2000: 31-40.

Images:

S462. Taken from Google Earth (09/2021)

Site number: S467

Name(s): Gir Diwan

Occupation(s): Halaf to Assyrian (Ninevite 5 included)

Coordinates: X, Y: 4105171, 369152.

Maximum height (in meters): 15 m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery, housing.

Description: Small mound with evidences of Ninevite 5 period occupations.

Bibliography: Lyonnet, B. Ed. 2000: 31-40.

Images:

S467. Taken from Google Earth (11/2022)

Site number: S470

Name(s): Tell Gire Zil Kabir

Occupation(s): LC 4-5 to Assyrian (Ninevite 5 included)

Coordinates: X, Y: 4108751, 368278.

Maximum height (in meters): 18 m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery. A small cemetery covers part of the top of the mound.

Description: Small mound with evidences of Ninevite 5 period occupations.

Bibliography: Lyonnet, B. Ed. 2000: 31-40.

Images:

S470. Taken from Google Earth (11/2022)

Site number: S474

Name(s): Tell Cholama Tahtani

Occupation(s): Halaf, Ubaid, LC 4-5, Ninevite 5.

Coordinates: X, Y: 4078570, 368238.

Maximum height (in meters): 17 m.

Measures (in hectares): 5,5 ha.

Damages and threatens: Cemetery. A small cemetery covers some of the elevations of the irregular mound.

Description: Large irregular mound with important Ninevite 5 occupations. All the other periods are much less important.

Bibliography: Lyonnet ed. 2000: 31-40.

Images:

S474. Taken from Google Earth (11/2022)

Site number: S483

Name(s): Tel Hebeşê/Tell Habesh

Occupation(s): Halaf, Ubaid, LC3-5, Ninevite 5.

Coordinates: X, Y: 4090821, 370784.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Soil extraction, housing. The site is badly damaged by soil extractions that have practically sectioned the site.

Description: Small mound with Ninevite 5 surface material.

Bibliography: Lyonnet (ed.) 2000: 31-40.

Images:

S483. Taken from Google Earth (11/2022)

Site number: S485

Name(s): Girê Sinçeka Sedun/Tell Sanjak Saadun

Occupation(s): Halaf, Ubaid, LC3-5, Ninevite 5.

Coordinates: X, Y: 4093503, 370223.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture, cemetery. A modern cemetery occupies most of the eastern slope, and also some tombs are placed atop.

Description: Small mound with Ninevite 5 surface material.

Bibliography: Lyonnet (ed.) 2000: 31-40.

Images:

S485. Taken from Google Earth (11/2022)

Site number: S486

Name(s): Girê Sinçeka Diwud/Tell Sanjak Khalir

Occupation(s): Halaf, Ubaid, LC3-5, Ninevite 5.

Coordinates: X, Y: 4092979, 370371.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery, housing. The site is mostly occupied by a modern cemetery.

Description: Small mound with Ninevite 5 surface material.

Bibliography: Lyonnet (ed.) 2000: 31-40.

Images:

S486. Taken from Google Earth (11/2022)

Site number: S492

Name(s): EHAS 59

Occupation(s): Ninevite 5, neo-Assyrian.

Coordinates: X, Y: 4374062, 361125.

Maximum height (in meters): 2 m.

Measures (in hectares): 0,46 ha.

Damages and threatens: Agriculture. Site under cultivation.

Description: Very small mound with painted Ninevite 5 surface material.

Bibliography: Rouault et.ali. 2018: 241-245. Ur et.al. 2013.

Images:

S486. Taken from Google Earth (11/2022)

Site number: S495

Name(s): Sâtu Qalâ

Occupation(s): Ninevite 5, neo-Assyrian.

Coordinates: X, Y: 4469647, 358744.

Maximum height (in meters): 10 m.

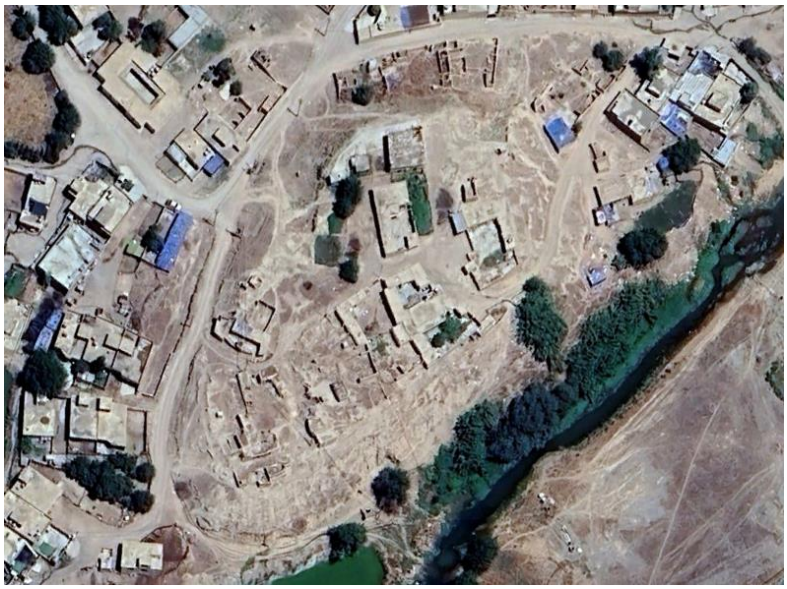
Measures (in hectares): 1,6 ha (mound).

Damages and threatens: Housing. The lower town is completely obscured by the modern village. The mound has been cut and used as a base for more houses.

Description: The site of the neo-Assyrian city of Idu. According to the TAVO, painted Ninevite 5 surface material has been found, but these layers have not been identified during archaeological excavations.

Bibliography: Van Soldt 2013; Pappi 2017.; Pappi 2018; TAVO.

Images:



S495. Taken from Google Earth (11/2022)

Site number: S496

Name(s): Qalinj Agha

Occupation(s): Halaf, Ubaid, LC4-5, Ninevite 5.

Coordinates: X, Y: 4401433, 361768.

Maximum height (in meters): ? m.

Measures (in hectares): 3,3 ha.

Damages and threatens: Housing. The sites lie in the center of the city of Erbil, surrounded by streets and modern houses. It is in the backyard of the city's Museum of the Civilization.

Description: Medium-sized mound excavated in the 60s. Important LC occupation (with southern Uruk pottery) has been found. Regarding the Ninevite 5, the early stage (with painted pottery) was also attested.

Bibliography: Abu el-Soof, B. 1966; 1969; Rova 1988: 8.

Images:

S496. Taken from Google Earth (11/2022)

Site number: S497

Name(s): Tell Ahmad Agha Kabir

Occupation(s): Halaf, Ninevite 5, Assyrian, Hellenistic.

Coordinates: X, Y: 4237846, 368184.

Maximum height (in meters): 30 m.

Measures (in hectares): 15 ha.

Damages and threatens: Agriculture.

Description: A mound with a large low settlement that yielded Ninevite 5 pottery.

Bibliography: Abu el-Soof, B. 1968: 77; Ibrahim 1986: 75; Wilkinson and Tucker 1995: 81

Images:

S497. Taken from Google Earth (11/2022)

Site number: S498

Name(s): Tell Ahmad Agha Saghir

Occupation(s): Ninevite 5, MBA.

Coordinates: X, Y: 4242018, 368174.

Maximum height (in meters): 27 m.

Measures (in hectares): 5,5 ha.

Damages and threatens: Cemetery, housing. There is a small cemetery atop.

Description: Small mound with Ninevite 5 surface material. Excavated in the 80s.

Bibliography: Abu al-Soof 1968: Spanos 1990; 77; Wilkinson and Tucker 1995: 168; Ball 2003: 174-5; Doro 2021-22.

Images:

S486. Taken from Google Earth (11/2022)

Site number: S500

Name(s): Tell al-Naml

Occupation(s): EBA.

Coordinates: X, Y: 4335596, 353309.

Maximum height (in meters): 6 m.

Measures (in hectares): 0,9 ha.

Damages and threatens: Barrage. The site is threatened by the Makhool dam.

Description: Small mound in which a rounded building was found during excavations. In a cemetery near the site, grave goods consisting of mixed Ninevite 5 pottery alongside with Scarlet ware pottery.

Bibliography: Sulaiman 2010.

Images:

The excavated S500. Taken from Google Earth (10/2021)

Site number: S504

Name(s): Muqable 3

Occupation(s): LC, Ninevite 5, Iron Age.

Coordinates: X, Y: 4274144, 369161.

Maximum height (in meters): ? m.

Measures (in hectares): 2,5 ha.

Damages and threatens: Erosion.

Description: Group of eight mounds of which the number 1 and 3 are being excavated. The mound three yielded remains of a Ninevite 5 settlement cut and destroyed by later Iron age structures.

Bibliography: Pfältzner et.ali. 2017.

Images:

S504, Muqable 3. Taken from Google Earth (11/2020)

Site number: S510

Name(s): Tell Malhat ad-Dawr/Malhat ad-Daru

Occupation(s): EBA.

Coordinates: X, Y: 4034697, 3593163.

Maximum height (in meters): ? m.

Measures (in hectares): 40 ha.

Damages and threatens: Erosion, cemetery, military construction.

Description: According to the TAVO, the site yielded incised/excised Ninevite 5 material.

Bibliography: TAVO.

Images:

S504, Muqable 3. Taken from Google Earth (11/2020)

Site number: S516

Name(s): Girê Pirê / Tell Qunaytra

Occupation(s): Ninevite 5

Coordinates: X, Y: 4188206, 370300.

Maximum height (in meters): ? m.

Measures (in hectares): 2,5 ha.

Damages and threatens: Erosion. Affected by erosion because of a nearby dam.

Description: Small site briefly excavated due to the construction of a tiny dam that would partially affect it. Incised/excised Ninevite 5 pottery.

Bibliography: Mahmoud 1978/9.

Images:

S504, Muqable 3. Taken from Google Earth (11/2020)

Site number: S521

Name(s): *Ar.* **Tell Bazari/Bisari**.

Occupation(s): Halaf, Ubaid, Uruk, Ninevite 5, second millennium, roman?.

Coordinates X, Y: 40.78595, 3.66009.

Maximum height (in meters): ?

Measures (in hectares): ?

Damages and threatens: Cemetery, military facilities, agriculture, looting? A large modern cemetery occupies all of the summit, while a military outpost has been built on the only previously empty space, to the north of the summit. Also a deep road leading to the outpost was cut through the eastern slope of the site. Two minor mounds are surrounded by agricultural fields and affected by some holes on its surface that could be either looter's pits or water wells?.

Description: Large multi-period mounded site with a long history of human occupation. The site has one central mound and, at least, three other mounds arranged in an east-west line along the wadi Jaghjagh. According to Koubková (2015: 56), only one decorated and two undecorated Ninevite 5 sherd were recovered. However, the author

Bibliography: Koubková 2015: ; Koubková i Wygnanska 2018.

Images:

Tell Bazari/Bisari and the other minor mounds. Taken from Google Earth, 3/2021.

CORONA image displaying the huge central mound and other minor elevations to the east and west. The bigger one to the west and the one closer to the central mound are the ones that have the possible looting holes/wells?.

Site number: S525

Name(s): Girê Mahir/Kir Mahir

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4085416, 368722.

Maximum height (in meters): 20 m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery, housing.

Description: Small mound with secondary mounds and a lower town that, according to the TAVO, yielded surface evidences of Ninevite 5 period occupations. It was briefly excavated by Mallowan.

Bibliography: Mallowan 1936; Eichler, Haas, Steudler, Wäfler and Warburton. 1985: 19; TAVO.

Images:

S525. Taken from Google Earth (11/2022)

Site number: S526

Name(s): Tell Haggr Nasr/Tell Hajjir Nasir

Occupation(s): Halaf, Ubaid, LC3-5, Ninevite 5.

Coordinates: X, Y: 4092979, 370371.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Soil extraction, cemetery.

Description: Small mound with Ninevite 5 surface material (according to the TAVO)

Bibliography: Lyonnet (ed.) 2000: 31-40.

Images:

S486. Taken from Google Earth (11/2022)

Site number: S530

Name(s): Tell Mohammad al-Kabir

Occupation(s): Halaf to MBA (according to Meijer)

Coordinates: X, Y: 4117360, 3691078.

Maximum height (in meters): 35 m.

Measures (in hectares): 9,4 ha.

Damages and threatens: Agriculture, cemetery, erosion. There is a cemetery on the southern slope, and another minor clusters of tombs.

Description: Large mound that, according to the TAVO, yielded Ninevite 5 pottery and Metallic ware.

Bibliography: Meijer 1986: 26; TAVO.

Images:

S486. Taken from Google Earth (11/2022)

Site number: S531

Name(s): Tulul ad-Darwish

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4165785, 361300.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture.

Description: Group of small mounds with a central elevation. There is not so much information on this site, the only information on the Ninevite 5 occupation is that there is pottery of this period on surface (TAVO).

Bibliography: AASI 701, p. 274; TAVO.

Images:

S531, central and secondary mounds surrounding it. Taken from Google Earth (11/2020)

Site number: S535

Name(s): Qala-î Kerkûk

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4439580, 354711.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture.

Description: The TAVO informs about the presence of Ninevite 5 pottery and a possible settlement of this period under the Citadel of Kirkuk.

Bibliography: TAVO.

Images:

S535, the Citadel of Kirkuk. Taken from Google Earth (10/2020)

Site number: S536

Name(s): Khirbat Ba'wiza (al-Aula)

Occupation(s): Hassuna, Samarra, Halaf?, Uruk, Ninevite 5 and Islamic.

Coordinates: X, Y: 43.15694, 36.42607.

Maximum height (in meters): ?

Measures (in hectares): ?

Damages and threatens: Housing, gardens, roads, dumping site. The site is completely surrounded by modern gardens, houses, and a dumping site to the south-east. Important construction activities during 2003 (according to Google Earth) affected the site, that was under agricultural land before. The mount itself is in quite good condition, but a lower extension is to be expected to have been affected by building activities and cultivation. The main road of the Ba'wiza town runs 100 meters to the east of the site.

Description: The chronology of this site is challenging due to incoherencies between the information given by Abu al-Soof (1968: 79) and the AASI. According to the AASI, no Early Dynastic (Ninevite 5) is reported, but Abu al-Soof does it. The site is a small mound encompassed between gardens and houses of the modern town of Ba'wiza, close to the north-east of Mosul city and just east of the flow of the Khosi river. Accordint to what can be seen in CORONA satellite imagery, the site could have had another mound, but nowadays the intense process of urbanization has obscured any other possible remain. This site is called 'al-Aula' (the first) to differenciate it from another one, Khirbat ba'wiza ath-Thania (the second), located close to the south-west, but entirely of Islamic date.

Bibliography: Abu al-Soof 1968: 79; Rova 1988: 208; AASI 81, p. 234; AASI map 132, section 2; TAVO.

Images:

The mound A of Khirbat Ba’wiza I as seen in Google Earth. Posisble extension to the south-east.

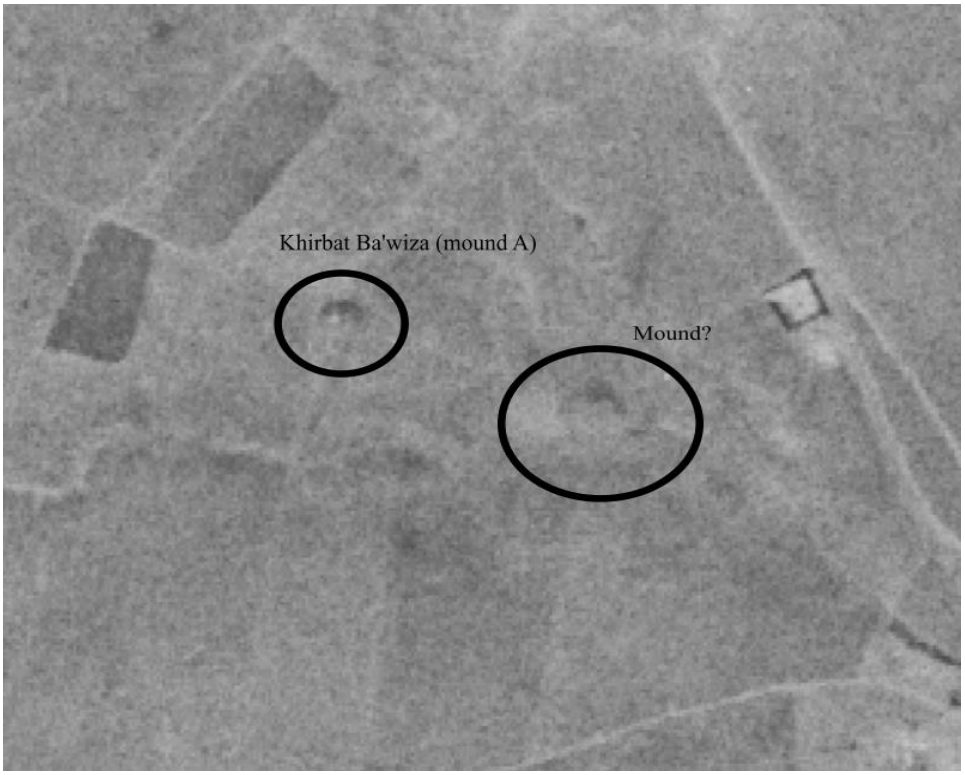


Image from CORONA satellite highlighting the main mound (A) and the possible second mound of Khirbat Ba’wiza I site.

Site number: S537

Name(s): Khirbat Baluziyah

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4292265, 364346.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture?.

Description: The coordinates of this site are approximate. There are no many clues on the location of the site, and the AASI is not so clear. The TAVO and Abu al-Soof claim that the site has incised/excised Ninevite sherds.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Rova 1988: 205; AASI 1116, p. 242; TAVO.

Images:

Area where S537 has to be located. Taken from Google Earth (10/2020)

Site number: S538

Name(s): Tepe Shenshi / Chenchi

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4292265, 364346.

Maximum height (in meters): ? m.

Measures (in hectares): 4 ha.

Damages and threatens: Agriculture.

Description: Small mound with some evidences of incised/excised Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Rova 1988: 205; AASI 1116, p. 242; TAVO.

Images:

S538. Taken from Google Earth (11/2021)

Site number: S539

Name(s): Tell Abbasiya

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4318882, 3647867.

Maximum height (in meters): ? m.

Measures (in hectares): 4 ha.

Damages and threatens: Agriculture, cemetery. A modern cemetery covers the southern slope and the top side of the mound.

Description: Circular small mound that was briefly excavated by Mallowan in the 30s of the past century. Some painted Ninevite 5 ceramics were published in the volume dedicated to the British Museum excavations in Nineveh. The TAVO map misallocates this site.

Bibliography: Campbell and Mallowan. 1933; TAVO.

Images:

S539. Taken from Google Earth (11/2021)

Site number: S540

Name(s): Telul Gurmria and Kharkharuk

Occupation(s): Ninevite 5.

Coordinates: X, Y: 3662018, 4340508.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture, hosing, cemetery. The site is located inside and in the immediate vicinity of a modern hamlet. One of the mound has a modern cemetery on its southern slope.

Description: Two or maybe three mounds with evidences of Ninevite 5 material.

Bibliography: Abu al-Soof 1968: 78; TAVO; AASI 652, p. 281; Rova 1988: 207.

Images:

One of the mounds of S540. Taken from Google Earth (11/2021)

Site number: S541

Name(s): Khirbat Lazaka

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4280525, 364941.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Erosion, housing.

Description: A mound near a modern village. It is impossible to distinguish the site from the natural hills that surround the village, but its position is accurate. Ninevite 5 painted pottery.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Rova 1988: 206; AASI 1122, p. 245; TAVO.

Images:

Possible location of S541. Taken from Google Earth (10/2018)

Site number: S543

Name(s): Khara'ib / Tell at-Tuwaim / Tweem

Occupation(s): Ubaid, Ninevite 5, Assyrian, Parthian, Sassanian.

Coordinates: X, Y: 4269640, 363605.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery, housing. The eastern tell is surrounded by modern constructions and covered by a modern cemetery, the western is smaller and slightly affected by modern housing.

Description: Two mounds inside the modern village of Tuwaim. According to the sources, the site had painted and incised/excised Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Ibrahim 1986: 62; Rova 1988: 205; AASI 1156, p. 243; TAVO.

Images:

Both mounds of S543. Taken from Google Earth (11/2018)

Site number: S544

Name(s): Khara'ib / Telul al-Muhalabiya (Tell Belyoz)

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4292265, 364346.

Maximum height (in meters): ? m.

Measures (in hectares): 4 ha.

Damages and threatens: Housing. The site is entirely inside the village of Mahalabiya. Some of the smaller mounds have been covered by modern construction activities. Another elongated mound is covered by a cemetery. The one known as Tell Belyoz is slightly affected by military trenches.

Description: Massive chain of mounds of which the larger one is known as Tell Belyoz in the literature. According to the sources, the site yielded painted and incised/excised Ninevite 5 sherds. Additionally, Ibrahim stated that Tell Belyoz has Ninevite 5 occupations.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Rova 1988: 205; AASI 1116, p. 242; TAVO.

Images:

S544, Tell Belyoz is the northern mound, other mounds covered by cemeteries to the right. Taken from Google Earth (11/2018)

Site number: S545

Name(s): Khara'ib al-Qunsiya

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4278849, 363559.

Maximum height (in meters): ? m.

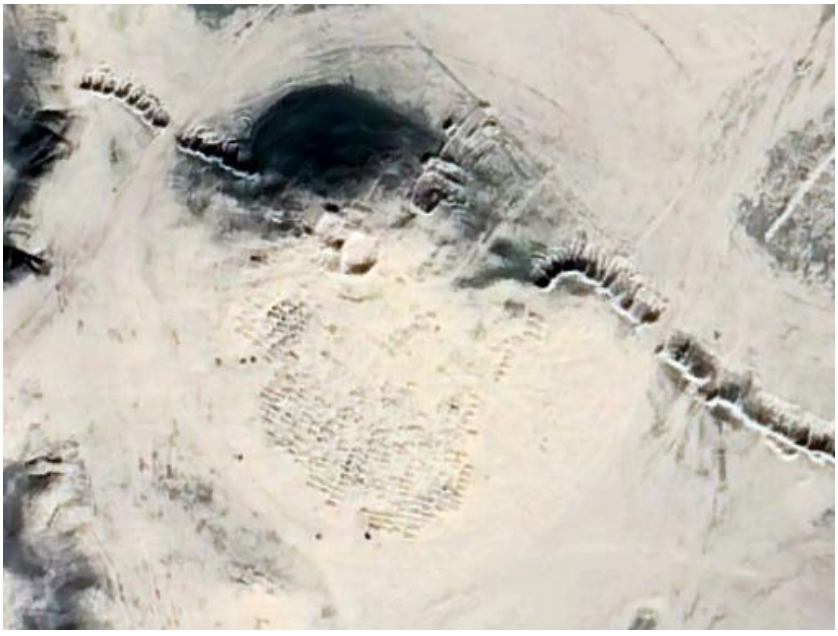
Measures (in hectares): ? ha.

Damages and threatens: Military construction, cemetery. The southern slope is covered by a modern cemetery. Some trenches affect the surface of the site.

Description: Small mound with some evidences of incised/excised Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Rova 1988: 205; AASI 135, p. 245; TAVO.

Images:



S538. Taken from Google Earth (11/2021)

Site number: S546

Name(s): Tell / Khirbat Salami / Salimi

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4283222, 363341.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Military constructions. The lower town is affected by trench digging, the top of the mound is affected by a militar construction.

Description: Considerably large mound and other extensions with some evidences of Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; TAVO; AASI 1123, p. 244.

Images:

S546. Taken from Google Earth (01/2022)

Site number: S547

Name(s): Tulul al-Mugairifat / Telul el-imjereniyat? / Tell Majarin

Occupation(s): Ninevite 5, Assyrian, Sassanian, Islamic.

Coordinates: X, Y: 4292265, 364346.

Maximum height (in meters): ? m.

Measures (in hectares): 1,4 ha. Min.

Damages and threatens: Agriculture.

Description: A group of mounds inside the modern village of Majarin. There is a great confusion with the name of this site, as different sources call it by one of the three names given. The AASI call it Mugairifat, but al-Soof translates the name as Imjereniyat, probably due to complications in the transliteration from the Arabic. Ibrahim calls it Majarin. Painted Ninevite 5 according to the TAVO.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Rova 1988: 205; AASI 1116, p. 242; TAVO.

Images:

One of the mounds of S547. Taken from Google Earth (01/2022)

Site number: S548

Name(s): Tell Abu Manhum

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4281007, 363661.

Maximum height (in meters): ? m.

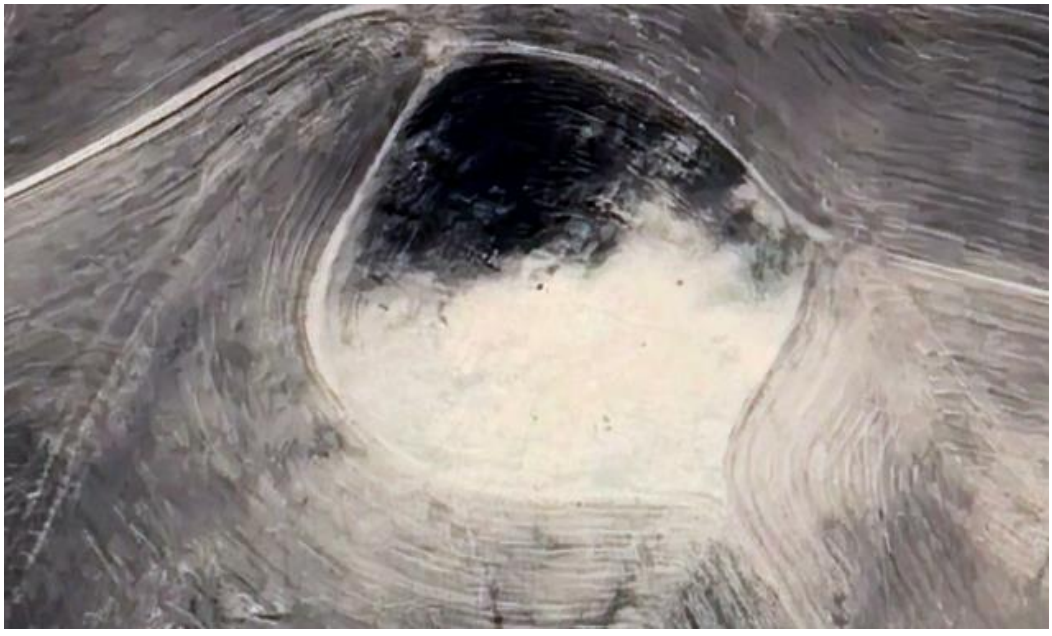
Measures (in hectares): ? ha.

Damages and threatens: Agriculture. The mound is in good shape. The surrounding land (lower village?) is under cultivation.

Description: Small mound with some evidences of Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Rova 1988: 204, AASI 1153, p. 242; TAVO.

Images:



S548. Taken from Google Earth (11/2021)

Site number: S549

Name(s): Tell Tiniya

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4273217, 362325.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture, cemetery housing, military construction, dumping side. One of the mounds' slopes is used as a dumping side, military facilities affect other parts of the site. A huge cemetery covers most of the lower slopes of the main mound.

Description: Large mound by the northern edge of the town of Tiniya. According to the TAVO, there is incised/excised Ninevite 5 pottery in this site.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Abu al-Soof 1968: 78; Rova 1988: 206; AASI 1177, p. 244; TAVO.

Images:

S549. Taken from Google Earth (01/2022)

Site number: S550

Name(s): Khirbat Abu Shikka / Sheka

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4276968, 362660.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Housing. The site is in the middle of the village of Sheka, affected by roads.

Description: Very small mound with Ninevite 5 pottery on the surface.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Rova 1988: 205: AASI 1169, p. 242; TAVO.

Images:

S550. Taken from Google Earth (11/2021)

Site number: S552

Name(s): Khara'ib at-Tair

Occupation(s): Ninevite 5, Parthian, Sassanian, Islamic.

Coordinates: X, Y: 4290317, 3605038.

Maximum height (in meters): 1,5 - 5 m.

Measures (in hectares): 1,4? ha.

Damages and threatens: Housing. The rather small mounds are obscured by the modern village.

Description: According to Ibrahim, the site has three rectangular mounds in the immediate vicinity of the town of Khara'ib at-Tair. This author stated the dimension of the mounds, but is very unlikely that the total size of the site is corresponding with the size of the mounds alone. According to the TAVO, the site yielded superficial incised/excised Ninevite 5 sherds.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Ibrahim 1986: 60; AASI codi 1197, p. 244; TAVO.

Images:

S552, the mounds are almost invisible. Taken from Google Earth (04/2024)

Site number: S553

Name(s): Tell Abu Ghad'an / Jad'aan

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4267009, 3597737.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture. Most of the site is under cultivation.

Description: Two small mounds on a field, just north of the tiny hamlet of Umghalkah Ghalil, west of the town of Ghad'an. According to the TAVO, painted and incised/excised Ninevite 5 pottery was found during surface reconnaissance.

Bibliography: Abu al-Soof 1968: 79; Abu al-Soof 1975: 23; AASI 1226, p. 242; TAVO.

Images:

S538. Taken from Google Earth (11/2021)

Site number: S555

Name(s): Tell Makhsi Ghabbash / Fahsi Jabash (Abu al-Soof 1968: 77)

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4240555, 362233.

Maximum height (in meters): ? m.

Measures (in hectares): 4 ha.

Damages and threatens: Military construction. From 2016, the site tentatively identified as S555 suffered destructions related to military activities. The lower town was cut by deep trenches.

Description: The location of this site is tentative, as there are other mounds in the region that could correspond with the registered site. According to the TAVO, there is Ninevite 5 pottery on the surface.

Bibliography: Abu al-Soof 1968: 77; Abu al-Soof 1975: 23; AASI 960, p. 261; TAVO.

Images:

S555 in 2014. Taken from Google Earth (11/2014)

Demolition process in 2016. The machinery used is visible while working on the site. Taken from Google Earth (11/2016)

Site number: S556

Name(s): Tell 'Awad

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4239629, 362316.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Erosion.

Description: The location of this site is tentative as there are no close villages that could help with the identification through the AASI. The site mentioned has painted Ninevite 5 sherds.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; Rova 1988: 205; AASI 1116, p. 242; TAVO.

Images:

The possible S556. Taken from Google Earth (11/2014)

Site number: S557

Name(s): Tell Fattuma

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4247118, 362190.

Maximum height (in meters): ? m.

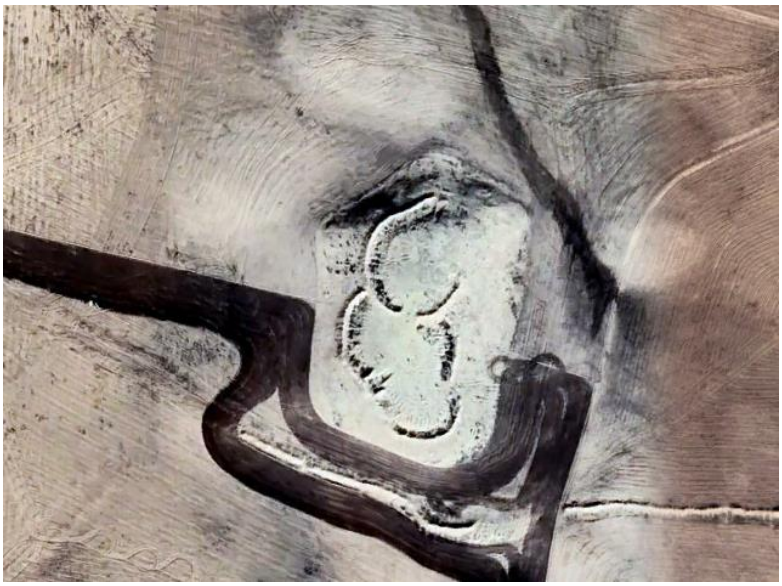
Measures (in hectares): ? ha.

Damages and threatens: Military constructions. Regarding the mound tentatively identified as S557.

Description: The location of this site is tentative as there are no close villages that could help with the identification through the AASI. The site mentioned has painted Ninevite 5 sherds.

Bibliography: Abu al-Soof 1968: 77; Abu al-Soof 1975: 23; AASI 958, p. 261; TAVO.

Images:



The possible mound of S557. Taken from Google Earth (02/2022)

Site number: S558

Name(s): Khirbet Abd al-Hawa/Abdul Hadi

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4238246, 365880.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery. Both of the mounds are densely covered by a modern cemetery. Almost all the mounds' surface is covered.

Description: Huge fortified mound and a secondary elevation to the south. Another elongated mound 500 meters north-west of the main mound. I do not know whether these three mounds are known under the same name, or there are classified as different sites. There is painted Ninevite 5 pottery on this site.

Bibliography: Abu al-Soof 1968: 78; TAVO; AASI 1037, p. 261.

Images:

Main mound of 558. Taken from Google Earth (02/2022)

Elongated mound to the north-east. Taken from Google Earth (02/2022)

Site number: S559

Name(s): Khirbet Kibar

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4223703, 366330.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery, housing. The site is inside the modern village. A cemetery covers the lower slopes of the main mound.

Description: A main mound with other secondary mounds, all of them inside the modern village of Kibar. Ninevite 5 pottery found on surface surveys.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; TAVO.

Images:

The main mound of S559. Taken from Google Earth (02/2022)

Site number: S560

Name(s): Gird-î Darbêstan / Xerabe Kûra

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4374991, 3657586.

Maximum height (in meters): 10 m.

Measures (in hectares): 1,7 ha (0,4 N5)

Damages and threatens: Housing. The modern village have cut and destroyed most of the slopes.

Description: Small mound with evidences of occupations during the Ninevite 5 period.

Bibliography: Kolińska i Koliński 2019, vol. 4: 61-85; AASI 1275; p. 291.

Images:

The badly damaged S560. Taken from Google Earth (02/2022)

Site number: S561

Name(s): Xerabe-î Farîç / Xerabe Gibû (AASI)

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4371412, 3651563.

Maximum height (in meters): ? m.

Measures (in hectares): 3,97 ha.

Damages and threatens: Agriculture.

Description: Small mound with major occupations during the Ninevite 5 period.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; TAVO.

Images:

The main mound of S561. Taken from Google Earth (02/2022)

Site number: S562

Name(s): Xerabe-î Maûok

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4372816, 3651487.

Maximum height (in meters): ? m.

Measures (in hectares): 1,1 ha (0,46).

Damages and threatens: Agriculture, auxiliar agricultural buildings.

Description: Very small mound with evidences of Ninevite 5 occupation.

Bibliography: Kolińska i Koliński 2019, vol. 4: 215-221.

Images:

The main mound of S559. Taken from Google Earth (02/2022)

Site number: S563

Name(s): Goristan-î Palasan / Qabrastan Iasan

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4376207, 3653947.

Maximum height (in meters): ? m.

Measures (in hectares): 29 ha (0,5 N5).

Damages and threatens: Agriculture, soil extraction.

Description: Massive mound with very limited Ninevite 5 occupations.

Bibliography: Kolińska and Koliński 2019, vol. 4: 351-365; AASI 1278, p. 291.

Images:

The main mound of S559. Taken from Google Earth (02/2022)

Site number: S564

Name(s): Girdasîn

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4380529, 3665495.

Maximum height (in meters): ? m.

Measures (in hectares): 0,9 ha.

Damages and threatens: Soil extractions.

Description: Small tell that yielded small quantities of Ninevite 5 pottery on the surface.

Bibliography: Kolińska and Koliński 2019, vol. 3: 153-167.

Images:

The main mound of S564. Taken from Google Earth (02/2022)

Site number: S565

Name(s): Gird-î Aşûr

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4375051, 3662546.

Maximum height (in meters): ? m.

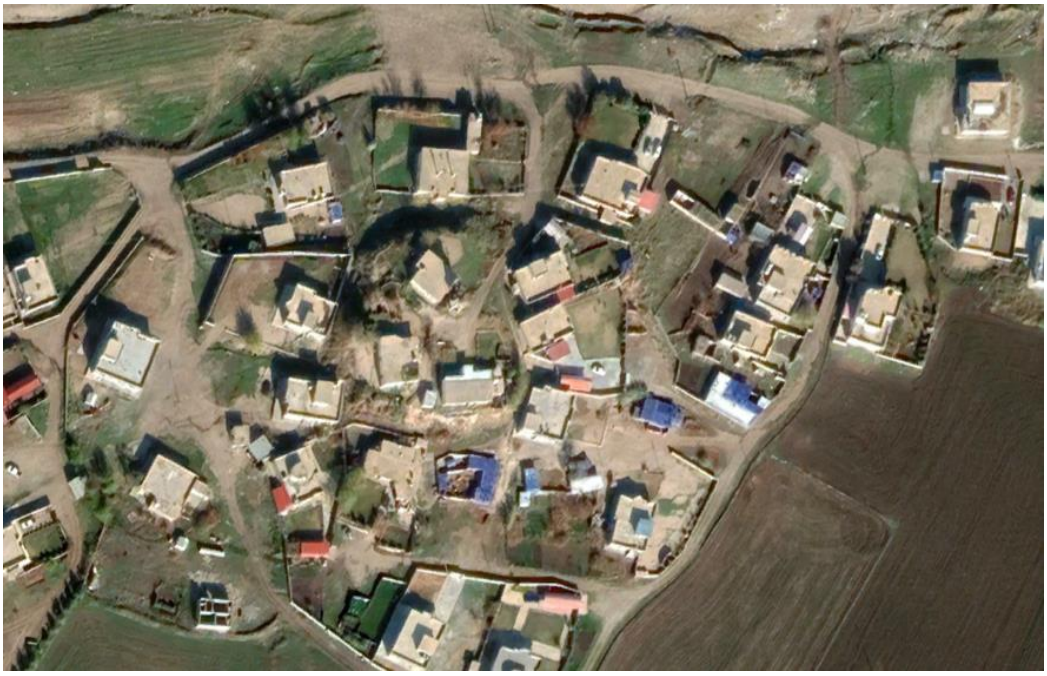
Measures (in hectares): 1,29 ha.

Damages and threatens: Housing. Almost completely obliterated by modern housing.

Description: The site yielded one single Ninevite 5 piece.

Bibliography: Kolińska i Koliński 2019, vol. 3 : 185-197.

Images:



Approximate location of S570. Taken from Google Earth (01/2022)

Site number: S566

Name(s): Gird-î Mla

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4372946, 3662988.

Maximum height (in meters): Flat settlement.

Measures (in hectares): 3,39 ha (0,32 N5)

Damages and threatens: Agriculture.

Description: Small flat area with some scarce evidences (only one sherd found on the surface) of occupations during the Ninevite 5 period.

Bibliography: Kolińska i Koliński 2019, vol. 3: 207-215.

Images:

The badly damaged S560. Taken from Google Earth (02/2022)

Site number: S567

Name(s): Xerab-î Qûç

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4366978, 3653928.

Maximum height (in meters): ? m.

Measures (in hectares): 15 ha (0,5 N5)

Damages and threatens: Agriculture.

Description: Very large mound with some scarce evidences of occupations during the Ninevite 5 period.

Bibliography: Kolińska i Koliński 2019, vol. 3: 401-421; AASI 1318, p. 291.

Images:

S567. Taken from Google Earth (02/2022)

Site number: S568

Name(s): Gird-î Pan

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4368271, 3653454.

Maximum height (in meters): 10 m.

Measures (in hectares): 8 ha (1,5 N5)

Damages and threatens: Agriculture.

Description: Large mound with evidences of occupations during the Ninevite 5 period.

Bibliography: Kolińska i Koliński 2019, vol. 3: 423-439.

Images:

The badly damaged S560. Taken from Google Earth (02/2022)

Site number: S569

Name(s): Xerab-î Şabak

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4367601, 3652413.

Maximum height (in meters): ? m.

Measures (in hectares): 15 ha (1 N5)

Damages and threatens: Agriculture.

Description: An extensive site with only limited evidences of Ninevite 5 occupations. Only two sherds were found on the surface.

Bibliography: Kolińska i Koliński 2019, vol. 3: 442-459; AASI 1219, P. 291.

Images:

S569. Taken from Google Earth (12/2022)

Site number: S570

Name(s): Khirbet 'Alawi

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4269053, 3670973.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: ?

Description: The location of this site is unclear as I have not been able to find the closer town that appears in the AASI (Manakerh?). The site yielded incised/excises Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; TAVO; AASI 838, p. 256.

Images:

Approximate location of S570. Taken from Google Earth (01/2022)

Site number: S571

Name(s): Khara'ib al-Huwait

Occupation(s): LC 4-5, Ninevite 5.

Coordinates: X, Y: 4289125, 361386.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture, military construction. The eastern mount is affected by trenches.

Description: Group of mounds identified as a Ninevite 5 site.

Bibliography: Abu al-Soof 1968: 78; Abu al-Soof 1975: 23; TAVO; AASI 1258, p. 243.

Images:

S571. Taken from Google Earth (12/2019)

Site number: S574

Name(s): Tell Bir 'Akla/Bir 'Ukla/'Ighla

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4220809, 3678880.

Maximum height (in meters): ? m.

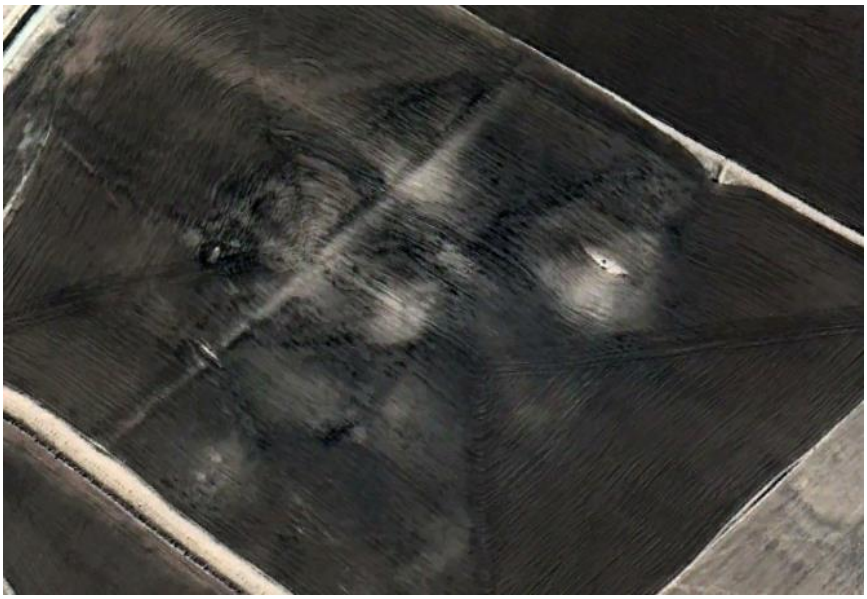
Measures (in hectares): ? ha.

Damages and threatens:

Description: Group of mounds with Ninevite 5 pottery, both painted and incised/excised, on its surface.

Bibliography: Abu al-Soof 1968: 78; 1975: 23; AASI 1055, p. 258; TAVO.

Images:



S574. Taken from Google Earth (11/2022)

Site number: S575

Name(s): Molla Gerrk/Mullah Jirik

Occupation(s): Hassuna, Ninevite 5, Islamic.

Coordinates: X, Y: 4403122, 3631639.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Housing. The site is invaded by the village of Bahirka, north of the city of Erbil.

Description: Small mound listed as a Ninevite 5 site.

Bibliography: Abu al-Soof 1968: 77; Abu al-Soof 1975: 23; AASI 958, p. 261; TAVO.

Images:

The remains of 575. Taken from Google Earth (02/2022)

Site number: S576

Name(s): Oşagh Tappe/Ujagh Tepe

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4445708, 3536046.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Military constructions. Affected by military trenches.

Description: Large mound with evidences of Ninevite 5 occupations.

Bibliography: Abu al-Soof 1968: 81; TAVO; AASI 24, p. 196.

Images:

The mound of S576. Taken from Google Earth (12/2022)

Site number: S577

Name(s): Yorgan Tepe (Nuzi)

Occupation(s): LC, Ninevite 5?, Akkadian, MBE, LBE.

Coordinates: X, Y: 4425472, 3537007.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Military constructions. Regarding the mound tentatively identified as S557.

Description: A very important settlement during the LBE. The TAVO affirms that there are Ninevite 5 pottery registered at this site, but the archaeological excavations have found no stratigraphy from this phase.

Bibliography: TAVO.

Images:

The extensive S577. Taken from Google Earth (11/2018)

Site number: S578

Name(s): Tell Başbulaq

Occupation(s): Ninevite 5

Coordinates X, Y: ca. 3.54739, 44.68671.

Maximum height (in meters): ?

Measures (in hectares): ?

Damages and threatens: Unknown.

Description: The location of this site is difficult. There are two villages that wears the name Başbulaq, and there are many suitable mounds in the area. However, even when it is impossible to find out the exact coordinates, the site is surely located in an area of 5 square km, so the error is assumable.

Bibliography: Tübingen Map.

Images:

The villages of Başbulaq Saroo (Northern) and Kharoo (southern) The site has to be one of the many mounds in between these towns.

Site number: S579

Name(s): Qal'at Ghin al-Ghanubi / Southern Qalla Jin

Occupation(s):

Coordinates: X, Y: 4472577, 3600258.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery. The location of the village's cemetery on this hill may be pointing it as the site S579.

Description: The location of this site is tentative but it seems accurate. According to the AASI, the site is located close to the village of Timarok, 850 meters north of the given location. However, it is impossible to distinguish the site among the abundant natural hills that surrounds this village. Painted Ninevite 5 pottery has been reported on its surface.

Bibliography: Abu al-Soof 1968: 81; TAVO.

Images:

The possible location of S579. Taken from Google Earth (07/2024)

Site number: S580

Name(s): Tell Khadigha/Khadijja

Occupation(s): Ninevite 5

Coordinates X, Y: 3.50112, 44.06006.

Maximum height (in meters): ?

Measures (in hectares): ?

Damages and threatens: Housing, ponds, modern infrastructure. All the slopes of the main tell are surrounded by modern infrastructure, possibly military trenches, houses and ponds. One small pond is located on top. However, the site is in good condition. After 2016, the western slope of the site suffered limited damage from a construction of unknown purpose, possibly also militar.

Description: Square-shaped tell with minor elevations to the north and south. The main mound has two elongated crests that enclose a central depression. According to the Tübingen map, the site provided Ninevite 5 material.

Bibliography:
Abu al-Soof 1968: 81, Tübingen Map.

Images:

Tell Khadigha. Google earth, 11/2022.

Site number: S581

Name(s): *Ar.* **Tell Kucuk Carmo/Kujjuk Jarmo**

Occupation(s): Hassuna, Ninevite 5.

Coordinates: X, Y: 3.49524, 44.79748.

Maximum height (in meters): ?

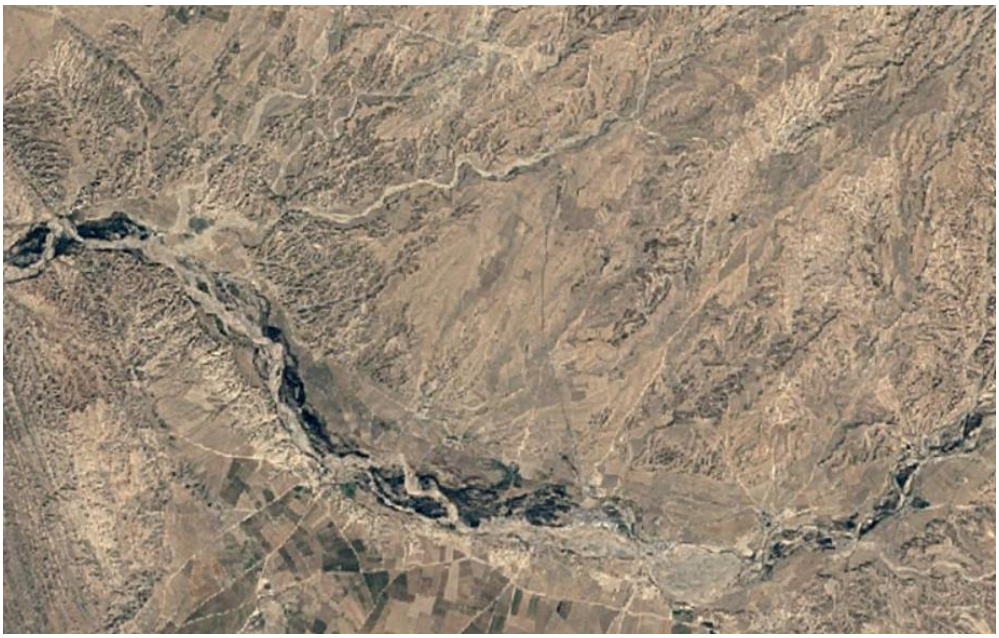
Measures (in hectares): ?

Damages and threatens: Unknown.

Description: Not to confuse this site with the famous neolithic site of Qalat Jarmo, located far away to the north. This site has been impossible to locate. The available sources don't provide any information about the exact location aside of a general position on the map. The region in which lies is easy to recognize, but there are too many suitable hills on this area to identify one of them as Kujjuk Jarmo.

Bibliography: Abu al-Soof 1968: 81, Tübingen Map.

Images:



The site has to be located at some point of this area, but it has been impossible to locate. Google earth, 12/2017.

Site number: S582

Name(s): *Ar.* **Kalak Saifak**

Occupation(s): Ubaid, Ninevite 5

Coordinates X, Y: 3.52421, 44.61149.

Maximum height (in meters): ?

Measures (in hectares): ?

Damages and threatens: Erosion. The site is in an overall good condition.

Description: Relatively small mound surrounded by fields. As-Soof states that this site had Ubaid and Ninevite 5 occupations.

Bibliography: Abu al-Soof 1968: 81, Tübingen Map.

Images:

The site is located in the vicinity of a village called Mansur, but it is impossible to distinguish on the satellite from the surrounding hilly terrain. Taken from Google Earth (08/2004)

Site number: S583

Name(s): Khirbat Musaihili / Khirbat Imsehli

Occupation(s): Ninevite 5 (painted Ninevite pottery)

Coordinates X, Y: 3.54024, 43.20164.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

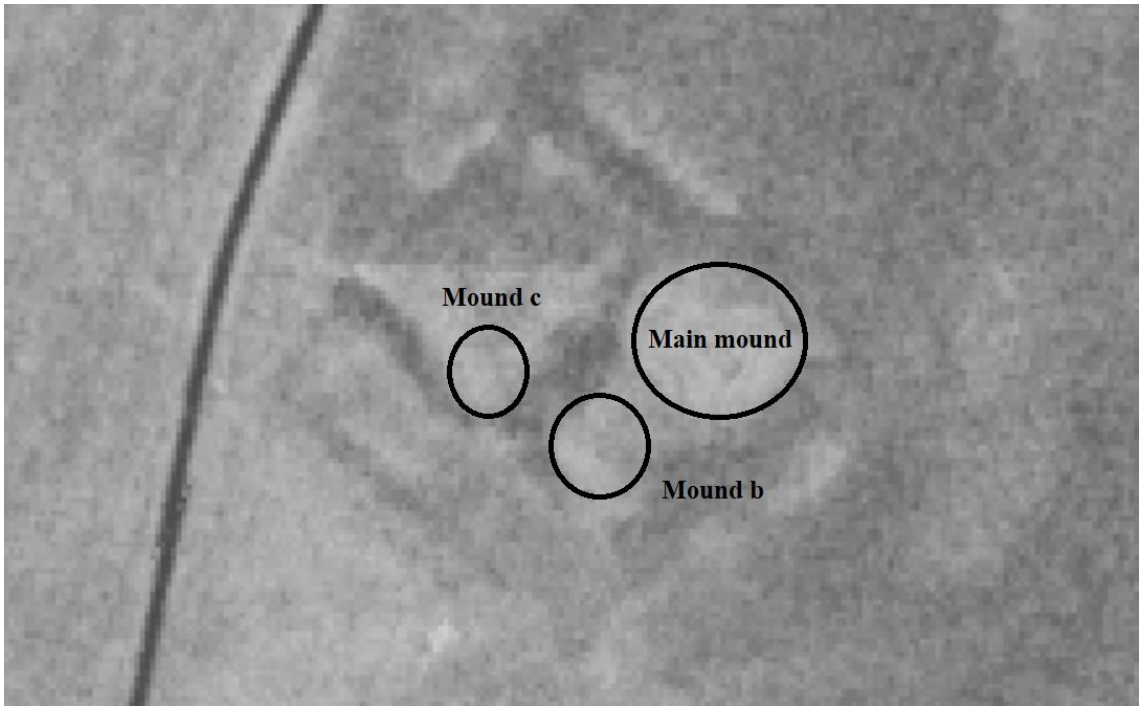
Damages and threatens: Cemetery, modern buildings. The three main mounds of this site are completely covered by a modern cemetery. Also, a modern plantation and a farm has been built to the north of the main mound and could affected it.

Description: Small site beside the road south of the town of as-Shirqat that leads north to Mosul. Khirbat Musaihili is composed by three small tells. Bibliographical references only point out to the existence of painted Ninevite 5 pottery on this site. The LIDAR image from Corona site reveals that the whole site has a squared perimeter, maybe from a possible ancient fortification. Another site called Imsehli was excavated by an Iraqi team, but this is not the same site (al-Hayyany et ali. 2011).

Bibliography: TAVO.

Images:

The site of Musaihili, The small houses to the west are now gone. Taken from Google Earth, (08/2013)



Musaihili as it is seen on Corona's LIDAR imagery. The road is visible to the west, as well as the main mounds. Note that the mounds are surrounded by other features that can be drawing an squared perimeter around them, maybe a fortification.

Site number: S584

Name(s): Tell al-Bagh ash-Sharqi

Occupation(s): Halaf, Ninevite 5, Islamic.

Coordinates X, Y: 4311189, 3543024.

Maximum height (in meters): 8-10 m

Measures (in hectares): 1,7 ha. (only one of the mounds)

Damages and threatens: Roads, agriculture.

Description: This mound is actually part of a site called Tulul al-Bagh, formed by, at least, two mounds. The one object of this cataloguing is the eastern (Sharqi). Ibrahim does not identify any Ninevite 5 pottery at any of the mounds, but states different periods of occupation for each one. Both the TAVO and Abu al-Soof state that the site has painted Ninevite 5 pottery

Bibliography: Abu al-Soof 1968: 79; Rova 1988: 208; AASI 1614, p. 277; TAVO.

Images:

S584 as part of the site of Tulul al-Bagh. Taken from Google Earth (09/2019)

Site number: S585

Name(s): Khirbat Dibshiya/Dabshiyah

Occupation(s): Uruk, Ninevite 5 (incised pottery)

Coordinates X, Y: 3.56079, 42.64657.

Maximum height (in meters): ?

Measures (in hectares): At least 6 ha., but mostly of later chronology.

Damages and threatens: No evident threatens are visible on the map.

Description: This site is on a wasteland zone, close to the old city of Hatra. Remains of a ruined fort, probably similar in chronology to that of Hatra (it is only 6 km from to the north-west) However, Abu as-Soof points out that pottery belonging to both Uruk and Ninevite 5 (incised decoration) were found in that site. Poblably, the later fort is covering the older occupations. The site seems to be an isolated Ninevite 5 point, but it can be imputed to the lack of proper surveys in the area.

Bibliography: Abu al-Soof 1968: 79, Tübingen Map.

Images:

The Fort seen on Google maps, 2/2012.

Site number: S586

Name(s): Girê Jahare / Khirbet al-Jarahiyah

Occupation(s): Ninevite 5

Coordinates: X, Y: 3.67039, 43.21404.

Maximum height (in meters): ?

Measures (in hectares): ?

Damages and threatens: Housing, cemetery, roads, agriculture, erosion. The site is in overall good condition, but there is a cemetery on top. The houses of the village are to the south of the mound and are not affecting it, but they can be covering a probable low town. The other slopes have no modern constructions nearby, but they are slightly affected by agriculture, a dirty road and natural erosion.

Description: The only reference I have been able to find so far about this site is a paper by Abu al-Soof (1968: 77) and there is only a brief mention on the presence of Ninevite 5 pottery in there. The Tübingen university's map from 1988, surely following the Iraqi antiquity service archaeological register, depicts this as a site of unknown size of Ninevite 5 chronology. The site is a conical tell with a flattened top.

Bibliography: Abu al-Soof 1968: 77, Tübingen Map.

Images:

Girê Jahare, Google maps (11/2018)

Site number: S587

Name(s): Meijer 230

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4118008, 3694164.

Maximum height (in meters): 2 m.

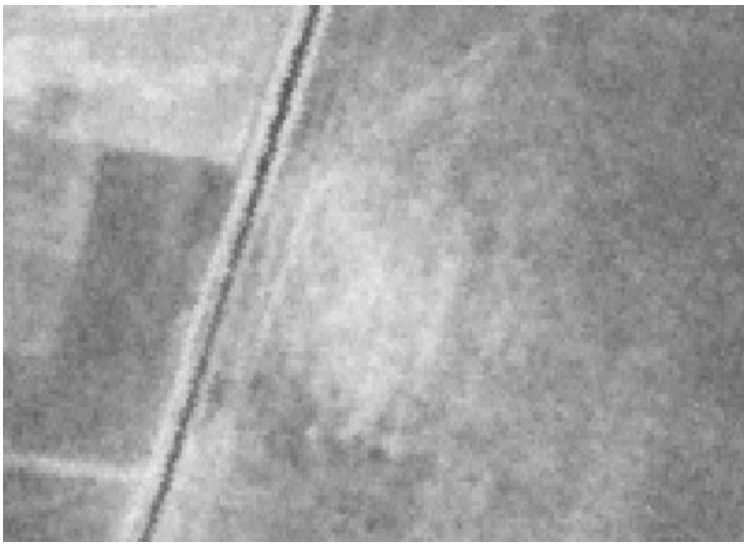
Measures (in hectares): 0,25 ha.

Damages and threatens: Housing. According to Meijer, the site is obscured by modern constructions.

Description: The location of this site is unclear, as it only appears in a very general map published by Meijer (after whom the name was taken). According to the TAVO, Ninevite ceramic on the surface.

Bibliography: Meijer 1986: 26; TAVO.

Images:



There is a mound hidden under the modern structures, as Meijer described, but it is not clear whether this site is S587 or not. Corona

The tentatively identified site in 2019, heavily affected by modern housing and agriculture. Taken from Google Earth (09/2019)

Site number: S588

Name(s): Tell ‘Abra

Occupation(s): Ninevite 5 (ca. 2800-2650 BCEe)

Coordinates X, Y: 3.67152, 41.54300.

Maximum height (in meters): ?

Measures (in hectares): 0,6 ha.

Damages and threatens: Housing, agriculture. The modern village of al-‘Abra is extending towards the site, but it seems that the damage is not big because the modern urbanism is scarce. Since 2021, new building appeared in the vicinity of the site.

Description: Small site with only a little evidence of Ninevite 5 occupation. No other period has been attested neither by Ristvet (2005) nor Rova (2007) Ristvet (2005: 313) points out that few than 4 definite Ninevite 5 sherd were found in this site.

Bibliography: Ristvet 2005: 227-231; Rova 2007: 3.

Images:

The site and some buildings from the modern village. Google Earth (08/2021)

Site number: S589

Name(s): Gird Sheikh Musl. The name of this site is misspelled in the *Tübingen Atlas des Vorderen Orients (TAVO)*, most likely following as-Soof (1968: 80) In that source, the site is called **Tell Saih Musri**. However, a local informant told us that the correct name is **Musl**.

Occupation(s): Ninevite 5

Coordinates X, Y: 3.62798, 43.87001

Maximum height (in meters): ?

Measures (in hectares): ?

Damages and threatens: Agriculture, erosion. In good condition, but ploughed in its whole extension.

Description: Tell and extensive low town. To the south, the slope is very smooth and the tell is barely visible, but the northern slope falls suddenly around 6-7 meters to the riverbank of a small stream nearby. It was visited in October 2022 by professor Abdullah Bakr Othman, his student Abas and myself. A lot of materials from different periods were found scattered all around, but more frequently on the northern slope and on the top of the mound.

Bibliography: Abu al-Soof 1968: 80, TAVO.

Images:

The site of Gird Sheikh Musl from the north. Image taken by the author in 2021.

The site of Gird Sheikh Musl from the south. Image taken by the author in 2021.

Site number: S590

Name(s): Gird Messina

Occupation(s): At least Ninevite 5 (ca. 3000-2500 BCEe)

Coordinates: X, Y: 3.62761, 43.85362.

Maximum height (in meters): 6-7 m.

Measures (in hectares): ?

Damages and threatens: Agriculture, dirty road, erosion. The site is in very good condition, and it is only affected by agricultural activities, the erosion of a river that flows north of the site and a dirty road to the south.

Description: The site consists on a low and not so prominent tell with an extensive lower town. The site seems to be limited by the river to the north. It was visited in October 2022 by professor Abdullah Bakr Othman, his student Abas and myself. We could document that the site has Ninevite 5 pottery on surface, including a painted fragment and a clay wheel (This kind of material appears during Ninevite 5 period, but could also be of later cronology)

Bibliography: Abu al-Soof 1964: 44; 1968: 80; Rova 1988: 202; TAVO.

Images:

The site of Gird Messina from the south. Image taken by the author in 2021.

Ninevite 5 painted pottery from the site of Gird Messina. Image taken by the author in 2021.

Site number: S591

Name(s): Gird Sheikh Ismail

Occupation(s): Ninevite 5 (ca. 3000-2500 BCEe), middle assyrian, Islamic.

Coordinates X, Y: 3.62582, 44.03557.

Maximum height (in meters): 4-5 m.

Measures (in hectares): ?

Damages and threatens: Cemetery, agriculture. The edges of the tell, except for the southernmost, are covered by a modern cemetery, while the low town is being ploughed by agricultural activities, but it's overall condition is good.

Description: Low tell that doesn't exceed 1,6 h of surface and ca. 4-5 m high, with an extensive low town of unknown (to me) total size. The site was visited by a professor from the university of Salahaddin, professor Abdullah Bakr Othman and his student, Abas and myself. We could found a plentiful of Ninevite 5 pottery on surface, mostly undecorated, but with some incised fragments. In addition, ceramics also appeared in the nearby fields, evidencing that the site is much bigger than the tell itself yet the total surface could not be clarified in our field work. However, the recognized materials from the lower town corresponded to middle Assyrian fragments.

Bibliography: Abu al-Soof 1968: 77; Oral information, field work.

Images:

The low tell viewed from the south-west. Image taken by the author in 2021.

Fragmented Ninevite 5 pottery rim found on the higher point of the tell. Image taken by the author in 2021.

Site number: S592

Name(s): Gird Terhina / Terkhena.

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4379952, 3607254.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: ?

Description: The location of this site is unclear. The site referred to by the AASI had painted Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968: 80; TAVO; AASI.

Images:

Possible location of S592. Taken from Google Earth (12/2020)

Site number: S59

Name(s): Maqbara or Gird-î Qadiriya / Xediriye

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4366385, 3612199.

Maximum height (in meters): ? m.

Measures (in hectares): 4,79 ha.

Damages and threatens: Cemetery. The northern slope has a modern cemetery.

Description: Medium-sized mound with painted and incised/excised Ninevite 5 occurrences. The size is given by the catalog of the EPAS.

Bibliography: Meijer 1986: 26; TAVO.

Images:

S593. Taken from Google Earth (12/2020)

Site number: S595

Name(s): Qabirstan 2 / Temar Kabir

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4396916, 3612886.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery. As the name indicates, the site is affected by a cemetery.

Description: A very small tell on which incised Ninevite 5 pottery has been documented.

Bibliography: Meijer 1986: 26; TAVO.

Images:

S595. Taken from Google Earth (12/2022)

Site number: S596

Name(s): Qabirstan 1/Tendurê

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4383955, 3607813.

Maximum height (in meters): ? m.

Measures (in hectares): 0,5 ha.

Damages and threatens: Cemetery. As it name indicates, the site has a very small cemetery.

Description: Very small site with incised/excised Ninevite 5 pottery on the surface.

Bibliography: Abu al-Soof 1968: 80; AASI 277, p. 12.

Images:

S596. Taken from Google Earth (12/2022)

Site number: S597

Name(s): Gird-î Qadir Agha / **Khirbat Qadir Agha** (TAVO)

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4393085, 3634211.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery, agriculture. Part of the site is under a modern cemetery, the other part is under cultivated fields.

Description: This site yielded both painted and incised/excised Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968: 80; TAVO; AASI 343, p. 12; Kolinski 2019 vol 5: 24.

Images:

S597. Taken from Google Earth (11/2023)

Site number: S598

Name(s): Khirbat Wastat Arab

Occupation(s): Hassuna, Halaf, Ninevite 5.

Coordinates: X, Y: 4393085, 3634211.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Roads, agriculture. The entire site is under cultivation. It seems that a modern town is expanding towards the site, threatening it.

Description: Site with prehistoric and Ninevite 5 pottery on the surface.

Bibliography: Abu al-Soof 1968: 80; TAVO; AASI 352, p.13; Kolinski vol. 5: 24

Images:

S598, hidden under the fields. Taken from Google Earth (11/2023)

Site number: S599

Name(s): Khirbat al-'Abd

Occupation(s): Proto-Hassuna, Halaf, Ubaid, LC 1-5 (full indigenous, not Uruk materials) Ninevite 5 (painted decorations) mid-late Third millennium, old Babylonian (Khabur) late bronze age, iron age/neo-Assyrian, Hellenistic, Parthian/Roman, Sassanian, early Islamic, Abbasid, late Islamic.

Coordinates X, Y: 3.67915, 41.99393.

Maximum height (in meters): 5 m.

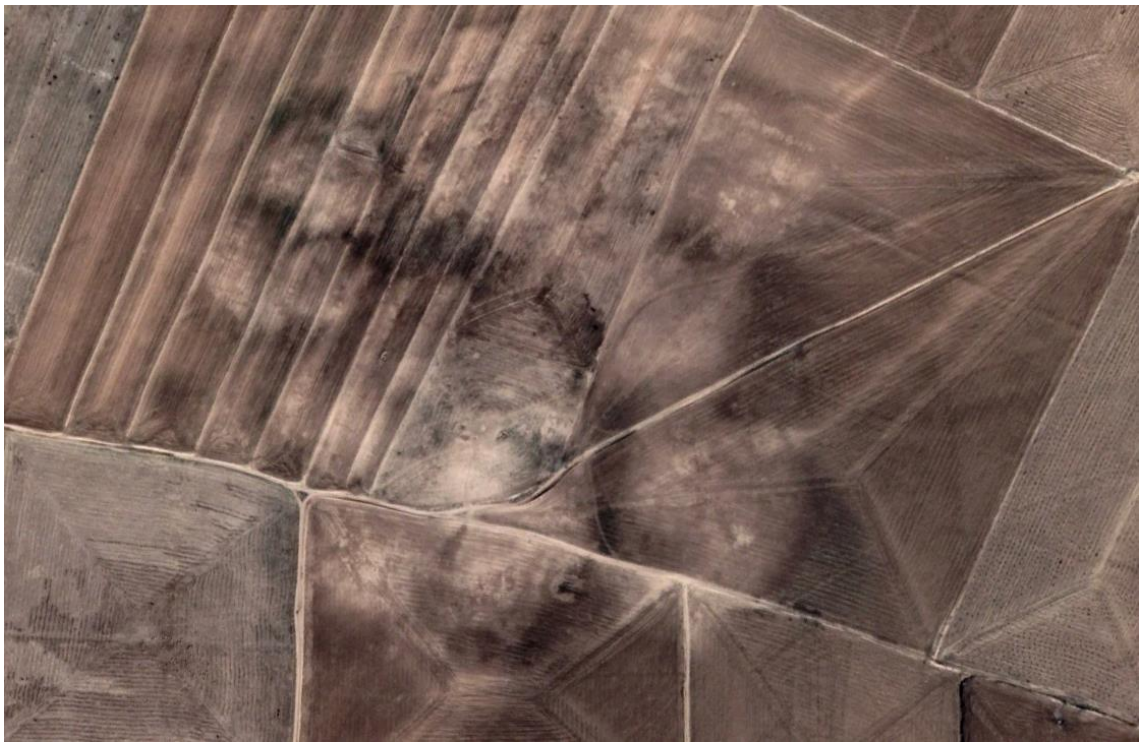
Measures (in hectares): 24 ha.

Damages and threatens: Agriculture, roads, looters? The entire is under cultivation. On top of the bigger mound there are two pits of unknown origin.

Description: This is a major complex with a central mound and large extensions in all directions, with lower mounds (1 to 2 meters high) to the south. Major parts of the northern part of the site, however, were almost entirely unmounded, and a decrease in material density was observed. However, the overall height is very low. The survey yielded evidence for a wide range of periods, but there is no material enough for the author to theorize about all of them. Only one Ninevite 5 diagnostic painted fragment was found in the central mound, while no other evidence of that period is specified by Ur. Due to this fact, no statement can be make about the function or even the size of this settlement in Ninevite 5 times. It could be a hypothetic relation with **Hamoukar** because both sites are relatively close one to another, and the lower amount of Ninevite 5 material in **Khirbet al-Abd** can be pointing out the second one to be a depending rural settlement. This site was quite important in later times, perhaps these occupations are hiding evidence for Ninevite 5.

Bibliography: Ur 1999-2001: 184-185, 357-358.

Images:



The mounds of **Khirbat al-‘Abd** site are perfectly visible in the surrounding farmlands. In the middle, just north of the dirty road, the main mound is also visible.

Site number: S600

Name(s): No name (THS 29)

Occupation(s): Ubaid, Ninevite 5, middle to late Third millennium, Abbasid, Islamic.

Coordinates X, Y: 3.67793, 41.97410.

Maximum height (in meters): 4 m.

Measures (in hectares): 2 ha.

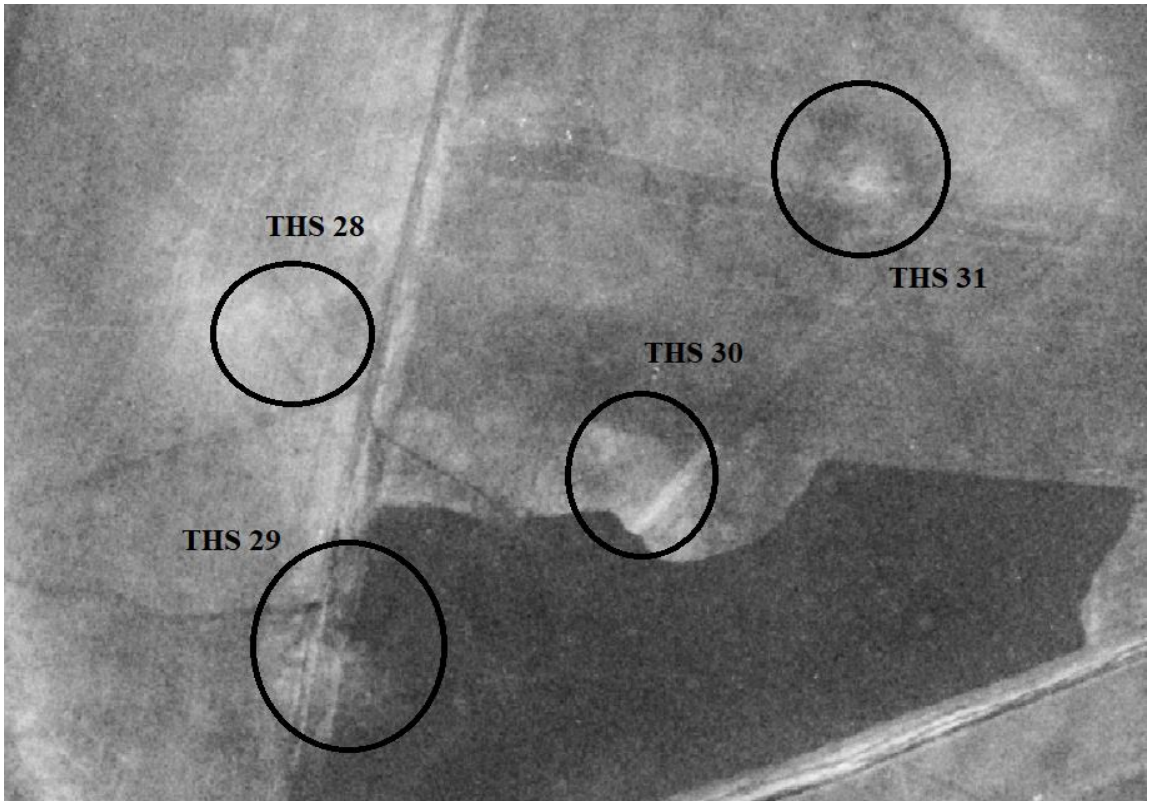
Damages and threatens: Agriculture. Entire site is under ploughed fields.

Description: Small site with a central oval mound. This is one of a cluster of 4 near sites, but this is the higher one. Although all four sites are less than 1 km away ones from the others, the survey team decided to give them separate numbers (THS 28, 29, 30 and 31) The most important period for this settlement was Ubaid, the time when it grew up to its maximum size and could have been an important settlement. Ur also recognized a single undecorated Ninevite 5 sherd and stated that, giving the height of the tell, it is possible for this to have been inhabited through times, but there is no evidence enough to ensure this theory. The only secure occupation so far, aside of that of Ubaid period is the Abbasid, probably as a small farm or a very small rural village. Regarding the other sites, 28 yielded no diagnostic pottery, 30 is a LC 1-2 site resettled during the second half of the Third millennium (perhaps this is consistent with the abandonment of previously inhabited sites like **THS 29**) and 31 will be discussed next.

Bibliography: Ur 1999-2001: 96, 99, 188-189, 230-232, 318-319, 361.

Images:

Sites THS 29 to 31 seen in the same satellite image. Note the short distance between all of them. THS 29 is, by far, the most visible feature on the ground.



The sites as seen in CORONA imagery.
https://corona.cast.uark.edu/atlas#zoom=16&center=4673021,4408746.

Site number: S601

Name(s): No name (THS 31)

Occupation(s): LC 1-2, LC 3-5 (Indigenous material), Uruk (LC 3-4 from southern Mesopotamia) Ninevite 5, second half of the Third millennium.

Coordinates X, Y: 3.67850, 41.98143.

Maximum height (in meters): Unmounded?

Measures (in hectares): 2,4 ha.

Damages and threatens: Agriculture. The whole site is under ploughed fields.

Description: According to Ur's description, the site was certainly occupied during all LC epochs (maximum extension of the settlement), but the Third millennium occupations are unclear. Only one undecorated fragment belonging to Ninevite 5 was found and, alongside with its low height, may be an evidence against this possible occupation. It is possible for this place to have been a village during all LC, but the Third millennium pottery perhaps comes from sporadic frequentations rather than from a stable settlement.

Bibliography: Ur 1999-2001: 189-190, 239, 320-321, 362.

Images: See site **No name (THS 29) (**S600)

Site number: S602

Name(s): No name (THS 39)

Occupation(s): Hassuna, LC 1-2? Ninevite 5? second half of the Third millennium? Islamic

Coordinates X, Y: 3.67720, 41.94199.

Maximum height (in meters): 2,5 m.

Measures (in hectares): 2,3 ha.

Damages and threatens: Agriculture, agricultural facilities. There is a modern squared enclosure built and a concrete-made well on top of the mound.

Description: Small and elongated tell will consistent evidence of Hassuna settlement. A total of 30 pottery fragments out of 41 in total belonged to this period, so it is safe to say that this place had a Hassuna village with which the maximum size of the site was reached. Perhaps all the other occupations were of much smaller scale. Among the remaining 11 diagnostic pottery fragments, 3 were possibly painted Ninevite 5 fragments (Ur states that the identification of the painted fragments as Ninevite 5 is questionable)

Bibliography: Ur 1999-2001: 61, 195, 366. Code 39.

Images:

The mound is in the center of the image, with the modern squared enclosure on top. Its shape is visible through the marks made by agriculture on the surrounding soil. Google Earth, (02/2014)

Site number: S603

Name(s): Khirbet ash-Shiha

Occupation(s): Ninevite 5? late bronze age, iron age, Hellenistic, Parthian, Sassanian to early Islamic, Abbasid, late Islamic.

Coordinates X, Y: 3.68046, 41.90666.

Maximum height (in meters): 4 m.

Measures (in hectares): 10,7 ha.

Damages and threatens: Agriculture, dirty roads. The whole site is under cultivated lands. The southern section of the site had been affected by two dirty local roads.

Description: This is a huge multi-mounded site. The settlement began in late bronze age and extended to its maximum size, 7,2 ha, during iron age. The settlement continued throughout the ages with intermediate periods of abandonment until Islamic times. The only evidence of occupation prior the late bronze age is a single pottery fragment from Ninevite 5 period found on the eastern slope of the main mound. However, such a scarce evidence is clearly insufficient to propose a possible Ninevite 5 occupation, perhaps because all the later phases are hiding almost all evidence from previous phases.

Bibliography: Ur 1999-2001: 72-76, 113, 117, 162, 203, 373.

Images:

The huge site is visible for its lighter soil. Google Earth, (12/2020)

Site number: S604

Name(s): No name (THS 53)

Occupation(s): Ninevite 5? late bronze age, Sassanian?

Coordinates X, Y: 3.68190, 41.90461.

Maximum height (in meters): 1 m.

Measures (in hectares): 1 ha.

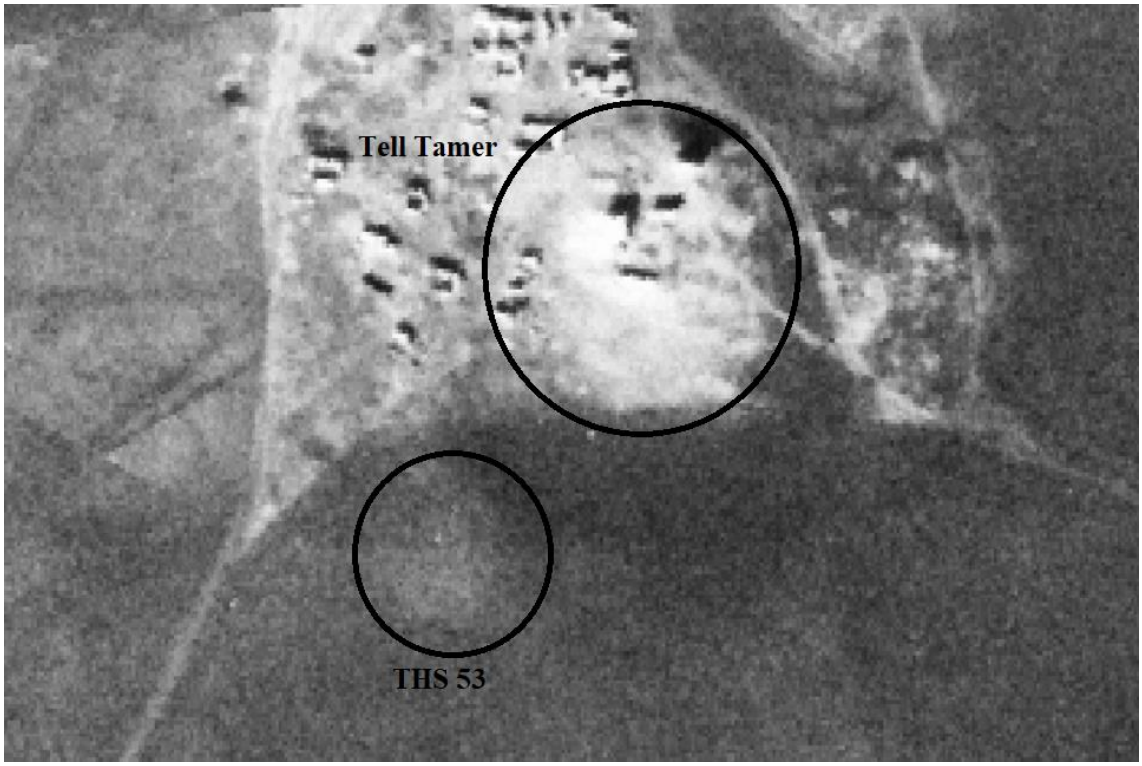
Damages and threatens: Agriculture, agricultural facilities. The whole site is under cultivated land. The remains of an abandoned concrete well stands on top of the mound.

Description: This site is considered to be a small extension of a much larger site located in the immediate vicinity of it called Tell Tamer (this one is numbered THS 54 in Ur's survey) only a hundred meters north. THS 53 was a tiny village during the late bronze age, perhaps was a simple extension of the Tell Tamer urban's net. However, a single pottery fragment belonging to Ninevite 5 was found in here, yet it is not enough to prove an occupation for this period.

Bibliography: Ur 1999-2001: 112, 206, 375.

Images:

An arrow points to site THS 53. The site of Tell Tamer (THS 54, not inventoried in this work) is also visible to the up center part of the image. Google earth, 12/2022.



Site THS 53 as seen in CORONA imagery. As it can be seen, the site is so close to Tell Tamer, so its relation during the late bronze age seems clear.

Site number: S608

Name(s): Tell Yarimjah

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4317568, 3630350.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery, housing. The site is completely obscured by the modern town and a cemetery.

Description: Site with prehistoric and Ninevite 5 pottery on the surface. Painted and incised/excised pottery has been retrieved at the site. It was briefly excavated by Mallowan, and incised pottery was published.

Bibliography: Campbell and Mallowan 1933; Abu al-Soof 1964: 43; 1968: 79; Rova 1998: 208; AASI 130.

Images:

S608, hidden under the modern town. Taken from Google Earth (12/2020)

Site number: S609

Name(s): Tell as-Samair / Sumair

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4269177, 3606792.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Housing. The mound is in a modern village.

Description: Small tell that yielded painted Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968: 78; Rova 1988: 206; AASI 1060, p. 260.

Images:

S609. Taken from Google Earth (12/2020)

Site number: S610

Name(s): Qalat Sherqat (Ashur)

Occupation(s): Ninevite 5, Assyrian.

Coordinates: X, Y: 4326036, 3545639.

Maximum height (in meters): ? m.

Measures (in hectares): 70 ha.

Damages and threatens: Barrage. The site is threatened by the future? Makhool dam, that would partially flood this relevant site.

Description: The place of the great Assyrian capital Ashur. The excavations at the Ishtar temple discovered some incised Ninevite 5 pottery sherds.

Bibliography: Rova 1988: 208; Beuger 2016: 22; AASI 278, 6; TAVO.

Images:

The massive Ashur. Taken from Google Earth (09/2020)

Site number: S612

Name(s): Khirbet esh-Shemsiyat

Occupation(s): Ninevite 5, Assyrian.

Coordinates: X, Y: 4318772, 3626359.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery, agriculture. The site is partially covered by a cemetery.

Description: Small elongated mound that yielded painted Ninevite 5 pottery on the surface.

Bibliography: Abu al-Soof 1968: 79; Rova 1998: 208; AASI 453 p. 239.

Images:

S612. Taken from Google Earth (01/2021)

Site number: S613

Name(s): Gird-î Umar Zalikha

Occupation(s): Hassuna, Halaf, Ninevite 5.

Coordinates: X, Y: 4358389, 3657058.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture.

Description: The exact identification of the site is unclear, as more than one mound corresponds with the description and location given. It is impossible to identify the exact place of this site without ground work. Mound with Ninevite 5 material found on the surface.

Bibliography: Abu al-Soof 1968: 79; Rova 1998: 209; AASI 1296 p. 291.

Images:

The two mounds that fit the most with S613. Taken from Google Earth (12/2022)

Site number: S614

Name(s): Aşkeft Palegawra

Occupation(s): Paleolithic, LC, Ninevite 5, Islamic.

Coordinates: X, Y: 4514499, 3560006.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Roads, agriculture. The entire site is under cultivation. It seems that a modern town is expanding towards the site, threatening it.

Description: Cave with important Paleolithic (12.000-10.000 BCE) remains. It also yielded other occupations, included one from Ninevite 5 period.

Bibliography: Abu al-Soof 1968: 80; TAVO; AASI 352, p.13; Kolinski vol. 5: 24

Images:

The location of the cave S614. Taken from Google Earth (11/2018)

Site number: S615

Name(s): Gird Sayid Khidr / Sayyid Hudair

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4388889, 3604346.

Maximum height (in meters): ? m.

Measures (in hectares): 2,4 ha.

Damages and threatens: Cemetery. The western slope is covered by a modern cemetery.

Description: Small tell that yielded painted Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968:80, AASI 316, p. 14.

Images:

S615. Taken from Google Earth (01/2022)

Site number: S616

Name(s): Gird-î Şeikh Rasul

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4395494, 3603525.

Maximum height (in meters): ? m.

Measures (in hectares): 2,4 ha.

Damages and threatens: Agriculture. Most of the site is under cultivation. The highest part of the mound has some more aggresions.

Description: Small tell that yielded incised/excised Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968:80, AASI 301, p. 14.

Images:

S616. Taken from Google Earth (01/2022)

Site number: S617

Name(s): Gird Qara Bek

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4383628, 3603326.

Maximum height (in meters): ? m.

Measures (in hectares): 8 ha.

Damages and threatens: Roads, agriculture. The entire site is under cultivation. It seems that a modern town is expanding towards the site, threatening it.

Description: Large mound that yielded incised/excised and painted Ninevite 5 pottery. The TAVO places this site in an erroneous location, further to the east.

Bibliography: Abu al-Soof 1968:80, AASI 299, p. 15.

Images:

S617. Taken from Google Earth (01/2022)

Site number: S618

Name(s): Aliawa

Occupation(s): Ninevite 5, second half of the third millennium, MBA, Hellenistic.

Coordinates: X, Y: 4381166, 3601999.

Maximum height (in meters): ? m.

Measures (in hectares): 21,7 ha.

Damages and threatens: Agriculture, erosion.

Description: Large and important multi-period mound. For the Ninevite 5 phase, it is remarkable the discovery of a storage building, probably a granary.

Bibliography: https://orienteantico.unimi.it/en/maipe_aliawa/.

Images:

S598, hidden under the fields. Taken from Google Earth (11/2023)

Site number: S619

Name(s): Gird-î Sayyd Uthman

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4394347, 3597627.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Agriculture?

Description: The exact location is unclear, as three sites could correspond with this mound. The cataloged site yielded Ninevite 5 pottery

Bibliography: Abu al-Soof 1968:80, AASI 300, p. 14.

Images:

One of the monds possibly identified as S619. Taken from Google Earth (01/2022)

Site number: S620

Name(s): Gird-î Zaga / Tell Zeka

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4364923, 3611858.

Maximum height (in meters): ? m.

Measures (in hectares): 16,91 ha.

Damages and threatens: Cemetery. A modern cemetery covers the southern slope. The top has been slightly flattened to make space for some kind of small antenna.

Description: Large tell and lower town with a notable size. The site has yielded beveled rim bowls and Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968:80, AASI 32, p. 33.

Images:

S620. Taken from Google Earth (12/2020)

Site number: S621

Name(s): Tell Umm Rekeba / Rekebta

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4359076, 3610824.

Maximum height (in meters): ? m.

Measures (in hectares): 0,9 ha.

Damages and threatens: Cemetery, houses, streets. A modern cemetery covers most of the site. The modern village has invaded all the slopes.

Description: Very small and low mound that yielded painted Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968:80, AASI 28, p. 33.

Images:

S621. Taken from Google Earth (12/2020)

Site number: S622

Name(s): Malla Mahammad / Sayyid Mahammad

Occupation(s): LC, Ninevite 5.

Coordinates: X, Y: 4371079, 3609099.

Maximum height (in meters): ? m.

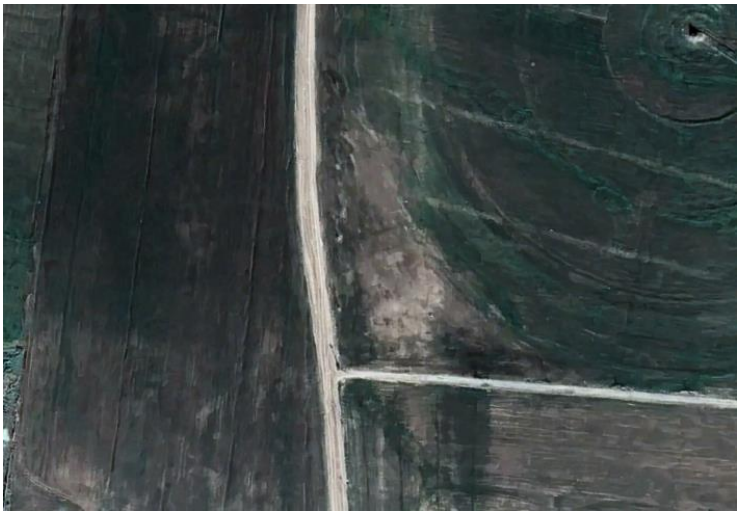
Measures (in hectares): ? ha.

Damages and threatens: Cemetery. A modern cemetery covers the southern slope. The top has been slightly flattened to make space for some kind of small antenna.

Description: The exact location of the mound is uncertain because it is impossible to distinguish the artificial elevation from the many natural hills of the area. However, the location is correct attending the indications of the AASI. The site yielded painted and incised/excised Ninevite 5 pottery.

Bibliography: Abu al-Soof 1968:80; Rova 1988: 204; AASI 35, p. 33.

Images:



Tentative identification of S622. Taken from Google Earth (12/2022)

Site number: S624

Name(s): Tell Wa'ai

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4326719, 3599159.

Maximum height (in meters): ? m.

Measures (in hectares): ? ha.

Damages and threatens: Cemetery, housing. A modern cemetery covers all the southern section of the mound and the northern slope. The site is surrounded by a modern village

Description: Elongated mound that yielded painted and incised/excised Ninevite 5 pottery. The TAVO commit a substantial error while locating this site: The Atlas locates it near the city of Tell Afar, but the actual location is some 90 kilometers south-east.

Bibliography: Abu al-Soof 1968:79; AASI 217, p. 251.

Images:

S624. Taken from Google Earth (11/2021)

Site number: S625

Name(s): B224

Occupation(s): Ninevite 5, MBA.

Coordinates: X, Y: 4249363, 3707201.

Maximum height (in meters): ? m.

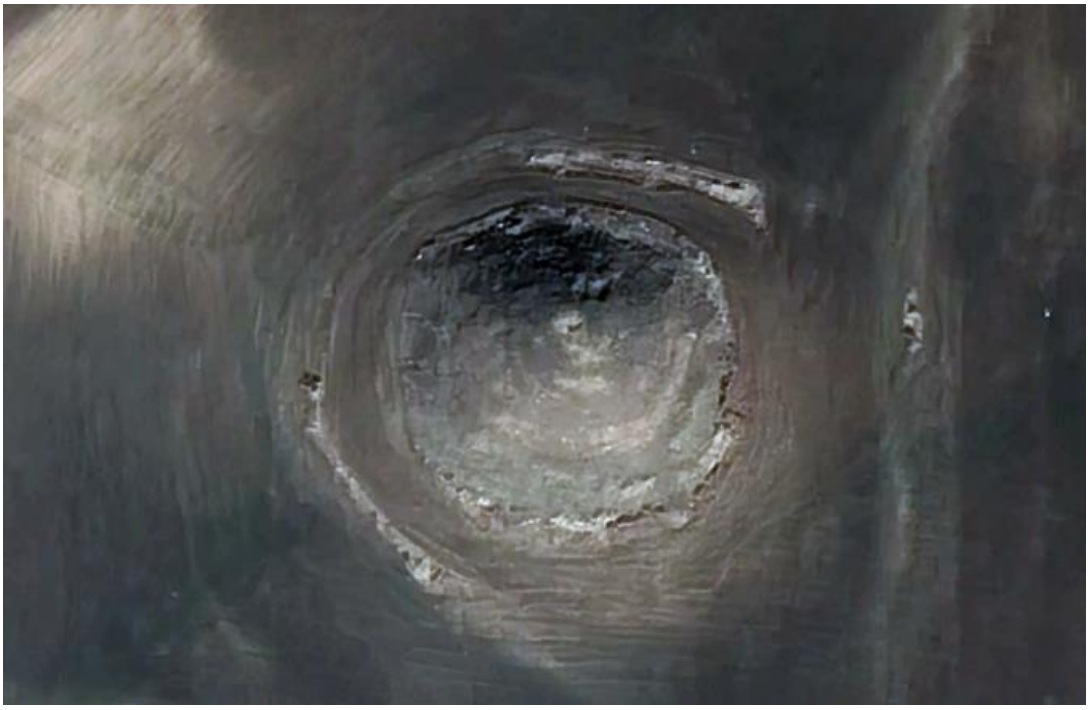
Measures (in hectares): ? ha.

Damages and threatens: Agriculture.

Description: A conic mound with a minor Ninevite 5 occupation.

Bibliography: Herrmann, Langa and Sconzo 2019.

Images:



S625. Taken from Google Earth (02/2022)

Site number: S626

Name(s): B255

Occupation(s): Ninevite 5, MBA, Parthian, Islamic.

Coordinates: X, Y: 4249245, 3707463.

Maximum height (in meters): Flat settlement.

Measures (in hectares): ? ha.

Damages and threatens: Housing, erosion. The site is to the south of a very small hamlet.

Description: A flat but relatively large settlement with secondary Ninevite 5 occupations. The most important period at this site was the middle Assyrian.

Bibliography: Herrmann, Langa and Sconzo 2019.

Images:

S626. Taken from Google Earth (02/2022)

Site number: S627

Name(s): *Ar.* **Telul Dornoq (Dornokh)**

Occupation(s): Ubaid, Early Ninevite 5.

Coordinates X, Y: 42.59047, 37.16545.

Maximum height (in meters): ?

Measures (in hectares): ?

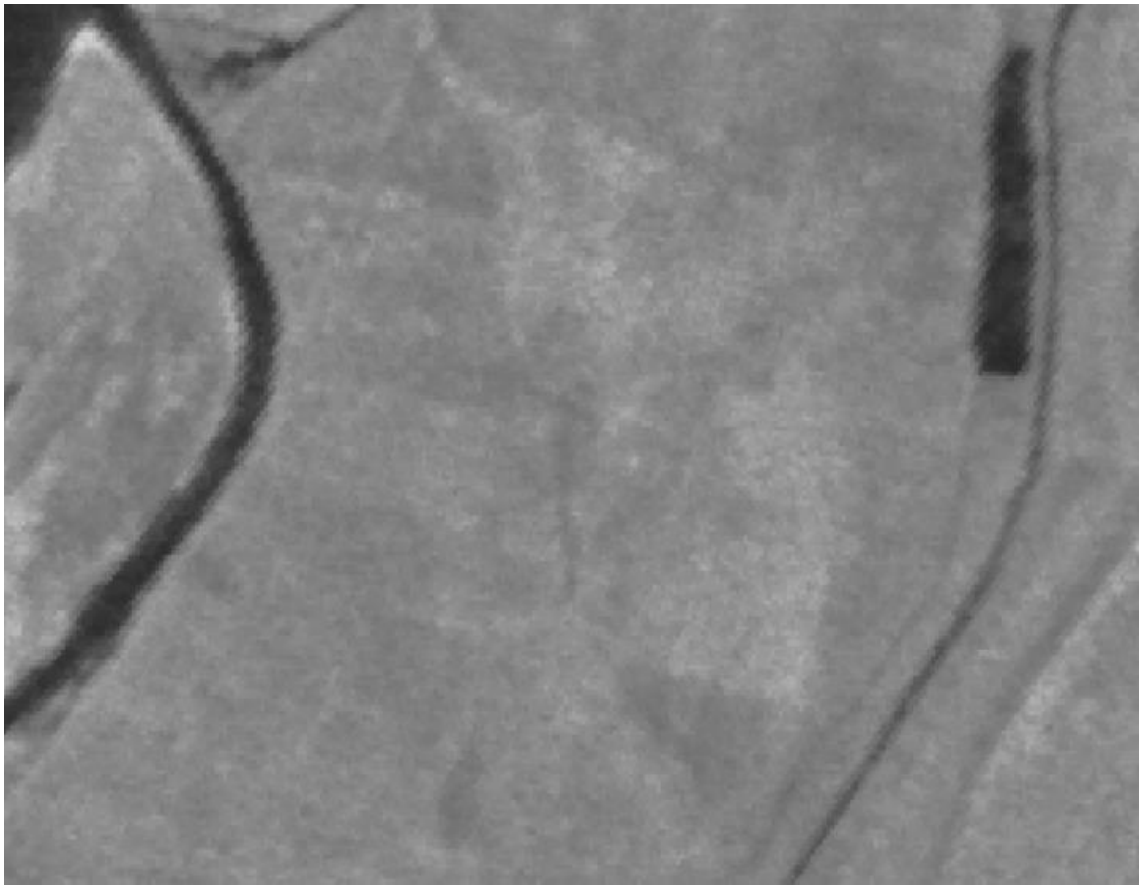
Damages and threatens: Agriculture, dirty road, housing?. The site is completely under cultivation and it is probably being cut by a dirty road. The limits of the site are not known, some remains could be under a southern extension of the hamlet of Dornoq, but it is unclear.

Description: According to the reports of the Eastern Habur Archaeological Survey (EHAS), was identified on the map but it could not be visited due to its location within the military exclusion area of the Iraqi-Turkish border, just north of the city of Zakho. The site was registered by the Iraqi directorate of antiquities in its general atlas, and again summarized by al-Soof (1968) as a settlement with Ubaid and many painted Ninevite 5 pottery sherds. There are at least two mounds hidden under agricultural fields 800 m south of the small hamlet of Dornoq, between the Little Khabur river and a dirty road. No modern survey has been ever done at the site.

Bibliography: Abu al-Soof 1968:79, AASI p. 269, code 518. Sconzo 2019.

Images:

The site’s mark is barely visible as a whitish patch on the fields.



Detail of the site seen on CORONA imagery.

Site number: S629

Name(s): Tell al-Maghr

Occupation(s): Ninevite 5, MBA, Parthian, Islamic.

Coordinates: X, Y: 4024478, 3647785.

Maximum height (in meters): ?.

Measures (in hectares): 9 ha.

Damages and threatens: Housing. The site is invaded by a modern town.

Description: A large fortified mound that yielded only one Ninevite sherd, but enough to locate the site between the EJ 1-3a.

Bibliography: Koubková 2015; Koubková i Wygnanzka 2018: 549, 561.

Images:

S629. Taken from Google Earth (02/2022)

Site number: S630

Name(s): Khirbet ed-Deeb.

Occupation(s): EJ 1-2 (Ninevite 5).

Coordinates X, Y: 40.58974, 3.61716.

Maximum height (in meters): ?

Measures (in hectares): 4 ha.

Damages and threatens: Dams, housing

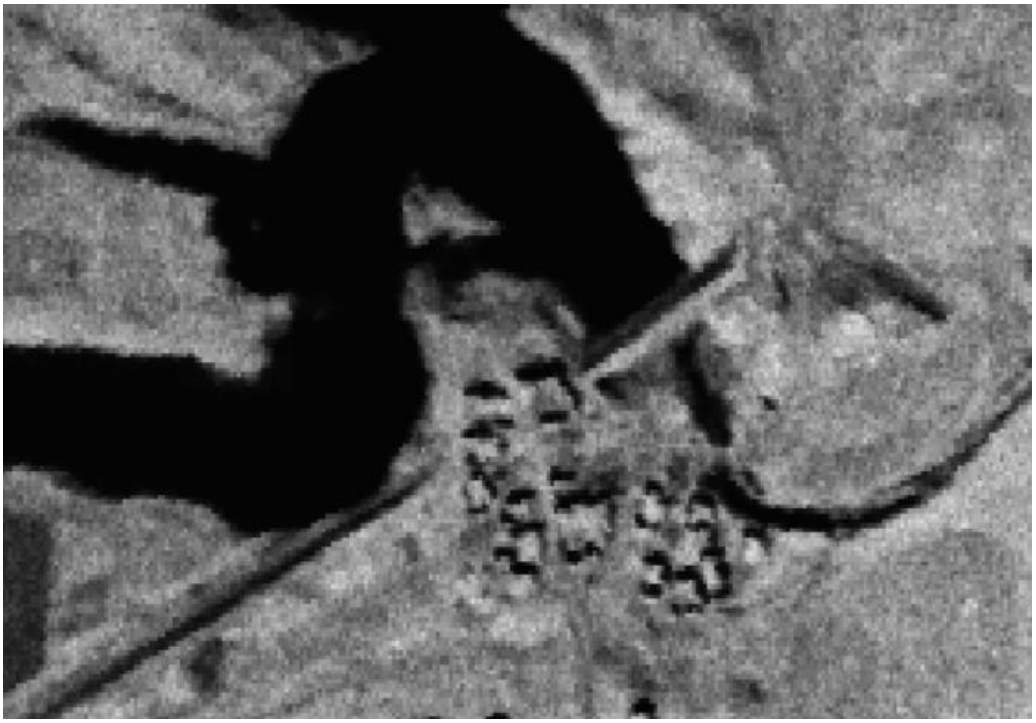
Description: The site is a low mound that was surveyed by the Khabur Basin project. According to Koubková (2005: 41), the site was affected by the construction of a barrage for an artificial lake on the river that flows to the north of the site. The same author also states that, at that time (1994), the site was buried under the modern village bearing the same name. However, based on a recent satellite image, it appears that the barrage is no longer present, and the village has been partially removed, suggesting that the site may have partially emerged

This is one of the few sites that yielded EJ 1 – Early Ninevite 5 material. Despite this, only 2 fragments —one decorated and one non decorated— were recovered during the survey. Koubková (2015) registered this site, but she did not provide its coordinates. Later, this same author placed it on a map (Koubková and Wygnanská 2018). Identified as K216 by the Khabur Basin Survey project.

Bibliography: Koubková 2015: 41; Koubková i Wygnanzka 2018: 550, 561.

Images:

Khirbet ed-Deeb as seen on satellite imagery. The elevation, if existing, is not so notorious on the surface, to the north of the remaining houses. Note the remains of the barrage on the river, to the north-east of the site and the ruined houses of the former village at the center of the image.



The same site on CORONA imagery. The barrage was still in use, and the village extended further to the north over the site.

Site number: S631

Name(s): Amyan

Occupation(s): Hassuna, Halaf, Ubai, LC 1-5 (Uruk), Ninevite 5, late third millennium, middle bronze age, Mitanni, middle Assyrian, neo-Assyrian, post-Assyrian, Hellenistic, Parthian, early to middle Islamic.

Coordinates X, Y: 43.59657, 36.53665.

Maximum height (in meters): 26 m (main mound).

Measures (in hectares): 47,7 ha (total area), 7,7 ha approximately for Ninevite 5 period.

Damages and threatens: Housing, agriculture. The houses of the modern village have surrounded the main mound, while it's southern extension is badly damaged by the buildings and a highway. All the other mounds are under fields.

Description: This location comprises a cluster of multi-period mounds, each one with a different historical sequence according to the surface findings. The LoNAP team conducted surveys on the sites and identified up to nine mounds. However, only two of them —the main mound and the site referred to as 572, to the south of the first —, were confirmed to have been inhabited during Ninevite 5 period. Although the Amyan site was excavated by the team in 2019, no stratigraphy associated with Ninevite 5 was documented during that intervention.

Bibliography: Abu al-Soof 1968:79, AASI p. 518, code 269. Sconzo 2019.

Images:

The main mound of Amyan and secondary mounds as whitish patches on the fields to the norh. Mound 572 is invisible due to modern affectations.

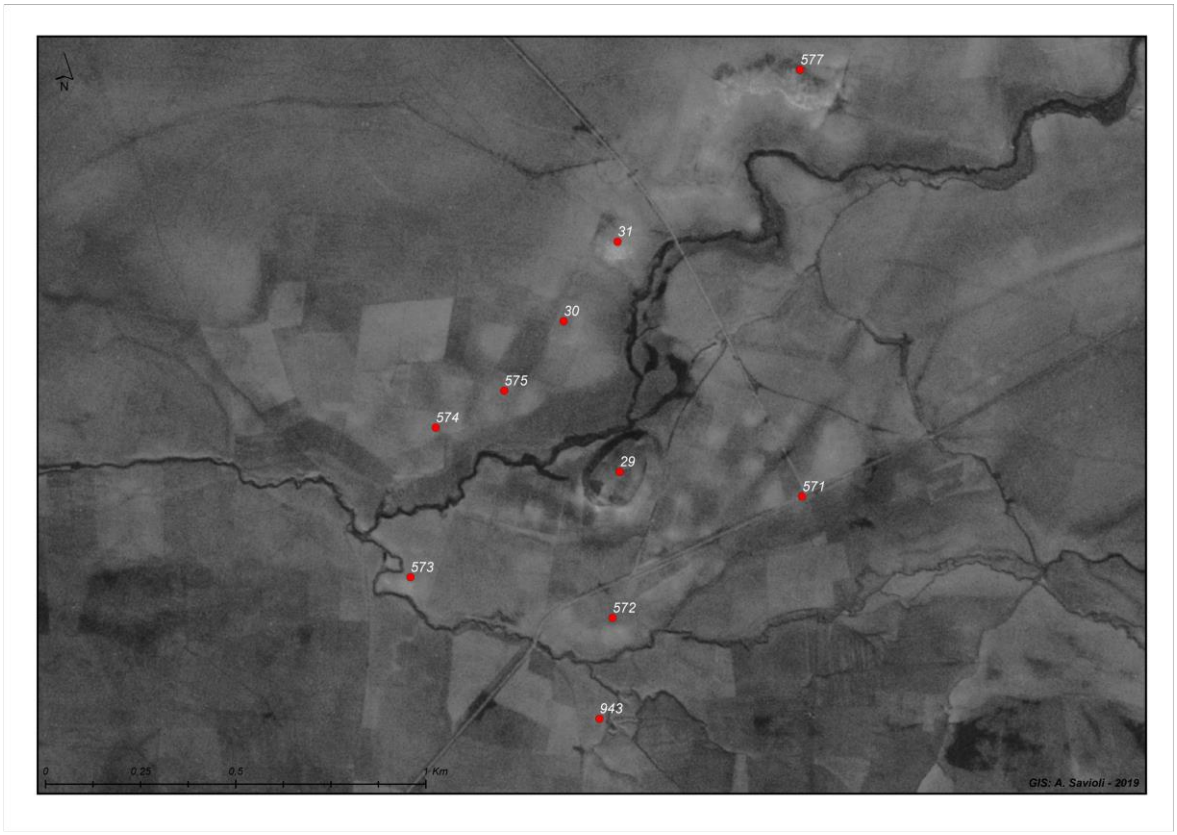


Image showing the locations of all mounds of the Amyan cluster. Taken from the LoNAP excavation reports (Morandi in Couturaud 2020: 21).

Site number: S632

Name(s): Gird-î Qoç

Occupation(s): Hassuna, Ninevite 5, Late Assyrian, Sassanian/Early Islamic.

Coordinates X, Y: 44.17858, 36.12479.

Maximum height (in meters): ?

Measures (in hectares): ?

Damages and threatens: Agriculture. The whole site is located in land that's being plundered for agricultural purposes. The northwestern side has been seriously affected by its conditioning for agriculture.

Description: This site is known because of the reconnaissance activities carried out by the Erbil Directorate of Antiquities. Several features are visible on the map, maybe small mounds, but there is no description available of this site on the ground. The only information available are its periods of occupation.

Bibliography: -

Images:

Site number: S633

Name(s): Tell Mishirfa

Occupation(s): Ninevite 5, Assyrian, Parthian.

Coordinates: X, Y: 4239104, 3593659.

Maximum height (in meters): 4 m.

Measures (in hectares): 0,6 ha.

Damages and threatens: Agriculture.

Description: Two mounds that, according to Ibrahim, yielded Ninevite 5 pottery.

Bibliography: Ibrahim 1986: 51.

Images:

S633. Taken from Google Earth (08/2017)

Site number: S635

Name(s): Tell al-Harim

Occupation(s): Hassuna, Samarra, Halaf, Ninevite 5, Mitanni, Assyrian, Parthian, Sassanian, Islamic.

Coordinates: X, Y: 4305068, 3608077.

Maximum height (in meters): 15 m.

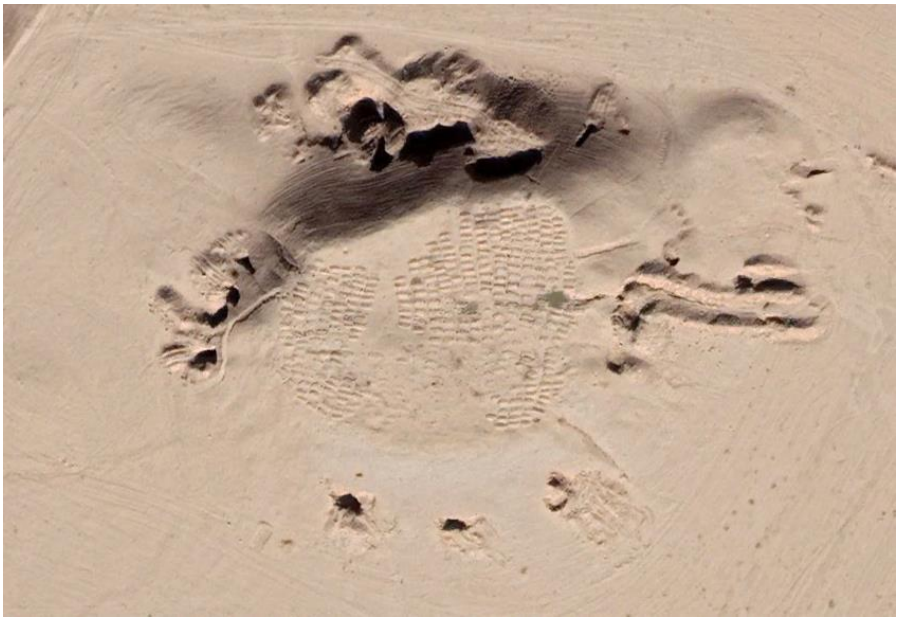
Measures (in hectares): 15 ha.

Damages and threatens: Soil extraction, cemetery. The slopes are badly damaged due to intensive soil extraction activities. The top is covered by a modern cemetery.

Description: A large mound that, according to Ibrahim, yielded Ninevite 5 evidences.

Bibliography: Ibrahim 1986: 59.

Images:



S635 with heavy aggresions. Taken from Google Earth (02/2018)

Site number: S636

Name(s): Tell Abu Wajnam / Khirbat Abu Wajnah

Occupation(s): Ninevite 5, MBA, Parthian, Islamic.

Coordinates: X, Y: 4262555, 3668459.

Maximum height (in meters): ?.

Measures (in hectares): ? ha.

Damages and threatens: Housing. A modern town is growing towards the site.

Description: Only Ibrahim claims that, under an extensive medieval deserted town, this extensive and well known site has Ninevite 5 occupations.

Bibliography: Stein 1942; Oates 1968: 76-7; Ibrahim 1986: 74; AASI 169/51 p. 256

Images:

S636. Taken from Google Earth (02/2022)

Site number: S637

Name(s): Tell Khamira

Occupation(s): Ubaid, LC, Ninevite 5, MBA, Mitanni, Neo-Assyrian, Parthian, Sassanian, Islamic.

Coordinates: X, Y: 4267246, 3625501.

Maximum height (in meters): ? m.

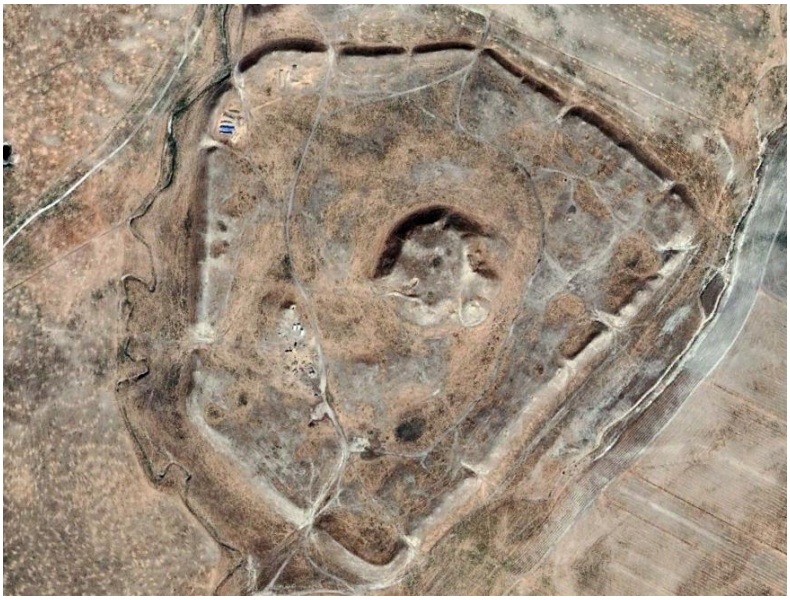
Measures (in hectares): ? ha.

Damages and threatens: Agriculture.

Description: A large fortified mound that yielded Ninevite 5 pottery. Ibrahim does not states a Ninevite 5 occupation, but the AASI does.

Bibliography: Ibrahim 1986: 67; AASI 1175, p.243.

Images:



S637. Taken from Google Earth (02/2022)

Site number: S638

Name(s): Tell Khazneh

Occupation(s): Samarra, Ubaid, LC, Ninevite 5, second half of the third millennium, MBA, neo-Assyrian, Sassanian.

Coordinates: X, Y: 4244757, 3628443.

Maximum height (in meters): ?.

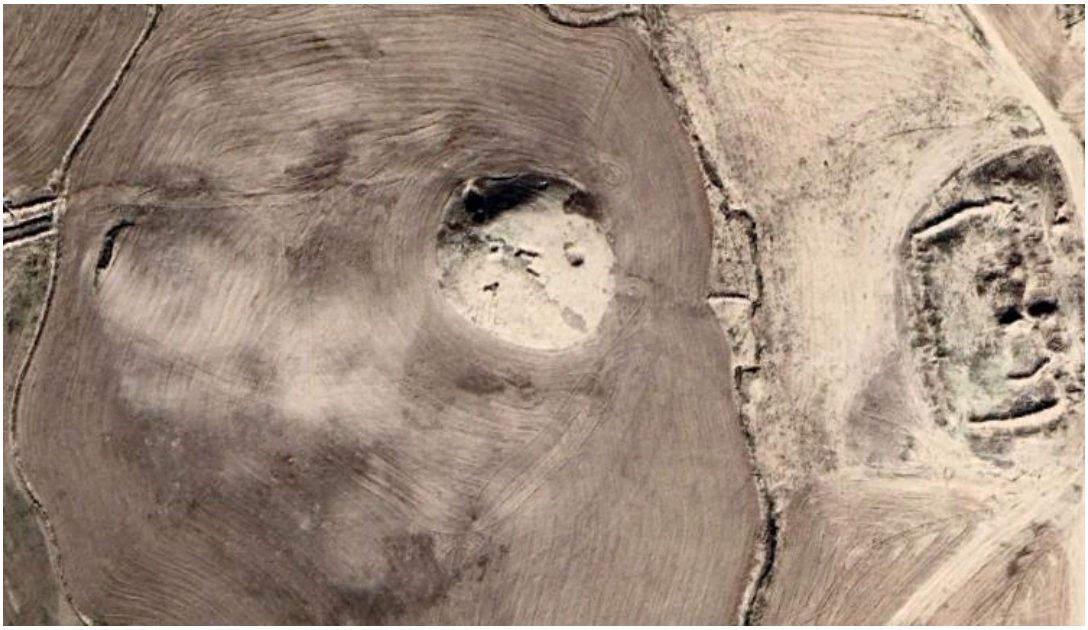
Measures (in hectares): ? ha.

Damages and threatens: Agriculture, military construction?

Description: Site only recorded by Ibrahim. It is a mound with a lower town that yielded Ninevite 5 material.

Bibliography: Ibrahim 1986: 67.

Images:



S638. Taken from Google Earth (02/2022)

Site number: S639

Name(s): No name 161

Occupation(s): Halaf, Ubaid, LC, Ninevite 5, second half of the third millennium, Sassanian.

Coordinates: X, Y: 4251145, 3630127.

Maximum height (in meters): ?.

Measures (in hectares): ? ha.

Damages and threatens: Housing. The site is invaded by a modern town.

Description: A small site only recorded by Ibrahim and tentatively located due to the low detail of his map. The site yielded Ninevite 5 occupations.

Bibliography: Ibrahim 1986: 68.

Images:

Tentative location of S639. Taken from Google Earth (02/2022)

Site number: S640

Name(s): Tell al-Shair

Occupation(s): Samarra, Halaf, Ninevite 5, MBA, middle Assyrian, neo-Assyrian and Parthian.

Coordinates: X, Y: 4241581, 3615633.

Maximum height (in meters): ?.

Measures (in hectares): ? ha.

Damages and threatens: Military construction. The site has been affected by military trenches.

Description: A large fortified mound that yielded Ninevite 5 occupations.

Bibliography: Reade 1968: plt. 77; Ibrahim 1986: 70.

Images:

S640. Taken from Google Earth (02/2022)

Site number: S641

Name(s): Dem Tepe

Occupation(s): Hassuna, Samarra, Halaf, Ubaid, LC, Ninevite 5 and neo-Assyrian

Coordinates: X, Y: 4245469, 3624191.

Maximum height (in meters): ?.

Measures (in hectares): ? ha.

Damages and threatens: Housing. The site is invaded by a modern town.

Description: The location of this site is tentative because Ibrahim does not give many details on its location, only a general map. Also, this author is the only one that refers to this site as having Ninevite 5 occupations, while Abu al-Soof only mentions it as a Samarra and LC site.

Bibliography: al-Soof 1968: 79; Ibrahim 1986: 68; AASI 941, p. 259.

Images:

Tentative identification of S641. Taken from Google Earth (02/2022)

Site number: S642

Name(s): Tell Gray Qassim

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4291088, 3667725.

Maximum height (in meters): ? m.

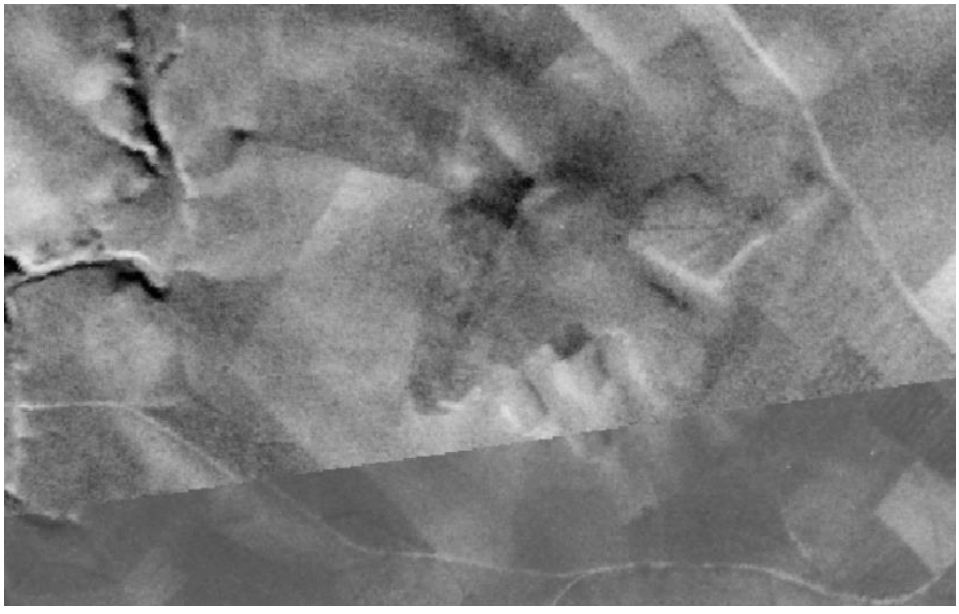
Measures (in hectares): 1 ha.

Damages and threatens: Barrage. Permanently drowned.

Description: Not much information is known on this site, it was excavated by an Iraqi team.

Bibliography: Iraq 1983: 210; Rova 1988: Doro 2021-22: 18.

Images:



The site as seen in the CORONA satellite.

Site number: S643

Name(s): Tell Jumbur

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4296085, 3671716.

Maximum height (in meters): ? m.

Measures (in hectares): 0,3 ha.

Damages and threatens: Road, housing.

Description: The site was excavated by Karim Toma between 1981 and 1982. The site was not threatened by the Eski-Mosul lake, but it was affected by the new road Mosul-Dohuk. One of the layers contained incised/excised Ninevite 5 pottery.

Bibliography: Iraq 1983: 214; Toma 1987a; Rova 1988: 207.

Images:

S643. Taken from Google Earth (02/2022)

Site number: S645

Name(s): Jaloqa I/Jelluqeh

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4293784, 3665512.

Maximum height (in meters): ? m.

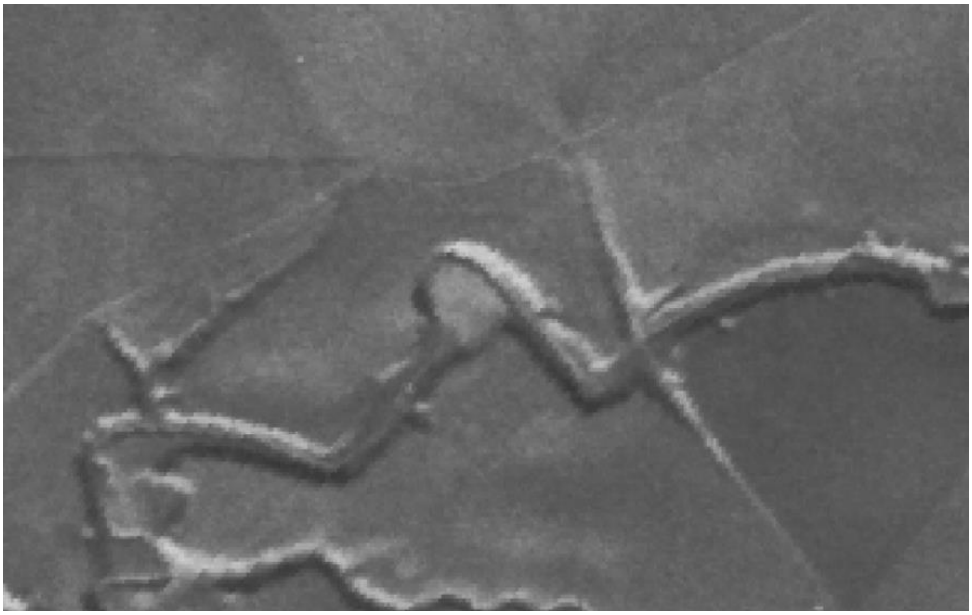
Measures (in hectares): 8 ha.

Damages and threatens: Barrage. Permanently drowned.

Description: Excavated by an Iraqi team, but almost nothing is known aside of the presence of Ninevite 5 layers.

Bibliography: Iraq 1987: 232; al-Dabbagh 1987; Rova 1988: 206.

Images:



The site as seen in the CORONA imagery.

Site number: S646

Name(s): Tell Durdara/Der Derra

Occupation(s): Ninevite 5

Coordinates: X, Y: 4244076, 368485.

Maximum height (in meters): 22 m.

Measures (in hectares): 1,7 ha.

Damages and threatens: Erosion, agriculture.

Description: Small mound over an outcrop. Important Ninevite 5 occupations.

Bibliography: Spanos 1988; Ball 2003.

Images:

S646. Taken from Google Earth (02/2022)

Site number: S647

Name(s): Tell Banna Bur

Occupation(s): Ninevite 5

Coordinates: X, Y: 4471084, 3560535.

Maximum height (in meters): ? m.

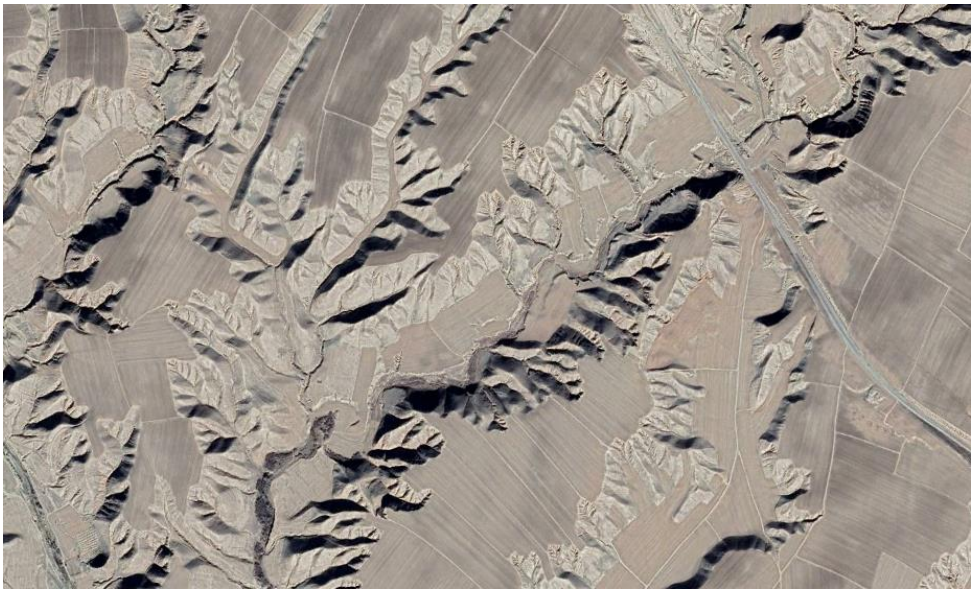
Measures (in hectares): ? ha.

Damages and threatens: ?

Description: The exact location of this site is only tentative, as it is impossible to distinguish the mound from the many natural hills in the area without a ground reconnaissance. The site yielded painted Ninevite 5 pottery.

Bibliography: Al-Soof 1986: 82; AASI 220, p. 199; AASI map 106, 15; TAVO.

Images:



Area in which S647 should be located. Taken from Google Earth (02/2018)

Site number: S652

Name(s): Giricano

Occupation(s): EBA, MBA.

Coordinates: X, Y: 4074974, 3781705.

Maximum height (in meters): 25 m.

Measures (in hectares): 1,6 ha.

Damages and threatens: Barrage, agriculture. Partially drowned.

Description: A high tell but low in size. There is another mound in the vicinity, but it is not clear whether it belong to the same site or not. Incised/excised Ninevite 5 pottery was found during the German salvage excavations.

Bibliography: Schachner 2002; Schachner and Schachner 2003.

Images:

S652. Taken from Google Earth (08/2018)

Site number: S653

Name(s): Gre Amer

Occupation(s): EBA.

Coordinates: X, Y: 4152026, 3780898.

Maximum height (in meters): ? m.

Measures (in hectares): 4 ha.

Damages and threatens: Barrage. Permanently drowned.

Description: A small tell with evidences of occupations in the EBA. However, only one excised Ninevite 5 sherd was found at the site alongside with metallic ware sherds, and no stratigraphy was found related to these finds.

Bibliography: Pulhan and Blailock 2016.

Images:

S653 as an island. Taken from Google Earth (02/2023)

Site number: S675

Name(s): Sufiyah

Occupation(s): Ninevite 5.

Coordinates: X, Y: 4154489, 3691711.

Maximum height (in meters): 3 m.

Measures (in hectares): 1 ha.

Damages and threatens: Housing. The site is mostly obscured by the modern village.

Description: Very small mound with evidences of occupations during the EJ 3a.

Bibliography: Ristvet 2005.

Images:

S675. Taken from Google Earth (11/2022)

Non located sites

The following sites have been referred by the sources as Ninevite 5 sites, but their locations are uncertain or completely unknown for various reasons. Many sites in Iraq that appear in the Atlas of the Antiquities Ministry are challenging because of the Arabization of the Kurdish toponymy and the limited location resources available. The information provided often includes only a name, the closes village and a summary of the historical occupations, but focusing on Southern Mesopotamian chronology, thus leading to imprecisions. Almost all of the non-located sites in this work fall into this group.

Qushtapa, Erbil

-**Kirdi Kharaba**: According to as-Soof, this site yielded painted and incised Ninevite 5 ceramics. The AASI recorded it with the code 308, p. 14 and stated that the site is close to a village called Balanka Muhamad Agha, which I haven't been able to locate. However, thanks to the information given by the TAVO map, the site is located east of the town of Qushtapa, but it's exact location is unknown.

-**Qabirstan**: there are actually 4 sites mentioned in the Atlas as wearing the name 'Qabirstan' (cemetery in Kurdish). Two of them are clearly located (S595 and S596), but the other two, the ones listed as 297 and 306 in the AASI. Location uncertain.

-**Tell Hellu**: not found in the AASI, it seems that al-Soof catalog code (33) is incorrect. No 33 listed in the AASI neither in Erbil nor in Sulaymaniyah Liwas.

Al-Shura, Mosul

-**Khirbet Ejjarah** Location uncertain.

Dohuk

-**Khirbet Faqih Hassan**: The site is simply described by al-Soof as containing Ninevite 5 sherds. It is registered in the AASI with the number 1364, page 269 and states that it is close to the village of Bamir, that is located 5 km west of the site of Muqable (S504). However, it has never been certainly located. Abu al-Soof 1968:79, AASI p. 269, code 1364. Sconzo 2019.