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Water scarcity, social power and the production of an elite suburb. The political ecology of water in Matadepera, Catalonia

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ABSTRACT

This article investigates the history of land and water transformations in Matadepera, a wealthy suburb of metropolitan Barcelona. Analysis is informed by theories of political ecology and methods of environmental history; although very relevant, these have received relatively little attention within ecological economics. Empirical material includes communications from the City Archives of Matadepera (1919-1979), 17 interviews with locals born between 1913 and 1958, and an exhaustive review of grey historical literature. Existing water histories of Barcelona and its outskirts portray a battle against natural water scarcity, hard won by heroic engineers and politicians acting for the good of the community. Our research in Matadepera tells a very different story. We reveal the production of a highly uneven landscape and waterscape through fierce political and power struggles. The evolution of Matadepera from a small rural village to an elite suburb was anything but spontaneous or peaceful. It was a socio-environmental project well intended by landowning elites and heavily fought by others. The struggle for the control of water went hand in hand with the land and political struggles that culminated – and were violently resolved - in the Spanish Civil War. The displacement of the economic and environmental costs of water use from few to many continues to this day and is constitutive of Matadepera's uneven and unsustainable landscape. By unravelling the relations of power that are inscribed in the urbanization of nature (Swyngedouw, 2004), we question the perceived wisdoms of contemporary water policy debates, particularly the notion of a natural scarcity that merits a technical or economic response. We argue that the water question is fundamentally a political question of environmental justice; it is about negotiating alternative visions of the future and deciding whose visions will be produced.

Keywords: water scarcity, political ecology, environmental history, environmental justice, suburbanization, Barcelona.

1. Introduction

Climate change and regional water crises have fuelled interest on the growth of water consumption in urban and peri-urban areas. In Spring 2008 the Metropolitan Region of Barcelona (MRB) experienced one of the worst water shortages of its recent history. Reservoirs at the Ter-Llobregat river system, which supplies Barcelona and suburbs, fell to 20% of their capacity (La Vanguardia, 2 April 2008). Growing water demand from low-density suburbanization is at the heart of Barcelona's problems, as consumption in the city centre declines (March and Saurí, forthcoming; Saurí, 2003). Despite vocal opposition from environmental and rural interests, proposals to desalinate or transfer water from distant rivers such as Ebre and Rhone dominate media and public discourse (El País, 31 March 2008). In the dominant discourse, the process of suburbanization is seen as spontaneous, inevitable and overall a social progress, albeit with corrigible problems. Water scarcity is seen as a natural condition that Barcelona and its communities have continuously to battle against.

This article advances three counterarguments based on a political ecological perspective of water and urbanization (Swyngedouw, 2004) and contributing to the theoretical development of the case against the expansionist water paradigm and in favor of a "new water culture" (Estevan and Naredo, 2004). First, (sub)urbanization is anything but spontaneous, in the sense of being outside deliberate political choice. A detailed study of Matadepera, an affluent suburb in the outskirts of Barcelona, shows that its historical evolution from a small rural village to an elite suburb was a socio-environmental project deliberately promoted by ruling elites and opposed fiercely by others. The second argument is that water scarcity is not a universal, physical condition. Scarcity is a function of water demands and hence partly socially produced (Naredo, 1997). Matadepera had enough water to satisfy local needs. Water was scarce only in the context of the water demands for the gentrified urbanization of the town. Yet scarcity was discursively mobilized to garner public consent for controversial aspects of this urbanization process. Finally, against prevalent assumptions, this article questions whether the transformations experienced in places like Matadepera can be characterized as progress. Gross injustices were – and are - committed and justified in the name of progress. The actual historical trajectory of Matadepera was not necessarily the best possible. Left-wing Republicans in the 1930s envisaged a balanced territorial development based on autonomous small farmers. This vision was crushed violently by Franco's dictatorship, protecting the vested interests of landlords. Discourses about the inevitability of progress disguise that there were alternatives in the past, and so foreclose the options for the future.

Matadepera is a small suburban township in the outskirts of Barcelona (figure 1). Its landscape holds surprises for first time visitors. Arriving on a spring day at the town's centre, you would think you were in any Mediterranean village: cobbled streets and a plaza, elders sitting in the benches, kids playing football and construction workers having their lunch-break beer. Drive a few minutes out of the centre towards the surrounding forest hills and you find yourself in a replica of California's Beverly Hills: walled mansions with guards, towers, angry dogs, lawns watered by immigrant gardeners, swimming pools and expensive cars with posh drivers. Matadepera is the municipality with the highest per capita income in Catalonia. Although surrounded by forests, Matadepera has some 37 ha of lawn, covering 10% of its urbanized area. There are some 1000 pools in a town of about 9000 people (Estany et al., 2008). The average personal water consumption, 419 lt per capita per day (lpcd), is very high by

Spanish or European standards, three times higher than the average in central Barcelona.

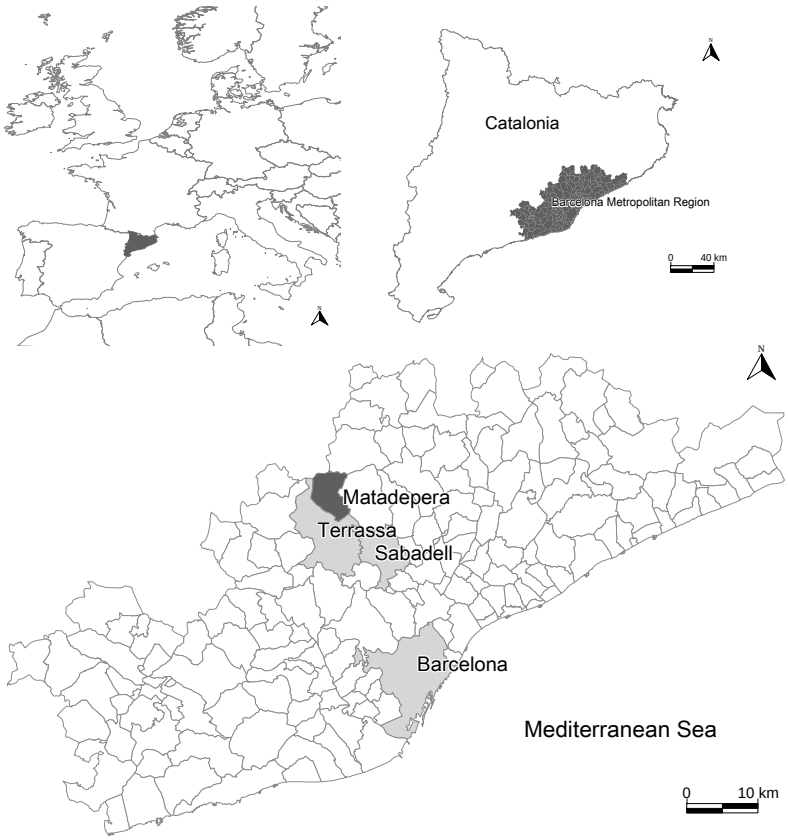

Figure 1. Location of Matadepera. Source: own elaboration.

This article tells the story of the ecological-economic evolution of this peculiar land and waterscape. Although urbanization in Matadepera took off after the 1970s, we focus on the historical period before and after the Spanish Civil War (1936-1939). We argue that the origins of Matadepera's urbanization have to be traced in this particular period when alternative visions about the future of the territory clashed and the broad contours of what was to follow were laid out irreversibly. Our historical study relies on two primary data sources. First: an exhaustive review of the City Archives of Matadepera. All formal communication between Matadepera's municipal authorities and external individuals or agencies, was collected for the period 1919-1979. Key documents about water, land and political conflicts were identified, photocopied and text coded[1]. Second, interviews were held with 17 individuals born between 1913 and 1958 who experienced specific events related to the pre, Civil War and Francoist periods. The sample of interviewees was balanced in terms of right and left-wing political sympathies, occupation and socio-economic profile. Interviews lasted between one and two hours. They were recorded with a video camera and/or a digital recorder and transcribed. Additional policy documents were collected, including territorial planning reports, water company publications and plans and related laws, as well as secondary literature

[1] For detailed references on archival sources, see Ruiz et al. (2008). Available at: http://www.raco.cat/index.php/Terme/

including a history of Matadepera's hydraulic works, written by the priest of the village (Ametller, 2002), who was also interviewed. A content analysis was performed for all interviews and selected municipal documents, codifying key terms, and identifying cross-cutting themes.

The results are presented in the form of narrative (Cronon, 1992) written from the vantage point of political ecology. Whereas ecological economics maintain a binary distinction between society and nature, the former enclosed within the boundaries of the latter, political ecology advances an intertwined perspective, where the process of metabolic "production" fuses society and nature. From a political ecology perspective city and nature are not disjointed, antithetical entities; cities metabolize nature, producing new, urbanized natures (Swyngedouw, 2004). This does not deny degradation; produced natures may be seen as better or worse according to different valuation criteria. Uneven power relationships produce uneven control of water and other resources, and socially uneven (urban) landscapes with unequal distribution of the costs and benefits of ecological-economic change among social groups (Martínez-Alier, 2003; Naredo, 1997; Swyngedouw, 2004). Water resource development is part and parcel of urbanization (Kallis, 2009; Swyngedouw, 2004). The question is not whether water causes urban growth or not (obviously water is a necessary but not sufficient factor for growth), but how, by whom and for what purpose water is mobilized in the process of urbanization.

Scarcity from a political ecology perspective is not absolute and nature-given, but socially produced (Bakker, 2000). This does not deny that scarcity is a function of physical conditions, but it emphasizes that it is also a function of population and consumption levels within artificially-defined territorial limits, as well as technological and institutional capabilities that change over time (Meerganz von Medeazza, 2004). A major insight of political ecology concerns the ways in which the specter of scarcity and its framing as a natural phenomenon are discursively employed to serve the interests of the elites who profit from the social processes that produce this scarcity, often in the name of solving it (Kaika, 2005). Framed as a collective, natural problem, scarcity galvanizes support for those in power and depoliticizes choice (Nevarez, 1996; Swyngedouw, 2004).

All this might seem too abstract, but the story of Matadepera will demonstrate its empirical relevance. This article brings together political ecology with its focus on power and justice, and environmental history, the study of environmental change over time. In this way it advances to the practice of ecological economics, defined by Faber (2008) as the study of "nature, justice and time".

Section 2 presents the geographical and historical background of Matadepera. Section 3 shows how private control of the town's water supply since the 1910s went hand in hand with the emergence of the lucrative business of vacation housing for rich urbanites. The struggle for the municipalization of water supply in the 1930s intertwined with the struggle for land reform. Both came to a violent resolution with the victory of Franco and landowning elites in the Civil War. Section 4 shows how in turn the fast and uneven urbanization of Matadepera in the 1960s and 70s built upon the highly concentrated ownership of land, which would not have been sustained without the repression of Franco's dictatorship. The historical record reveals a consistent pattern whereby subsequent waves of developers joined the water company to secure water for their projects, displacing costs to the future and the community through debts, increased prices and network under-investment. Section 5 relates the findings from Matadepera to debates concerning water, urbanization and policy.

This research forms part of the project “Memòries d’una feixa”, a collaborative project of historians and environmental scientists from the region working to recover the historical memory of Matadepera. Most present-day residents were born or arrived in Matadepera after the Spanish Civil War. In a truly political-ecological fashion the intention of this study is to reveal “all that struggle hidden behind the quite vista” (Robbins, 2004, xvi) and give voice to memories that, sometimes silent and sometimes silenced, are central to understanding the historical transformations of the Catalan and Spanish territory during the last century.

2. The political and ecological economy of 19th century Matadepera

Historically, land and economic power in Matadepera were extremely unevenly distributed. In 1886, just two family estates, the Barata and the Solà, owned half of Matadepera's territory. They, together with nine other estates, controlled more than 90% of the land. Unlike other regions of Spain, the landlord class of the Catalan countryside did not descend from feudalism, but emerged out of the complex and conflictive transition from the medieval ages (Cussó et al., 2006), whereby a few farms accumulated pieces of land previously held under "emphyteutic contracts"[2] with feudalists (Garrabou et al., 2001). Between this landlord class and landless peasants stood 60 families who owned smaller plots and the remaining 10% of the territory[3]. The grand majority remained without property; that is 500 of the 574 registered residents of the town. Matadepera was not representative of the Catalan countryside, where generally property was more evenly distributed. It is particularly this uneven distribution of land and its maintenance through the control of vital resources like water and the exercise of brutal power that explains how Matadepera turned out to be today an elite suburb, unlike most other neighboring towns.

Matadepera is located in the hillside of the Sant Llorenç mountain, at an elevation of 423 m. It has an area of 25.3 km^2 mainly covered with holm oak (*Quercus ilex*), mixing with Aleppo pine (*Pinus halepensis*) on the lower parts of the mountain. The climate is mild Mediterranean, Matadepera located in the semi-humid, north-eastern basins of Catalonia. The town's products in 19th century included cereals, livestock, olive trees and vines, lime, firewood and charcoal from oaks and timber from pines. Cereal and olive trees were grown for local subsistence and consumption. Some of the vine production was export-oriented (Roca, 2003). Catalan vines benefited from high wine prices and reduced international competition after a phylloxera plague destroyed French vineyards in 1867 (Cussó et al., 2006). Still forest exploitation was by far the most lucrative business and totally controlled by the two land-barons of Matadepera, Barata and Solà, who owned the forest. The economy of Matadepera was integrated into the economy of nearby Terrassa (Figure 1), and to a secondary degree Sabadell and Barcelona. The substitution of manual for steam engines turned Terrassa into the textile capital of Catalonia in 19th century. Terrassa's population quadrupled between 1830 and 1880 (Benaul, 1998a, 1998b). Lime and wood from Matadepera were used in the booming construction of houses in the city. Firewood and charcoal heated the houses and moved the textile industries.

Tensions between landlords and peasants in the region mounted during the first third of 20th century. Reasons for this included technological innovations that enhanced labor productivity, ecological hazards, such as recurrent droughts and the phylloxera plague that hit Catalan vineyards around 1890, and unfavourable evolution of relative prices and competitors, such as North Africa and France vines (Pujol, 1984). The duration of contracts between landlords and peasants and the distribution of product and inputs was mostly a matter of custom and convention but under the changing conditions, distribution of costs, benefits and risks became an issue of conflict (Garrabou et al., 2001). There were three types of contracts: share-cropping, where peasants shared between a quarter and a half of the crop yield with the landowner and contributed

[2] Emphyteutic contracts, widely used until 19th century, granted the tenant use-rights over the land, as well as the right to alienate, mortgage and pass it to his heirs, in exchange for an annual payment and some services (Garrabou et al., 2001).
[3] Territorial tax, 1885-86, box 377, City Archives of Matadepera (CAM).

almost all factors of production; *rabassa morta* contracts, sharecropping arrangements specific to vineyards plantation, generally of longer duration and more difficult to cease, the tenant being responsible for planting the vineyards and cultivating them until the death of the stocks[4]; and daily wage labour, often paid in-kind rather than cash, common in forest activities and temporary farming tasks (Garrabou et al., 2001). With the crisis, peasants started laying property claims on the lands that they were using for generations based on customary agreements (Planas and Garrido, 2006). Emerging forms of political representation included the *Unió de Rabassaires (UR)* founded in 1922. UR was a federation of 173 local organizations, the main trade union of the small peasantry, with 85,000 members in 1937 (Tébar, 2006). The development of water resources in Matadepera unfolded within this context of struggle for land control.

[4] It was particularly the duration of the *rabassa* contracts that became a point of content after the phylloxera plague. Land-owners considered the agreement expired when the stocks died, while cultivators, who used to re-root the vine shoots to perpetuate the crop, claimed that as long as the stock was alive, the contract held.

3. Water and land struggles in the first half of 20th century

The history of water is the history of the evolution of this town.

Jaume Riera, Mayor of Matadepera (foreword in Ametller, 2002)

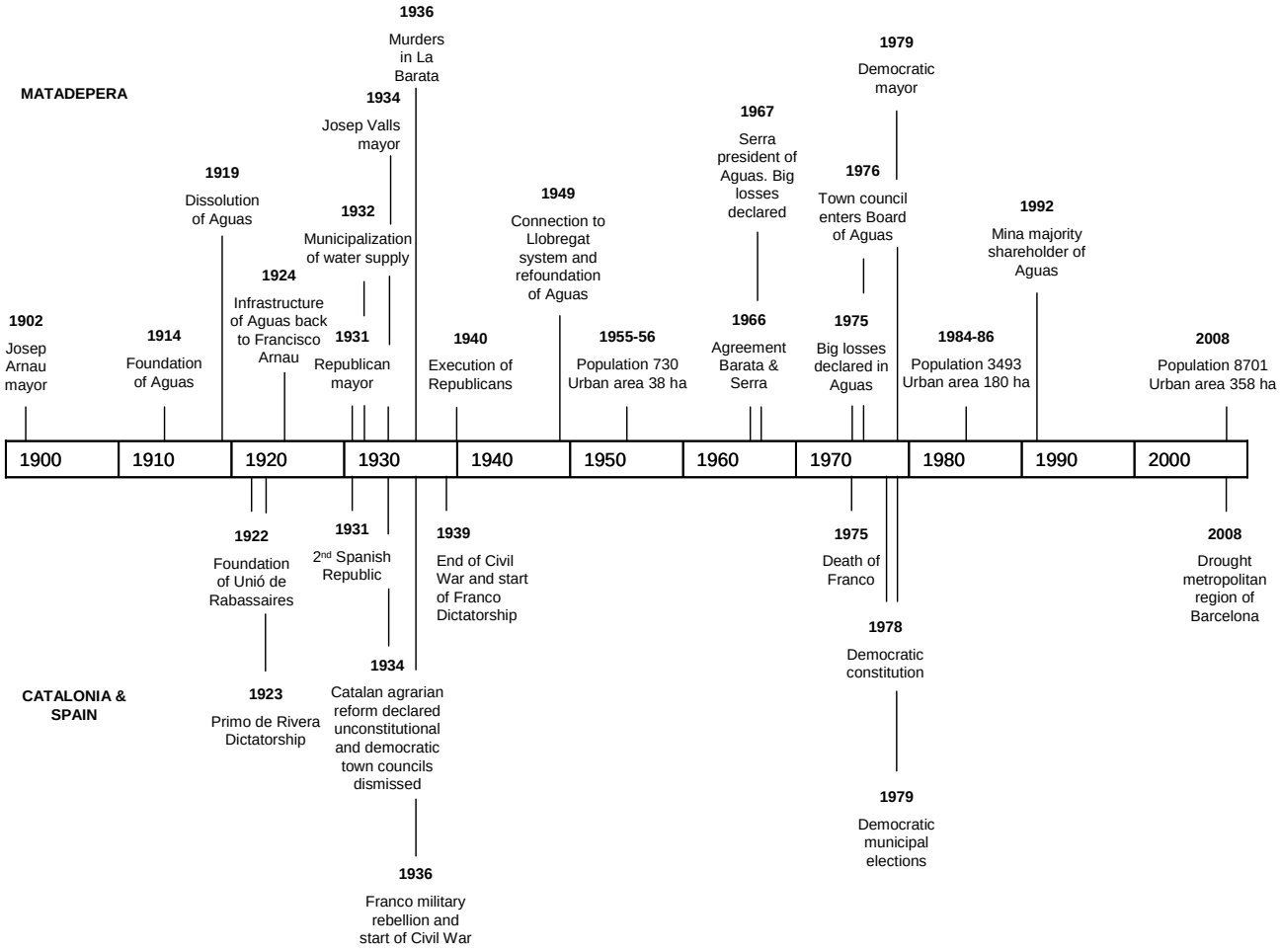

Figure 2. A chronology of Matadepera and its history (1902-2008).
Source: own elaboration.

3.1 Monopolizing water

Cereals or vines did not require much water, but water availability was vital for human settlement. Matadepera receives some 675 mm of rain each year (850 mm in the mountain peak), but it has no permanent surface sources (Martín and Moreno, 1994).

The main stream, *Riera de les Arenes* (hereinafter Arenes), is an irregular torrent, most year dry, bursting occasionally into extreme floods. Settlement along *camí Ral,* the road that connected Barcelona with Manresa (today high-street San Joan), started in 1768. A demographic explosion in the region increased the numbers of landless farmers, who could no longer be housed within the old *masies* (homesteads) (Garrabou and Tello, 2004). Land-owners with property around the *camí Ral* subdivided part of their estates and leased plots to peasants to build their home-shacks. They constructed water ponds for them, while the tenants took over the maintenance. Some tenants also constructed cisterns or drilled wells in their houses (Ametller, 2002). By 1826 the new town had 35 new houses and 94 by 1861 (Ametller, 1997). Domestic water use remained meager at 1-2 lpcd (Ametller, 2002).

Water became an important resource as the demand for settlement started growing. In the 1890s wealthy individuals from the nearby cities started building houses in Matadepera to spend their vacations. Newcomers included intellectuals attracted by the beauty of the place and rich bourgeois advised by their doctors to escape from the polluted city to the clean and dry air of Matadepera. This trend of "back to nature", at least for the summer, was integral to an emerging movement of Catalan nationalism tied to romantic urbanite longing for wild nature and rural tradition. The first Catalan hiking Club expedition to the Sant Llorenç Mountains was organized in 1878. Its members walking the Matadepera path marvelled in the "wild and manly nature…, this Catalan land so large and beautiful… that made us all feel proud to be its sons" (Arabía, 1888). Fervent nationalism coupled with bourgeois environmentalism found their expression in the *La Renaixença* cultural movement. Journalist Pere Aldavert, a leading figure of *La Renaixença*, was one of the first and most prominent vacationers in Matadepera. He built a house in Sant Joan Street in 1890, and passed summers there with famous dramatist Àngel Guimerà (Duran, 2006).

Josep Arnau was the first local who saw a business opportunity in real estate for holiday-makers and who realized the importance of mobilizing and controlling three crucial environmental factors of production – land, water and energy – in order to succeed in this new economic activity. Josep Arnau was son of a landless peasant who settled in Matadepera in 1858. Josep broke class barriers and accumulated money through a successful lime operation. He invested his profits to land with an intention to subdivide it and develop houses for vacationers. Arnau chose his property strategically: at the left bank of the Arenes, his piece of land included the only well in the vicinity of the village with a good water yield. Arnau was one of the local town bosses (*caciques*[5]) and he was appointed mayor by the Monarchist authorities in 1891 and in 1902. Behind his lofty rhetoric about providing a public service to "resolve the village's water problem" were his business plans to profit; not only by selling water, but also by selling land with water to vacationers (Ametller, 2002). One of his acts as mayor was to grant himself the permit to build a tank of 100 m^3 to store water from his well and construct asphalt pipes to transport it to the town. A second system was developed in 1914 following the discovery of water by the priest of the village in a property alongside Arenes. Arnau put the capital and together they founded "Aguas de Matadepera S.A" (hereinafter Aguas), the enthusiastic priest promising shareholders a minimum 6% return on investment (Ametller, 2002). New pipes were laid down to the town and to the future estate developments of Arnau. Importantly, Arnau revolutionized water production by bringing to the town electricity and substituting manual with motor-engine pumping increasing water yields. Matadepera was electrified by a foreign multi-

[5] A *cacique* (a South American Indian word for Chief), was often one of the bigger landlords, lawyers, or even priests who held mortgages on small farms. During the 1st Spanish Republic, caciques controlled electoral results and made sure that the narrow interests represented by the system were never threatened (Preston, 2006).

national, the Canadian capital-owned "Barcelona Traction, Light and Power Ltd", the first company to produce energy with fossil fuels in the region[6].

In 1919, Arnau dissolved Aguas passing its infrastructure, minus the well, to the town council. Water revenues from the poor peasants in the town centre were probably not sufficient to pay for operational expenses and Arnau and partners, having secured water, wanted to displace the financial burden[7]. However, only five years later, Francisco Arnau, son of Josep, got the system back from the municipality, as he was planning a new, more ambitious urban development. Francisco was member of *Unión Patriótica*, the political organization with which dictator Primo de Rivera replaced the banned political parties. Primo de Rivera rose in power in 1923 with the support of the Spanish King and the caciques of the countryside, in a context of intensifying tensions between landlords and peasants. Francisco Arnau became councillor in the *Unión*-appointed town council and head of the *Sometent*, a paramilitary group of 40 vigilantes, armed by the landlords to protect "public order", that is, discipline dissenting peasants. The appointed Council gifted back to Arnau for free the infrastructure of Aguas and the indefinite right for its use. Arnau proceeded in the first major urbanization project of 14 new houses, along what was named after his father *Passeig Arnau*, in the northern fringes of the then-existing town. His partner Josep Valls managed construction. All but one, houses were sold to bourgeois from nearby cities creating the so-called "*barrio* of the rich" (Ametller, 2002: 22). Arnau, who was also the most powerful councilor, could in effect set water prices without public control. He charged water cheaper to his rich vacationing clients than to the peasants in the village. The few summer vacationers were consuming more water than all the rest of the town[8].

Controlling the Sometent and the town council, Arnau was powerful enough to prevent competitors from entering the local water business. When Ramon Codina, an industrialist from Terrassa, bought property and drilled new wells in the other bank of Arenes, Arnau complained directly to the provincial authorities and challenged him legally[9]. Although Codina had the most plentiful water source in the area, he ended up supplying only a private industry in Terrassa (Ruiz et al., 2008). This private monopolization of water and the fight between the landowner elites for controlling water was not unique for Matadepera but a general feature in Catalonia during the first third of 20th century (see Masjuan, 2007; Planas, 2004).

3.2 Public vs. Private. The short-lived Republican alternative

In the 1930s, water and territorial conflicts in Matadepera were swirled into the mayhem of Spanish politics. A main cause for the Spanish civil conflict was the fierce resistance of the landed oligarchy to reform (Preston, 2006). A coalition of republican centre-left parties won the 1931 Spanish national elections that followed dictator Primo de Rivera's resignation and prompted the King's exile. In Catalonia, ERC (*Esquerra Republicana de Catalunya*), a left-wing party directly linked to the *rabassaires* movement, held an overwhelming victory. Lluís Companys, leader of ERC after 1933,

[6] The "Canadian", as the company was known by locals, is remembered today more for its role in the violent repression of the 1919 workers' strike in Barcelona (Termes, 1987: 300).
[7] The archival record does not permit us to reach a conclusion on the terms of this agreement between Aguas and the municipality. It is not clear whether Aguas was indebted when transferred to the municipality or whether Arnau sold or gave the system for free. We have reasons to suspect that the agreement must have been beneficial to Arnau as in latter correspondence and when the town council was claiming its property of the infrastructure, Arnau son never objected.
[8] We infer these from a letter of Arnau to the council in 1935, where he claims that the sale of water to vacationers yielded the same profits than the sale of water to villagers, though he supplied more water to vacationers. Francisco Arnau to Council, 20 August 1935, box 1073, CAM.
[9] Francisco Arnau to Civil Governor of Barcelona, 14 February and 21 May 1926, box 854, CAM.

was one of the founders of the *Unió de Rabassaires*. Labour and land reform were at the core of the republican agenda. ERC and UR envisioned a Catalan countryside of small, land-owning farmers organized in cooperatives (Planas and Garrido, 2006)[10]. A preliminary Republican Regional Plan[11] foresaw a balanced development for the Catalan countryside. Farmland was considered national wealth to be protected. Industrialization and urbanization were to be balanced with agriculture and forest protection. Although urbanization was planned, large portions of land that were later to be urbanized in Matadepera and its surroundings, were designated by the Republicans for natural parks or farmland (Ribas, 1995: 124-125).

Republicans elected 5 of the 7 councillors and the Mayor of Matadepera in 1931. One of the first acts of the Council was to set forth the municipalization of water supply. The council refused Arnau an increase in water prices[12] for the first time and announced an open tender for augmenting the municipal water supply[13]. Arnau abstained and Ramon Codina, the industrialist from Terrassa who had sources in the other bank of Arenes, won the tender. Yet, without Agua's distribution network, Codina's sources were useless. The Council informed Arnau about "the date when he should quit using the pipes owned by the town Council"[14], i.e. the pipes that Arnau Senior passed to the town, only for his son to take them back for free by the dictatorship. Arnau claimed that the council should then indemnify him for his own, older part of the network and the infrastructure of Aguas he developed after the transfer[15]. The town council could not buy Arnau's part of the system and decided in the meantime to start taxing Arnau for the use of the public network.[16] Arnau petitioned to increase water prices to cover the new tax, a request refused by the Council.[17]

There are good reasons why public control of water was crucial for the Republican project. First, private real estate developments, such as this of Arnau, were turning farmland into urbanized land, displacing sharecroppers and *rabassaires* out of lands they used for generations. Republicans wanted to stop gentrified urbanizations. In a move full of symbolism, the Republican council of Matadepera renamed "Arnau street" in the "barrio of the rich" into "Lluís Companys Street", the much despised by the elites, *rabassaire* leader of ERC[18]. Water was a powerful means for controlling urban expansion and a vital resource for the Republican vision of a small farm-based, balanced territorial development. Second, private monopolists like Arnau exploited peasants and the public by changing water prices at will and with no accountability for their profits. Rich holiday-makers paid less than poor peasants, while water supply in the town centre remained meager, most investments going to the satisfaction of new developments. The Republican agenda was to correct such injustices in the countryside and take away the power of the caciques. But municipalizing water was not easy as private interests, such as Arnau, had appropriated de facto in the previous years many groundwater resources.

[10] The anarchist project, represented by trade unions such as the CNT, promoted instead the collectivization of land (Tébar, 2006). During the Civil War the two projects, Republican and Anarchist, coexisted and competed in the countryside of Matadepera and Terrassa and there were conflicts between farmers from each side (Memories of Isidre Font Pi, 1975, unpublished manuscript transcribed and supplied by his son Francesc Font).
[11] The plan was entrusted by the Catalan Government to the architect and town planner Nicolau M. Rubió Tudurí in October 1931 (Ribas, 1995: 116).
[12] Francisco Arnau to Council, 20 August 1935, box 1073, CAM.
[13] 11 April 1932, Official Bulletin of the Province.
[14] Council agreement, 6 June 1932, box 854, CAM; Mayor to Francisco Arnau, 21 June 1932, box 854, CAM.
[15] Francisco Arnau to Council, 30 June 1932, box 854, CAM.
[16] Agreement of the Council plenary, 8 July 1933, box 1002, CAM.
[17] Commission of neighbors to Council, 16 August 1935, box 1073, CAM; Francisco Arnau to Council, 20 August 1935, box 1073, CAM.
[18] Agreement of the Council plenary, 28 July 1934, box 1002, CAM.

Reforms came to a halt in 1933, when a right-wing coalition won the Spanish national elections. ERC and Companys were in power in Catalonia though; in 1934 the Catalan Parliament approved an agrarian reform law that granted *rabassaires* and sharecroppers the right to own the land they were cultivating (Planas and Garrido, 2006). Landlord elites and their association of agrarian employers (*Institut Agrícola Català de Sant Isidre*) fought fiercely the reform. The conservative Catalan party *Lliga* that expressed their interests challenged the law in the Spanish Court of Constitutional Rights, controlled by the right-wing. The court declared the law unconstitutional (Preston, 2006). The Catalan and Spanish governments agreed on a watered-down version of the law, which nonetheless prompted an internal crisis within the right-wing coalition, catapulting the entry of three fascist ministers in government. Trade unions and the socialist and communist parties called a general strike for 5th of October. Lluís Companys declared a Catalan State and *Unió de Rabassaires* took control of wine-producing counties. In response, the military besieged the Catalan government palace, closed down the parliament and imprisoned Companys and his ministers. Republican-controlled town councils were dismissed and substituted by military-appointed administering commissions.

The commissions were set to reverse the reforms of Republicans and restore the old order. In Matadepera, the military appointed as Mayor Josep Valls, the real estate partner of Arnau and one of the two *Lliga* councillors of the previous administration who opposed the agrarian reform. Valls cancelled the municipal contract for a public water supply[19] and Arnau resubmitted his petition to increase water prices. Caciques' manipulations however, now met resistance. A group of left-leaning residents filed a formal complaint about Arnau's "abuse … for the sake of personal profit" and the unfair "distribution of costs among residents and vacationers"[20]. Arnau responded aggressively questioning the political motivations and water business knowledge of the group and "welcoming" them to obtain water for themselves if they can, and offer it in "free competition" to the town[21]. Some of the authors of the complaint and the owners of the bar where it was written would face the wrath of Franco's dictatorship a few years later.

3.3 Civil War and the violent resolution of Matadepera's water and land struggles

On 18th July 1936, and after the victory of a Republican left coalition in the Spanish national elections, General Franco declared a military rebellion. Franco's supporter troops were defeated in Barcelona and other Catalan cities with the intervention of trade unions. Unions took the situation in their hands declaring a revolutionary state. The dark side of the revolution was the violence committed by mostly uncontrolled groups. Catholics, industrialists, landowners and other suspected Franco sympathizers were arrested and executed without trial. Antònio Barata Rocafort, the biggest landlord of Matadepera and former member of the board of directors of the *Institut Agrícola*, was arrested in Terrassa the day after the insurrection. He was executed by the end of August together with his brother, who was arrested in the family estate in Matadepera. On 24th July 1936 eight men were found dead in the forest north of the Barata house, most of them prominent members of the *Lliga*. Among them were Francesc Salvans, a banker and owner of the largest wool industry in Terrassa and of the most luxurious vacation residence in Matadepera loathed by locals for its extravagant parties. In

[19] Agreement of the Council plenary, 19 October 1935, box 1002, CAM.
[20] Commission of neighbors to Council, 16 August 1935, box 1073, CAM.
[21] Francisco Arnau to Council, 20 August 1935, box 1073, CAM.

October, Josep Valls, ex-mayor and business partner of Francisco Arnau was murdered near the town centre. Landowners and other right-wing sympathisers hid in the forest or abandoned Matadepera for Barcelona or for territories controlled by Franco. Francisco Arnau was among them.

The abandoned estates were settled by refugees, lucky to flee the territories occupied by Franco's army who murdered left-wing sympathizers by the thousands (in comparison to the uncontrolled violence in Republican territory, Franco's army deliberately planned mass executions to terrorize resisting populations elsewhere and to clean the territory from dissenters to his future regime; Preston, 2006). Matadepera's town council confiscated the forests of Barata and Solà, which provided a vital source of income during the war period[22] and workers collectivized the lime kilns of Arnau[23]. Food was grown in the gardens of the occupied estates. Water was provided by Arnau´s confiscated wells and water tanks or bought from private wells of landowners that did not flee[24].

Franco and his troops arrived victorious in Catalonia in January 1939. Matadepera and surrounding cities were bombarded for days without mercy (Interviews #1, 5, 10, 15). Refugees flooded the French border. Lluís Companys and his government fled to France where they were arrested later by Gestapo, extradited to Spain and executed by Franco. Landowners such as Arnau returned triumphant in Matadepera together with Franco's army recovering their confiscated lands and resources. The commander officer of Terrassa appointed an administering commission in Matadepera passed later to the main taxpayers of the town. Francisco Arnau was first deputy mayor and his nephew mayor. Arnau saw his charge for the public network reduced by 50% and prices increased at last to what he was asking for.

Occupied Catalonia experienced "an all-pervading terror … violence against the defeated not limited to prison, torture and execution but extended to the psychological humiliation and economic exploitation of the survivors" (Preston, 2006: 311). The appointed municipal commissions were entrusted to issue reports concerning the political beliefs and activities of arrested republican soldiers and political prisoners. In Matadepera twenty people were imprisoned[25] and six sentenced to death, four of them implicated without proofs in the murder of Josep Valls. Accusations for those sentenced to death included the burning of the church (which actually was never burned), membership of the communist party, or the exploitation of private forests[26]. Prisoners and sentenced to death included some of the authors of the petition against increasing water prices. The telephone and tobacco businesses of the bar where left-wingers hanged out, and where the letter against Arnau was written, were confiscated and given to the widow of Josep Valls. Indicative of the reigning terror, even today,

[22] Agreements of the Council plenary, 19 June, 5 and 17 July 1937, box 1002, CAM.
[23] Collection of the committee for workers control of the lime kilns, 1937, box 517, CAM.
[24] Contract of the Council with Aldavert sisters to use the water from their well. Agreement of the Council plenary, 11 September 1937, box 1002, CAM.
[25] Among them were the first Republican mayor of the town who was described in the Commission's report as a "man of left-wing ideology (who) during the Glorious National Movement … did nothing in favour of the Holy cause" (Mayor to Military Court, 23 February 1940, box 1075, CAM). He could be sentenced for life, but was lucky enough to be cousin of Arnau and go out after only one year. Isidre Font, ERC member and secretary of the agrarian trade union during the war, and among the authors of the letter against Arnau, was imprisoned in Terrassa for 2.5 years.
[26] Joan Martí, one of the authors of the letter against Arnau, was among those sentenced to death, primarily for his role in "the burning of the church" (Council report, without date, box 1075, CAM). Vicenç Vergés, "who was in charge of tree logging" of the confiscated forests (Council report, without date, box 1075, CAM), and allegedly helped in the search of Franco sympathisers hidden in the forests, was executed in Barcelona on the 4th of July 1940. Together with him was executed Jaume Ramon, councilor of the town and member of a communist party, described by the Commission as "one of the main Marxist elements" (Council report, 21 April 1939, box 1075, CAM; Execution files, box 1678 (3/3), Prison of Barcelona *La Model*).

decades after the fall of Franco's regime, Núria Ramon, whose father was executed, preferred during our interview that we don't record her memories out of fear.

4. Water in the service of elite suburbanization

4.1 Erasing the past, clearing the ground for the future

"See these fields, these vineyards and these mountains. Some day you will see them full of nice streets and villas. A lot of people will come. This town has a great future". And his eyes sparkled with the conviction with which he talked.

Priest of Matadepera Jaume Torres (Ametller, 2002: 95)

With peasant dissent silenced and the Republican alternative defeated, the land-owning elites of Matadepera could transform the territory according to wish or more precisely, profit. The dictatorship-appointed town council held a tight grip on the population. After the war, most families were left with "grandparents and children. Some had died in the war, others had escaped to France, and those who had not escaped were imprisoned" (Interview #1). Once back, prisoners had to report twice a month to a "Local Board of Freedom" (abolished only in 1955). The council administered the rationing of food supplies imposed under the Franco regime of "autarchy"; dissidence was not an option. Franco's dictatorship consolidated the unequal distribution of land and put an end to demands for reform. The tax records of 1944 show an almost unchanged distribution of land compared to 1886[27].

The urbanization of Matadepera was – and still is – perceived as a spontaneous process driven by the good climate of Matadepera that attracted holiday-makers. In reality it was a well-planned and executed socio-ecological project. Francoist authorities spelled out explicitly their vision for Matadepera in the Urban Plan of 1951: "Matadepera … given its geographical conditions … calls for the assignment of a signal-function: a place for resting and summer vacations"[28]. Compare this to the vision in the Republican plan emphasizing the importance of "agriculture for our own food supply" and the quest "to not sacrifice all agriculture, forests and rivers" (Ribas, 1995: 123). In the new era ushered by Franco, elite interests united and left aside rivalries under the protective wings of the dictatorship and the Church, whose role was crucial in legitimizing the new regime. Codina and Arnau overcame their old feud and joined powers and capital, refounding Aguas de Matadepera in 1943, capitalizing on each' infrastructure (Ametller, 2002: 36).

This transformation would not have been possible without the violent dispossession of peasants. Ametller (2002) states that the new urbanizations occupied vine "wasteland" abandoned due to phylloxera (p. 51). However, from oral sources a very different story emerges. Magdalena Font, niece of Isidre, remembers that "only few owned the land and they sold the entire thing for second residences. We were all sharecroppers. We had anything of our own and they forced us out from everywhere. That was about it." (Interview #8). One of the last sharecroppers of the estate Gorina remembers that: "we did nothing and they kicked us out from our home … The owner told to my father 'it does not matter whether you have a contract, it is useless'" (Interview #7). Oral *rabassaire* or sharecropping contracts were swept in face of the lucrative real estate business. "Houses are houses", told a land-owner and mayor of the town at the time to one of our oral sources, when he forced his family out of the land (Interview #7). Developers expelled families from lands they were working for generations. The

[27] We infer this from the rustic taxes, which can be considered an approximation to the land distribution, 1944, box 24 (2AA), CAM.
[28] Plan de Ordenación de Tarrasa y Matadepera, 1951, p. 225, box 540, CAM.

dispossessed moved as labor to the Terrassa and Sabadell industries, often owned by their new rich vacationing neighbors in Matadepera. Others lived by the crumbs of the holidaymaking economy working in services or as building workers, carpenters, painters, gardeners and domestic cleaners. As another interviewee remembers: "my father had the contract with the estate … and then, when they wanted to urbanize, they told him 'Joan, you will be the security guard and you will have a salary'. They had already taken the entire garden, and then my father died of a heart attack." (Interview #4).

New villas sprung in the 1940s and population doubled in the summers. A two-tiered society emerged consisting of the destitute peasants in the town centre, and the rich gentry passing luxurious summer holidays in their villas. As one interviewee recalls "in winter the town was a cemetery… [but] in the summer months the gentlemen of Sabadell, Terrassa and Barcelona came for their vacation. They had very good years. We didn't. … The worker had to work many hours to survive. The bourgeoisies, the rich of that time, yes, they spent very good years" (Interview #1). One year in the summer feast of the village (*Festa Major*), when supposedly all residents come together to party, the holidaymakers installed their own tent. As an elder remembers: "they did their own summer-party … They did not want to mix with smelly sweaty people like us" (Interview #1).

4.2 Enrolling water in the transformation of the territory

The extreme concentration of land property in Matadepera meant that, compared to other towns in the Catalan countryside, unusually big plots were available. These were sufficiently big even after sub-division to develop luxurious villas. Hence lay the ecological-economic origins of the particular evolution of Matadepera into an elite suburb. Throughout the 40s, 50s and 60s rich industrialists from Terrassa, Sabadell and Barcelona, ploughed surpluses from the booming textile industry into real estate in places like Matadepera. Jaume Serra, a major developer in Matadepera and later president of Aguas (1967-1976) was such an industrialist who by the time he arrived in Matadepera in the early 60s, had already an expanding real-estate business in Sabadell and nearby towns.

There was "a clear link between the repression and the capital accumulation that made possible the economic boom of the 1960s": trade unions were destructed and the repression of the working classes ensured starvation wages (Preston, 2006: 313). Developers were the victors of the war. Pilar Prat for example, a prominent developer in Matadepera in the 60s, was the daughter of Agustí Prat and widow of Gaietà Vallès, both industrialists executed in the forest events of July 1936.

Developers learned the hard way that groundwater within their plots was not sufficient to irrigate their housing projects. Water was a crucial commodity in the real estate development process. Ametller (2002: 50) summarises this succinctly: "without water, housing developments were not possible. Plots could only be sold as long as enough water was available… Soon those lands would acquire a much higher value". The first wave of developers in the late 1940s self-organized to bring water from river Llobregat, via the infrastructure of Mina de Terrassa, which was since 1943 importing river water to Terrassa. A Commission of 66 stockholders was set-up to invest the capital and construct a canal to connect Matadepera to Mina's system. Stockholders included well-known bourgeois families of the time. Only 8 of the 66 stockholders were residents of Matadepera. 39 were from Terrassa, 9 from Sabadell and 9 from Barcelona[29]. The

[29] List of stockholders, Comisión traída de aguas a Matadepera, December 1947, box 854, CAM.

water transfer was intended to satisfy vacation housing and real estate development not local needs.

With its connection to the Llobregat river in 1949, Matadepera was connected to the water supply system of metropolitan Barcelona and integrated in the national hydro-politics and Franco's project of transforming the territory through a series of grand hydraulic works (Swyngedouw, 2007). The Commission capitalized its Llobregat investment into Aguas. Aguas was refounded in 1949 to accommodate the new players. Arnau and Codina, both deceased, gave their place in the land and water business to the aggressive developers represented in the Commission. With water secured, its members proceeded swiftly to start their housing projects (Ametller, 2002). The vision was clear: in a letter dated 2nd January 1951, the new President of Aguas, Àlvar Vinyals thanked the town council for its "clear vision of the future" and its political support for bringing water from Llobregat, a project crucial "for the supply of the old town and mainly [for the] housing developments that have been created or that are being created … Not only the current needs of the population will be fulfilled, but also those that in the future may arise … as Matadepera strives to realize its potential as a real holidaymaking place"[30].

It is important to recognize that Matadepera was not naturally water scarce. The Codina and Arnau sources at their peak supplied 600 cubic metres of water a day (Ametller, 2002). For the 600-800 permanent residents of Matadepera in the late 1940s this meant that there were about 750-1000 lpcd potentially available. Even if it was less in dry periods, this is an abundant source of water. Yet consistently, from Arnau to the new developers in the 1940s and 1950s, the elites of Matadepera referred to the "water scarcity problem of the village", as if it was a generalized problem for all. Arnau for example in letters during his fights over increasing water prices claimed that he was contributing to the fight of "people" against scarcity[31]. Similar references to scarcity were made by Aguas as late as 1967[32]. However, Matadepera had more than enough water to satisfy the basic needs of its residents. Local water was scarce only for the expansion of the holiday-making economy and the subsequent (sub)urbanization.

After the Commission, subsequent waves of developers joined Aguas to gain control over water and the urbanization process. When Jaume Serra entered real estate and Aguas declared an inability to supply the water needed for his planned schemes, he bought the majority of stocks of the company, financed a reservoir and a canal for his extensive urbanization and then capitalized it into Aguas stock, before becoming president of the company. Real estate and control of water went hand in hand.

By mid-1960s the urbanization business had become so lucrative that it attracted for the first time Matadepera's land baron, Antònio Barata. When his father and uncle were murdered in the events of 1936, newborn Antònio, heir to the dynasty, was hidden by his mother and they escaped to Paris returning only after Franco's victory (Interview #16). Antònio took over the family estate which with hundreds of hectares of forests, profited from firewood and charcoal sales. By the 1960s and as fossil fuels out-competed forest products, urbanization became an attractive alternative given the vast territory owned by Barata. In 1964 Antònio Barata requested water from Aguas for his prospective urbanizations. Aguas refused since its quota from river Llobregat did not suffice to supply Barata's gigantic plans (Ametller, 2002). Barata placed a bid to buy Aguas, but its President valued it twice what Barata was offering. Barata was not used to hear no in his backyard from the authorities of Matadepera whom he treated as his

[30] Board of Aguas to Council, 2 January 1951, box 854, CAM.
[31] Francisco Arnau to Civil Governor of Barcelona, 21 May 1926, box 854, CAM.
[32] Advisor of Aguas to Mayor, 9 February 1967, box 854, CAM.

subordinates[33]. Infuriated, he went ahead and developed his own water system, buying wells in Matadepera and drilling new wells in his territory that extended to adjacent basins and transferring the water to his Matadepera urbanizations. When a new well from Barata diminished Agua's supply from the old Codina well in Arenes, Aguas and Barata went to the Courts. So did Serra with Barata, fighting over the rights of trespassing of their infrastructure –water pipes and roads- from each other's lands. But these inner feuds between elites, quickly gave up in front of the common interest of business and money. In 1966 Barata and Serra/Aguas reached an agreement that regulated their respective uses of water and demarcated their service areas, the one promising to transfer water to the other, when needed. The agreement was signed symbolically in the town's Summer Feast, villagers supposed to celebrate the collaboration of their two patrons (Ametller, 2002).

All these urbanization schemes transformed radically the landscape of Matadepera. In 1964, 26 houses were being constructed, 36 in 1965, 20 in 1967 and a minimum of 139 between 1971 and 1975. The urbanized area increased from 37.6 ha in 1956 to 180.3 ha in 1984 (and 357.9 ha in 2008), sprawling from the town centre towards the north in former fields and forests (figure 3) (Estany et al., 2009). Second residences became first residences and permanent population rose from 730 (1955) to 1075 (1970) and 3493 (1986). Environmental and social impacts were dramatic including loss of landscape heterogeneity and biodiversity, destruction of the traditional built environment, youth migration due to high cost of life, and the disappearance of the rich peasant heritage (Badia et al., 2008; Estany et al., 2009; Otero, 2005).

4.3 Privatizing profits, socializing costs

While developers were pocketing the huge surpluses from real estate, they were charging losses on the community. A consistent historical pattern emerges whereby subsequent waves of developers joined and controlled the water company to secure water for their projects, displacing costs to the future and the community through debts, increased prices and distribution network under-investment. Arnau Senior started this pattern with the water system for his first housing project that he passed back to the town when the business was no longer profitable, only to get it back when he and his son were ready for the next urbanization scheme. Similarly, the transfer of water from the Llobregat in 1949 permitted the partners of the Commission to realize huge short-term profits by the re-valuation and sub-division of their lands. Having secured water, one by one became disinterested in the water business. Yet the costs of increasing water consumption were only later realized. Aguas agreed with Mina to pay water from Llobregat on a volumetric basis. The Commission secured access to water and did not care about the future cost. But as consumption volume increased dramatically in the following years, so did the charge that Aguas had to pay Mina. Prices increased to cover Aguas losses and debts, in effect spreading the cost of water for the urban developments to the whole of the community.

[33] Indicatively we found a 1971 letter classified curiously in the City Archives, sent by Barata directly to the Mayor's personal office in Terrassa. The letter concerns data requested by the Treasury of Barcelona for the size and features of housing developments for taxation purposes. Barata asked the Mayor to consult him first before sending anything signed to the Treasury. It is important, he wrote, to "give as little data as possible". The dictating tone of Barata in the letter and the fact that he sent it directly to the Mayor's personal address and not the town hall illustrated the intimate relationship of Barata and municipal authorities (Barata to Mayor, 29 April 1971, box 385, CAM).

Figure 3. Aerial photographs of Matadepera. Left photo from 1956 shows the compact town centre and the incipient urbanization in the surrounding fields (US Army, 1956). Right photo taken in 2004 shows urban expansion to the north-west and east (Institut Cartogràfic de Catalunya, 2004). In this period, urban area increased from about 38 ha to about 358 ha. 1) St. Joan Street, former Camí Ral; 2) Arnau Street; 3) Development of one of the main stockholders of the Commission to connect Matadepera to Llobregat river; 4) Development of Prat; 5) Development of Barata; 6) Development of Serra.

Water price increases were politically contentious. Since the 1950s Aguas used a multi-tier tariff with lower rates for permanent residents and increasingly higher to holiday-makers and luxurious uses such as swimming pools and lawns. Price increases were thus relatively smaller for permanent residents, but still a grand portion of costs they were asked to pay related to the extension of supply and network to satisfy newcomers. In 1957 the town council approved a petition by Aguas for a 25% rise in the water bill[34], but refused to do the same two years later, when Aguas asked again money for a new water tank and to buy more water from Mina "for the watering of gardens and the use of private pools, i.e. an increase in consumption due to the numerous recently built villas"[35]. In 1967 Aguas declared big losses and asked for a

[34] Advisor of Aguas to Mayor, 27 April 1957, box 854, CAM; agreement of the Council, 15 May 1957, box 854, CAM.
[35] Advisors of Aguas to Mayor, 1 July 1959, box 854, CAM; Mayor to advisors of Aguas, 22 August 1959, box 854, CAM.

new increase in price, although a new rise had been granted in 1964[36]. Residents organized and in a letter to the town council, 16 individuals protested against the proposed prices[37] and the poor maintenance and dilapidation of the network[38]. Indeed, the network was loosing big quantities of water (Ametller, 2002). The extremely dispersed pattern of urbanization in Matadepera meant that network development and maintenance were relatively expensive. Underinvestment – in the design or operation phase – was an indirect way of reducing these costs, but came at the expense of high costs in the long term due to pipe bursts and water losses.

The town refused Aguas a 31% price increase asked in 1971. To show its power Aguas embarrassed the mayor when in the Summer Fiesta of 1972 he was going to inaugurate a public fountain but the last minute the company refused to supply water (Ametller, 2002). In 1974 and 1975 Aguas declared big losses, attributing them to increasing demands and water purchases from Mina. However, an anonymous memo in the City Archives, most likely written by an engineer of the council, questions the credibility of the figures given by Aguas, pointing to a "voluntary" – in effect, mandatory - contribution which the company charged to new connections and which was not declared in its books. The memo argued that Aguas was not having losses, and that the price petition aimed to increase profits[39]. However, Aguas continued complaining about its dire financial situation and in 1976 threatened the town with liquidation and ceasing its activities. The mayor of Matadepera, Josep Mas, stepped in to become the new president of Aguas replacing Serra who resigned. Four town councilors joined the Board of the company. Prices were then increased in 1976, 1977 and again in 1979 at the relief of Aguas' shareholders who saw high profits restored.

Franco was dead by 1975 and since 1979 Matadepera was governed by a democratically elected council. A popular movement of environmentalists from nearby cities and parties of the left achieved the first major blow against unfettered urbanization of the Sant Llorenç forest. In 1982, an area of 9600 ha was declared a protected natural park, stopping Barata´s expansive housing projects (Interview #17). Nonetheless, the population of the town grew 4 times between 1970 and 1990 as vacation homes turned into permanent suburban housing. Wealthy newcomers were attracted by the exclusiveness and elite status of Matadepera. They settled in old villas or built new ones in undeveloped plots. The municipality controlled Aguas, and in effect subsidized growth, keeping prices low, and paying for major new investments. To reduce the expenses of the company, the municipality itself sold water below cost to Aguas from its own wells (Ametller, 2002: 80). The private shareholders of Aguas were officially subsidized by the public burse.

In the 1990s, Aguas became integrated in regional and global flows of water, land and capital. In 1987, the municipality capitalized company debts into municipal stocks. An extraordinary 10% dividend to shareholders was paid next year. With finances sanitised, in 1992 Mina de Terrassa, which already owned some Aguas stocks, bought the shares of the deceased Jaume Serra, and became majority shareholder of Aguas, owning 70% of its stocks. Mina, now called Aigües de Terrassa, is in charge of the distribution of water in the city of Terrassa and other surrounding towns. Aigües de Terrassa is part of the international conglomerate Aguas de Barcelona (Agbar), one of the biggest private multi-utilities in Spain, comprising of more than 150 companies, with operations in Europe, Africa and Latin America (Masjuan et al., 2008). Agbar itself is

[36] Advisor of Aguas to Mayor, 20 and 29 December 1964, box 854, CAM; advisor of Aguas to Mayor, 9 February 1967, box 854, CAM.
[37] Residents to Mayor, 22 April 1967, box 854, CAM.
[38] Mayor to Aguas, 31 March 1967.
[39] Anonymous memo, without date (around 1972), box 854, CAM.

majority owned by the French multi-national Suez and the Spanish savings bank La Caixa. Agbar and Aigües have several real estate subsidiaries. One of the first actions of the new directorship of Aguas in 1993 was to sell to developers its high-value land property in Matadepera, including the old plot of Arnau (Ametller, 2002: 86). Being part of Agbar, the water company of Barcelona, and receiving water from the Ter-Llobregat river system, Matadepera is now an integral component of the metropolitan water system of Barcelona, that has undergone several water crises, the last one in Spring 2008.

5. Water scarcity, social power and the discourse of progress

Private detective Jake Gittes (actor Jack Nicholson) asks millionaire Noah Cross (actor John Huston) why he wants to control water:
- "How much better can you eat? What can you buy that you can't already afford?"
Noah Cross replies:
- "The future, Mr. Gittes, the future."

From the film Chinatown (1974)

The story of robbing the destitute of the earth of their water to give it to the rich in the name of solving scarcity and delivering progress has been told many times and in connection to capital accumulation and urbanization (Gottlieb and Fitzsimmons, 1991; Swyngedouw, 2004; Worster, 1985). The most famous case remains this of Los Angeles and the Owens Valley (Kahrl, 1982), which inspired the film Chinatown. What is this article adding to this narrative?

First, simply telling the story in a context for which it has not been told (Spain, Barcelona), if not silenced, is important *per se*, more so since such a critical narrative does not appear to have made headways in Spanish water policy debates, still structured along the lines of spontaneous demands and natural scarcity. The interrelationship between social power and water policy has only recently started to be investigated in Spain (Swyngedouw, 1999, 2007); our account hopefully offers a local complement to national scale accounts.

Second, and more importantly, the empirical validity of the “water robbing story” is currently questioned from revisionist historians with different accounts of water controversies in the American West (Erie, 2006; Kupel, 2003; Libecap, 2005). The fact that the story seems to hold in a very different geographical, historical and socio-political context, a small town in Catalonia, is important. It suggests a more generalizable pattern relating control of water, dispossession, and urbanization.

However, more than this, the Matadepera story offers material for a stronger rebuttal of revisionist arguments, in the process improving understandings of the relationship between social power and water. The revisionist argument has two components which we will oversimplify here taking Kupel’s (2003) work on water and urbanization in Arizona as an example (Kupel himself frames his work as a disproof of the water robbing-social power thesis of Gottlieb and Fitzsimmons, 1991 and Worster, 1985). The first is that the thesis of undemocratic hydraulic elites controlling water to serve their ends is at best, representative of only a few places, and at worst a “conspiracy theory” (Kupel, 2003, p. xix). For Kupel the municipal leaders in Arizona were not busy devising pet projects or manipulating prices, as critical scholars argued for their counterparts in southern California (Gottlieb and Fitzsimmons, 1991). Instead, they struggled to respond to the demands placed on the water system by an ever-increasing number of residents and to “find diverse solutions to water scarcity to achieve the realization of an urban vision” (p. xvi). Public opinion in Arizona, Kupel argued, was always in favour of developing water; water was vital for settling the desert and making life there as comfortable as in the humid environments from where settlers migrated.

The second line of rebuttal is based on the notion of progress. It goes basically like this: ok, maybe the poor were robbed of their water, but let’s forget it as everyone got better at the end. In Arizona’s water history Kupel sees universal progress with

corrigible environmental side-effects: living conditions, material comfort and incomes improved and there is nothing to be sorry about. Ametller's (2002) amateur history of water in Matadepera is very similar. Matadepera was a dry and poor place and it fell upon great men, like Arnau or Serra to develop water resources. Ametller, a priest of left leanings active in the resistance against Franco, does not hide that Arnau and his likes profited more than they deserved along the way. But overall, in his view, "progress has a price and it must be paid" (Ametller, 2002: 52 and interview #9).

Depictions of monolithic elites conspiring to control water may be sometimes (though not always) simplistic. Yet Kupel's rejection of the "elite thesis" and his counter-story of "leaders" responding to the will of free subjects is overtly naïve. In Matadepera, the violence perpetuated by Franco and landowners against peasants over the control of land and water, speaks for itself. One might counter-argue that little changed in the way water and territory were managed after democracy. Yet, as this history showed, the basic contours of choice in the democratic period were defined through violence in the Francoist period. Once Matadepera was entrained in an elitist (sub)urbanization path, this was very hard to reverse. Still, someone might also contend that ours is an outlier case, in an undemocratic society (Franco's Spain). Kupel for example is at pains to demonstrate that in Arizona, citizens did vote in favour of urbanization and water development. However, as Swyngedouw (2004) and other political ecologists have argued, representative democracy is not without faults. Elites exert power not only through violent coercion, but also through their ability to achieve spontaneous consent of non-elites through the control of opinions and ideas (Kaika, 2005; Nevarez, 1996). Powerful interests can strategically use and manipulate discourses – language, stories, images, models, concepts, terms – to serve their goals. This does not – necessarily – imply conspiracy; less visibly, power-contingent discourses get naturalized through social processes into taken-for-granted ideas that in turn reinforce the powers and institutions that created them (Bakker, 2000; Kaika, 2005; Nevarez, 1996). Scarcity and progress are two such important discourses of legitimization of power in Matadepera.

Water was not naturally scarce in Matadepera. It was technological, energy and political scarcity that impeded accessing local groundwater in early 20th century. Once accessed, groundwater was enough for residents' needs. Yet water became scarce again because of the water-intensive holiday-making and suburban economies. There was nothing "natural" in this scarcity insofar as the social change that produced it was not natural. Matadepera did not have to become a holiday resort for the rich; it became so through intense political and social struggles. Arnau and Aguas, repetitively referred to water scarcity as a natural and collective problem of Matadepera positioning themselves as the leaders in charge of solving it technically. No mention that this problem of scarcity was an outcome of their urbanizations. Even today, Ametller (2002) writes that Matadepera is a "dry place" and that "scarcity is a constant in the history of the village" (p. 11). And this is still the prevalent view among many residents, in a town surrounded by lush forest and with one among the highest levels of water consumption in Europe! The discursive construction of a natural scarcity is so powerful that defies even experienced reality.

Our interviewees, even those who suffered from Francoist repression or those critical of environmental and cultural degradation, excused such grievances in the light of progress. Progress is seen as both undeniable and inevitable. Scarcity plays an important discursive role as the antithesis – the enemy and proof – of progress. In the words of Ametller: "In reality the town has become a new town ... all this wonder of progress has been possible thanks to water (...) Let's pray to God that the flow of rivers is maintained and increased everyday" (2002: 97). Progress becomes equivalent to

more and more water. In turn, everything that comes with more and more water is by definition a progress erasing, if not justifying, past injustices.

Like scarcity, the notion of an undeniable progress can be questioned. First, progress in material consumption might have been bought at a cost that is still to be paid. The energy and capital necessary to drill water out of Matadepera's soil were produced through the burning of fossil fuels that today threaten to destabilize climate and change life in Matadepera and the rest of the planet. Forest fires are becoming more catastrophic as a result of urbanization and changing land-uses. And Matadepera´s model of urbanization-based growth turns out to be economically unsustainable. Matadepera's town finances find it hard to sustain the city's expansive and expensive infrastructure. New urbanizations, the main source of municipal taxes, came to a halt due to the crisis in the housing sector, more so as there is no more land to urbanize.

Second, progress can mean different things to different people as there are different visions of the "good society" (Norgaard, 1994). This multiplicity of visions is suppressed in accounts like Kupel's or Ametller's who assume a singular "urban vision" (Kupel, 2003, p. xvi), namely increasing material affluence. The Republicans for example had a very different vision for the Catalan territory, prioritizing different values and possibly distributing affluence differently. We know very little about this alternative vision; historical research about environmental and resources policies in the Republican era is at its infancy. We can also only speculate about the evolution of the Republican project in the Cold War era. Nonetheless, it suffices to make the point here that there was an alternative vision of progress and that Matadepera's present state as an exclusive elite suburb was not inevitable. Yet rendered inevitable, the discourse of a universal progress, serves to erase not only injustices, but also the presence of alternatives and alternative values. The question is not whether society got more materially affluent or not while developing water resources. The question is whose vision of the future came to be realized and whose vision (and livelihood) to be erased. Unfortunately in Matadepera, like other places, it is largely the vision of the Noah Crosses of this world that shaped the world we experience today.

Our account therefore enriches the "water robbing" story by showing that what was robbed was not so much – or not only – water, but the ability to shape the future. And that the means of robbing were not only political decisions and guns, but also pervasive discourses about scarcity and progress. The political ecological perspective used here, benefiting from the methods of environmental history, is a useful complement to ecological economics, which, with few notable exceptions (Martínez-Alier, 2003), has neglected social power and injustices in the course of socio-environmental change and continues to treat nature as inherently scarce, an external limiting factor to society. Political ecology sees society and nature as intertwined, the one conditioning the other and in the process co-producing new natures and new social arrangements. In return, ecological economics offer to political ecology the important insight that there are multiple, irreducible visions of progress (Norgaard, 1994) and multiple languages of valuing progress (Martínez-Alier, 2003). Environmental policy from a political, ecological-economic perspective becomes then primarily a question of environmental justice; justice in having a say over the shape of the future and justice in the distribution of the goods and bads of change (Martínez-Alier, 2003; Norgaard, 1994; Swyngedouw, 2004).

In Spain today, there is a popular social movement opposing hydraulic expansion and arguing for a "new water culture" (Estevan and Naredo, 2004), based on democratic management of water and an alternative model of balanced territorial development (Aguilera Klink, 2008). In Matadepera, citizen groups fight to stop encroaching

urbanization, protect the forest and secure a future for the less well-off residents of the town. Hopefully our narrative strengthens their case that there is an alternative and helps them shape a different future than this envisioned by the Noah Crosses of the region.

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