the landscape which affect its ability to represent territories and identify local cultures; a strange hybridisation among the characteristic elements of suburban landscapes and the most basic iconography of an agrarian world which is still present in a countryside undergoing urban development at an accelerated rate; or a relationship between individual and landscape which can be better understood since it has become mobile and changing than all that understood as fixed and stable. These are tendencies which give shape to a new "suburban" landscape which reveals a new generation of peripheries in European metropolises.

7. Conclusions: society and landscape in mobility territories

On the basis of what has been suggested so far, two final arguments can now be put forward which refer to the way in which we explain the links between society and landscape.

First, at the beginning of this article I posed questions which have a strong bearing on the territorial behaviour of all communities and, therefore, key questions when it comes to understanding the links that are established between a community and a landscape. On the one hand, the type of economy and the ways of exploiting the natural resources which have historically transformed the territory and have given shape to the landscape. On the other hand, the characteristics of housing construction and the corresponding structure of the settlement and the building typology. So, the model, forms and guidelines for mobility which typify the life of a community would be equally important in this explanation about the nature of the landscape seen in terms of a social and cultural construct.

Second, as a consequence of the present-day importance of population mobility within a territory, the emergence and dramatic development of landscapes, directly related to or having strong links with managing and providing support for this mobility, poses a thought-provoking hypothesis which could be formulated as follows: is it possible that the multiplication of mobility landscapes might represent, in reality, a break with the traditional way in which individuals have related to the territory and identified themselves with the landscape?

By way of answer to this question, and by way of conclusion, I would like to make the following remarks.

We can establish that the relationship between individuals and a given landscape, that which characterises the place where they live and which supposedly should be able to interpret and refer to questions of a social nature such as their own culture and identity, is at present a weak relationship.

This is the result of two parallel and simultaneous trends that make up their own system.

First, there is a multiplicity of places and territories which end up forming living space, to the degree that there is a shift from that feeling of belonging to place whose reference is a single landscape, to another multiplied and fractured sense of belonging. This is built on the basis of fragments of space and time of a metropolitan nature which are recognised by perceptive memory precisely from the perspective of mobility and not being there. In other words, it is this very same mobility which links these fragments and appropriates them to shape this new sense of belonging associated with an equally new living space, difficult to delimit but, whatever the case, not determined only by the place where one lives.

Second, the immense capacity nowadays to replicate and clone landscapes in different places means that the association between place and landscape is certainly less clear and has become a cloudy link, or at least easily interchangeable on both sides of the association. Put another way, if it is both possible to recreate any landscape in a given place and the opposite, then any place can host a given landscape. This means that all landscapes can be associated with all places: the replication of beaches from Bali in the Berlin leisure centre *Tropical Island*; the ski slopes inside the *Xanadú* shopping mall in Madrid; the cloning of the streets of New Orleans in the south wing of the *Trafford Centre* shopping mall in Manchester, the formal language of oriental architecture rehashed in fast consumption versions inspired by *One Thousand and One Nights* imposed upon second home urbanisations on the Mediterranean coast; or the standardisation which is clearly visible in the restoration of historical centres and Jewish ghettoes in Eastern Europe, which end up reproducing urban design programmes that are surely similar and predictable. These are but a few examples, different moments in a global sequence of landscapes characterised by the easy, indifferent and common transposition with place.

But if the landscape is no longer peculiar to a place, but rather in some way can flow and manifest itself in a multiplicity of places, then this means that there is no necessity to relate to, appropriate or identify with that landscape in a specific place. In other words, a kind of "relocation" of the process which creates the link between the individual and landscape through place. It is as if the landscapes had gone "on strike" and had resigned from the job they were traditionally assigned.

These two simultaneous processes, the new role of mobility in configuring living spaces and the feeling of belonging to a place that is paradoxically relocated, in fact

explain the present-day hypervisibility of mobility landscapes. If, on the one hand, it is mobility which progressively gives meaning to the processes of relationship, appropriation and identification between the individual and the landscape and, on the other hand, the landscapes related to habitation are abandoning their function of explaining the social and cultural content of this relationship, then one could suggest that mobility landscapes, those which are specifically related to the management of mobility flows or providing support for this mobility, are where we now have to search out the way in which relationships are established between society and landscape.

A far cry from marginal stretches, mobility landscapes represent the privileged stage where, at present, the identity of the people and the culture of the places are being negotiated.

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1 "Low-cost" flights are certainly not a new phenomenon as they have an obvious precedent in the charter flights which began in the 1960s.

RENOVATING LANDSCAPE PLANNING IN THE NEW METROPOLITAN PARKS

Enric Batlle i Durany

Introduction

Nature in the city, typically in the form of parks, is a prime example of how the popular spirit associates images of longed-for landscapes with public space. Joseph Rykwert, in his article "The garden of the future, between aesthetic and technology",[1] invites us to resolve one of the clearest challenges of our times: "Bring nature to the city, and put nature at the service of the citizen." The relationship between city and nature has lead to numerous examples of public space which are the result of the complexities of literally transporting natural models to the city for public use, or the clear contradiction between these urban uses and the nature areas or images of nature these models attempt preserve. In this article I would also like to highlight this key public space paradigm, and help to find urban, ecological and aesthetic meanings that our future open spaces will require.

Finding a new meaning for open metropolitan spaces allows for planning city projects from the perspective of a new continuity model. We are no longer dealing with the traditional compact city and its streets, squares avenues and parks, but rather a new vision, the dispersed city, where new open spaces can act as a cohesive factor, become accessible and be the new strategy which defines the shape the metropolis takes on, perhaps even resulting in a new stratum which

superimposes itself on the multiple strata of construction and meaning which make up metropolitan reality.

In this new relationship between city and territory, where the city is metropolis and open space is one of the basic strata in its makeup, ecology laws will have to be respected, environmental alternatives reinvented, new paths will have to be sought within the agroforestry world in metropolitan areas and, of course, we will have to know how to incorporate all of these issues into urban and territorial planning projects of which they will be an integral part. This stratum that begins from the landscape and runs through all levels, from the metropolis to the city, either revitalising major geographical features of our landscape, or rescuing or inventing small landscape phenomena found everywhere, or that could be found.

Landscape architects work from a perspective which is found in a third approach: trying to explore the possibilities of landscape planning, somewhere between the high-handed attitude of industrial society and the ingenuous attitude of ecologist movements. This third viewpoint is not resigned to apocalyptic visions which forewarn the end of public space or the destruction of genuine urban spaces for everyone. Such concerns are well-argued by Margaret Crawford in her *Narratives of loss*,[2] which predicts that the only open or free spaces possible in the future will be private open spaces (shopping malls, leisure areas, theme parks and tourist spots, etc.) or mobility spaces (motorways, train stations, ports, airports, etc.).

This third approach gives rise to new landscapes, but not those which result in artificially preserving some form of nature (or some relative historical representation of agricultural) which is fated to lose the personality we assign to it today. This is what Oriol Bohigas claims is the case for urban culture in his book, *La ciutat, refugi del paisatge* (The city: the landscape's refuge).[3]

The present-day renovation of landscape planning employs very different views of reality which, in principal, are very heterogeneous: designing public space, the environment, regional planning, agroforestal management or regulating natural resources. These are superimposed in an effort to define new open space models for a sustainable city.

In an attempt to look closer at the possible role of open spaces in the context of metropolitan areas, this article is organised into three sections: planning and urban parks; the new metropolitan open spaces; and urban, ecological and metropolitan connectivity. The first section analyses the links between the planning model used and the resulting types of parks. The second section gives examples of new open space

typologies: from the forests of the metropolis to urban agriculture, and from land drainage systems to environments with added value. The third section proposes recovering urban, ecological and metropolitan continuity via an open space programme as a new regional planning tool to cope with the inevitable urban sprawl phenomenon.

1. Planning and urban parks

The most common form of urban planning here in Catalonia in recent years has been, and still is, to develop relatively small sectors according to an urban model (a partial plan or similar) which tackles problems specifically linked to that spot according to previously established parameters and guidelines. Land set aside for open spaces and facilities accounts for between 30% to 50% for the sector's surface area.

The typical land development process focuses planning on the logic behind new street plans or the best property development option, therefore, making open spaces and facilities available generally takes on a very secondary and fragmented role within this logic. Another common tendency is to consider these spaces from the logic of a very local perspective, related to already existing urban fabrics or as a new centre for a proposed urban fabric.

These urban development plans encourage breaking up open spaces into various pieces which are scattered around the outskirts of locations considered ideal for property development. A common tendency is to reject the possibility of exploiting already existing geographical or landscape features in the location, and so they establish a new order that will be built according to the dictates of the projected streets and buildings, and consequently new open spaces will have to be designed from new criteria which are undetermined when the sector is being planned.

Models for developing autonomous pieces of land have regularly left out the surroundings, whether the city that has already been built or the nearby landscape, rejecting the possibilities of open spaces as transitions between densely populated cities which needed green zones and nearby natural or agricultural landscapes which were losing their meaning and value.

A more sustainable urban planning model should pose a unitary and grouped treatment of all the open spaces of a new sector, it should find a layout in the territory that would promote transition or change between the already-built city and the nearby landscape, it should take advantage of the existing geographical or landscape features as generators of new open spaces, and it should try to connect these spaces to potential ecological

corridors which would link the different spaces of natural interest in the metropolis.

By way of illustrating the possibilities of this kind of development within the context of neighbouring urban environments, I would like to give two examples from the town council level, but which are a positive contribution to complementing the metropolitan ecological matrix. These examples are the system of parks in Sant Cugat del Vallès and the Sant Climent to Viladecans urban corridor torrent.

In both cases these are proposals that attempt to establish a system of parks within the city, taking advantage of the voids generated by the city as it has taken over land. In both cases, these voids are torrents that have been turned into new open spaces in the city and have given rise to continuities for pedestrians that were inconceivable before.

These systems of parks have become the best regional planning project option to begin the future development of these cities, and offer three clear advantages in a single operation: first, the city acquires many open spaces and the natural values of the original territory are preserved; second, they allow for controlled city growth with the addition of new districts which round off the previous urban continuum and which define the borders of the system of parks; and third, a sequence of spaces is secured which connects the inner city to neighbouring natural spaces. The link between new city growth and establishing systems of open urban spaces offers a further clear advantage: it facilitates joint financing of the entire area.

In Sant Cugat del Vallès, the embryo of the system of parks allows for a route that runs from the city centre to either the Torre Negra agricultural park and the Collserola Park, or as far as Sant Llorenç del Munt crossing the hypothetical Vallès green corridor.

In Viladecans, the open spaces that have been generated around the Sant Climent torrent have established a sea-mountain route which both breaks and joins with the entire municipality. On the one hand, they are linked to the Garraf natural park system and, on the other hand (seaward), they come into contact with the Llobregat agricultural park and with the nature reserves of the Delta.

In Sant Cugat del Vallès, various open spaces resulting from independent urban development operations have ended up giving shape to a system of parks, despite the fact that there was no formal municipal plan to that effect. Spaces of different typologies have ended up finding a unity in continuity and the vegetation, to the degree of achieving a unification of an agricultural valley reconverted into a system of parks: the Central park the

open spaces of an urban development (Monestir park) and the park which runs along a torrent (Rambla del Celler park). In the case of the Central park and the Rambla del Celler park, the original geographic feature, the torrent, has become the centre of the park and the organising characteristic for the entire sector. In the case of Monestir park, a conventional urban model has eliminated all the previous landscape features and has encouraged the breaking up of open spaces into quite fragmented pieces which only recover some kind of unity through the visible presence of vegetation.

In Viladecans, the municipal impetus to recover the Sant Climent torrent has become a global plan which dictates all future projects along the course of the torrent. The design of this park is based on the logic of the natural system of torrents and has mapped out a park system which crosses the entire city, taking advantage of all the spaces it encounters and which is turning into green link between the mountain and the sea.

In these two examples, upper level planning did not originally anticipate these options, and partial urban development plans opted for scattered open spaces located according to more conventional urban planning logic. The result serves as an illustration of how these ideas can be turned into reality while maintaining all the other urban parameters. The two systems of parks have been financed by the private sector, but under municipal control which oversees the execution of these projects. Viladecans is a particularly striking example if we remember that prior to this plan there was a proposal from the ecologist association Depana, which proposed a green corridor between Garraf and the marshes of the Llobregat delta, located between the urban nuclei of Sant Boi del Llobregat and Viladecans itself. This corridor took advantage of an empty interstice between the two urban nuclei and became the natural boundary which justified the possible expansion of Barcelona airport.

This corridor never became a reality. A number of industrial estates programmed into the development project made it impossible as they took up significant urban stretches in both municipalities. When the Viladecans municipal authorities considered the possibility of a similar idea, it was already too late to develop options at this level. But, a much more detailed analysis and more open-minded thinking focused discussion on a minor geographical feature right in the middle of the municipality: the Sant Climent torrent. The torrent did not correspond to the dimensions of the green corridor proposed by Depana, but it ran uninterrupted between Garraf and the Delta, being the most common geographical link between the valleys of the Parc Natural del Garraf and the marshes on the edge of the airport. A

much more detailed urban and landscape study was able to identify the possibility of transforming this thin thread (which proposed urban planning projects had almost erased from the map) into the most important geographical feature in the sector, capable of heading the municipal government's most ambitious urban planning project and gaining sufficient momentum to become the system of urban open spaces the city was looking for.

2. The forests of the metropolis

Urban land use only accounted for 16% of the surface for the Barcelona region in 1992,[4] and 25% in terms of potential urban land use according to prevailing planning in 1998. Despite the significant percentage of free land, this is not the feeling one gets when travelling through the metropolis, because within this remaining 75% a major portion corresponds to areas where use is non-regulated, abandoned agricultural areas or poor quality agricultural land. So, the infrastructures cut the remaining open spaces into shreds and highlight this feeling of there being little space available. But the space does exist and could be used in coherent planning policies that attempt to avoid undifferentiated urban continuums that in the long run will make it impossible to connect the various natural areas, or the various areas that could be integrated, into the a network of open metropolitan spaces.

Cities can make use of the forest as a basic material to recover degraded urban interstices: on a large scale, as a means to populate extensive surface areas, setting up all manner of ecological links; and on a small scale, as a living reminder of the forests that we yearn for. Metropolitan forests can be accountable in financial terms, incorporating different types of urban farming: from agriculture integrated into the concept of the forest (controlled exploitation of the forest or traditional plantations in the forest clearings), to more intensive productive agriculture that could occupy large extensions of land (protected designation of origin vineyards, tree nurseries or agricultural parks). Metropolitan forests and urban agriculture are profitable at a local level because they provide wood, food products or leisure spots. In addition, they can be profitable at a global level because they absorb carbon dioxide and can counteract climatic change because they retain water, control erosion and prevent floods; and because they become a source of biodiversity.

Urban forests require multiple land use management that would simultaneously promote public use of these areas and the production of raw materials in the same place. In order to put such a system into effect we need to overcome the traditional dilemma between production and preservation. It is neither a question of setting up systems of intensive

forestry production management, nor promoting static conservation without any kind of management. Intensive forest management favours planting fast-growing trees, with continual forest renewal and a preference for regular and single crop spaces. In contrast to this kind of planning, management systems can be set up which promote forest diversity and structural complexity, with uneven masses of trees comprising different species and varying surface areas. With this kind of management one can foment positive exploitation of the natural resources while respecting the beauty and environmental role of the forest.

The Parc du Sausset in the *banlieue* of Paris, is an excellent example of a practical park built on the basis of recovering agroforestry systems as urban systems capable of being used in the public spaces of the new metropolitan context. This park, designed by a team led by Michel Corajoud, is not a case of defining a final image, but instead has set up a construction process for the park which still continues. In Sausset, agriculture is not something that derives from the designer's romantic recollections, but rather is the driving force behind the park and has resulted in a system of metropolitan forests. Rather than proposing the preservation of some existing natural value, instead a new nature has been constructed. Rather than using water as a decorative device, instead it has become the answer to new environmental problems and has led to the creation of new water ecosystems. Rather than employing geometry to establish new architectural forms, instead it has been used to create a new landscape.

The idea here is to forest the metropolis through sturdy management systems and new ideas that attempt to produce rich and beautiful forests; self-sufficient metropolitan forests which could continue to generate environmental and social benefits; forests which we will see as having added value, not residual value. In the words of Martí Boada, the forest, "Is not marginal".[5]

3. Urban agriculture

Urban agriculture is our response to the fascination of natural and agricultural spaces that we value, or spaces that have made up the image of landscapes we want to preserve. Agricultural images can become the images of our contributions; and they can be the basis of new images that we can generate through new strategies. Agricultural processes are part of the land culture, they are the ideal system for managing these landscapes, and the strategy that allows these spaces to be organised according to their kind of land management, giving rise to new images —changing over time— which allow us new ways of relating to the city where they are located.

Humanity's desire to harness nature, whether as a source of food, medicine or contemplation, has resulted in the development of an array of farming techniques and services, which have later evolved from agriculture to decorative features or leisure activity areas: from irrigation systems to monumental fountains, from terrace farming to garden terraces, from protection systems to hedges or garden fences, from pruning to increase production to topiary art. If agriculture is one of the origins of the garden, then it follows that after a long period of extreme artificiality and lost roots, one could think that parks can return to agriculture, be agriculture, and recover their former horticultural character.

One particular case of urban agriculture is allotments located in public land in peri-urban areas. Although they are considered as marginal in areas such as the Barcelona metropolis, this is one activity which, if carefully regulated and even suitably promoted, can contribute to structuring peri-urban areas, generating laudable landscapes and satisfying the needs of many people. Examples of this can be seen in the outskirts of many central and northern European towns and cities. Private allotments can be compatible with traditional open spaces or incorporated into new metropolitan open spaces. Transforming this avocation, removing it from marginal spaces and relocating it in suitable locations where it can be regulated, is something which needs to be done, but we can also see it as a good solution to shaping to our open spaces. Many European cities are going back to the policy of including allotments in public parks, thus reclaiming the tradition begun in Germany at the end of the 19th century.

4. Land drainage systems

Land drainage projects begin from the premise that water is a basic resource and their primordial objective is to maintain and protect a flow of clean water. The point here is to rethink something we already know: without the river or land drainage, now or in the past, there would be no river valley. To understand the central role of fluvial corridors means studying the entire river basin area. A comprehensive understanding of the natural system allows us to adopt a more thorough ecological approach and can help us to determine the best solutions to conflicts that we commonly find in the more urban developed zones.

Storing water and irrigating the territory not only helps to cope with our water needs, but can also lead to generating new landscapes. First, this would mean adopting small scale water management strategies: storing it so that it can be accumulated, slowing down the river flow, irrigating the territory and controlling it in forest, agricultural and urban areas.

Second, to encourage the preservation of all the land drainage systems and to store available water volume at all stages would lead to new humid landscapes linked to the forests, agricultural zones and the new urban areas. Third, applying these measures would also mean that in the event of heavy rainfall, water volume could be reduced at the upper course levels of the rivers and torrents, and also the river flow speed could be moderated and help to prevent all manner of floods. This would not only palliate present-day problems but also give added value in the form of quality landscapes and environment: increasing forest mass, exploiting irrigation channels, improving ground water levels, reducing soil erosion, creating new humid areas and potential ecosystems, and the possibility of generating new landscapes in the areas surrounding our rivers and torrents. Fourth, putting various measures into effect at the same time could be, in the case for Catalonia, the best water management strategy to avoid meaningless projects and actively involve the entire country in water-related problems. Furthermore, this would add clear economic benefits to evident ecological advantages that are not only viable but could even be indispensable.

Rediscovering watercourses through land drainage systems allows us to bring to spotlight the notion that indiscriminate land occupation has discarded: the continuity of outdoor spaces. If we rediscover watercourses we will be able to recover the ecological continuity of land drainage systems and we will have taken the first step towards the continuity needed in our metropolis. If the only stratum with continuity in the present-day dispersed city is the infrastructures, then remembering that land drainage systems can also provide continuity will help us to begin constructing a new stratum composed of all the metropolitan open spaces.

Recovering land drainage systems entails designing a rational water cycle, which in turn makes water processes visible to citizens and leads to a new urban ecosystem composed of water collecting areas: small reservoirs, storage tanks, secondary drainage systems, various alternative water supply networks, waste-water treatment plants and green filters. Furthermore, it would provide for an infinite range of possible spaces which, alongside the main streams, rivers and coast line could act as a framework for the metropolitan hydric system.

The continuity of a land drainage system allows for recovering original geographic features when building cities. Water management seen from the these parameters and planning spaces linked to this kind of management, would allow us to put into effect a system (by definition continuous) that would not only take into consideration the major watercourses (rivers and torrents), but would also be visible at all levels and would include any

minor topographical depression which would then become another integral part of this fundamental project.

Land drainage systems would become "green routes" in very real terms because they guarantee the inescapable link between the continuity of water and biodiversity made possible by planning projects focused on contiguous areas. The continuity of water and biodiversity could be complemented by possible routes available to citizens via paths that follow land drainage systems or connect to nearby urban fabrics. A land drainage system project sets before our eyes the continuity of a drop of water, a bird, a boar that has got lost, added biodiversity, clean air, a green citizen and everything else that could be compatible with these principles.

5. Environments with added value

Environments with added value are the result of carrying out the best possible study on the environmental impact of the project we want to put into effect in the territory. They are the positive balance from a positive interaction between the planning project and the natural potential of the landscape which it has to manage. Environments with added value are spaces that can complement the natural and public spaces in the metropolis.

These environments can be a value added to a given land development project which is in progress. The impact of land development projects is often regarded as always damaging to the landscape and that it is therefore necessary to ascertain the impact on the environmental so that subsequent necessary corrective measures can be taken. As Ramon Folch states in his book, *Que lo hermoso sea poderoso*[6] (Oh, that the beautiful were powerful), these measures unfurl as follows:

"The last chapter in this process begins when the civil construction work is coming to an end, although it can continue long after it is finished. This is the healing of the wounds that have been inflicted. Attempts are made to set up screes, regenerate zones affected by temporary stockpiling of materials and installations, build paths for animals that have to cross this stretch, and so on.

This process is far too often reduced to summary circumstantial gardening that has little to do with any real attempt at global restoration and, furthermore, tends to be expensive to put into effect and extremely expensive to maintain. What was already there has been destroyed unnecessarily and cost nothing, and what did not exist has been placed there, in poor conditions, and is very costly."

Environments with added value need to make sense for their own sake and they need to become a landscape feature that rises above the specific planning project

they coexist with. This means working actively with the materials the landscape itself provides, avoiding disaster and designing with nature, confident that one is working towards a better world. Lewis Mumford, in his introduction to the acclaimed book by Ian L. McHarg, *Design with nature*,[7] puts it in the following terms:

"Although it is presented as a call to action, it is not aimed at those who believe in intensive programmes or immediate solutions. Instead, what it offers us is a fresh path made up of pebbles running over an already existing landscape. In this book we find the foundations of a civilisation which, without doubt, will replace a contaminated world: terrains mistreated by major earth movements, dominated by machines, dehumanised, threatened by explosions and which at the moment is disintegrating and disappearing before our eyes. By offering us this striking vision of the exuberance of organic elements and human delight which ecology and ecological design promise to unravel, McHarg restores confidence in the idea of a better world."

Design with nature, lets us resolve these land development programmes from the basis of a thorough knowledge of the landscape's social and cultural values and a concern for producing programmes that are able to incorporate what ecologists already know. The recovery of degraded spots or the old industrial sites, is an opportunity to use this knowledge to try and produce new landscapes which will become part of the image of the metropolis.

We could go back to the way we worked before and deposit our marvellous products on natural areas that are still uncorrupted, but we have already seen that our products are not always compatible and that nearby nature is often degraded as a result. The added value of these land development projects could be open spaces that would help us to integrate the corresponding object into the overall framework of the landscape project for that spot.

These open spaces could be the environs best suited to correcting environmental impact, or the result of an established land development project seen as if it were an open space. In both cases, this means considering all the elements as a single landscape unit which groups together a specific development project and its surrounding areas. This unit should simultaneously dictate the features of the development project and the environment in such a way that they would be seen as inseparable. Environments with added value would not only be the open spaces of individual projects, but also those related to a global system of metropolitan open spaces, satisfying and complementing civic and ecological purposes.

A metropolitan infrastructure plan with the necessary installations, if approached from the perspective of added value, leads to what we could call "green infrastructures": hybrid versions of a specific programme and landscape; a new open space typology. Environments with added value can be projects that are congruous with general notions of metropolitan open spaces or perhaps simply isolated operations related to a specific problem which has arisen. Whatever the case, this means contributing to building the best metropolitan landscape.

The Roques Blanques metropolitan cemetery and the Garraf land fill are two examples of environments with added value. Both are being developed over natural areas which make up part of a system of metropolitan open spaces. The cemetery is developing a complex programme of sepulchres in forest areas located next to Collserola, while the land fill was sited in a deep valley in the Garraf massif and recently has been the object of a landscape restoration programme.

The Roques Blanques metropolitan cemetery is a group of gardens inside the forest. Each cemetery is a small garden where the view of the sepulchres is overshadowed by the features of the entire landscape. This cemetery project allows for preserving the perimeter and interstitial forests, maintained by the cemetery, and implementing these new garden-cemeteries which will be absorbed by the forest with the passing of time.

The Garraf land fill indiscriminately occupied a valley in the Garraf natural park. The project for the final exploitation stage defines the end topography that will be achieved and has provided for exploiting resulting gases as an alternative energy source. The objective of the restoration project is to return the spot to the natural park by creating a new landscape seen in terms of a productive agricultural area. A series of different farming terraces outline the projected landscape and establish all the elements necessary to regulate it, from the end of the land fill stage to the crop planting that will be required.

The Trinitat intersection park and the Tramvia park, located within the Barcelona ring roads, are two examples of the intrinsic difficulties of transforming infrastructures into "green infrastructures". Here we have two examples in the Barcelona area of projects for infrastructure environs that have managed to correct the inadequacies of the original infrastructure project. The former is the development of a park within a major road network intersection, while the latter project is attempting to develop a new landscape over the covered stretch of a motorway.

The Trinitat intersection park is the area around an infrastructure and a landscape in itself. One could say that this park is the result of a thorough study into the environmental impact of a complex and necessary infrastructure project. But the park is in fact the result of a landscape project that looks at the bigger picture and focused on overcoming the complexities of the problem and hopes to develop a public park for the nearby city districts. This park is a landscape that has been built from the perspective of topography and agriculture, but it is also a complex structure right in the middle of a road network intersection which is intended to be used as an open space. The solution that was adopted attempts to link this spot to a hypothetical system of outdoor spaces through the continuity of various rows of trees which enter the city accompanied by different motorways. This park is a "green infrastructure" and the result of handling a project with particularly difficult points of conflict.

The Tramvia park occupies the spaces that regional planning projects had originally reserved for a motorway. When work began on this infrastructure it was met by persistent complaints from the municipal government who successfully argued for it being semi-covered, making land available for constructing a park. The park now occupies a series of previously fragmented spaces that were poorly linked to the nearby urban fabrics, and the hope is that this park will become an element of urban connectivity and a metropolitan forest which could cross the entire stretch of motorway. The end result is a green route that connects two municipalities and a metropolitan forest that can continue to expand: the environs of an infrastructure with added value which the municipalities can continue to build on.

These two projects show us the possibilities offered by infrastructures to provide open spaces in the urban environs they cross through. The solutions adopted here show only a part of the immense range of possibilities that could be exploited if one could programme major infrastructures from the perspective of "green infrastructures". A joint approach project that considers both infrastructures and the urban environs can offer a great deal of added value to the city and help to build on a system of open spaces in our metropolises.

6. Urban, ecological and metropolitan continuity

The new "green systems" are built on the idea of recovering lost connectivity, but they are also built over the base of each of the new open spaces that can be established. These new open spaces (on the outskirts of the city or at metropolitan interstices) cannot be designed exclusively from a local development project programme, instead they have to take on and assume the role that falls to them within a hypothetical ideal system. These open spaces could become part of a series of spaces which attempt to establish some kind of connectivity or could be essential for recovering degraded natural spots.

These new parks could also be linked to existing potential natural systems or to new natural systems that could be set up to develop ecological values that have been nullified.

Building on these new green systems requires establishing multiple connections or green links between the different areas of the city and between the different existing open spaces. Green links are a modern version of Olmstead's systems of parks or interconnecting parkways. They encourage walks, engender a great deal of interest in the metropolis because they allow citizens to interact with all the open spaces, and they are the foundations of a network which offers the possibility of being able to choose and expand routes.

Green links would basically be understood as tree spaces which could also serve for draining city water. The continuity of routes for pedestrians or cyclists is essential, because it is essential to find good solutions for all the intersections and junctions that will be created with other infrastructures. Green links could be simple urban walkways or be closer to the ideas of an ecological corridor guaranteeing continuity of nature. Transforming these spaces into land drainage systems seen from the city means exploiting rainwater to create humid areas that would turn green links into part of the system of parks and into a self-contained natural system. Green links are another piece in the urban routes that can be established in our cities.

The metropolitan landscape has to be constructed based on simultaneously exploiting the values of urban connectivity, ecological connectivity and metropolitan connectivity. Urban connectivity is achieved from urban public space projects, recovering the positive aspects of the compact city which we still wish to preserve. Ecological connectivity can be built from the metropolitan interstices projects, based on the inevitable application new ecological values. Metropolitan connectivity we have to learn to programme given the need to regulate the values of the dispersed city where we live. The intentional layering of these continuities is the first tool when it comes to renovating landscape planning in the new metropolitan parks, and the best instrument for building a better metropolitan landscape.

Public spaces can be the visible image of metropolitan continuity. The composition of these spaces can be dispersed and fragmented, as a logical consequence of the diversity of elements that it contains; but it can also be coherent and continuous, as a direct consequence of the new ideas that we need to implement.

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AGRARIAN LANDSCAPES IN THE ITALIAN METROPOLITAN ENVIRONMENT
The case of the South Milan Agricultural Park

Fabio Renzi

"Là dove c'era l'erba ora c'è una città, e quella casa in mezzo al verde ormai dove sarà?"
"Where once there was grass there is a city, and in that house in the green, where might it be?"

Il ragazzo della Via Gluck – a song by Adriano Celentano

1. The years of urban expansion

Over the second half of the last century, like other European countries, Italy underwent an intense urbanization process which caused both a territorial and social transformation. Above all this transformation altered the largest cities. One need only consider that during the 50's and 60's Turin became the largest "Southern" city of Italy, due to the many immigrants from the south who came to work at Fiat.

This urban expansion and building boom was carried out with little or no city planning and an emphasis on profit. The physical and visual results make up the environment and background of many Italian films of the post-war period. The roman countryside with its suburban towns and the new neighborhoods of the outskirts are seen in Pasolini's movies. De Sica's and Visconti's films show the beachheads on the landscapes of the Lombard countryside which have since become the infinite city that covers the area from Turin to Venice. Francesc Rosi's beautiful and intense film, "Le Mani sulla Città", tells the story of the "sack of Naples" under Mayor Lauro (of the famous shipping family). This radical and profound change in both the physical and human backdrop of the country would become the subject of ever popular protoecologist Italian pop song, *Il ragazzo della Via Gluck* by Adriano Celentano.

In almost every large Italian city, this urbanization brought about the existence of working class suburbs, unauthorized settlements and the new neighborhoods on the city outskirts, all of which have developed along the various main roads granting access to the city. The countryside, small towns, and rural settlements were upset and absorbed into a chaotic and irrational hodgepodge. Many logistic and infrastructure problems still afflict Italian cities. In particular the relationship between the periphery and the center of the cities, where the center remains the site of nearly all functions and services. The transformation of Italy's agricultural landscapes shows the various phases of civilizations that have marked the country. Their division into lots, their grid work of sharecropping farms, have become vacant lots awaiting buildings or areas to place unhealthy industrial plants. In this manner not only the visual, aesthetic properties of many Italian landscapes with their historical and cultural identities are upset but also the deeper structure of ecological relationships is likewise traumatized. This will lead to a progressive process of degradation of the areas surrounding cities and the impoverishment and loss of their biodiversity while fostering particularly aggressive pollution. Such pollution particularly jeopardizes the hydrographic system, putting the groundwater at risk.

So the Italian cities find themselves poorer not only find their formal and aesthetic elements, but also the social aspects, due to the lack of services and infrastructure and particularly the lack of green.

2. The community's new demand for quality: Agrarian landscapes and urban parks

The aggression towards our territory was facilitated by a legislative vacuum that lasted more than twenty years. Only in 1968, with the introduction of the urbanistic standards, did urban green areas become a theme in city planning. It was a substantial step forward even though it did have its limitations. The letter and spirit of the standards concentrated on more quantitative and compensative aspects (including payments for damages) as a solution to the frightful deficiencies in citizen services and structures. Gardens and areas for sports facilities were the dominant in the planning of public green areas. It was not until some years ahead, in the 70's and 80's Italian city halls made use of their more mature, complex and articulate experience. The trauma to the agricultural space near or between cities, historical gardens, hydrographic networks rather than physical augmentation became a fundamental component of urban planning. The emergence of a public and collective demand regarding the quality of life (from workplace safety to the livability of the city), and its subsequent political renaissance which impacted many Italian administrations, led to the spread of city planning experiences aimed at the creation of parks both inside and beyond the city limits.