
Highway, streets and paths

A planning experience in the outskirts of Palermo

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ABSTRACT. The unsolved encounter between large arterial roads, networks of urban traffic and pedestrian routes is often a character of the contemporary city. In Palermo the large peripheral section of the city is crossed by the beltway, 20 km long, which divides portions of city physically contiguous. An example is given by the districts Borgo Ulivia and Bonagia, in the southern suburbs, located respectively north and south of the beltway, at a junction. These have acquired the aspect of "districts dormitories" because of the absence of facilities and adequate public spaces. The proposal for the construction of a Centre of the municipality between the two districts comes from the idea of changing this condition, unifying them and creating a continuous soil transversal to the beltway. The Centre creates the urban fabric which connects the two districts and it represents a new polarity in the polycentric design of city and territory.

KEYWORDS: crossing, soil continuity, linking, urban centrality.

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1. Impassable Intersections

The Valérie Jouve's film titled "Grand Littoral" (2003) portrays the landscape of the northern suburbs of the metropolitan area of Marseille, characterized by the presence of a large infrastructure system¹. On the background noise of vehicular traffic, the actors move in indefinite spaces and urban voids reminiscent of a country landscape which no longer exists, included among the thoroughfares and the urban margins. Walking or running, they cross the asphalt surfaces drawing trajectories denied by the presence of the infrastructure and inventing improbable paths on surrounding areas. By imagining marking out on the ground all of these pathways a grid of fine wires appears superimposed to the network of roads and the infrastructure junctions and ramps. In the first figure the wires which are interwoven irregularly are the unlikely paths of actors within a rather limited area, although without real boundaries. It shows the small variations caused by the overcoming of an obstacle or unevenness. However, the second figure is a part of a much wider mesh network whose overall image can be better captured through the vision offered by larger geographical scale. The overlap of the two images in a single drawing shows the conflicts generated by the randomness of their intersections². The network of paths and the planned route of infrastructure appear irreconcilable. At the same time conflict emerges between the spatial perception of pedestrians and motorists. Pedestrians, who at each step, are familiar with the ground in all its details, forms and materials. Whereas, the spatial perception which the driver has from the interior of a moving vehicle, is shattered in a rapid succession of perspective plans³ and often directed primarily towards the geographical scale. Many paths and dangerous crossings made by the actors highlight this gap. On the other hand, the movement of human figures seems to evoke gestures and habits related to a different use of those spaces. Moreover, these uses may belong to an era before the construction of the infrastructure but also to a future time when the infrastructure will be put into question. In this perspective the behavior of the actors seems to suggest, albeit through a forcing, that the unshaped areas on the outskirts of the city, between urban spaces and road networks, nevertheless possess a latent dignity of *place*. What makes the difference, in this case, is the way in which the human presence shows the need to seek meaning in that space, through the movement of the body which "measures" and "draws" it, punctuated by stops in which the subject selects some points of view. Another difference between the two figures regards the degree of fixity or fluctuation of their shape. Along the wide mesh of infrastructure on the land the trajectories of vehicle flows are predetermined by the asphalt roads. However, the paths' network draws itself continuously on the ground covered by vegetation or gravel through the heavily walked pathways. Therefore, pathways can be continually invented and reinvented, with new walkways which add or replace those already travelled. The virtual image of this reticular figure continuously transforming remains as long as it is woven by daily life. The two images describe different ways of interacting with the territory and soil. Both however, orientate the traveler and provide knowledge of the landscape, revealing some aspects and leaving some others less obvious. Together, the two overlapping figures represent the geographically stable behavior and the mobility condition, which are compared in a problematic way especially in the urban outskirts of the contemporary city.

2. A planning experience in the outskirts of Palermo

The landscape "broken" described by Valérie Jouve in her film has been the theme for a planning experience carried out on the southern outskirts of Palermo⁴. The

part of the city on which the study focuses on is characterized by the presence of the beltway, which inserting itself between the urbanized areas becomes one of the distinctive elements of the urban space. Its route crosses the wide peripheral band of the city for 20 km, connecting the two main highways in Sicily: the A19 Palermo-Catania and the A29 Palermo-Mazara del Vallo. Around the middle of last century this sign entered among the main elements that define the landscape and the geographical space of the Conca d'oro, with which the city of Palermo becomes an entirety⁵.

2.1 In the landscape of the Conca d'oro

A crown of mountains defines the horizons of the Conca d'oro in the east, south and west, while to the north there is an opening towards the sea. The mountains are linked to each other but each is distinguished by its own special profile. Together, they define a plain which was all planted with gardens and orchards, whose ideal centre was the ancient city of Palermo. The promontory of Mount Pellegrino overlooking the sea is isolated and mediates the relationship between the plain and the sea. Their characteristic profiles are part of the image of the city, both for those arriving by sea than by overland routes. The peculiar morphological condition of the basin with all these emerging elements makes the landscape of Palermo a context full of references, which exist as a tool of orientation. The urbanized plain bounded by mountains is carved from the deep valley of the Oreto river, which crosses it from southwest to northeast⁶. The ancient plain was travelled by a continuous network of paths, many of which flowed from the foot of the mountains towards the compact city, according to a radial scheme. In this landscape, the expansion of the city since the nineteenth century has privileged a northerly direction⁷. In the 1950's the beltway was traced around the city. Its construction has disrupted the formal and natural structure of the Conca d'oro. It was built at ground level, similar to a geographical barrier which interrupts the biological continuity between adjacent areas and cuts the traditional routes of the countryside, characterized by the soil continuity. Subsequently the city has grown incorporating in some means the beltway, a discontinuity which has increased the isolation of the new expansion districts, making it difficult to integrate them with the rest of the city. Finally, the urban sprawl has gradually spread across the Conca d'oro until the foot of the mountains, incorporating the rural villages on the plain.

2.2 Infrastructure which separates

In the geography designed by infrastructures like the Palermo's beltway, cities which were once far apart now become near and due to the logic of mobility they are part of the same metropolitan system⁸. However, the track of the beltway at ground level is an important element of discontinuity which tends to separate and turn away areas near or physically contiguous. In the southern outskirts of Palermo, at the junction Bonagia, respectively north and south of the route of the beltway there are the districts Borgo Ulivia and Bonagia. Among them and the infrastructure there are wide urban voids. Overall, the area including the side lanes of the beltway is similar to a lozenge crossed longitudinally by the infrastructural track along east-west direction. The surface of this area, partially occupied by the junction, measures over 200,000 sqm and its perimeter is over 2 km. The relations between the two urban fabrics are exclusively of the infrastructural type. This condition is made even more evident from the sections of the road routes connecting the beltway, which are always disproportionately wide. However,

looking carefully at the streets of two districts some pathways emerge extended from the foot of mountains to the Oreto river valley, perpendicularly to the beltway. These signs echo the memory of Palermo's cultivated countryside. Seen on the whole, they shape a clear network where many wires have been cut by the infrastructure. Finally, the lack of an adequate system of facilities and public spaces gives the appearance of "dormitory districts" in Borgo Ulivia and Bonagia.

2. 3 Weaving new meshes

Between Borgo Ulivia and Bonagia some important spatial links which render recognizable the relationship between public spaces and the distribution of the residences are missing. The planning proposal, which stipulates the construction of a centre of the municipality between the two districts, starts from the idea of rectifying such a disadvantageous condition imagining a more significant connection between the two urban fabrics.

(Fig.1)



The planning has two objectives. On the one hand, it plans to create soil continuity between the two districts, an essential condition for establishing relationships fully urban. On the other hand, on this uninterrupted soil between the districts, it plans to build new public spaces which may become a new urban centrality within a wider polycentric view of Palermo. This intervention strategy would involve the recovery of biological permeability between the areas located on both sides of the beltway. The opening of this important gateway would make it possible to cross the beltway and to reconnect the two districts and even the natural areas surrounding them. This interconnection can be imagined as an ecological corridor stretched from the

foot of Mount Grifone (at the south of Bonagia) until to the Oreto river valley (at the north of Borgo Ulivia).

(Fig.2)

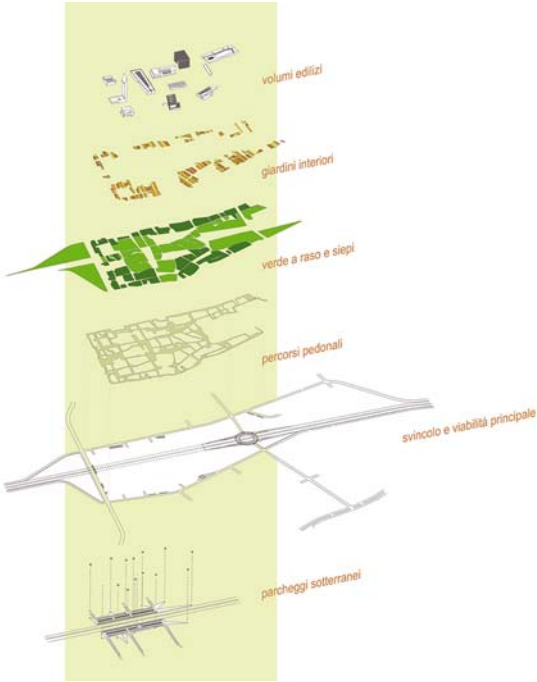


(Fig.3)



The project area is between the side lanes of the beltway. The urban fabrics of the two districts overlook onto it. The Centre of the municipality includes administrative facilities, commercial, cultural, educational, recreational and health services, all located within one single park⁹. In this way, the Centre occupies a central position between the two districts, unifying them and building between them a soil continuity in the direction transverse to the beltway.

(Fig.4)



(Fig.5)



2.4 Building urban fabric between highway, streets and paths

In order to meet the functional program, the planning solution shapes a park to connect the spatiality of the two districts. All the shapes composing the Centre of the municipality are related to this park which acts as a new urban fabric between Borgo Ulivia and Bonagia. The project operates primarily on the parts of infrastructure which occupy the project area. To make more extensive and continuous the surface destined for public spaces, it proposes to bury a stretch of beltway and to resize the overly broad junction, transforming it into a compact roundabout located in the west side of the area. The new location of the junction reconfigures the hierarchies of street networks in both districts. In particular, the connection at the junction on the Borgo Ulivia side seeks a more direct relationship with the part of the city which overlooks the Oreto river valley. The sections of the side lanes of beltway are resized, proportioning the margin between the Centre and neighbouring residential fabrics. Secondly, the planning shapes a new morphology of the interested area. This is converted into a low hill with the highest altitudes in the central part and the lowest altitudes at the edges to the north and south. Along its longitudinal profile, where the beltway runs, the altitude above sea level increases from east to west, up to the tunnel entrance of the infrastructure. Within this prominence there are two garages accessible from the perimeter roads of the area, located parallel to the underground portion of the beltway. On the surface of the prominence, the continuity of soil is spread into a network of pedestrian paths that wind through the park. More precisely, the architecture of the park is based on the network of the pedestrian paths. The crossing of the beltway is made possible by this network. The park is composed by an external wide band, following the perimeter of the area, characterized by dense vegetation, and a freer central part distinguished mainly by meadows. The shape of this free area which also identifies the centre of the park is extended along the direction of the beltway, widening itself near the new roundabout. The compact band of the park consists of planted areas surrounded by hedges pruned to the height of 1.40 m from the ground. Closed between the "walls" of the hedges there are the interior gardens, hidden and revealed by the hedges themselves. They take the shape of elongated quadrilaterals and their prevailing direction is transverse to the beltway. They are separated by narrow walkable passages. The smallest of these trails is passable only in single file. These paths make the park even more permeable and break the unity of the hedges transforming the gardens into enjoyable interior spaces. The interior gardens are of three types:

1 flower gardens characterized by low vegetation. They can be found only along linear fine paths which penetrate into the hedges.

2 shrubs and tree species gardens. In this case, the foliage of the vegetable essences emerges beyond the height of the hedges and composes a succession of volumes along the direction transverse to the beltway.

3 thematic gardens. The latter type of garden is extremely variable and potentially always different in its vegetation and volume.

The external band of the park, characterized by compactness (hedges) and variety (interior gardens), mediates the relationship between the public spaces of the Centre and the residential areas of Borgo Ulivia and Bonagia. Thanks to the walls of hedges it acts as a filter and creates a spatial compression until finally the space opens itself completely in the central area, where the meadows prevail and sometimes the presence of single or grouped trees identify breaks and shadows. Thanks to the morphology of the prominence and the position of the free surfaces to lawn, from this central portion of the park the faces of the two districts are most visible, entering thus became part of the landscape of the park. Access to the park

and its crossing are therefore characterized by pedestrian paths on gentle slopes. Sometimes their trajectories encounter height differences which are overcome through connections of various kinds. The position, ground attack and the entrances to all buildings in the Centre are in very close partnership with the design of the park. Among the various buildings, the tower of the municipal offices prevails, 100 m high, which dominates the highest residential buildings in the Bonagia district and is visible from across the Conca d'oro as well as from the sea. At the urban scale, thanks to structure of the interior gardens, the park builds a new urban fabric which links the two districts. At the scale of the territory, it introduces a new polarity in the polycentric system of city and territory.

3. Conclusions

The unresolved encounter between the major thoroughfares and the undefined urban voids on the edge of the city, as well as the networks of streets and the pedestrian routes, frequently characterize the landscape of the contemporary city. However, all these aspects come together in a different way in each particular context. In the example above, the intention was to solve the problematic relationship between the beltway and some parts of the city which suffer from proximity to its track and junction. Indeed, the strategy at the base of this experience regarding the districts Borgo Ulivia and Bonagia adds itself to reflections which can provide some useful interpretations about the critical states generated by the overlapping of the infrastructures and the urban areas in the contemporary city. The value of this particular intervention as a demonstration may appear more evident if it is observed within the broader urban and geographic context of the Conca d'oro. Choosing the two districts as an object of study and researching a way to unifying them make it possible to focus on the whole ecological corridor extended from the foot of Mount Grifone (from the crown of mountains of the Conca d'oro) until the Oreto river bed. The planning proposal has put under question the role of the beltway and has attempted the possibility of transforming the meaning of this infrastructure and its connections to the urban streets. This has been done in order to reassemble them in a new relationship with the residential areas and with the thinnest network of walkways and trails imagined within the park. In this recomposing, the different networks of routes influence themselves within a system which includes all of them. The proposed project is clearly one of many possible solutions, confirming that the different networks of highway, streets and paths can be integrated to each other and tied together through symbolic meanings of public space as "permeability", "relationship" and "link". The infrastructure loses its appearance of a spatial barrier, thanks to a new continuity of the soil offered by the paths of the park, which crossing the beltway as a bridge. This pattern, which is partially reminiscent of the structure of the ancient pathways of the Palermo countryside, is a special urban fabric of buildings made with plants (the interior gardens) placed as the main shapes of connection between the two shores of the beltway. In addition to attracting the two districts, the network of walkways of the park extends itself virtually beyond the residential fabric of Borgo Ulivia and Bonagia, projecting itself to the north in those trails that meander in the Oreto river valley and on the south, coming in areas of countryside at the slopes of Mount Grifone, on the southern edge of the Conca d'oro. In the new urban landscape envisioned by the project it can "combine speed and stillness. Give possibility of movement and access. Facilitating different points of view. Allowing the distance and cultivating intimacy. Let us choose to walk on foot or take the car" (INGERSOLL, 2004). The starting image recalled by the work of Valérie Jouve, with whom it wanted to represent the critical encounter between beltway, streets and paths, seems to give way to clearer visions in which the different types of routes

coexist without excluding one another, each becoming a part of the landscape of the other.

Notes

1 "Grand Littoral" (running time 20') is the first film of the photographer Valérie Jouve. It had its World Première at FIDMarseille 2003 and it won the "Prix Georges de Beauregard" in the French Film Competition and the "Prix Son" awarded by the Société des Auteurs Compositeurs Editeurs de Musique (SACEM). It had been selected for the Torino Films Festival 2003 and 18th "Entrevues" International Film Festival 2003 in Belfort. A catalogue of the film by Valérie Jouve was published by "Ateliers d'Artistes de la ville de Marseille".

2 Richard Ingersoll spoke specifically about the nature of conflict which often characterizes the spatiality of urban peripheries, suggesting a parallelism between the film editing according to the theory of Sergei Eisenstein and the jumpcut urbanism as a method of architectural design (R. Ingersoll, *Sprawltown*, Meltemi, Roma 2004. See especially the chapter "Jumpcut urbanism. Il cinema, l'automobile e la nuova percezione urbana", pp.87-133).

3 It recalls the famous short film "C'était a rendez-vous" by Claude Lelouch (1976), showing a high speed driving through Paris viewed from the interior space of the running car.

4 The proposed project has been developed within the research "Palermo: districts, suburbs, and contemporary city" - scientific responsible: prof. Andrea Sciascia (Faculty of Architecture of Palermo), which is part of a Research Project of National Interest (prin 2007) financed by the Italian Ministry of Education, University and Research, entitled "Requalification and updating of the public building estate. Guidelines for the interventions in the iacp innovative districts in Central and Southern Italy" - national coordinator: prof. Benedetto Todaro (Faculty of Architecture Valle Giulia, Rome). The research of the Palermo team was recently published in Andrea Sciascia, *Periferie e città contemporanea. Progetti per i quartieri Borgo Ulivia e Zen a Palermo*, Caracol, Palermo 2012.

5 Among the images which depict the ancient relationship between the city, the sea, the countryside and the landscape of the Conca d'oro it recalls in particular of the paintings of Juan Ruiz (XVIIIth century).

6 The spatiality of the valley in some tracts has the appearance of a lush canyon with wild plants. The valley is very broad and covered with cultivated fields and orchards, especially in the part that runs through the actual city. Taking the *trazzere* (traditional dirt roads) and paths that lead down to the river bed, gradually it loses visual contact with the city. This is not a built up area. Here are just *gebbie* (particular concrete tanks for collecting rainwater) and other traditional buildings related to the collection and distribution of water.

7 The different growth stages of Palermo city, from the first Phoenician nucleus, are illustrated and described in Cesare De Seta, Leonardo Di mauro, *Palermo*, Laterza, Rome-Bari 1980.

8 The idea of the highway as the axis of a sprawling city in the metropolitan area of Palermo has been investigated in particular through research published on Pasquale Culotta and Vincenzo Melluso, *Un viale urbano di 120 km. Progetti*, Medina, Palermo 1998 e in the Proceedings of the Workshop *Spazi nuovi per la città contemporanea*, Geraci Siculo 12-14 dicembre 1997, Medina, Palermo 1999.

9 The Centre of the municipality includes facilities of different kinds: a little shopping centre (3000 sqm); offices of the municipal district (1000 sqm); a library (1000 sqm); medical centre and psychological consulting rooms (700 sqm); sports facilities with gym, tennis courts and an Olympic swimming pool; a cinema with six halls; an auditorium with rehearsals room and school of dance (1700 sqm); a cafeteria (250 sqm) and a restaurant (300 sqm); a nursery for with three sections and a kindergarten with six sections; 24 craft workshops; an exhibition gallery (300 sqm); outdoor and underground parking lots. More information and details can be found in Andrea Sciascia, *Periferie .. cit.*

Legends

(Fig.1) General plan of the centre of municipality. In light green: the meadow surfaces; in dark green: the hedges; in yellow, orange and brown: the interiors gardens.

(Fig.2) Aerial view from the north-east of the Center of municipality which crossing the beltway between Borgo Ulivia (to the right of the beltway) and Bonagia (to the left of the beltway) districts. On the right the Oreto river valley, on which several buildings of Borgo Ulivia overlook. At the sides of Bonagia district some rural villages grown up along traditional routes of the ancient countryside around Palermo.

(Fig.3) Aerial view from the north of districts unified by the Centre of municipality.

From the down to up: the deep Oreto river valley, the Borgo Ulivia district, the Centre of municipality crossing the beltway and the Bonagia district. On the right and left of Bonagia, the rural villages dispose themselves along some traditional routes going from the foothills of mountains beyond Bonagia towards the river valley.

(Fig.4) Exploded axonometric of the project with the several overlapping layers. From the down to up: 1- underground car parks; 2- infrastructures: the beltway, the roundabout junction and the main roads around the area; 3- the walking paths between the two districts; 4- the areas of meadow and the areas defined from the hedges into the park; 5- the interiors gardens; 6- the buildings. The layers composing together the new urban fabric between Borgo Ulivia and Bonagia districts are the thirdly, the fourth and fifth.

(Fig.5) A detailed part of the plan showing the combination of the three kinds of interior gardens surrounded by the hedges (pruned at 140 cm from the ground), the free surfaces planted with meadow and the ground floors of some buildings. From left to right, it can see the small shopping centre, the kindergarden, the café-restaurant, the nursery. In the bottom right, there are the ground floors of four residential buildings in Borgo Ulivia.

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