# IV. Territorial Meaning: social and cultural conditions of depth

## 1. Cultural understanding

### i. The implicit and coherence

*"Architecture begins when the configurational aspects of form and space, through which buildings become cultural and social objects, are treated not as unconscious rules to be followed, but are raised to the level of conscious, comparative thought, and in this way made part of the object of creative attention. Architecture comes into existence (...) as a result of a kind of intellectual "prise de conscience": we build, but not as cultural automata, reproducing the spatial and physical forms of our culture, but as conscious human beings critically aware of the cultural relativity of built forms and spatial forms. We build, that is, aware of intellectual choice (...)"*[1]

B. Hillier adds that the bringing of the non-discursive, configurational dimension of built form from cultural reproduction to a reflective awareness and abstract exploration of possibility, is at once a passage from the normative to the analytic, and from the culture bound to the universal, the latter meaning that all possibilities are open rather than simply the permutations and phenotypical innovations that are sanctioned by the vernacular.

N.J. Habraken agrees and defines the **cultural order** as one of 3 main ways of understanding the built environment, besides the physical and territorial equivalent. Proximity, permeability and depth are culture-related and as a consequence, its value and given weight changes over time. The author mentions **coherence** as a cultural indicator of urban environments: cultural differences define specific coherent models of territorial organisation. *"True coherence resides in the implicit"*[2], mentions the author: as an example, North American suburbs have front yards not walled in, or ground floor apartments in the city centre of Napoli have open windows towards the street side. The illustrating case studies that were mentioned in previous chapters show a certain coherence in application of access restrictions or denial. It is this very coherence that gives value to the urban system and that reinforces the neighbourhood's identity. Common understanding, depending on the cultural order of the very neighbourhood or region, is related with implicit territorial organisation. However, N.J. Habraken warns for a recent change in cultural understanding, a change that seems to be a global phenomenon: as mentioned before when dealing with changing nature of boundaries, the implicit or common understanding no longer seems to be sufficient. Recent obsession for security, privacy and increasing social status reinforced explicit territorial organisation. As a consequence, cultural understanding is translated into laws and rules, creating a technocrate and juridical mechanism to control space.

An illustrating case of this **cultural coherence** is the territorial set-up of the old city of Beijing in China. Starting from the regional scale, till the scale of the housing unit, many cultural circumstances defined very specific spatial configurations: proximity, permeability and depth were the main urban recipes of urban growth.

To guarantee harmony and balance at all scales, the very location and urban growth of the city of Beijing was related to feng shui principles: because of its location, the city is enclosed on the North, East and West side by high mountains, while the Southern side is left open. A river crosses the city from North to South to cleanse the urban settlement. Successive dynasties decided to rebuild the whole city in several occasions, each time a different family[3] took over imperial power. However, the feng shui principles provided a constant condition for the city's growth. Even if the city and all

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1 B. Hillier, "Space is the Machine", Cambridge University Press, Cambridge, 1996, p 46

2 N.J. Habraken, "The Structure of the Ordinary" MIT Press Cambridge 1998, p. 228

3 Zhou dynasty 1027-256 ac, Liao Nanjing dynasty 256 ac-1100, Jin-Zhongdu dynasty 1100-1200, Yuan-Dadu dynasty 1206-1341 and Ming Qing dynasty 1368-1628-1908

palaces were systematically destroyed, displaced, and afterwards rebuilt to symbolise the arrival of the new dynasty, the same orientation principle was applied. Each time, the city was defined by a rigid street grid and a winding river network, oriented according to a North-South axis that all together defined an urban model based on regularity and symmetry. The city's repetitive lay-out was mirrored taking the North-South axis as a reference, introducing territorial hierarchy: some parts of the city were more or less accessible, or of more political, social or cultural importance than other parts. The most important buildings and public spaces were located on the very axis that structured the different activities within the city. This axis offered a coherent design guideline as all interior structure, organisation and façades of those buildings were built, showing a symmetrical order.
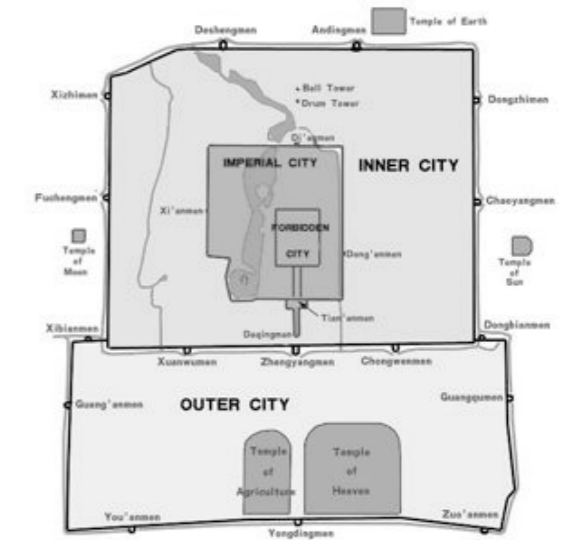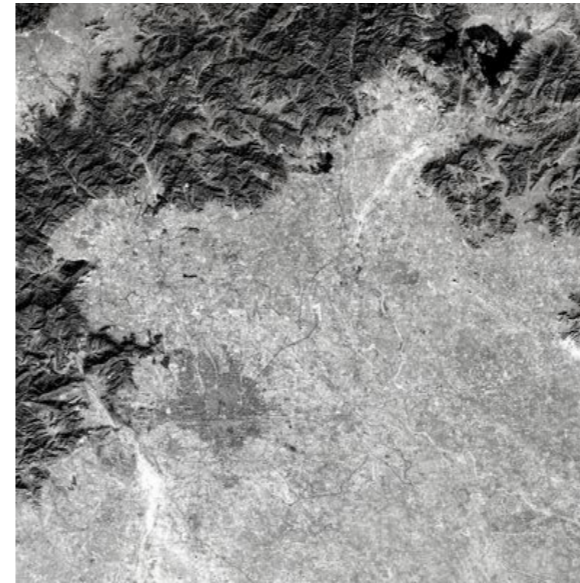


Figure IV.1: city of Beijing: feng shui defined urban model of enclosure

Besides that, the city's built fabric maintained a strict horizontal and low profile as inhabitants were not allowed to build higher than the different palaces constituting the emperor's residence. Till today, part of the imperial city maintained a horizontal skyline, in strong contrast to more contemporary high rise buildings, especially to prepare the city for the 2008 Olympic Games.

The urban model had certain social implications as well: proximity to the imperial's palace was conditioned by social rang: the higher the social status, the closer you could live to the centre of the imperial city. The social model had a geographical centrifugal effect: the further away from the imperial city, the lower the social class. In other words, social status was translated into geographic proximity.

We could resume that the entire city fabric was spatially, culturally and socially defined by models of orientation and enclosure. The city could be seen as a coherent concentric system of **enclosed territories**: starting from the walls of the Forbidden City, to the limits of the Imperial City, to the definition of an inner and an outer city in which each time the application of socio-cultural rules was different. A very sophisticated and conditioning access control system defined daily experiences. Walking through gates, seen as a system of filters, following a certain axis, forms part of Chinese culture and was applied to the city of Beijing in an extremely coherent way.

Coherence with these principles appears when we take a look at the city fabric surrounding the imperial city. That area was defined be a regular grid of 29 units that measured 750 by 750 meters (55ha) having all commercial activity located on the outside perimeter of that unit. Logically, all intense transport systems were located at the same border of this unit, keeping the centre of the macro-block more static and quiet, cherishing pedestrian or bicycle movement.
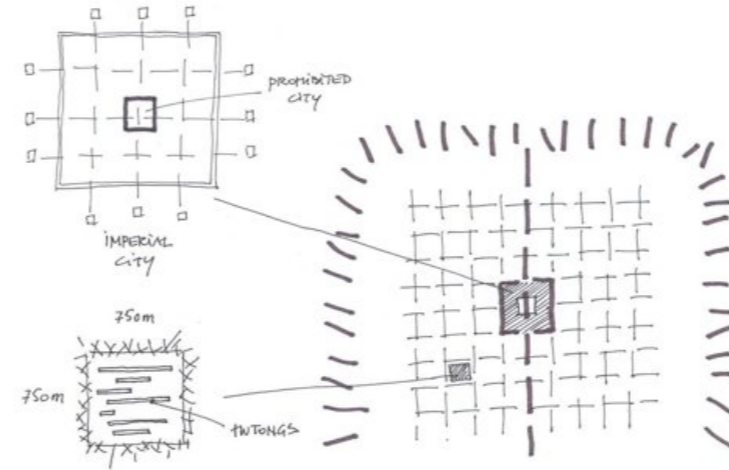
Figure IV.2: territorial set-up of the city of Beijing.

Studying the urban fabric at an each time smaller scale, we can see that the mentioned units showed a West-East oriented system of parallel streets, varying in width. These streets were the main elements constituting the city and generating its vibrant occupation during centuries: they are called **hutongs**[4]. This particular typology of street is typical for the old city part of Beijing and can be defined as a lane or alley, formed by lines of **siheyuan**, being compounds with houses around a main courtyard. These hutongs provide the old city an image of a vibrant urban life and appear with a great variety and changing character: the hutong's width is ranging from 40 centimeter to 10 meter, the shortest measures only two meters while the longest has more than 20 turns. The whole of hutongs can be seen as a giant capillary system of filtered access as it penetrates the deepest parts of Beijings' urban fabric with relatively modest proportions.
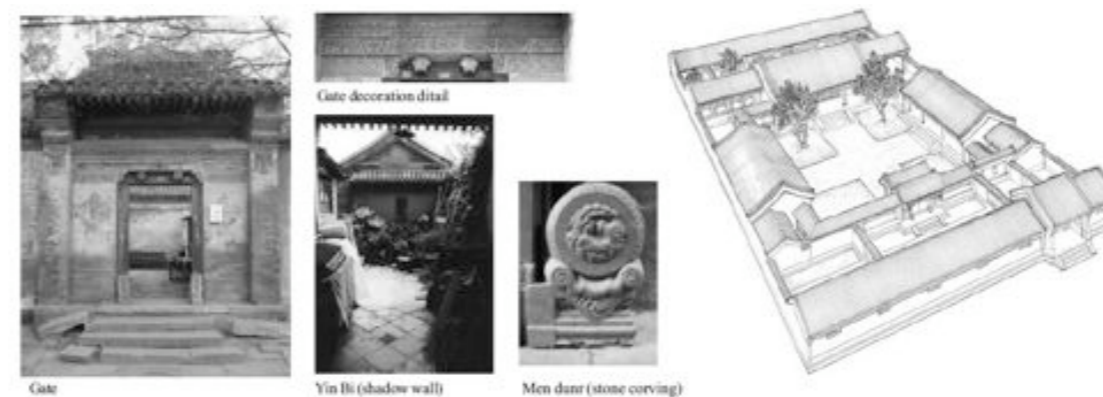


Figure IV.3: siheyuan housing typology in Beijing, related to hutong street typology.
(original image from "Beijing Hutong Conservation Plan", Tibet Heritage Fund International, Berlin, 2002)

Coherence with the previously mentioned general lay-out of the city grid can be detected with a study of the siheyuan typology, used thousands of times to provide the inhabitant's privacy and shelter: models of proximity, permeability and depth configuration follow coherence.
This very housing typology goes back to the Liao Nanjing dynasty that again was based on orientation and enclosure. Feng shui principles suggested a more closed perimeter of the compound at the North, West and East side of the dwelling and opens up towards the South were the main entrance was situated. The main entrance was facing the hutong and often stressed by the application of architectural details: the entrance sometimes became a little building on itself, raising the roof of the construction, besides the introduction of a threshold, to mark territorial boundary. Walking

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4 from HOTTOG (Mongolian for "water well"), first application since Yuan dynasty 1206.

through this territorial gate, a direct visual link with the posterior shared courtyard was avoided through the position of a parallel wall or stone screen, that forced a more diagonal and indirect entrance to the compound. Sometimes, stone lion sculptures help to define the boundary. Several buildings are put together in a way to define a shared courtyard, called outer courtyard, giving access to the Xiang Fang or service buildings. The main house, or Zheng Fang, is situated behind the main courtyard and has its own private, inner courtyard: it has limited access, reserved for the main family members.
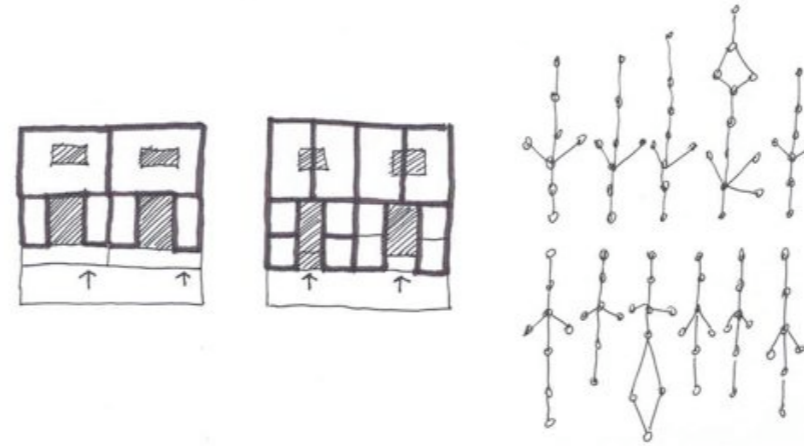


Figure IV.4: siheyan territorial scheme: original territorial typology and later subdivision of compound with reduction of the proportion shared spaces and disappearance of territorial level as the front entrance area is occupied by private buildings.

The siheyuan configuration is conditioned by access and depth. To get to the main house, several territorial layers have to be penetrated. This slow transition within the domestic sequence is designed, controlled and respected in a way to define a ritual. Besides that, it provides a quiet, safe and easily controllable environment for servants and family members, especially children. It is the result of a process of interaction between built form and social, economical and cultural needs. The typology showed to be flexible as it allowed easy transformation as the family structure changed. However, communist nationalisation and lack of constant maintenance and reparation of the city's siheyans destroyed the extreme elasticity the original set-up presented. The more recent copy-paste strategies of more occidental and capitalist urban growth models within the city of Beijing, especially after winning nomination to host the Olympic Games, destroyed great part of this cultural heritage.
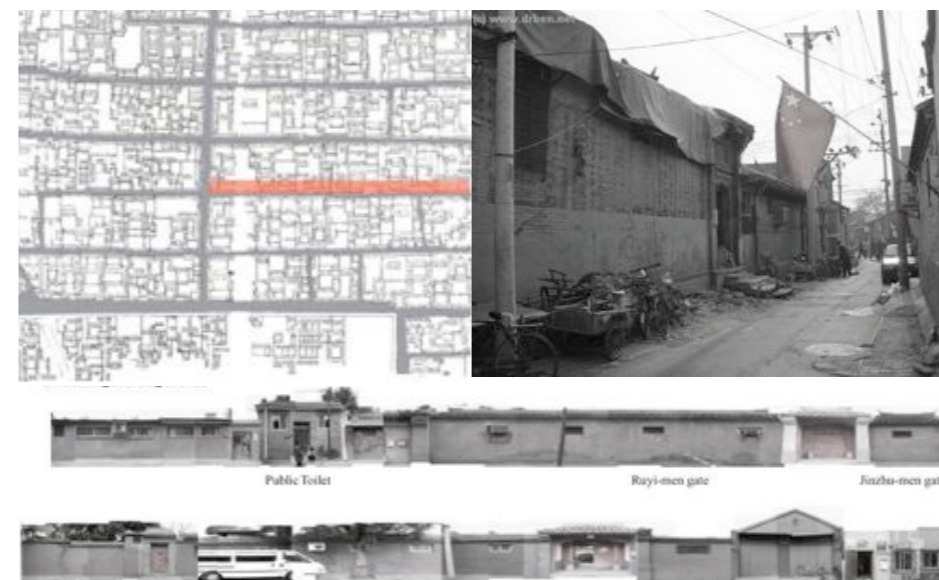


Figure IV.5: street vision of a hutong, Qianlong area, Beijing
(original image from "Beijing Hutong Conservation Plan", Tibet Heritage Fund International, Berlin, 2002)

The systematic repetition of the same housing typology that was based on territorial depth, was possible because of the regular grid pattern of the urban fabric: the North-South oriented compounds generated East-West oriented hutongs as main access artillery.

Cultural coherence, from big scale to small scale, created a unique urban pattern based on successive **enclosed territories**, long and well controlled **depth sequences**. Following several filtered linear gateways, crossing clearly marked or more freely defined territorial boundaries, the set-up unveils a social hierarchical configuration. The *raison-d'être* has been a cultural one, not necessarily a strictly urban or spatial objective that is being reduced to a simple modus operandi of territorial control.

## ii. Patterns

The most important idea when discussing cultural understanding might be the acknowledgement of very **different ways of sharing form**: N.J. Habraken mentions the existence of patterns, types and systems as the proof of different forms of understanding the built environment.

**Patterns**, that refer to a similar or repetitive application of an element, are mentioned as the first set of cultural indicators:"*A pattern consistently and repeatedly relates a few parts in the same way*"[5]. N.J. Habraken again refers to "*live configurations*" as he sees this element as something more than just a physical artefact: the concept of patterns includes intervening agents and other related external elements. This way, the author avoids an abstract discourse on cultural dimensions: dealing with territorial boundaries means detecting, respecting and transforming urban patterns. However, he argues that a pattern represents **continuity** and **variety** on a higher level than the one of a simple configuration: non-standard parts in a fixed relation can define a **varied repetition,** that touches a more delicate and fragile matter. A good example of a pattern could be the use of "*porticos*" in the old city centre of Bologna (Italy), where urban interfaces are defined in a similar way all over the city. Another example is the case of the fenced courtyards in Barcelona's Villa Olímpica (Spain) or the case of the Amsterdam "*stoop*" (Netherlands). We often find a consistent rhythmic element, like the set of fences or small staircases or a repetition of "*porticos*", that makes the pattern operate on an urban level. N.J. Habraken mentions that those patterns are bound to particular places, that is they are dependent on cultural references. Indeed, the previous study of ways of defining boundaries distinguished individual from collective interfaces. Individual interfaces work in a singular way but if repeated, might turn into an urban pattern with similar characteristics for the urban fabric. In the last category, character is defined by repetition and the integrated use of the interface: the perception of that integrated element as a whole. If this collective interface is applied all over a city, as it is the case of Bologna or in some Mediterranean medinas, we can call it a pattern. This attaches a cultural dimension to the concept of interface that we studied before.



Figure IV.6: The use of "*porticos*" in Bologna (Italy) or arcaded street in Georgetown Panang Island (Malaysia): patterns with different cultural values

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5 N.J. Habraken, "The Structure of the Ordinary" MIT Press Cambridge 1998, p. 236

We discover differences if we compare patterns in different cases: "*porticos*" as urban patterns in Padua, Bologna, Querétaro or El Cairo obviously have a different cultural value: circulation-based issues, climatological conditions or structural questions might be at the origin of coherent application. The cultural dimension invites us to place the idea of individual or collective interfaces in a wider perspective: the one where we can compare different patterns and try to explain what is behind it.



Figure IV.7. El Cairo "*porticos*" (Egypt), used as soft transition between inside and outside spaces versus Querétaro "*porticos*" (Mexico), used as a circulation system, as different urban patterns

In the previously mentioned illustrating case studies in New York City and barcelona, we detected a few patterns: the use of small staircases of defining territories in Williamsburgh, the subtle indications of spontaneous appropriation in Barceloneta or the use of explicitly defined territorial transitions in the Poblenou region.

### iii. Systems

Next to the acknowledgment of urban patterns, N.J. Habraken continues the discourse on cultural order by mentioning the idea of urban **systems**. Any system is defined by two aspects: first by a certain **configuration** with similar or varied ways of construction or assembly. Secondly, by a certain **structure**: "*Within thematic systems, structure and variants alike are artefacts*"[6]. Here we can find more strict selection rules (as opposed to patterns), together with rules of distribution: the idea of similarity is less important while what matters here is the **relation of parts**, not the particular configuration. As a consequence, systems allow greater freedom to make any configuration desired. N.J. Habraken argues that, besides patterns, urban systems define the cultural level or territorial organisation. We mentioned Bill Hillier's idea of configurational relation[7] before that fits N.J. Habraken's definition, even if he stresses the hierarchical set-up, while B. Hillier pronounces a more open way of understanding complexity.

An example of an urban system can be a system of a certain types of sidewalks all over a city, or the case of an urban fabric that systematically avoids its waterfront by using roads parallel to the coast line, creating higher depth sequences from the interior areas towards the waterfront. Other cities have developed different ways of dealing with its waterfront: during the historic growth of the city of Copenhagen, the city systematically incorporated and integrated the waterfront into its urban fabric, redistributing the original coast line and breaking it down to enclose different neighbourhoods. The meandering waterfront can be read as a system where direct physical and visual access to the water is a strict rule but that offers many ways of answering territorial questions.

6 N.J. Habraken, "The Structure of the Ordinary" MIT Press Cambridge 1998, p. 248

7 B. Hillier, "Space is the Machine", Cambridge University Press, Cambridge, 1996

Figure IV.8: city of Copenhagen: indication of the integration of the waterfront into the urban fabric, reducing depth sequences from the interior situated areas towards the water.

The previously mentioned example of Bologna's "*porticos*" can be seen as a system because it works a a whole, besides appearing as a pattern. A system is more complex than a recognised pattern because it involves more operating agents. In the case of Bologna, the system is defined by "*porticos*" and small topographic changes, doors and gates always situated in a second level, the continuity of circulation it allows through the entire city, etc.

The discussed case studies in Barcelona and New York illustrate some systematic approach: the structural use of courtyard typologies to define urban blocks, as well as the use of huge open public spaces to guarantee continuity define urban systems for the area.
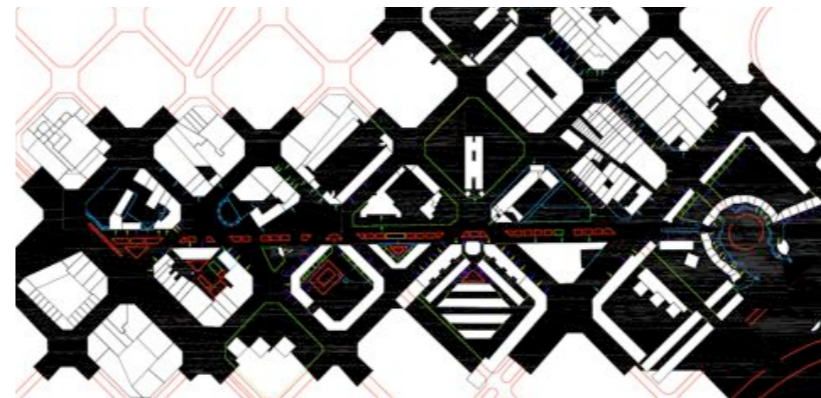


Figure IV.9: courtyard-based urban blocks and huge public avenues as urban systems in the Poblenou region, Barcelona (Spain)

### iv.  Types

N.J. Habraken finally describes the third and strongest cultural indicator: **environmental types** (referring to something that is culturally "typical") can be detected or designed within the urban fabric.  The author defines types as "*the combination of observed patterns and systems*"[8]  He continues saying that environmental types recognise complex and multifaceted units within the built environment, like a house for example. He explains that combined elements represent a type only when particular constraints are added, like the case of the Venetian Gothic palace, the baroque Amsterdam canal house or the Georgian terraced houses. "*the act of inhabitation reaffirms type through daily interaction, just as such continuity and repetition over time critically create the type*" [9]

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8 N.J. Habraken, "The Structure of the Ordinary" MIT Press Cambridge 1998, p. 278

9 N.J. Habraken, "The Structure of the Ordinary" MIT Press Cambridge 1998, p. 279

Figure IV.10: suburban house in Melbourne, Australia. An example of territorial typology: highly decorated fences defining territory, similar building position on the lot define the patterns of setback, individual porches define the inside/outside relationship, while the systematic parallel definition of the streetscape respects the very individual artefact of the house within a more public area.

N. J Habraken mentions variation within a given type that he calls **space-making strategies**: a big house is seldom a small house blown up and a small house is never a miniaturisation. In other words, within a typology we can recognise structural and systematic characteristics: it is more than a copy/paste strategy of urban cosmetics. Within a certain typology, scale variations are possible that respect patterns and systems inherent to that typology. The sequence of growth is not one of s single repetition but within the process new elements are systematically added that could not be accommodated within the previous smaller version. Stages of growth are not stages of completion: all instances, small and large, represent integral wholes.

The author reminds that urban fabric has no form in a territorial point of view and that it is mainly **a structure of interrelations and continuities**. Tunesian ancient urban fabric is defined by courtyard houses while Georgian squares are constituted out of terraced houses. In a way, the cultural order lies within conventions of action and control. He explains that the Western model of the grid was based on the following rules: as long as predetermined public space is not invaded and territorial boundaries with neighbours are respected, one may act in freedom and anonymity. The Middle Eastern model of a clear hierarchy from dead-end alleys to major arteries however is based on neighbour **agreement**: a social contract is signed without predetermined form. The first case describes a form allowing playing while the second illustrates a play producing form. The **cultural convention of behaviour** is the key in this matter, argue N.J. Habraken.

It should be mentioned that new types emerge, the appearance of types is not always a result of reproduction processes. The Californian bungalow, the high tech skyscraper, Middle Eastern private islands with overprotected mansions or the Melrose place housing typology are interesting examples of emerging types.

N.J. Habraken concludes: "*Living environments can not be invented, they have to be cultivated*"[10]

### v. Meaning and personalisation

The cultural understanding of models of accessibility, proximity and depth can be approached from the question about the **meaning** of the built environment. "*Physical elements not only make visible and stable cultural categories, they also have meaning, that is, they can be decoded ifand when they match people's schemata*" [11]. Amos Rapoport presents results of various Environmental Behaviour Studies to name the very factors determining meaning of the built environment. According to the author, all

10 N.J. Habraken, "The Structure of the Ordinary" MIT Press Cambridge 1998, p. 326

11 A. Rapoport "The Meaning of the Built Environment" University of Arizona Press, Tucson, 1982

activities have four components: the proper activity, the specific way of doing it, the associated activities that are part of the system and the meaning of that activity. Crossing territorial boundaries, as a consequence, obtains four respective components: walking through a gate or crossing a threshold can be done fast or slow, by foot or in a vehicle, alone or with other people. It can be associated with going to work or coming home, or start playing in a garden and has a specific meaning that depends on personal and cultural environment. This way, A. Rapoport tries to prove the very relation between meaning and activity: one concept does not exist without the other. Indeed, a territorial boundary does not have meaning until one tries to question, cross or modify its dimension, character or position. He mentions that people react to environments affectively before they analyse or evaluate it: an affective response produces meaning.

The author continues explaining the difference between **perceptual and associational aspects** of the environment: the first one related with design or creation, the latter with the public, with the experience by a target group. Physical elements of the environment encode information that people decode on a perceptual and an associational level. In other words, the meaning of boundaries or depth: for whom? Meaning can occur or can be stressed because of **personalisation**, completion or change of boundaries and depth. This means meaning can be added or taken away from it. As A. Rapoport mentions "*Changes in expression by personalisation is more important than changes made for practical or instrumental functions*"[12]



Figure IV.11: Personalisation of boundaries, left: Mexico DF, picture by Solange Guaida (2002); right: suburban attached houses in Bratislava, Slovak Republic. According to the cultural references, inhabitants personalise façades, fences, entrances or gates in one way or another: showy aesthetic additions contrast with more modest integrated interventions.

Personalisation of territorial boundaries often produces an increase of meaning: changing size, colour, position or adding decorative elements can generate deeper sequences, even if territorial value does not change. The same way, depth can be reduced as boundaries are integrated or camouflaged in the environment.

Various urban projects provide the possibility to personalise territorial limits and even turn it into the design Leitmotiv. Many architects and urban designers have been studying and experimenting with this idea at different scales. This is the case of an urban project by Alejandro Aravena in Iquique, Chile, (2003-2004) where a total of 93 dwellings was built as a part of a social housing project. About a hundred families, that earlier had been occupying a piece of land in the centre of Iquique without owning it, had to be given a basic housing unit on that lot, spending a low budget of the Chilenian Government that only allowed to construct 50% of the needed program.

To respond to this problem, the architects designed a residential cluster that was only half finished but that at the same time allowed the inhabitants to personalise and extend their given dwelling, trying to let inhabitants discover meaning as an emergent process.

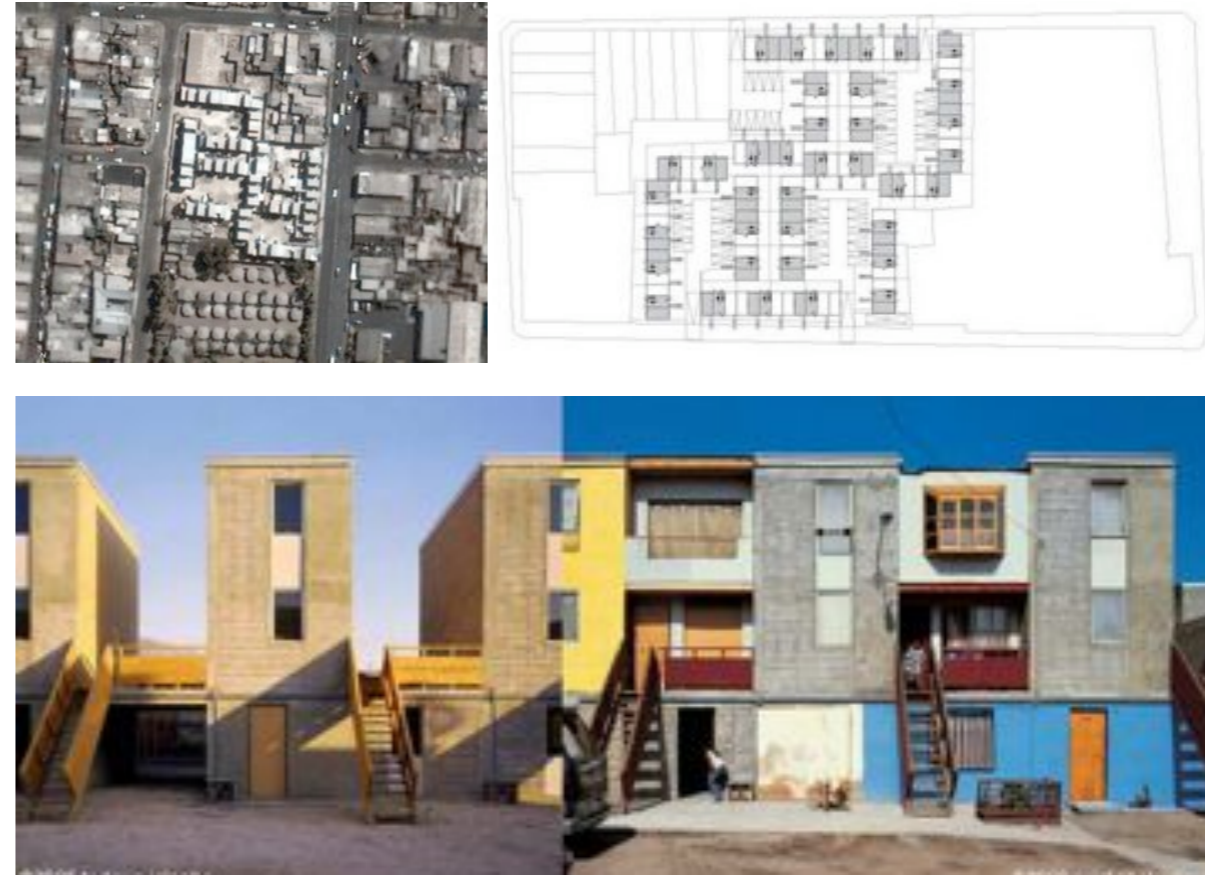12 A. Rapoport "The Meaning of the Built Environment" University of Arizona Press, Tucson, 1982, p 24

Figure IV.12: Iquique residential project (Chile), Alejandro Aravena, 2003-2004: 50% addition to the initial project
(original images from http://www.elementalchile.cl/category/vivienda/iquique/)

The project consisted out of various enclosed spaces, seen as collective areas where inhabitants could freely appropriate and share space: the central courtyards became spaces of territorial overlap with restricted access and are differentiated from the more public areas of the street and public alleys. From these enclosed space with collective use, each inhabitant has access to the individual dwelling: a series of units is located on the ground floor and allows 50% completion in horizontal way (initial surface 36m2, total surface 70m2) while a second series is designed as duplex units (initial surface 25m2, total surface 72m2). These duplex dwellings can be reached walking up some stairs that are directly connected to the collective plaza and allow the same amount of completion or addition as the ground floor units. As each inhabitant can add a relatively high percentage of the house, the personalisation factor is higher than in other more traditional residential projects. The project ended up having a second construction phase of urban infill and individual expression, without stressing boundaries in an obsessive way and allowing cultural expression within the process of appropriation. The variety of ways of access to the individual houses offers territorial richness to the project as this enables another layer of personalisation and identification with the project.

Figure IV.13: Iquique residential project (Chile), Alejandro Aravena, 2003-2004: shared courtyards give access to individual dwellings (original images from http://www.elementalchile.cl/category/vivienda/iquique/)

Besides possible personalisation of boundaries and interface and free schemes of appropriation, the project obtained an interesting level of territorial complexity: as opposed to traditional attached housing projects with low depth and no possibility for territorial overlap, this projects allows multiple configurations in time and guarantees the inhabitants possibility to adjust or add the dwelling. The increase of territorial level within the project by designing the shared courtyards with visual complexity generates a higher social control and sense of belonging. Cultural meaning is integrated within the project form the very beginning of the design process, as personalisation was the main design parameter. Even if the construction budget was limited, interesting depth sequences appear and give an added value to the neighbourhood.
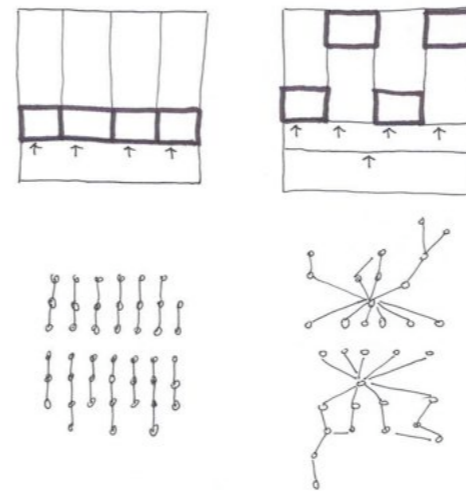


Figure IV.14: Iquique residential project (Chile), Alejandro Aravena, 2003-2004: territorial scheme.

## vi. Proxemic patterns and culture

Another aspect of cultural understanding of depth, is related to the interpretation of proximity within a certain culture. Edward T. Hall[13] studied **proxemic manifestations** that have 3 main references: first of all, the biological past of a person affects behaviour and changes personal spacing tactics. The author position defines this as **infracultural** references. The second reference is called **precultural** as it is defined by physiological characteristics. The last set of references for proxemic manifestations is **microcultural** and defined by fixed, semi-fixed and informal features. The author mentions that, according to the meaning of the environment, the use and reading of those microcultural features

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13 E..T. Hall, "The Hidden Dimension" Doubleday/Anchor Books New York 1966, p 103

can vary or change. Referring to the fixed- featured spaces, he mentions that territorial behaviour for any given stage of life is fixed and rigid and that the boundaries remain constant, as the locations of specific activities within a territory. He illustrates the cultural difference by comparing the Western European and the Japanese model of organising space. Western civilisation always stresses the concept of the line while the Japanese model focuses on the intersection points with a clear recognition of a hierarchy around a centre, not a linear sequence. This explains why there is no successive logic of putting house numbers in a street but the following of a chronologic order. E.T. Hall adds that Northern American models at the contrary focused on the grid and recognised it culturally. Within the category of the semi-fixed feature spaces, the author make a difference between **sociopetal** spaces and **sociofugal** spaces, as a result of the very configuration of spatial features. In Western culture, the furniture in an interior seems to be spread out along the walls while in Eastern settlements all semi-fixed features are concentrated in the middle. We could make an analogy when thinking about the bigger scale of urban voids. Different models create plazas or parks with sociopetal or sociofugal functioning.

Besides that, the very reason why elements defining space are fixed or semifixed depend on culture: Japanese interiors seem to be defined by moveable walls while furniture keeps it constant location, something opposite than European Western traditions.

E.T. Hall defends that proxemic patterns play an important role, as they can simultaneously consolidate a group and isolate it from others by reinforcing intragroup identity and making intergroup communication more difficult. In other words, **proxemic patterns can reinforce or limit access to a certain area and generate a stronger identity by differentiation**. The author illustrates this by describing ancient Japanese cultures where space and social organisation was interrelated by emphasising the centre and punishing edge conditions. It can be seen as a way of organising and controlling territory in a more explicit way. As well, the changing activity within one place and the moveable walls reinforce the mentioned proxemic patterns. Other urban phenomena like crowding have a different meaning: according to the author, this has to be related to the fact that no Japanese word exists for "privacy".



Figure IV.15: Crowding as part of proxemic patterns.

He adds that Japanese people traditionally consider their house and the zone immediately surrounding it as one structure where the notion of privacy is not related or dependent on location. Besides that, Japanese culture also gives more importance to "*ma*", meaning "interval", to shape and arrange spaces, leading the individual to spots where he can discover something for himself. The last observation is in contrast with Western European approach where during centuries the interval, gap or waiting areas were seen as leftover spaces, voids and had negative urban connotations. The author refers as well to Arab cultures where crowding is a more accepted cultural phenomenon and pushing or shoving has less negative connotations. He explains that intrusion in public areas is almost impossible as "*public is public*"[14]: the personal space bubble, as mentioned before, has less strength or importance. He even links this with the dissociation of body and ego that enables more physical contact in public spaces. As a result of this, no privacy is required nor available in public areas. According to the author, Arab spatial requirements however stress unobstructed space to move, high

14 E..T. Hall, "The Hidden Dimension" Doubleday/Anchor Books New York 1966, p 157

ceilings and unobstructed views with no need for clearly marked territorial boundaries. This cultural preference can explain the model applied for traditional urban growth processes that was based completely on soft indication of property limits with high proportion of overlap scenarios.

To preserve cultural identity and integrating this in urban growth models, E.T. Hall proposes four design guidelines within proxemic language. First, all interventions, from marking boundaries till investing in infrastructures, human scale should always be measured for people to make it easier to assimilate or appropriate. Besides that, he suggests a constructive use of ethnic enclaves within urban projects. The third idea is to conserve or design large, readily available outdoor spaces that offer the possibility of multiple cultural manifestations. At last, he defends the preservation of useful, satisfying old buildings or neighbourhoods to glue urban fabric together. E. T. Hall concludes: "*Patterning of perceptual world is a function not only of culture but of relationship, activity and emotion.*"[15]

The combination of proximity and cultural coherence is helpful to study depth configurations in a critical way and explains phenomena of space occupation.


## vii. Cultural meaning: similarity, simultaneity and differences

As mentioned before, cultural meaning appears when a subject compares and places his perception or memory of a territorial set-up with previously obtained cultural references. We detect meaning when we discover similarities or differences. The example of the Northern American residential attached dwellings with its split-level entrance obtains its value because we detect systematic repetition and coherence. However, this example of **overlap scenario**, where the neighbourhood's children gather after school or adolescent's love dates end, has a different meaning when you study the same physical artefact in a different neighbourhood, and even more in a different city. According to the surrounding environment, it can become more formal or less formal, safe or dangerous, lively or deserted, with homeless people occupying the sidewalks or yuppie residents listening to Ipods. It can be threat or treat.

A comparative study of various cases with similar application shows some differences in meaning. West 10th street, as part of one of Manhattan's (NYC, USA) upper class neighbourhoods, shows hundreds of brownstone typologies with the split-level entrance as common device. However, in this case, the threshold hardly works as an overlap territory, it functions more as a spacing device as it pushes away the public realm from the private interiors of the single family mansions. In other words, it is not understood or used as a shared overlap space where you sit down and talk to the neighbours. It mainly distances public realm from private property (spacing mechanisms). Another application can be seen in Brooklyn (NYC, USA), around Fort Greene, where the socio-economic profile of its inhabitants is lower as it is a working class neighbourhood. In this case, the set of stairs and linked entrance is a real shared feature, as the houses were subdivided and several families inhabit the same building. besides that, the staircase itself can be seen as an overlap territory where neighbourhood residents and visitors sit and talk. besides that, it has the side effect of filter tactic, as you have to cross this ambiguous boundary to enter the hall of the building. The following case can be found in Brooklyn, Williamsburgh (NYC, USA), where former immigrant neighbourhood turned into a yuppie and fashionable barrio. however, the particular application of split-level entrance has a more functional dimension as it simply allows a easier distribution of access to the relatively smaller buildings. Recent transformation and marketing strategies reduced the spontaneous overlap factor in the streetscape. The last case illustrates a combination of all previous characteristics even if there might be a dominant factor: the image of the residential unit and the social status it might produce, valued in dollars. The updated application of the traditional recipe offers a soft and friendly image of social interaction to the newly developed high class real estate project in Brooklyn Heights area (NYC, USA).

Even if physical application is similar in all cases, territorial or cultural meaning changes because of the specific access configuration of the very characteristics of the surrounding neighbourhood.

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15 E..T. Hall, "The Hidden Dimension" Doubleday/Anchor Books New York 1966, p 181

Figure IV.16: Comparison of split-level entrances in New York City (USA): (above left) West 10th street, Manhattan; (above right) Fort Greene, Brooklyn; (below left) Williamsburgh N5th street, Brooklyn; (below right) Brooklyn Heights, Brooklyn: same typology with different cultural meaning: the staircase respectively as a territorial buffer; a popular meeting place; a functional solution or a status providing device
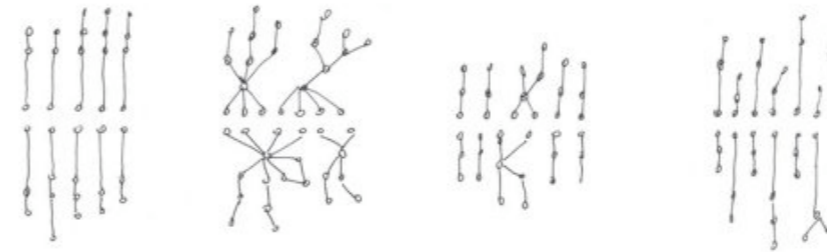


Figure IV.17 : territorial schemes of split-level entrance in New York City (USA): West 10th street, Manhattan; Fort Greene neighbourhood, Brooklyn; N5th street, Williamsburgh, Brooklyn; Brooklyn Heights, Brooklyn.
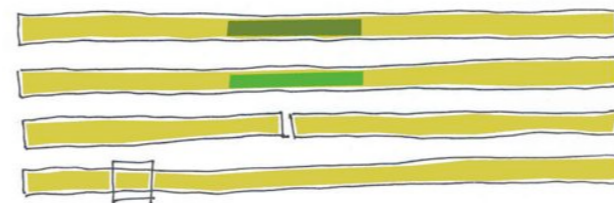


Figure IV.18 : territorial depth diagrams for the different cases: Fort Greene neighbourhood, Brooklyn (overlap scenario); West 10th street, Manhattan (sequential gap, buffer zone); Williamsburgh N5th street, Brooklyn (territorial boundary: gate); Brooklyn Heights, Brooklyn: overlap scenarios, (symbolic value of a boundary)

### viii.Cultural dilution

Contemporary generic processes of cultural dilution accelerated by increasing telecommunication erases part of the previously experienced different cultural heritages on a global scale. The Californian bungalow typology, hence its way of marking territory, is copied in the outskirts of Moscou and Capetown while the idea of the Mediterranean plaza and all its control mechanisms gets introduced in Scandinavian city centres. However, two facts should be kept in mind: first there is a selective copy-paste strategy: only a few territorial recipes get international diffusion, others are not so popular. It is mostly the idea of a well-protected, private domestic area with clearly defined territorial boundaries that is applied repeatedly, independently of the initial cultural environment. Individualised mono-functional gated communities are the most requested residential typologies. Multimedia channels help to distribute this message in an efficient way.

Second, the main element as a part of a territorial typology that is successfully copied and pasted into foreign urban fabric, is above all the very appearance or aesthetics of it: the **image** of the applied model, more than the model itself. This causes a loss of the cultural order of territorial configurations and almost banalises the complexity of the system.

However, sometimes the image is so powerful the typology becomes popular and accepted socially. An illustrating case is the successful "Melrose Place typology", a housing typology copied from the set of a popular American television series where yuppie inhabitants share spaces within a residential compound. However, the project is defined by territorial transition, not by overlap scenarios, as public access to those shared gardens, swimming pools, halls etc. is completely prohibited and accessibility orchestrated till the smallest detail.

As a consequence, a shift in cultural meaning is noticed when dealing with boundaries and depth: what used to be foreign became well known and widely accepted. Movies, web-sites and sit-coms, besides literature, affect the cultural understanding of proximity and depth scenarios.



Figure IV.19: scene from Melrose Place: territorial transition in the set of the television series as housing typology success recipe

## 2.  Depth and Restricted Access: social dimensions

### i.  Social concerns about depth

Depth as crossing of public-private boundaries has, besides cultural dimensions, some social implications: models of accessibility and proximity are linked with a social understanding of space. The social value of private-public distinction, of the way boundaries are defined, of mechanisms of territorial control will be the main subject of this chapter: territorial isolation or the concept of sharing space have social implications.

A. Madanipour claims: "*Through the control of its boundaries, individuals regulate their social interactions, and the balance between being on their own and being with others, both in space and time. (...) By defining space, enclosing it within boundaries which separate the public and the private, the social relations take a special form; a concrete and relatively fixed representation of constantly changing social phenomena*"[16] In other words, defining territorial boundaries is linked with the need for privacy, a basic ingredient for territorial lay-outs within society. According to A. Madanipour, private property combines personal and impersonal dimensions of dealing with space and as a result, private property is a sign of economic stability and wealth. Privateness and privacy are social issues with spatial implications and vice versa. Contemporary phenomena introduce a new understanding of public-private relationship, as studied before.

Madanipour focuses on the idea of multiplicity to understand the social dimension of urban space. According to the author, social reality consists out of two facts: institutional facts, based on agreements, and brute facts, based on what we actually perceive in a direct way. He defines social reality as a result of different combinations and even interpretations between those two facts, creating a **multi-layered space**. Social complexity is defined by "*the meeting of different subjectivities (that) results in a social world, in which meaning is constructed through inter-subjective relationships*"[17] As a consequence, public space means, besides the limited level of restriction of access, **sharing space**. It is more than a space for intersubjective presence, claims the author, where space allows **simultaneity**. This concepts introduces the idea of **multiplicity**: different operating agents, different simultaneous space reading within an ever changing time frame. Depth of urban space should be placed within this conceptual framework: absolute values do not count.

Hannah Arendt[18] makes a double definition of public space: first, she defines public as "what is shown" while private as "the part that is hidden" and introduces the concept of appearance. Second, public can be related to "being in the world", in a Heideggerian kind of way. In other words, public is what makes us **belong together**, or what makes us part or separate. As a consequence, "**in-between spaces**" become an important concept as it is here that the public-private relationship is manifested: interface link both realms together or separate them in very different ways (see previous chapters). A. Madanipour concludes that public space is synonym for the in-between space which facilitates co-presence and regulates interpersonal relations. It is a container of social relationships. Pursuing this thesis, the author mentions the ideas of Charles Taylor[19] that saw public space as a common space where different individuals meet through different media and with a certain purpose. He mentions that the effects of public space should not be singular outcomes but should respond to multiple social demands, exploring differences. A. Madanipour resumes: "*Public space is space of co-presence and simultaneity, where different actors can be present in the same place at the same time, where different individuals develop freely within a plurality of possibilities that are negotiated collectively*"[20]. He refers also to liberal democracies where individual freedom

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16 A. Madanipour, "Public and Private Spaces of the City" Routledge London 2003, p 60

17 A. Madanipour, "Public and Private Spaces of the City" Routledge London 2003, p 165

18 H. Arendt, "The Human Condition", University of Chicago Press, Chicago, 1958

19 C. Taylor, "Liberal Politics and the Public Sphere", Amitai Etzioni, ed. "New Communitarian Thinking: Persons, Virtues, Institutions and Communities", University Press of Virginia, Charlottesville, 1995, p 183-217

20 A. Madanipour, "Public and Private Spaces of the City" Routledge London 2003, p 182

goes hand in hand with collective self-rule. This means that the idea of "public" in many societies has always **excluded** certain groups of individuals from participation.

He refers to Seyla Benhabib[21] who mentioned that if there is equal access for all groups within civic society to represent themselves in public, the threats of being different can be diffused, rather than turning in to resentment. There is a need for self-representation and articulation in public. A. Madanipour concludes "*Public sphere (...) is the integrated material and institutional common arena that relate individuals to one another, allowing them to regulate their relations partly through controlling exposure and concealment. It allows them to express their differences and identities, test their own reality, ...*"[22]



Figure IV.20: Copenhagen 1971, the beginnings of the hippy neighbourhood called Christiania: part of the city's inhabitants claimed access to a former military zone

### ii. Social cohesion

Madanipour mentions that Modern approaches avoided functional integration as the size of the cities increased with a correspondent higher specialisation that only accelerated this phenomenon. Increasing speed of movement generated a loss of symbolic functional coherence, according to the author[23]. A cohesive, nodal role for urban space replaced multiple, non-converging networks where social polarisation and privatisation of urban space were main instruments. The author warns for the **loss of overlap scenarios** as public sphere gets despatialised. "*As space is stripped of its emotional and cultural value, which is only developed through people's use through time, it is treated as a mere commodity*"[24] Hence the people's fear for crime and its political and even economical opportunistic use, we notice more and more social segregation at all levels of the city: from the residential building block, the street, neighbourhood or the scale of the urban district.

A. Madanipour refers to the 19th century industrial city where high concentration of people could be found, showing a social and spatial segregation among middle class and working class. Besides that, he mentions the separation of public and private spheres as an invention of liberal policy, to be situated in the same period: the idea of bourgeois space production. The increasing separation of work and home, part of the industrial capitalism process, can be seen as the start of the mentioned privatisation of urban space with negative consequences for society.

The author demands promoting public spaces, as spaces of "*togetherness*", as a "*common ground where people carry out the functional and ritual activities and bind a community, a space to share with strangers, a space for peaceful co-existance and impersonal encounter*"[25]

21 S. Benhabib, "The Reluctant Modernism of Hannah Arendt", Sage, Thousand Oaks, 1996

22 A. Madanipour, "Public and Private Spaces of the City" Routledge London 2003, p 192

23 A. Madanipour, "Public and Private Spaces of the City" Routledge London 2003, p 213

24 A. Madanipour, "Public and Private Spaces of the City" Routledge London 2003, p 217

25 A. Madanipour, "Public and Private Spaces of the City" Routledge London 2003, p 218

Madanipour tries to place the public-private relationship in a social context this time, starting with a redefinition of private space. "*Rather than a pure, disconnected and disembodied private sphere, human subjectivity is located at the intersection of biological and social forces and in constantly changing them and being shaped by them*". Social coherence, which has a **spatial component**, is needed to allow sustainable projects. A double mechanism defines space production: personal space (see previous chapters), without physical boundaries and dependent on gestures, language and behaviour operates next to a set of private properties that does have physical boundaries. Private property is synonym for exclusive access o space for known individuals. As the author mentions, territoriality controls aggression in constructive directions, clarifies relations of power and reduces tensions and conflicts. Territorial control tends to segregate spatially, as mentioned before. In some cases however, control is not available as homeless or poor people have less means of defining boundaries which turn this subject into a social issue. **Social coherence depends on a set of boundaries, distances and their specific location**.



Figure IV.21 : Social simultaneity: Rocinha favela, Rio de Janeiro, Brasil: the neighbourhood's limit with a high class residential area at the Nort East side. (image Google Earth)

Second, the author offers a **social understanding** of public space: "*Public spaces are places outside the boundaries of individual or small group control, mediating between private spaces and used for a variety of often overlapping functional and symbolic purposes. (...) Public spaces have been multi-purpose accessible spaces, distinguishable from, and mediating between, demarcated exclusive territories of households and individuals*"[26] He points out the changing social understanding of public space in the Western world: till the mid 20th century it was based on relations, according to kinship and clan while now it depends on contract and exchange among strangers. Increasing abstract relationships and complexity of an urban society define the current growth models. A. Madanipour argues that boundaries between public and private spaces can be seen as **social fronts**. As a consequence, public space should be about shared experiences in some physical reality. Public space should be places of simultaneity, a test of reality, an exploration of difference, identity and tolerance, according to the author. He warns for recent tendencies in which the city becomes an aesthetic display for sale and public spaces became an integral part of the privatisation and commercialisation of urban space, as discussed before. Therefore, he claims there is a **need for spaces of sociability** to replace the recent appearance of public spaces as nothing more than neutral places of exchange among strangers, denying being an extension of familiar places of communities. He concludes that boundaries are not only about separation but guarantee and reinforce communication.

During an interview[27], David Harvey mentioned the conflictive nature of public space: he referred to Heraclitus of Ephesus[28] who suggested that the most beautiful harmony starts with the conflict of differences, manifesting themselves as social fronts. He argues that, besides space of social coherence, public spaces contain the continuous danger of conflict and, at the same time, contains even continuous ways of solving the conflicts so the space itself can again open itself.

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26 A. Madanipour, "Public and Private Spaces of the City" Routledge London 2003, p 233

27 Interview in EL PAIS, 08/09/2007, "En el espacio público ideal el conflicto es continuo" by Iria Candela

28 Heraclitus of Ephesus, ca. 535–475 BC) was a pre-Socratic Greek philosopher

### iii. Depth as a social issue: physical, visual and territorial values

"*All space is continuously linked by the combined principle of selective entry and unrestricted exit*"[29] claimed N.J. Habraken before. Territorial control depends on which individual or group is allowed to enter an area, district or building: operating agents make decisions that have a social dimension. When the decision is based on the structure of property and within a relatively simple spatial configuration, less social issues arise. However, when we consider a more complex set-up of included territories, with dual orientation or cases of territorial overlap with multiple ownership as a base, than territorial control does become a social issue with spatial implications. Who has access? Is it restricted or unrestricted to certain people? Is it overall access or are there zones where access is not limited? On which elements depends the given access? And another question might be: is it time-related?

In other words, selective entry and unrestricted exit are territorial conditions that need to be questioned from a social point of view. Territorial boundaries are often social boundaries.

"*The whole notion of indicating boundaries by means of noticeable differences to delineate social groups, domains, and their spatial equivalents, and to define entry or exclusion, become very significant*"[30], mentions A. Rapoport. He adds that, by making boundaries, and their corresponding domains, noticeable and recognisable effective reminders and warnings are created that tend to reduce or eliminate conflict, whether about appropriate behaviour or appropriation.

Depth, as a systematic crossing of those territorial boundaries, has to be placed within the same social framework. The previously defined categories of territorial scenarios: starting from a clear demarcation of boundaries with strict separation of territories or as a territorial transition; soft division with territorial overlap and finally, a more ambiguous definition of territorial boundaries: the respective values of territorial depth for each scenario have different social connotations.

However, to take into account socio-cultural perspectives this time, the previously mentioned categories do not help to understand the particular value of depth. In this case, instead of making categories based on hard, soft or ambiguous territorial demarcation, the analytic criteria will be based on the **length and intensity of the depth configuration**, moving the way boundaries were defined to a second plane. This consideration makes is necessary to consider a **triple reading of depth**: depth as a **physical notion**, measurable as an absolute distance, **visual depth** as the parameter defining visual access and finally, **territorial depth** conditioning access control.

### iv. Short depth sequences

Within this category of territorial scenarios, where there are not many territorial boundaries to be crossed when entering a certain area or building, no deep structure can be detected as the private-public division is reduced to a single limit. The application of this depth pattern is mostly related to areas or projects with a reduced amount of available space or in other words, with settlements for people with less financial possibilities.

Well-known popular neighbourhoods like the Barceloneta area in Barcelona (Spain), or the ancient central area defined by the Ippodameo Plan in the city of Napoli (Italy), show this particular depth pattern. The first example illustrates the previously mentioned maritime neighbourhood with origins in the 18th century: Felipe V started constructing the fortifications of La Ciutadela in the La Ribera neighbourhood and displaced all inhabitants to a newly planned residential extra-muros area, called la Barceloneta. Its inhabitants were mostly fishermen, sailors or navy personnel, that eventually mingled with other local inhabitants. Still nowadays, at least a third of the 22,000 inhabitants can be identified as inhabitants belonging to a lower, popular working class, even if the area's productivity does no more depend on maritime activity and tourism and tertiary activities start to dominate the neighbourhood. The area is defined by a regular street grid

29 N.J. Habraken, "The Structure of the Ordinary" MIT Press Cambridge 1998, p

30 A. Rapoport, "The Meaning of the Built Environment" University of Arizona Press 1982, p 171

that defines three or four stories high building blocks with a relatively high rate of subdivision: the average size of a Barceloneta apartment is around 40m2. Walking through the area and passing by the entrance door or windows of the ground floor located apartments, one can easily notice the short depth sequences between public and private areas. The dining room or even several sleeping rooms are often physically related to the street, without any territorial buffer. There is a simple division from public to private areas but above all, the sequence is short.   (see illustrating case studies in previous chapter) Originally, this depth experience was complemented by temporal overlap scenarios as inhabitants temporarily occupied parts of the sidewalks or streets: residents used to put their chairs outside on the sidewalk and share that very part of the urban space in a spontaneous way. Neighbours knew each other and visitors or even strangers could join the scene. Because of the lack of space to extend or modify the dwelling, a temporal appropriation of the public realm occurred: overlap was located outside the territorial boundary, containing a residence, a shop or a bar. Proximity, considering physical depth, obtained a simple configuration of distances, based on contact. Visual depth coincided with territorial depth: all that was visual was accessible. Few visual barriers marked passing visitor's views. Territorial scenarios that are related to the apartments on the first, second or third floor however, seem to have a deeper territorial structure, as the original apartments got subdivided into smaller ones, forcing the sharing of stairs and halls for the different neighbours within the block. Reduced amount of space intensifies the depth sequence through the whole area.



Figure IV.22 . Barceloneta neighbourhood, Barcelona (Spain)
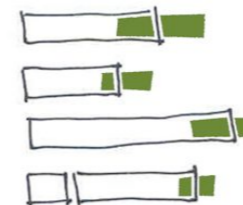(image left google earth, image right own picture)



Figure IV.23: Barceloneta neighbourhood, depth configurations: short sequences with spontaneous overlap scenarios

Nowadays, the territorial set-up of strict separation combined with overlap scenarios is reduced to territorially poorer configurations: more spontaneous and flexible appropriations of sidewalks and streets disappear and seem to be replaced by a harder demarcation of boundaries. One increasingly notices iron fences in front of the windows, closing former door openings, reorientation of the dwelling by moving furniture in front of door openings and windows. The

neighbourhood's streets are no more scenarios of collective use but become territorially defined transitions circulation containers. As the neighbourhood's social level is rising, overlap scenarios, linked with the street and sidewalk, are avoided. Territorial depth becomes even more restricted while visual and physical depth is stretched as possible: new inhabitants prefer people passing by not looking inside their home and do not share part of the household with the neighbours.

A similar case of short territorial depth sequences can be noticed in popular central neighbourhoods in the city of Napoli (Italy), where overlap scenarios, located outdoors, are omnipresent. Here, the short depth sequences are overwhelmed by blurring overlap scenarios, located in the Napolitan streets. Walking through the narrow streets and alleys, one feels part of a domestic scenery: part of the private life happens on the street. You easily get involved in conversations and more intimate events.



Figure IV.24 : Napoli (Italy): existing polpular neighbourhood defined by the ancient Ippodameo plan: three parallel streets defined urban growth during centuries and created a dense community: Decumano Superiore (Antigaglia), Decumano Maggiore (Tribunali) and Decumamo Inferiore (B. Croce) are all connected to a street, finally leading towards the harbour: Da Piazza Plebicito allo Spiritu Santo.
(image left google earth, image right copyright 2006-2007 Stephen Felia)

The more authentic streets show more **social integration**, laid out in the public realm. Depth sequences are short but the proportional part of overlap situation is big which reduces the hardness of that almost violent depth line. In this case, we have a short depth structure but almost completely defined by overlap, a soft division of boundaries, as mentioned in previous chapters. Again, dwellings are small within this dense historic area that is based on courtyard housing typology. Besides that, we notice a heterogeneous distribution of activities: little shops, bars and restaurants are mingled with small offices, workspaces and housing. This functional mix adds territorial complexity to the whole as access schemes get more complex. As in the case of the Barceloneta neighbourhood, physical depth is reduced as a result of less available space while visual depth is relatively longer: almost no visual barriers are marking perspectives when walking through the neighbourhood.
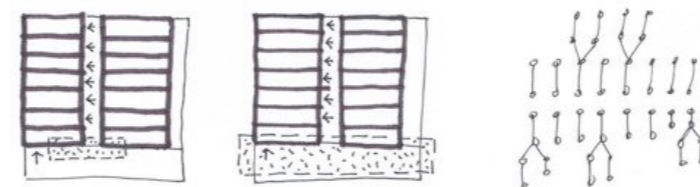


Figure IV.25: Territorial scheme: Barceloneta model (limited overlap scenarios) and the model found in Napoli historic city centre (overall overlap scenarios complementing short depth sequences).

These **short sequences**, often a direct consequence of less available resources and a smaller average size of the private property, are associated with economically and socially **lower classes**. This is mostly as a result of economic considerations, not because of social explicit preferences. The needed overlap scenarios manifest themselves on the street, as interiorisation of overlap scenarios was impossible or too expensive because that would require bigger houses or larger building lots. The so often romanticised outdoor overlap scenarios are forced and applied in part of the public realm but are related with more popular environments. As a consequence, these overlap scenarios do not increase social status and are avoided when one moves up the social ladder.

Short sequences, with none or very few territorial boundaries and short physical or physical distances, can appear with overlap scenarios or without them, even if most cases present a combination.

### v. Long depth sequences

Higher values of territorial depth refer to sequences that cross a high number of territorial boundaries between public and private spaces. These deep structures show a higher amount of **shared spaces** within the approach or exit line(s), combined with higher physical and visual distances. As it was the case for short depth sequences, different possibilities exist with each time a different social connotation. However, within this particular category of depth configurations, a more detailed and separate reading of territorial, visual and physical depth should be made.



Figure IV.26 : Copenhagen (Denmark), courtyard housing project Oresundsvej, example of long depth sequence.
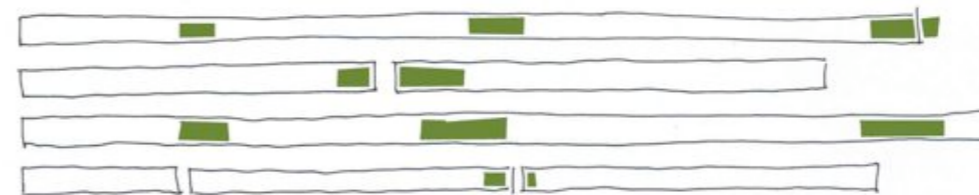(left: image google earth, right: own picture)



Figure IV.27 : Copenhagen (Denmark), depth configurations: based on territorial transition and some overlap scenarios

Some good examples of deep territorial structures can be found in Scandinavian countries, where the socio-political background for a long time had been stimulating the idea of sharing parts within a residential area (see later). The residential area on the North side of the city of Copenhagen (Denmark), in between the airport and the city centre, has been a recent laboratory for residential configurations. Many of them use different housing typologies within the same alignment unit and propose social mingling within the same project: elderly and younger people courtyards or other shared facilities. In most cases, like the example of the Oresundsvej project, the entrance happens through a gateway

which suggests but not restricts the entrance to a more private area. Once entered the gate, a shared courtyard draws your attention as it is the main bifurcation point for multiple sequences. This courtyard is subdivided, in a subtle way, into many areas, suggesting each time a more exclusive use: one area to park bicycles, another area as a meeting point or a pick-nick area, etc. To arrive at some of the dwellings, one has to walk up some stairs, or sometimes pass by a little garden, apparently shared by a few neighbours, walk behind a fence, open a gate and walk into a more obvious private garden. This project obviously is designed as a deep territorial project: to arrive to the most private area of the cluster, one crosses many territorial and symbolical boundaries. In each single phase of this sequence, the proportion of shared space is different and indicated in a different way.

The courtyard is a structural element within the territorial configuration, as entrance is forced through that central open space.
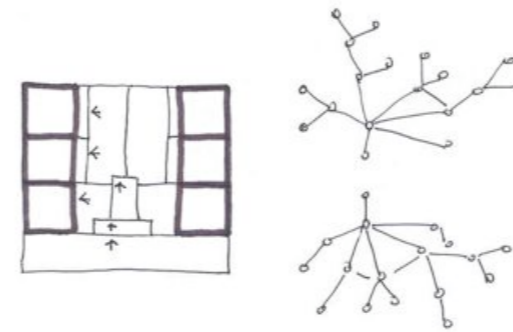


Figure IV.28: territorial scheme: Copenhagen (Denmark), courtyard housing project Oresundsvej

The project's inhabitants belong to lower to middle social class, mostly young people working in the city centre of Copenhagen. This project is an example of a well planned deep sequence with previously located possibilities for sharing space, a **territorial transition but with some overlap scenarios** as not all included territories are fenced in this project. However, possibilities for overlap scenarios are different for the previously mentioned cases: they are possible but **orchestrated** by the designers or housing management agencies. Besides that, those **shared spaces are located inside the property boundaries**, as available space is not a problem here: there is no compact and densely constructed environment as direct context and the price of the property seems to be less an issue. In other words, there are not many territorial overlap scenarios, not many changing appropriation scenarios incorporated in the project. Territorial depth is high, as is physical depth and its visual equivalent: the more spread-out the different modules are, the better it fits the social schedule. The more protected or less exposed the private areas, the better the typology seems to work. In this case, the three values of depth seem to coincide. This is designed for inhabitants belonging to middle or higher social classes.



Figure IV.29: residential project in the Olympic Village, Avinguda del Bogatell, Poblenou, Barcelona (Spain): planned long depth sequences
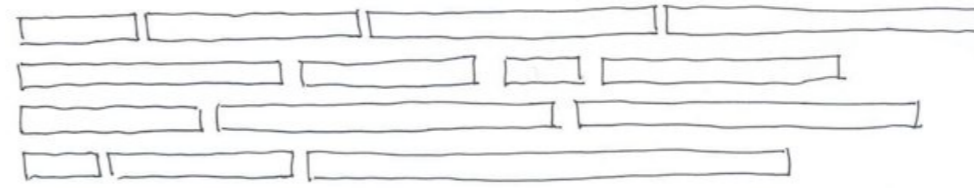
Figure IV.30: residential project in the Olympic Village: depth configurations based on territorial transition and no overlap scenarios

Other examples of this long depth sequences can be found in the strategies for urban renewal to prepare the city of Barcelona for the 1992 Olympic Games: the previously mentioned illustrating case study of the Olympic Village had as design Leitmotiv the idea of shared courtyard space to foster small residential communities within that area. Most of the designed residential project in that period, reaffirmed the Cerdà grid and accepted it as the defining parameter for street alignment while variety of building location and access was located within the interior part of the properties. Here we find many similar **territorial transitions** but in this case **without any overlap scenarios** that are explicitly avoided within the project by fencing all included territories. Most often, **dual orientation** was created, offering the dwellings access from the surrounding public street and a second entrance through the shared courtyard. As mentioned before, this very courtyard, as in the example of the residential project at Avinguda del Bogatell in the Poblenou area, is limited by a set of private gardens, as an extension of the properties on the ground floor, and by some vertical circulation modules that give access to the higher situated apartments that maintain a visual relationship with the courtyard. This central, shared open space, that is exclusively accessible by the project's residents, is built upon a shared neighbour's parking space. Besides seating areas, it contains a children's playground and a swimming pool, again with restricted access to the residents of the respective apartments. The courtyard obtains a status of luxury as the use of the common spaces is not a social obligations, it is designed as a **territorial "extra"**.
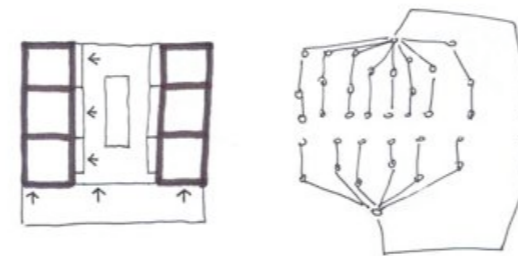


Figure IV.31: territorial scheme: residential project in Olympic Village, Aving. del Bogatell, Poblenou, Barcelona (Spain)

The project defines **deeper territorial structures of included territories** but, as was the case in the previous example, shared space is within the property limits and previously planned for the owners of the apartments. This configuration **avoids interpretation of boundaries and predefines where and by whom certain spaces can be shared**: the public has no interference within this project. Physical, visual and territorial depth again coincides. As in the previous example, this project is designed for middle and higher social classes.

Figure IV.32 : Ensanche Barcelona (Spain): long depth sequences with high functional mix.

Within the city of Barcelona (Spain,) the Ensanche housing typology is an interesting example of a depth sequence with a higher value, even if not all boundaries have territorial meaning. When walking on the Barcelona Ensanche's sidewalk and entering a building block to visit someone in one of the many apartments, situated on the higher situated floors, one crosses many territorial   layers. Nevertheless, the **shared spaces** within the depth sequence are situated **within the property limits** and even totally indoors. These shared spaces are the inside area where the mailman drops the letters, the doorman' cubicle, shared storage or bicycle parking space, the shared halls, with or without visual contact in between the different floors. The sequence is carefully planned and as well avoids overlap scenarios, except the commercial spaces situated in the ground floor, with direct access to the street where bars, restaurants, shops or facilities appropriate part of the sidewalk. **Functional mix adds territorial complexity** to the projects as offices, schools, doctor's parlours, schools or public facilities are sometimes located on one of the higher floors and invite no-residents to mingle with the buildings' inhabitants or visitors. Since the 19th century urban plan to plan the extra-muros extension of the historical city centre, the Ensanche housing typology, based on relatively narrow but deep building plots that organises its residential program through sets of interior light patios, has been identified as one of the city's most authentic characteristics. As a consequence, sharing parts of the building block became a very common practice for the Catalan higher social classes, as opposed to other societies where only individual housing achieved highest social ranking.
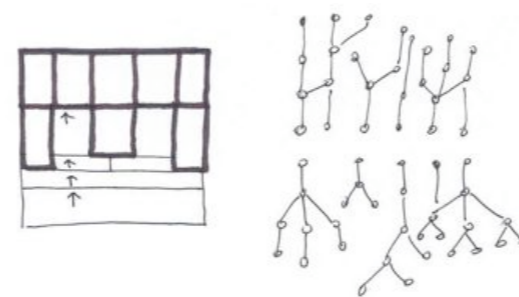


Figure IV.33: Territorial scheme: Ensanche apartment housing typology

**vi. Sequences with short territorial depth and deep physical and visual structure: spacing mechanisms**

However, especially since the second half of the 20th century, we can detect a spectacular increase of the use of a popular variant of the long depth sequence, but this time with a strong difference in value between territorial, physical and visual depth. The association of higher social classes with deeper and well planned depth sequences stimulated the

development and transformation of those housing typologies, originally territorially deep, because they were based on sharing spaces with visitors, servants or relatives. Nevertheless, in the new version, only the high value of physical and visual depth was copied, while territorial depth is maintained low: there is no more interest in sharing space with the public realm: sharing is limited to family-members or members of a (social) club. This seems to be the typology with the **highest social status**. As a consequence many residential projects promote huge building lots with a deep position of the main building to maximise distance from the street till the main entrance of the house. Besides exaggerating the symbolic dimension of gates and fences, many other filter tactics or buffers are added to reduce physical or visual proximity towards the domestic area. The outer limit of the property limit is clearly defined by a wall or a high fence, defining a boundary with territorial meaning as it selects who can enter the property. After that, a relatively big distance till arriving the next boundary allows a more dramatic interpretation of depth, each time generating a higher social status. Visual and physical depth is maximised while territorial depth is low and has a simple structure: as mentioned before, we call these **spacing** tactics.



Figure IV.34: Miami real estate publicity 2009, Florida (USA): sequences with short territorial depth and deeper physical and visual structure. (images from web Hector Lesende Real Estate South Miami, 2009)
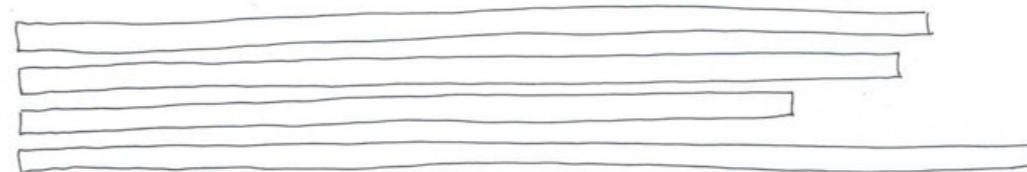


Figure IV.35: Miami real estate publicity 2009, Florida (USA): deep physical configuration with no overlap scenarios

Any possibility for territorial overlap, that is the description of a territorial scenario with a soft division of property limits and blurring boundaries between public and private areas, is completely excluded within these high class developments.
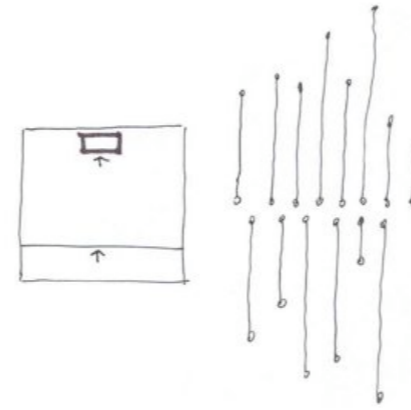
Figure IV.36: Territorial scheme: sequences with short territorial depth and deep physical and visual structure: spacing
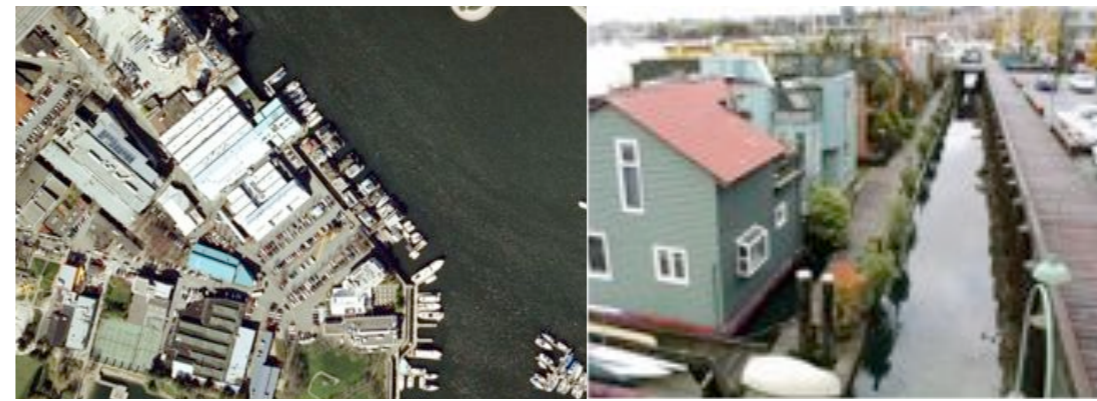


Figure IV.37 : Spacing techniques: floating residential project in Granville Island, Vancouver (Canada) (image from www. bricoleurbanism.org)

## vii. Gated communities

The extreme and systematic application of the previously described principle can be found in the latest promotions of gated communities at a global scale. A real estate developer or a group of owners sets up an enclosed territory with a strict selection of participants and visitors. The idea is to create **fortified social enclaves** with the highest social classes as target. The concept of this successful phenomenon is based on a created need and obsession for security, a main ingredient of the "*culture of fear*"[31].



Figure IV.38: The O.C. image appearing during the television series' credits (Josh Schwartz, 2003): gated community in Orange County, California (USA)

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31 M. Davis, "City of Quartz: Excavating the Future in Los Angeles", Verso, London, 1992

A group of luxury villas with huge gardens, some cultural or sports facilities and a selection of commercial activities are enclosed by one hermetic boundary: a huge wall or fence with the least visual connection with the outside as possible. The outside appearance of that boundary sends a rather explicit message of not welcoming outsiders. Any stranger is denied access to the area, unless you receive a clear invitation or when you became a resident, paying for all (high) common expenses of high-tech surveillance and daily maintenance. Mostly, the enclave has no more than one entry to increase territorial simpleness. Besides a territorial meaning, this entrance or gate obtains a symbolic meaning to persuade strangers to not approach the private territory, as its image often becomes aggressive. Once having passed the gate, after showing identity card or checking the visitor's invitation and a resident's approval of entrance, a "safe" urban space is laid out in a generous way. Inside the wall, organisation is spacious, as maximum physical and visual depth is desired to increase the level of privacy and obtain a higher social status.

Nevertheless, the territorial scheme of this set-up is extremely simple: territorial depth is low and obtains an artificial dimension, as all space users are previously scanned and selected. As possible inhabitants are screened by income and belonging to a high social network, the gated communities became the most visible urban instrument for **social segregation**: poor people are not welcome within this project, unless they become part of the service industry. Gated communities seem to be the urban recipe that guarantees the **highest social status**, as a global phenomenon. Besides that, a cultural obsession for security and privacy explains why certain regions that are registering more cases of daily violence, kidnapping or robbery, seem to create a higher amount of gated communities, even if this solution is not always recommended by professionals in social disciplines. Gated communities seem to appear more in developing regions or in areas close to an international border, as fear became its main social catalyst.



Figure IV.39: Frontenac Court and Bocca Grove , Gated Communities, Florida (USA) (photos by Giannina Urmeneta Ottiker)

Figure IV.40: Publicity for gated communities in Florida and California USA, 2008.

Within the enclosed area, most often a regular, repetitive and systematic territorial spacing technique is applied to divide the properties. **Proximity and physical depth** are the main design tools for this urban model: all distances between different houses, between house and street, between outside public space and inside protected area, are conditioned by security and privacy: sharing is limited to an invited and preselected public.

In a way, a territorial equivalent can be found in the expensive and exclusive shopping malls: close to the mentioned gated communities, with similar applied social filter tactics.

As a consequence, resulting space in between gated communities is reduced to a neutral and poor circulation space having connotations with low security level and socially lower classes.

Real territorial depth is low in these cases, even if physical and visual depth is intentionally stretched to optimise the effect of silence, isolation and privacy. The general avoidance of more natural appearance of overlap scenarios, indicate the real parameter for social understanding of depth. Gated communities are the result of a limited repetition of single territorially short sequences, compensated by an intensification of boundary demarcation and the creation of long vistas and generous spacing techniques, all associated with the highest levels in society.
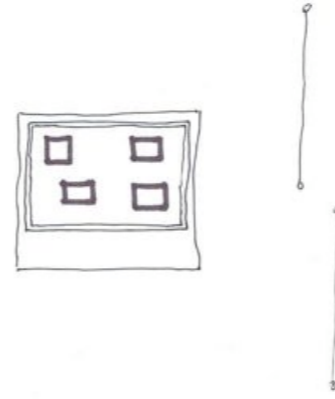
Figure IV.41: Territorial scheme: gated communities.

Related to this phenomenon of gated enclaves, Mike Davis[32] describes a "*militarisation of urban space*": post-liberal Los Angeles defends luxury and sets up an "*arsenal of security systems and obsessions with the policing of social boundaries through architecture*". The result of this process is a "*hardening of urban landscape*", as mentioned before: territorial depth is defined in a more violent way by means of oversized fences, walls and other filter tactics. M. Davis presents a hard view on contemporary landscapes: "*Fortress cities, brutally divided into fortified cells of affluence and "places of terror" where police battle the criminalised poor*". The consequences for the built environment, he mentions, mean "the end of Olmsted's vision of public space": public space gets turned inward by architectural privatisation of physical public sphere. Middle class now demand for increased spatial and social insulation and look out for new exclusive enclaves.

### viii.Security, image and privacy: segregation, borders and barricades

Michael Sorkin[33] announces the appearance of the "*non-place urban realm*" in contemporary urban landscapes that "*provides the bare functions of a city, while doing away with the vital, not quite disciplined formal and social mix that gives cities life*". An a-geographical and segregated city emerged, according to the author, where "*different hierarchies are both reinforced and concealed, at once fixed and despatialised*", as opposed to the physical city where order used to be a function of proximity. He defines three salient characteristics of the contemporary city: first, he detects **a dissipation of all stable relations to local physical and cultural geography**, loosening ties to any specific space. He adds that globalised capital, electronic means of production, uniform mass culture absorb the intimate, undisciplined differentiation of traditional cities.



Figure IV.42: outskirts of Bratislava, increasing obsession for security and privacy

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32 M. Davis, "Fortress L.A." extract from "City of Quartz: Excavating the Future in Los Angeles" Verso, London, 1992 in "The City Reader", ed. R.T. Legates, F. Stout, Routledge, London, 1996, p160

33 M.Sorkin, "Variations on a Theme Park", Hill and Wang, New York, 1992, p xii-xiv

Second, he detects an **increasing obsession with security**: there are raising levels of manipulation and surveillance over its citizens that produce new models of segregation, as mentioned before when studying the phenomenon of gated communities. Methods to achieve security are both technological and physical. The author mentions that old city centres, when not occupied by tourist strategies, are abandoned to the poor as the rich escape to enclaved communities. The third characteristic is related to the idea of the **image**: urban branding created cities of simulation , cities as theme parks where urban design is a simple reproduction of images. This last phenomenon can be related with the mentioned copy-paste strategy where Californian bungalows contrast with the cultural or territorial environment. We described another example where only the physical and visual depth sequences are extracted from more territorial complex configurations. Once mentioned before, simulacra[34] of reality replaced reality itself.

Taking this into account, M. Sorkin pleads for a return to a more authentic urbanity, a city based again on physical proximity and free movement with a higher desire for collectivity. *"The privatised city of bits is a lie, simulating its connections, obliterating the power of its citizens either to act alone or to act together"*[35] In a way, we can read this statement as a desire for urban models of **social integration**, as A. Madanipour mentioned: *"While public spaces of the neighbourhoods were places of exposure, where individuals were under scrutiny of others, the crowded streets and public spaces of the big city were the places of concealment, where they could hide and live the life in the way they wished"*[36]



Figure IV.43: Drawing by Leonardo da Vinci, "City on Two Levels", 1487
(image originally published in A. Croboz, "Le Territoire comme Palimpseste et autres essais", Les Editions des l'Imprimeur, Paris, 2001, p 101, reference: Paris, Bibliothèque de l'Institut)

André Corboz[37] used 15th century drawings by Leonardo da Vinci to illustrate ancient phenomena of social segregation: the artist emphasised the strict separation of lower and higher social classes and its physical translation: palaces were built so different social groups did not have to mingle and maintain such desired autonomy. Social stratification, mentioned before when studying gated communities and their relation to depth, is not a new tendency: as N.J. Habraken mentioned, horizontal hierarchies are unstable and tend to organise vertical structures.

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34 J. Baudrillard, "Simulations", Semiotext(e), New York, 1983

35 M. Sorkin, "Variations on a Theme Park", Hill and Wang, New York, 1992, p xv

36 A. Madanipour, "Public and Private Spaces of the City" Routledge London 2003, p 153

37 A. Corboz, "Le Territoire comme Palimpseste et autres essays", Les editions de L'Imprimeur, Paris, 2001

### ix. Frontiers and gentrification

**Frontier urbanism** is what could be called a side-effect of social segregation processes. As social stratification redraws geography, bigger differences appear between poor and rich environments and become physically more separated. These urban dynamics is recently utilised to upgrade environments with population of lower social classes while introducing new models of depth in existing neighbourhoods, linked with higher social classes. "*Hostile landscapes are regenerated, cleansed, reinfused with middle class sensitivity: real estate values soar. The new urbanites are upwardly mobile, elite gentility is democratised as mass-production distinction*" [38] Boundaries are shifting and becoming productive entities, according to Neil Smith. An example of this process can be the transformation of formerly multifamily townhouses in popular neighbourhoods like the Eastvillage in New York (USA), that originally possessed a high value of territorial depth, as many spaces were shared by the different inhabitants and functional mix invited outsiders to participate in overlap scenarios. However, after the gentrification process, depth was reduced as real estate transaction forced the mentioned buildings into a huge and expensive single-family house. Systematic application of this strategy creates a new gentrified neighbourhood with lower territorial complexity as before the intervention. The catalyst used to speed up this process is selling middle class interested buyers the idea or crossing a frontier, a wild act considering the individual's social context. "Moving into an *authentic* neighbourhood" is an illustrating slogan, unveiling a socially hard gentrification process now popular in most Western countries. N. Smith calls it "*urban pioneering*", a new variant of **territorial desintegration**.

"*Today the frontier motif encodes not only the physical transformation of the built environment and the reinscription of the urban landscape in terms of class and race, but also the larger semiotics of the new city. (...) Frontier is a style as much as it is a place*" A frontier can be defined as a class-based and race-based normative politics of the frontier ideology: a frontier makes place and adapts to a place.

"*It's never about the division or the line that divides, it's about how to control it*"[39]



Figure IV.44 : Born neighbourhood in Barcelona (Spain), the result of frontier urbanism strategies of real estate intervention 1980-2000: domesticated territories force shared spaces to be of commercial use, creating social conflicts between residents and visitors

38 N. Smith, "New City, New Frontier: The Lower East Side as Wild, Wild West", article in "Variations of a Theme Park", ed. Michael Sorkin, Hill and Wang, New York, 1992

39 E. Weizman, during lecture series "After Neoliberalism", MACBA, Barcelona (Spain), 28.11.2008

# 3.  Space codification: understanding/readability/visibility

### i.  Depth and visibility: cues within an urban sequence

Ali Madanipour cites Thomas Nagel: "*The boundary between what we reveal and what we do not, and some control over that boundary, are among the most important attributes of our humanity*"[40] With this quote, a double direction is laid out for the discourse on boundaries: the idea of making something **visible** or not, besides the idea of control. Indeed, depth is about crossing a series of territorial boundaries, which highly depends on their visibility. To select entry and distribute access within a set of included territories, boundaries will be visible in most cases. We might even state that invisible boundaries have no territorial meaning, unless they are accompanied by in-situ acts or specific behaviour of the neighbours. Previously we mentioned the idea of ambiguous definition of boundaries with a high temporal or volatile dimension: not permanent demarcation of boundaries or the sometimes no-delimitation of different areas means more fragile control over space and tends to organise itself creating a vertical hierarchy with delimitation of boundaries eventually.

Peter and Alison Smithson[41] studied the idea of identity and belonging of urban elements and suggested that an environment is more readable once we understand its very logics, its very organisation, and introduce a **structural approach** for urban settlements. Most structural understanding of territorial configurations depends on the recognition of rhythms, repetition, or in other words, the reading of patterns and the recognition of urban systems. (see previous chapters) N.J Habraken mentions: "(...) *As recurring features and rhythmic repetitions are recognised, seemingly random environment becomes readable*"[42]

Amos Rapoport[43] studies **meaning** of the built environment and describes three main approaches. A **semiotic approach**, based on linguistics, contemplates the study of **signs** that depends on three elements: the sign vehicle, the designations (to what the sign refers) and the interpretant.
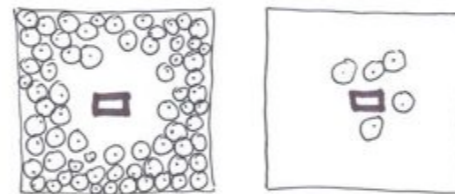


Figure IV.45: semiotic approach:  clearing in a forest and trees on a plain used to indicate human presence.
(drawing after A. Rapoport: "The Meaning of the Built Environment" University of Arizona Press 1982, p 40 )

Apart from that, the author describes a **symbolic approach**, traditionally used in the study of high-style architecture and vernacular environments. This approach is based on a quick observation ("notice something is happening") and a posterior methodically analysis. The author warns for possible problems to define symbols. First, because there is a distinction between discursive symbols (these are lexical and socially shared, appear with a higher amount) and non-discursive symbols (that are idiosyncratic, individual, peculiar within an associational world, appear in fewer amount) and second, because of the difficulty of the process of image-matching between ideal concepts and corresponding physical

40 T. Nagel, "Personal Rights and Public Space", Philosophy and Public Affairs, vol. 24, spring 2005, p 83-107, quoted in A. Madanipour, "Public and Private Spaces of the City" Routledge London 2003, p 59

41 P.&A. Smithson, "Urban Structuring", Studio Vista/Reinhold, London 1967

42 N.J. Habraken, "The Structure of the Ordinary" MIT Press Cambridge 1998, p. 226

43 A. Rapoport, "The Meaning of the Built Environment" University of Arizona Press 1982

environments. He mentions that translating symbols into form has common features, what is different in criteria in making choices for image-matching. The question is if people can see the relevant symbols like the level of dressing up at a party, who is welcome and who is not. These cues are clear, consistent and comprehensive within vernacular environments but this is less popular among designers or among modern cultures because a big part of meaning is not shared. Here, Amos Rapoport explains the difference between a sign and a symbol: the first is univocal while the second is multivocal. In the previously comparative study of split-level staircases in New York City, we already mentioned the symbolic values in one of the cases, as a result of its multivocal character.



Figure IV.46: a sign became a symbol: construction by the Israelian government of separating walls between Jewish and Islamic neighbourhoods in Cisjordania, 2002
(image from digital newspaper ELPAIS 09th of July 2009)

The third approach mentioned by the author is what he calls a "*non verbal communication approach*". People communicate verbally, vocally and non-verbally which is mainly perceived visually: the built environment is one of the channels, using analogies or metaphors or by **non-verbal behaviour**. He argues that there are direct and indirect effects of the environments on behaviour. "*The subject reeds the cues, identifies the situation and the context, and acts accordingly*"[44] He adds that the social situation influences people's behaviour, but that it is the physical environment that provides the cues. "*If the code is not shared or understood, the environment does not communicate*"[45]

A. Rapoport explains that people need to be seen as behaving in places that have meaning for them, that define occasions or situations: who does what, where, when, how and is excluding or including them. The author defines this as **symbolic interactionism**, that deals with the interpretation of the environment. Indeed, the reading of what is accessible or not is an important factor for depth: not only can a denial of access cause territorial conflicts, the misreading of the environment, when cues are not efficient, can cause as much damage.

A set of physical, social and abstract **cues** guarantees appropriate behaviour. A. Rapoport mentions that cues are psychological and cultural filters that people use to reduce alternatives and information and the making impossible or unlikely of certain interpretations. He adds the idea of a dramaturgical view of a setting: "*people must be able to interpret the code embodied in the built environment*"[46], like the use of front lawns to define private property in suburban areas. He warns for "*the current problem of environments ceasing to communicate clearly as they do not set the scene or elicit clear consequences of cultural and subcultural specificity and variability*"[47]

The author concludes that "*human behaviour, including interaction and communication, is influenced by roles, contents and situations that, in turn, are frequently communicated by cues in the setting, making up the environment: the relationship among all these are learned as part of enculturisation or accumulation processes*"

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44 A. Rapoport, "The Meaning of the Built Environment" University of Arizona Press 1982, p 56

45 A. Rapoport, "The Meaning of the Built Environment" University of Arizona Press 1982, p 57

46 A. Rapoport, "The Meaning of the Built Environment" University of Arizona Press 1982, p 63

47 A. Rapoport, "The Meaning of the Built Environment" University of Arizona Press 1982, p 63

## ii. Codification

Social communication and context are important to read depth within an urban sequence: cues have to be culturally comprehensible, defining the **mnemonic function** of the environment. A. Rapoport explains that the environment contains **encoded information** that needs to be **decoded**. Material and non-material culture can be seen as concealed information. He adds that, the more different systems communicate similar messages, the more likely they are to be noticed and understood. We could relate this to the previously mentioned idea of systematic approach (see N.J. Habraken, culture and systems) where consistency of use guarantees coherence. When space organisation, building form, sign systems and visible activities coincide, meaning is much more clearer and urban form much more legible and memorable. Besides that, we should be aware of the increased scale and complexity of social systems: A. Rapoport points out an increasing number of specialised settings, each with its special cues and appropriate behaviour, like airports or theme parks for example. In the same way, the number of message systems has gone up as well.

A. Rapoport presents 3 views on non-verbal communication approach: an arbitrary, culture-specified system, a pan-cultural species-specific system, and finally the combination of both. This leads to three types of coding: intrinsic, extrinsic and arbitrary interventions, the last ones being the culture extrinsic codes with no visual resemblance to what they signify). In other words, coding varies according to universality versus cultural specificity. Potential cues can be physical elements, based on vision, sound and smell: we think of shape, size, scale, enclosing elements, greenery, age, type of order, density, topography or location. Social elements, related with people, activities and objects produce complementary cues: intensity of use, type of activity, etc. As an example, height can have a different meaning in Beijing (see previous chapter) than in New York City. A similar example is centrality or colour. Cues work at different domains, being perceptible, affective, nominal or arbitrary ones. "*Without noticeable differences (contrast), meaning is more difficult to read*"[48]

The whole theory of cues depend on the context of the application: A. Rapoport mentions that sometimes, in primitive tribes, **cues are subtle**, as everyone recognises them within a small community: in this case cues only act as mnemonic devices. As an example, privacy gradients, as part of a depth sequence, can be indicated in very subtle ways: by a change in the ground surface, a small change of level or a bead curtain. However, it seems that in more contemporary culture cues have to be more explicit and less subtle. The mentioned author clarifies that indication through physical cues may be less important in traditional cultures because things are known, partly through consistent, rigid and **shared rules**. However, in our contemporary society, known social aspects are still important but clear physical clues are needed. Indeed, in traditional settlements, cues are sometimes not visible to the outsider at first glance, they can be discovered by observing other behaviour: who does what, where and when; we observe inclusion or exclusion and we act upon this information.

In more complex and pluralistic societies, with weaker rule systems, cues are even more important. As a consequence, high levels of redundancy are needed. A. Rapoport gives the example of moving toward a centre, when one would expect greater traffic density, greater difficulties n parking, busy streets, more shops, more signs, a higher level of activity. He argues that, when all cues add up, and reinforce one another, then indications could be quite clear.

According to A. Rapoport, space codification has a perceptual level, that means noticing **differences and contrast**, that, together with associational aspects, being decoding (dependent on consistent use of cultural rules), defines a setting. This setting obtained mnemonic functions that activate subroutines for cultural appropriate behaviour and inclusion in social space and stimulates the right communication.

This theory applied to the discourse of depth, means there are different types of meaning: a higher level that is related to cultural references, like a preference for silence or avoiding social overexposure. The middle level of meaning can affect health or status, while the lower level refers to an everyday meaning, like basic privacy. As Rapoport says: "*(...) if cues in*

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48 A. Rapoport, "The Meaning of the Built Environment" University of Arizona Press 1982, p 119

*settings are noticed and understood, the social situation appropriate to that setting is identified, and appropriate behaviour is brought to attention and elicited"*[49]



Figure IV.47: Christianshavn, Copenhagen (Denmark), subtle space codification: change in pavement indicates a shared outdoor territory: a case of territorial overlap.

The idea of cues within our direct environment helps to estimate the importance of boundaries within a certain depth sequence: we can experience a flat transition while crossing boundaries with subtle indications of included territories or we sometimes notice a hard and almost violent depth rhythm with explicit space codification. As mentioned before, the need to stress boundaries, to make them more explicit or implicit, depends on cultural and social factors, hence a need to personalise boundaries. However, well understood depth sequences are territorial configurations that not necessarily have explicitly laid-out indications, but that have a **codification** that is **coherent with the environment**. Efficient cues are not always explicitly coded or have to repeat their message within a single environment. Often, we notice over-regulation in space codification: many signs, fences, walls, distances, topographic changes, become territorially redundant. Territorial depth does not increase or decrease if "do not enter" signs are added on a closed entrance door, however sometimes they do seem to reinforce a sense of security or increase personal status.

As mentioned before, cues can be subtle because of a common understanding of space organisation, because of a cultural integration in spatial configurations. This means that there is a common understanding of the used instruments to control space. This works better when space codification is a **bottom-up process**, when it is not imposed by one particular agent but seen as a **collective rule** that can be applied without discrimination. A few examples of this can be found in the city of Copenhagen, where in some neighbourhoods a simple change of pavement indicates a different level of shared space. No signs are added to restrict or oblige users to park their bicycle in a specific area for example. The subtly indicated 50 centimeters of territorial overlap, located right next to the façades of the residential buildings, invite residents to leave their bicycles or other types of vehicles, to put a bench where children meet with their friends, where plants grow and offer a more friendly image of the street. Other people passing by, even if they are no residents, respect this almost invisible boundary with no need for further regulation. Codification is simple and **systematic**, another condition for the well functioning of space codification. The urban space's readability increases with a coherent and systematic application of filter tactics. Single recipes often need explicit and repeated indication of how to use space.

Michael Mehaffy[50] would agree and argues that, since modern city-making, space codification became increasingly important as reductive engineering schemes and separating different functional areas defined the urban agenda. As a

49 A. Rapoport, "The Meaning of the Built Environment" University of Arizona Press 1982, p 236

50 M. Mehaffy, "Codes and the Architecture of Life", in Crossover, Architecture, Urbanism and Technology", 010 Publishers, Rotterdam, 2006

result, he detects within those projects the lack of critical thresholds of connectivity and iterative complexity, producing urban dysfunction. Therefore, he proposes a new class of "generative codes", being a less strict and predefined space codification that acknowledged emergent bottom-up processes. He proposes to re-establish a system of cues being part of a "**collective intelligence**" that goes back to ideas of coherence and collective understanding of urban space, avoiding strictly individual interventions.

### iii. Readibility and orientation

Individual mental schemata are important for people to be able to orient themselves in a complex environment: Allan Jacobs and Donald Appleyard[51] insisted on "*the urban experience*" and the need to design complex arrangements on a human scale, taking into account the readability of the project by integrating all activities within the "*manmade environment*". The authors suggest that readability is a design parameter to take into account from the beginning of the design process and to not consider it a side effect of done intervention.
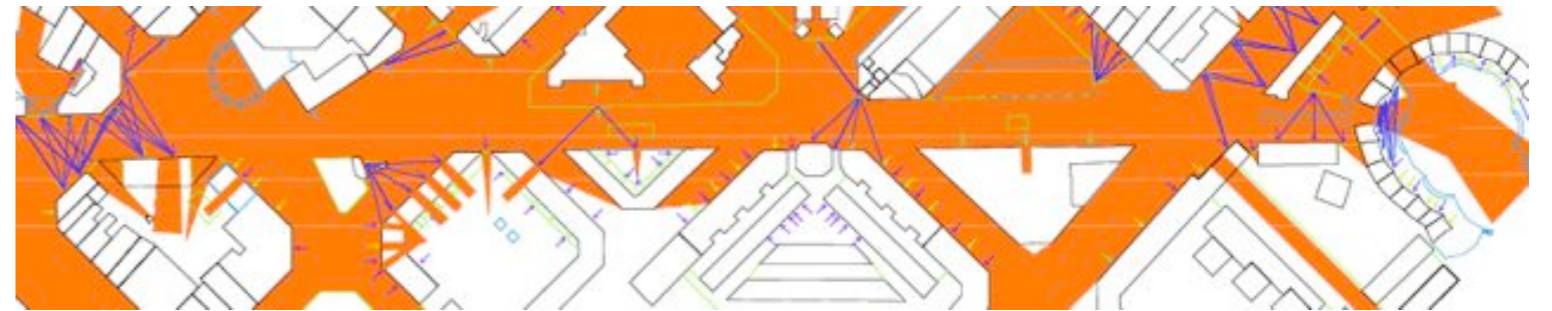


Figure IV.48: Visual depth in the Poblenou Avinguda Bogatell illustrating case study (diagram of visual cones, drawn from the axe of the avenue).

Kevin Lynch[52] mentioned the importance of the **environmental image** consisting out of three elements: object identification or its **identity**, the relation between patterns or its **structure** and finally, the environment's **meaning**. After completing a comparative study of the image of Boston, Jersey City and Los Angeles, he defined 5 elements defining image: path, edge, landmark, district and node. He mentions problems with the imageability of an environment: confusion, floating points, weak boundaries, isolations, breaks in continuity, ambiguity, bifurcations, lack of character or the lack of differentiation within an area. His theory is still influential in urban design practise, even if some of the mentioned problems of the image-making have shifted or even became accepted as a contemporary condition, as it is the case of weak boundaries, ambiguity, voids or floating points that are structural characteristics of urban landscape. For the study of depth, as a physical, visual and territorial parameter of analysis and design, the concept of the image of a depth sequence is highly suggestive. Our very experience is related and conditioned by what we remember or associate it with: we can expect a territorially deep sequence because we take into account its very image. We can easily apply the image defining elements to depth sequences: a **path** is what we often imagine by a sequence, and describes a particular movement. As K. Lynch mentioned, a path, or in our case a depth sequence, has a directional quality and gradient, connecting destinations with origins, depends on proximity to special features, has a visual exposure and many relative scale references. Its intersections and different characteristic spatial qualities define depth. The second element, **edges**, being linear elements not considered a path, mark boundaries between different kind of areas, as studied before. Edges, according to K. Lynch, are lateral references, with a changing accessibility. The image we have of those boundaries can be continuous or fragmentary, or even forbidden. **Barriers** can be isolating or seaming and provide directional qualities.

51 A. Jacobs & D. Appleyard, "Urban Fabric versus Urban Life", 1987, article in R.T. Legates, F. Stout "The City Reader", Routledge Publ., London, 1996

52 K. Lynch, "The Image of the City" Publ. of the Joint Centre for Urban Studies MIT Press Cambridge 1960

**Districts** can be read as certain areas you cross within a depth sequence, that are defined because of its similar qualities, social connotations, with an introvert or extravert character. **Nodes** are strategic foci, junctions, point of bifurcation, where one depth sequence can diverge into different sequences, pointing out a previously shared space: K. Lynch calls them "*thematic concentrations*". **Landmarks** illustrate the uniqueness and specialisation within a depth sequence, a singular element within the serial vision. We mentioned before the non-territorial but above all symbolic dimension of certain gates or walls that can have the function of landmarks. Here, the idea of visibility plays an important role: landmarks gain value within depth configurations where access control is its main goal, as they become a trigger cue for sequences.



Figure IV.49: Los Angeles (USA) Chinatown gates as visual landmarks

K. Lynch added the idea of **changing image** of an environment: he describes the existence of sets of images, overlapping and interrelated, acting on different levels. In a parallel way, experience of depth within a certain project, neighbourhood or district, is defined by overlapped images associated with the constituting elements of that sequence and adds complexity to the whole. Besides that, the author explained that images can have different **structural qualities** end defines 4 stages: free elements, positional structure, flexible structure with elastic relationships and rigid structure as a total field. The applied filter tactics within a depth configuration can occur in similar stages: a singular entrance door is different from a rigid repetition of entrance doors in a façade and links different structural qualities to the image of the whole.

### iv. The desire for all-round visibility and transparency

Similar to Amos Rapoport's approach of readability and the condition of collective understanding and coherence to guarantee efficiency of urban cues, Kevin Lynch proclaims: "*If the environment is visibly organised and sharply identified, then meaning and connections take place*" In other words, an environment has more meaning when space organisation is based on visibility: **imageability increasess when an environment is visible, coherent and clear**. The author concludes: "*to highten the imageability of the urban environment is to facilitate its visual identification and structuring*"[53]

Nevertheless, this statement can be questioned: control of space, and especially control of accessibility with changing depth values as a consequence, does not always rely on the visibility. At the contrary, making all areas visible (and accessible) can make the experience of depth more flat and the project might lose interest, as many different qualities, related with distinct atmospheres, get erased. In previous chapters we studied the changing character of public space's defining boundaries in an attempt to increase transparency and visibility. We concluded that the territorial depth remained unchanged, as was the amount of overlap territories within the configuration. Keeping certain parts out of sight of the general public, which means users having unrestricted access to a certain area, can be the key to improve specific qualities of the area, based on an experience of differences.

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53 K. Lynch, "The Image of the City" Publ. of the Joint Centre for Urban Studies MIT Press Cambridge 1960 p 91

K. Lynch continues by stating that within a path, key lines should have singular qualities, marking them off from the surrounding channels. That way, a certain continuity is given to a path, based on coherence and repetition, crating a **visual hierarchy**. According to the author, clarity of direction should be given to all paths, improving its kinesthetic quality. He emphasises on the **visual exposure** of the path and the increasing scope of the traveller. Again, the question is: should extreme visibility be advocated at all times and does it improve the experience? Neither the continuity, the regularity nor the constant maximum scope should have universal values. According to the environment, an irregular rhythm of visibility with an uncomplete scope might invite a more critical reading of urban space. A depth sequence, as a result of crossing various territorial boundaries, can gain intensity and interest as some parts may be more visible and other parts do not belong to an overall exposure scope. Again, we could relate this with the idea of gaps within a configuration.

It seems that in contemporary projects or critiques, **spatio-visual depth** is a controversial subject. Not only is visibility related to certain levels of privacy, the exposure level and its regular or irregular application in an urban project can have social, cultural and economical backgrounds. Ultimately, the rule seems to be that what is public needs to be visible, while the private areas should avoid visual integration.



Figure IV.50: Left: suburban residential neighbourhood in Bratislava (Slovak Republic), 2002: private territories extracted from visual scope. right: urban mapping based on maximum visual scope of LIDAR technology (Light Detection and Ranging), an optical remote sensing technology that measures properties of scattered light to find range and/or other information of a distant target.

This phenomenon is part of a **visual radicalisation** of urban space, as it denies visual ambiguity: transparency or more subtle spatio-visual recipes became less popular, as tendency quite similar to be found in the way territorial boundaries are defined in recent projects (see previous chapters).

Some mentioned spatial phenomena refer to strategies of "LIDAR urbanism": recent laser technologies, based on **continuous visual scope** to map spatial configurations, could be related to the contemporary desire or need to either overexpose and force all-round visibility while other spatial phenomena stimulate to shut down territorial blinds and make a set of opaque boundaries.