

Physical conditions for social interaction in the home environment

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Summary

The perceived liveability of an environment is formed by the apparent liveability. An important aspect of these forms of liveability is the control over social interaction an individual has in a neighbourhood. The motivation and attitude towards social interaction is formed by physical reconditions. A survey on these preconditions in different type of neighbourhoods leads to a model called privacy zoning. Privacy zoning relates control on social interaction to different layers of 'public' space.

In this paper privacy zoning is explained with different (cross-cultural) examples.

Introduction

Liveability is a statement concerning the relationship between a subject (an organism, a person or a community) and the environment. This relationship can be explained from different perspectives:

- The perceived liveability – the individual's appreciation of his or her environment,
- The apparent liveability – a good match between the organism (person) and the environment, which can subsequently be evaluated in terms of the number of happy years of life (Veenhoven, 2000),
- The presumed liveability – the degree to which the living environment meets the presumes conditions for actual liveability.

The liveability of the home environment (from the perspective of an individual) is strongly related to the 'quality' of the social environment (v/d Wardt & de Jong, 1997, v. Dijk & Oppenhuis, 1998). Particularly in 'low-quality' neighbourhoods, the impact of social environment is larger than the influence of the physical surroundings. This doesn't mean the social interaction has to be intensive. In general, people appreciate weak social interaction in the home environment (Marianski & Turner, 1992). At the same time no social interaction leads to anonymity and this is a precondition for all the mayor problems a neighbourhood can face (Zimbardo, 1969).

The judgement on the quality of the social environment is mainly influenced by the control an individual has on his or her social interaction (van Dorst, 2005a). Altman (1975) calls this privacy: "selective control of access to the self or to one's group". Altman makes a clear connection between the regulation of social contacts and the physical environment. Perceived privacy is a form of mental geography.

The access (in Altman's definition) relates to physical accessibility and access to the available information about yourself. Physical access to individuals relates to visual privacy (the degree to which you can be seen and can see others) and auditive privacy (the degree to which you can be heard and can hear others). The privacy that relates to information mainly concerns personal details, a form of privacy that is at stake when databases are linked. This definition of privacy is all about *degree* of access. This means that privacy is not just a case of retreating behind closed doors: visiting a busy café in search of social interaction is also a form of privacy regulation. Privacy, therefore, is an important human need and is related to communication (Pedersen 1997). The built environment is one of the means by which the privacy one is granted can be brought in line with the privacy one desires. The desired level of social interaction depends on personal characteristics, social influences, the physical environment and culture (Gifford 1997; p175). The desired level of social interaction, therefore, can vary per person and over time: a resident on their

way to work on Monday morning is less open to social interaction with neighbours than during a walk through the neighbourhood on a Sunday afternoon. The level of desired social interaction may vary, but the need to control social interaction is universal. Control is exercised by setting limits or by actively looking for social contact (or collecting information). The desired result of these actions is a balance between the desired and achieved level of social interaction. If this balance is not achieved, or if it is disturbed, the result is social stress (crowding) or loneliness.

Altman's theory is generally accepted and used (Bell et al. 2001; Gifford 1997). The substance of Altman's theory is supported by research into crowding, in which a person's perceived control over social interaction is an important indicator of stress (Evans and Lepore 1992; Lepore, Evans and Schneider 1992).

Controlling one's privacy isn't always a conscious process, but the perceived liveability is related to privacy control in the built environment (van Dorst, 2005 a). To emphasize the mental geography component we must dwell upon the concept of territories.

The experience of territories

Territories are geographical areas that are personalised or marked in some way and that are defended from encroachment (Sommer 1969; Becker 1973). Altman uses the following definition: territoriality involves the mutually exclusive use of areas and objects by persons or groups (Sundstrom and Altman 1974). In this definition, people's territorial behaviour is the behaviour and cognition of a person or group, based on the perceptual possession of a physical space (Bell et al. 2001). At the local level, territoriality leads to the building of fences; at the international level it leads to wars. For This reason, in post-war society territories were not a part of urbanism. A high-rise neighbourhood consists of floating public-space. The city consists of one connected public space. But according to Altman's privacy theory, territorial behaviour is not necessarily undesirable. Recognisable territories give a clear compartmentalisation to space and make the built environment legible. The garden fence with a height of 30 cm is (as a physical barrier) easy to overcome, but it is more than a physical barrier. The garden fence imparts a message: this is private territory; enter only with permission from the owner. The built environment contains all sorts of signals of the existence of territories at various scales – entrances, borders and areas – and these signals provide clarity. Territories are helping in making a clear mental map. If this clarity is absent, what is left is a no-man's land; an anonymous terrain. The regulation of social interaction in the living environment, therefore, can be supported by the physical environment. On the one hand, the users must have control over whether they enter into or avoid social interactions. On the other hand, the physical environment must be legible and thus clearly indicate the status and accessibility of the users: Is this person a resident, a visitor or a passer-by? I feel like greeting them, but is that customary or acceptable here?

Altman identifies three types of physical territories: primary territories, secondary territories and public territories (1975; p112–120). Primary territories are easily recognisable private spaces, both physically and legally; the other territories are more diffuse. A courtyard can be seen as a communal territory for all residents, but what about a residential street open to through traffic? Secondary space can take many forms and can consist of communal space in a residential building or a local café. A public space can also change (temporarily) into a secondary territory the moment it is occupied by a group of users (Boomkens 1998), for example during a demonstration or a rave. The latter example also shows that the function and use of the public space may be contentious. Is public space the space that can be used by anybody and does the possibility of social interaction still playing a role (Augé 1992; Fyfe 1998)? Although this does not call the division into private, semi-public and public space itself into question, a frequent comment is that semi-public and public territories cannot always be defined with certainty and that their validity depends to a large extent on the use to which they are put (Fyfe 1998; Boomkens 1998).

For the immediate living environment, the existence and use of a secondary territory depends on the usability or legibility of the physical territory. Once the public space is no longer legible as the territory of a group of residents, the territory itself will no longer be respected. Solutions currently put forward are the privatisation of these public spaces (for example in shopping centres), surveillance with CCTV cameras and

more formal methods of supervision (by police and security companies). This implies a relation between control over social interaction, with the help of legible territories, and the prevention of anonymity and the insecurity that goes with this.

The perception of privacy and legible territories is crucial for understanding the interaction between individual, social environment and physical environment. The secondary territories (like in Altman's definition, 1975) can take many forms. In a survey on Tunjungan neighbourhood in Surabaya, Indonesia there was a system of many territories uncovered (van Dorst, 2005 a). The inhabitants of the neighbourhood appreciated their social environment due to a subtle system of zoning of indoor and outdoor space. A complex 'privacy zoning' was observed, this is a spatiality that allows individual users to regulate their social interaction, and thus their privacy.

Privacy zoning

The privacy zone study has been carried out in Surabaya, the second largest city in Indonesia with a population of 5.1 million (in 2003). In the middle of this port city, surrounded by all the business, social and leisure activities in the city centre, is the residential area of Tunjungan. The district consists of three kampongs, or neighbourhoods, and its borders are defined by four busy major roads. Kampongs are unplanned rural settlements that have subsequently been swallowed up by the expanding city. They are characterised by high densities of homes with ground level access.

Space in Tunjungan can be defined as a system of territories. These territories are helping in regulating one's privacy. This is defined as privacy zoning: a system of zones with different meanings for social interaction. The zones are physically identifiable and socially accepted because they make the situation clear to everyone. No one in Tunjungan experience moments of crowding or loneliness. This is not a conscious design decision, but it's a combination of a development within the interaction between social and physical environment and the mental map of individuals. No one of the inhabitants pointed out the privacy zoning beforehand. They just know (subconscious) how to move and act within their neighbourhood.

The following zones were identified in Tunjungan (van Dorst, 2005 a):

- Zone 1: The bedroom

This is absolutely private. Only the users of the room are allowed in and no other family members. Sometimes the bedroom is the minimum possible size and in some cases it is just an area cordoned off with a curtain. In all cases, users know that other members of the household will not disturb them in their bedroom.

- Zone 2: The family room

This room is shared by those living in the house. Very good friends may occasionally be admitted, but only when invited. The family room, therefore, is more the domain of the family than a Western living room. Here the family consists of the nuclear family, sometimes with the addition of other live-in relatives.

- Zone 3: The guest room

This is where family and guests meet. If one family member receives a guest, the rest of the family can stay in the family room. The family room is visible from the *gang*, from where acquaintances can attract the attention of family members, who may then invite them in. The view out onto the *gang* also allows social control over the *gang* from the home.

- Zone 4: The veranda

This has a more public function than the guest room because it is not inside the home. The veranda is also visible from the street and therefore more approachable. Occupants may invite passers-by into this space (even strangers).

- Zone 5: Front yard or bench in front of the house

A member of the household sitting here may be addressed by any passer-by, whether they know them or not. The initiative for social contact does not lie with the occupant of the house. However, the number of strangers they see is very limited because the *gangs* are used mainly by residents, visitors, food vendors, and seldom by people just passing through.

- Zone 6: The *gang*

The *gang* delineates a social unit. The residents of a *gang* jointly maintain the outside areas. In some cases the *gang* has a washing area which is shared by the residents. Cooperation in a *gang* is formalised in an official administrative unit, the RT (*Rukun Tetangga*). The chair of the RT is the contact person for the *gang* and reminds residents of their neighbourhood duties and obligations.

- Zone 7: Squares, crossroads and shops in the network of *gangs*

In these meeting places residents can actively seek social contact and meet people from other parts of the *kampung*. They can easily leave this zone if they want to end the contact. This is also the zone where *kampung* activities organised by the *kampung* leader or a mosque are held. These centres of activity are also used by *kampung* residents who want to meet someone separately from other members of the live-in family. Social control here is exercised by other *kampung* residents.

- Zone 8: The entrance to the *kampung*

This is where the residents of the *kampung* as a group meet people from the outside world. Visitors from outside cannot enter the *kampung* unseen; they are always asked for the purpose of their visit and, if necessary, a *kampung* resident will accompany them to their destination. Residents may pass the time near the entrance out of curiosity. The entrance is also guarded by residents in the evening and at night so that this informal meeting place can function undisturbed for 24 hours a day.

- Zone 9: The public spaces in the city

The main public urban spaces are situated directly outside the *kampung*, where strangers form the majority. The *kampung* residents can experience the anonymity of the city just 200 metres from their homes.

Privacy zoning is part of a mental map and it isn't a formal subdivision of space. In the zoning model there is just a subtle difference between the function of a front garden and a bench in front of the house for making social contacts. The difference lies in the degree to which the initiative lies with the resident of the house or with the passer-by. Despite this, though, they are still considered to be one zone. The formal clear boundary between private property and public space (or secondary territory) is, in practice, a subtle transition.

Privacy is a universal need, but the desired balance and the dynamics of social interaction are culture-dependent. Nevertheless, more complex territorial systems can also be discerned in Dutch residential districts. An analysis of a number of post-war districts revealed recognisable territories as well as the groups that could appropriate these territories. For example, a post-war district in Delft with high-rise flats (Poptahof)

Case study Poptahof

Poptahof is a post-war district of Delft, mainly consist of high-rise apartments. Just like in Indonesia, a more complex privacy-zoning can be found. But there is a big difference; the existing of this zoning-system doesn't leads to a perceived liveability. Despite the good intentions of the modernist design and the efforts of the municipal council and housing association, Poptahof is not a liveable neighbourhood. Also the presumed liveability is poor to neutral: the neighbourhood and the flats are dirty and unsafe. Residents have too little control over social interaction, which is partly the fault of the physical environment (van Dorst, 2005 a). While Poptahof does have a zoning system, the communal spaces in the neighbourhood and in the flats function only as circulation space and have little or no quality in terms of their 'usability'. So the zoning exist, but it doesn't contribute to control over social interaction, on the contrary. The high-rise of Poptahof has the following zones:

- zone 1 the dwelling

The zones within the dwelling are less clearly identifiable. The dwelling it's self is missing a clear difference between a more public and a more private side. On both sides the outdoor space has the same public functions.

- Zone 2 Gallery

A space shared by two or seven flats. This space forces a close pass along the private kitchen. So strangers can look inside your pots and pans. This leads to a feeling of crowding. The gallery is too narrow for hanging round or for playing. There perceived control over social interaction is higher on the short gallery (two flats) comparing to the long gallery (seven flats).

- Zone 3 Stairwell and lift

Shared by 100 flats, but not all residents use all the areas. The stairwell consist only of mobility space. The lift is a place for personal space invaders (Bell e.a., 2001).

- Zone 4 Entrance area in the building

A private area for all 100 flats. Next to 300 inhabitants, there is a number of visitors passing by. On this scale it's hard to recognise a person as being a neighbour. People know so neighbours of there gallery, but don't know how is the person the can here upstairs. The anonymity of this neighbour turns sound into stressful noise.

- Zone 5 Entrance area outside the building

The 'front garden' of the building, where visitors announce their arrival. The first zone were children can meet.

- Zone 6 the cul-de-sac where the building is located

Only for use by the residents and a few passers-by. This give some quality to the neighbourhood, but not al the flats have this zone.

- zone 7 the neighbourhood

A clearly legible territory for 1000 flats. With 30 different cultures, this group is to divers and to big to be perceived as a community that informal controls this zone as a territory.

This zoning is not recognisable to all residents and contributes little to the regulation of social contacts in the neighbourhood. This limited quality is due to the fact that various zones are not usable, but are only designed for passers-by. This makes the gallery or the stairwell difficult to claim as territories.

If the liveability of a high-rise neighbourhood has to be improved, the quality of the zoning can make a difference. With improving the mental geography of the neighbourhood (by creating a legible privacy zoning) the interaction between social environment and physical environment is recognised.

The biggest problem is to created quality on the gallery. The gallery should become a place for social interaction or a playing area for children between the age of one and four (fig 1).

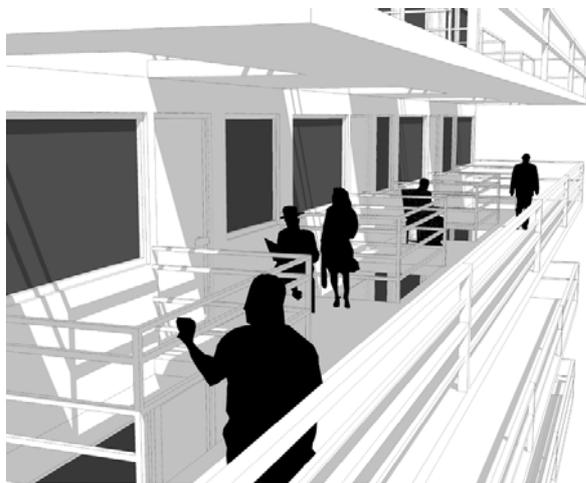


Fig 1 The redesign of a gallery

Conclusion

Controlling one's privacy (or control over social interaction) is a basis human need. The built environment places a roll in the perceived privacy of an inhabitant or visitor of a neighborhood. The design of a neighborhood should facilitate this privacy control. This leads to a privacy zoning.

Privacy zoning emphasises territoriality – the living space of a small group of residents (fig 2). This implies a criticism of the conventional meaning of the term 'public space'. Space that belongs to everyone and is easily accessible may help to create the anonymous character of outdoor areas.



Fig 2 A simple gate is perceived as zone

Privacy zoning underline the importance of zoning at different scales (the home, in front of the home, cluster of homes, part of the neighbourhood, etc.) and the importance of territories, the usability of communal spaces, personalisation of the neighbourhood environment and social contact with visitors and passers-by.

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