

Social and Material Appropriation of Neighborhood Space: Collective Space and Resistance in a Dutch Urban Community

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Abstract:

This paper analyses the reactions to infill housing plans in a neighborhood in the Dutch city Arnhem. A brief review of the infill housing or densification concept reveals that it has significant consequences for the people in a residential area. This paper aims at providing insights into the possible effects of infill housing on social and cultural aspects of neighborhood life. An analysis is made of the ways in which residents use and experience their residential environment, and how the interaction between space and people strengthens both neighborhood cohesion and attachment to place. The paper starts with a brief description of the case study area. This is followed by an analysis of the ways in which neighborhood space is represented within different actor networks: the city government and neighborhood residents. The next section of the paper introduces the concept of appropriation, and discusses how power relationships result in differential types of socio-spatial order. These insights are used to explain the successful appropriation of neighborhood space as a strategy of resistance and community empowerment. The paper ends with a description of collective residential spaces, how they are constructed and what they mean as a setting for interaction and activities.

Introduction

The Smart Growth movement, New Urbanism, and other urban development ideals have all embraced the concept of the compact city. Proponents argue that it is more energy efficient and less polluting than the urban sprawl model. Compact city inhabitants live closer to shops and work, and can walk, bike, or take public transport. Moreover, it is supposed to encourage more community-oriented social patterns, more safety and livelier cities, and to be an effective planning instrument for protecting open space at the edge of cities (Neumann 2005). As a consequence, urban infill and densification strategies have become very popular means of redevelopment. Inner-city greenfields (natural or agricultural land, sometimes including parks and allotment gardens), brownfields (vacated industrial/commercial sites) and greyfields (parking lots), often get priority as residential or mixed urban development zones (Talen and Knaap 2003; O'Toole, 2004; Suchman, 2002).

Infill projects are not always successful, however, and the compact city idea as a solution for sustainability is not generally supported. The Congress for the New Urbanism (2001) warns that infill development fails if it "disrupts neighborhoods . . . or otherwise detracts from the vitality of an existing community." (p. 129). The environmental benefits, for instance a reduction of harmful motor vehicle emissions, are moreover not clear (see Pauleit et al. 2005 and Marshall et al. 2005). It seems that infill policies do not sufficiently take into the account the positive side of 'empty' urban spaces, are too optimistic about creating lively communities, and underestimate the potential of developing green ecological residential areas at the periphery of the city (see Adriaens et al., 2005).

In discussing infill policies it is clear that we should distinguish between several urban locations. In the context of urban regeneration, where derelict industrial areas or city quarters are transformed into gentrified neighborhoods or commercial centers, we are talking about something different from when it concerns greenfields or low-density existing urban neighborhoods. My focus in this paper is not on infill development in the context of urban renewal, sustainable development or on environmental issues. I am primarily interested in the social consequences of infill projects in existing neighborhoods. Dutch national spatial policy has taken a clear position recently. With a view to preserving nature and landscape, the Government prefers urban compaction: the aim is to build 40% of new homes within existing urban areas. Although compaction has always been a major goal in urban planning (see Hidding and Teunissen, 2001), recent studies on Dutch residential areas reveal a huge variety low-density, green urban settlement patterns (Van Bremen and Jonkhof, 2003). This means that in principle many existing neighborhoods may in the future experience densification.

Facts and thoughts about urban infill policies in residential areas

Infill policies do not receive much attention in Dutch national policy debate and planning. All attention is focused on urban renewal, which mainly concerns large urban housing and public space projects in deprived residential areas. Urban renewal aims at the realization of vibrant, lively, high-quality neighborhoods, safe public spaces and explicitly combats high levels of segregation. Achieving social cohesion through physical measures is at the core of the urban regeneration project (De Hart 2002; De Kam, 2003; Van Kempen 2005). In debates on city renewal no attention is given to infill projects. Residential densification seems to be considered a purely physical measures, not involving any social preparation or neighborhood considerations, even though the Minister of housing and planning (VROM 2004) has explicitly stated that infill projects should under all conditions be treated by local politicians from the same principles as urban renewal projects.

So far no scientific studies have been made in the Netherlands of how the inhabitants of existing neighborhoods react to densification plans. My impression is, however, that there is a lot of popular protest. This is based on scanning Dutch daily newspapers and weeklies from the past years (source: LexisNexis Academic; www.lexisnexus.nl). Neighborhood organizations or unorganized groups of resi-

dents mostly oppose to any transformation in their neighborhood. Local inhabitants express a mix of emotional reactions, and in order to not be blamed for a NIMBY reaction, they mostly claim to defend collective interests, like 'green lungs', 'ecological networks', 'visual quality', or the significance of play and leisure space. Residents from 's-Heerenberg were astonished when they saw the plans for their neighborhood: "It is beyond imagination that the town council could even think of putting a couple of high rise buildings in such a nice neighborhood." In Arnhem people dread the appearance of a sort of 'Berlin Wall' in their back garden and the absence of sunshine in winter. In Culemborg residents from a threatened neighborhood cannot imagine why the vital green lung in their environment should be sacrificed. In Wageningen people fear alienation from their everyday living environment. In Lichtenvoorde people complain about losing their view. They successfully managed to receive high damage compensation for the fact that their houses lost value. In Alblasserdam, people living along the river Alblas are expected to come up with a lot of complaints against the building up of the opposite bank of the stream. In Schoonhoven, people argue that infill will result in declining residential satisfaction. In Utrecht eleven neighborhood organizations created a platform to protest against the city government's policy to exchange city greens for hard cash and profit. Six hundred people were mobilized in a green protest march: "A green oasis in a stone environment, where young and old meet and recreate. If this is build up, children have nowhere to play, and social cohesion is destroyed. People have parties here; they get to know each others. If the green area disappears, people will not come out of their houses anymore. They will become strangers for each others." It is not difficult to add more examples of unrest, anger and emotions in neighborhoods. It is clear, however, that loss of open space is considered as a threat to spatial qualities and social cohesion.

In the international social-science literature there is also not much published about neighborhood change as a result of densification. Although literature on neighborhood protest in general exists, it is not focused on the defense of space, or on an explicit framing of protest in terms of place (see for exceptions Martin 2003; Cheng et al. 2003; Purcell 2001). Neighborhood studies in general seem to give little attention to the significance and character of space in the constitution of practice and experience. As far as I know, the only study that focuses on infill housing is by Valance et al. (2005). They argue that infill housing as a strategy for growth management is not always well received by local residents. Among the resentments they mention are the negative effects on everyday habits and spatial practices. "Some respondents called this outright 'theft' and considered their (new) neighbors to have 'stolen' their landscape." (p. 722). The loss of greenery and open space and the higher density as a result of infill housing give residents the feeling of a less ordered, less stable and less understandable neighborhood. The streets were no longer considered as sites of sociability. Valance et al. conclude that "the increased diversity of people, lifestyles, and buildings that infill housing brings to neighborhoods has implications for the senses of place associated with particular areas and the extent to which particular senses of place can survive in areas undergoing change" (p. 731). They also criticize the lack of attention for socio-cultural dimensions and the one-sided preference for environmental issues in planning. "If the compact city is a desirable planning goal, infill housing must be carefully designed and built in such a way as to accommodate people's geographic imagination and the symbolism that is an integral part of the built environment" (p. 732).

O'Tool's (2004) analysis of experiences with smart growth strategies in Portland is not about specific forms of neighborhood protest. He rather asks the question what urban people in general actually gain or lose by compact growth strategies. His opinion is clear: from the residents' point of view, Portland's smart-growth plan is a nightmare (p. 203). Although hundreds of people objected, the protests had little effect: dozens of neighborhoods were rezoned to higher densities; "people's backyards suddenly became developable building sites for apartments" (p. 205). His assessment of the main assumptions underlying smart growth is generally negative. "At best, it trades away one kind of open space for another, less valuable kind of open space" (p. 208). Urban open space, he argues is in much shorter supply and therefore much more valuable than rural open space.

From this brief review of neighborhood reactions it becomes clear that the way in which residents react to infill housing is very much associated with the significance they attribute to space as an integral part of neighborhood life. There is a general sense of space being appropriated by other people, and a feeling of not been taken seriously by government authorities. There are of course also private considerations, like the effect on sunlight, privacy, traffic and the location effect on property prices. In general, however, these are framed into a place and neighborhood discourse, thus expressing collective rather than private concerns.

Overview of the paper

This paper focuses on the neighborhood as a social-spatial entity, a collective of people with meaningful relationships with their environment. It approaches densification and compaction from a social and cultural perspective. I will do this by presenting a situational analysis of an infill housing project in the city of Arnhem in the Netherlands. The paper is based on research conducted in the early months of 2005 in the Hoogstede-Klingelbeek neighborhood, a small area west of the center of the city (see Koedoot and De Haan, 2005). The city government has designated the central open space of the neighborhood as an urban development zone, which means that the number of houses in the quarter will be increased by about 50 percent in a very short period. So far, building has not yet started, and an exact urban development plan still has to be elaborated. The city government's plans have caused a lot of unrest among the residents. This paper aims at providing insights into the possible effects of infill housing on social and cultural aspects of neighborhood life. An analysis is made of the ways in which residents use and experience their residential environment, and how the interaction between space and people strengthens both neighborhood cohesion and attachment to place. The paper starts with a brief description of the case study area. This is followed by an analysis of the ways in which neighborhood space is represented within different actor networks: the city government and neighborhood residents. The next section of the paper introduces the concept of appropriation, and discusses how power relationships result in differential types of socio-spatial order. These insights are used to explain the successful appropriation of neighborhood space as a strategy of resistance and community empowerment. The paper ends with a description of collective spaces, how they are constructed and what they mean as a setting for interaction and activities. I conclude with some thoughts about neighborhood resistance and the character of space.

The city of Arnhem and the case study neighborhood

Arnhem, the city in which the Hoogstede-Klingelbeek neighborhood is situated, is the capital of the Dutch province Gelderland. It is located at the riverbanks of the Lower Rhine, about 20 km. east of the German border. It has a population of about 140,000 inhabitants. Of its 10,000 ha, about 35% consists of buildings and infrastructure. It is characterized by a quite compact built-up area, with vast surrounding zones of natural and agricultural surfaces (63%). Like many Dutch cities, urban population development over the past 50 years has been characterized by a movement out of the city centre and out of its 19th and early 20th century residential areas. New residential areas were created at the edge of the city in new high-rise building- or suburban residential estates.

Although population growth has been quite modest over the past years, the city government expects a growth of 25,000 in the coming 15 years. Many of these new people will live in new urban zones, especially in the area south of the Rhine, where 6,000 new homes are in progress. In total, the city wants to realize 12,000 houses in the coming ten years. In the center of the city the number of people is expected to rise by 40% and the number of houses by 33% over the next 15 years. These projections reflect the radical change in planning policies. New houses will no longer be built at the edge of the city in agricultural or natural areas, but in existing built-up areas. This infill or densification pol-

icy will be realized on several kinds of locations, such as greenfields, brownfields, riverbanks etc.

The neighborhood Hoogstede-Klingelbeek is located at the western, lower part of town, not far from the city center. Although it is close to one of the main entrances to the city, it is actually quite hidden for people who do not know the town. Even a lot of Arnhem residents may not know the neighborhood. Hidden between the busy Utrechtsestraat to the North, the borders of the Rhine to the South and large green office areas to the West and across the Utrechtsestraat, the neighborhood is not part of the city network. It plays no role in the infrastructural network, there are no schools, shops or enterprises, and access to the Rhine is not easy if you do not know the way. The quite surroundings, the river, the overwhelmingly green impression, the remains of an old village center, together with its location on a hillside slope, explain why the local residents often refer to their neighborhood as an urban village.

The neighborhood is spatially divided into three zones. At the lower end, parallel to the river we find the houses of the original village Klingelbeek. It is a mixture of farms, working-class terraced houses, an old converted school and some single family dwellings. Most of the houses along this old road are now gentrified. The second zone consists of early twentieth century (mostly 1920s and 1930s) semi-detached and single houses, along the Utrechtsestraat. The centre of the neighborhood consists of terraced houses from the 1950s and 1960s. The housing stock in the neighborhood is of very good quality, and combined with its location near the center and its spacious character, very much in demand. The majority of the houses is owner-occupied and the inhabitants are largely middle and upper-middle class people. Although people themselves refer to the neighborhood as a village, there is not much left of the original that used to live there in the nineteenth century. In middle of these residential zones, there is a large, open territory, consisting of an agricultural field and a collection of green patches occupied by the neighborhood as playgrounds and collective gardens. This open field has been classified as the building ground for 110 homes in the near future.

Neighborhood representations of urban infill

Open space in the Hoogstede-Klingelbeek neighborhood is intensively used as a meeting place, and the residents are very concerned about what will happen. Design sketches from a couple of years ago show that large parts are transformed into streets, parking places and rows of apartment buildings. Conversations with a large number of residents about why these plans are so disliked, show that loss of meeting places, landscape and neighborhood life take a central place.

One resident expressed here feelings as follows: "I think that the playing fields and the vineyard are very important for many people. They should not fill these in with houses." A neighbor says: "The central part of the open space with the goat's field and the gardening plots should not disappear. We have built it up all by ourselves. It belongs to the neighborhood; it represents neighborhood solidarity and activity." Loss of meeting places would, according to a lot of inhabitants, result into a loss of possibilities for social activities and doing things together in a collective sphere. If these spaces disappear, people might lose their sense of belonging and commitment and neighborhood ties might weaken. One inhabitant is very pessimistic: "If the plans to build here on our space become a reality, people will withdraw in their houses." It looks as if people are clearly aware of the connection between space, spatial practices, social relationships and community. Physical space symbolizes strong neighborhood ties, and these ties are constantly confirmed and strengthened by outdoor neighborhood practices. Loss of these spaces involves a dispossession of identity and the possibilities to express identity.

There is also concern about the landscape, both in terms of its visual presence and how it is experienced in a neighborhood context. The visual aspect is especially emphasized with reference to the agricultural field in the centre of the neighborhood. This corn field is in use by the local farmer. It is completely open and gives splendid views over a slightly undulating terrain towards the river. A resident expresses his feelings in the following words: "The cornfield gives a feeling of freedom and

space. If it is taken away you lose that feeling. Because the level of the field is higher than that of the surrounding houses, people in those new houses will look straight into our gardens. And what is the result? We will build high fences and trees, we will enclose ourselves.” It is clear that the visual impact of houses and the resulting densification of trees and fences will fundamentally transform the openness of the landscape. Another man stresses the importance of having greenfields in a neighborhood: “Why should everything be built up? Infill is nonsense; we should cherish our open spaces in the city.”

The inner-neighborhood field is not only appreciated for its visual experience: residents also emphasize the feeling of rurality it brings along. Rurality refers to a collection of cultural myths and representations, and whether they have any base in reality is not important, as long as people do associate a certain landscape and the corresponding activities with positive feelings. Such is the case with the cornfield and the local farmer. It strengthens the feeling of living in a village and sort of provides the perfect background for being different from ‘real’ urban neighborhoods, which are often associated with a lack of social cohesion. The visual décor of an open rural landscape thus contributes to the feeling of community, and its possible disappearance awakens a vision of an urban neighborhood like any other urban neighborhood.

Concern over the fate of the neighborhood is thus very much associated with the dispossession of space, which is seen as contributing fundamentally to social practices and experiences. Space is seen as a carrier of neighborhood practices and symbols. But this possible threat of the interaction between space and people is not only considered as coming from diminishing space; it is also associated with the influx of new people. It is expected that about 300 new residents will come with the new homes. At present the neighborhood organization has a welcome committee, which implies that new people moving into the neighborhood are welcomed with a bunch of flowers and an invitation to become member of the organization. Most new people appreciate this very much, and become active participants in one or more of the many neighborhood activities. This strategy of inclusion becomes impossible when in a short period many new people flood into the area, and residents fear that the neighborly social structures will gradually fall into pieces or break down into a core and a periphery. With a massive inflow of new residents, familiarity will change and may produce a feeling of becoming a stranger in your own neighborhood. One of our respondents expresses it as follows: “This is a small neighborhood, with only just more than 200 homes. As we know our neighborhood now, it is the result of a long process of growth: like an old tree it needed time to become what it is. A onetime addition of more than one hundred new homes will put the social structure under enormous pressure. I think we will not be able to cope with this, I am afraid that we will become strangers to each others.”

Government representation of the infill housing project

Plans for residential densification in the Hoogstede-Klingelbeek district have been in existence for a good length of time. But only in 2001 the proceedings really started with a formal change in the urban zoning plan. When the first plans were presented in 2003, the neighborhood was very dissatisfied. Although some characteristic landscape elements were preserved, the first architectural sketches and visualizations confronted the residents with a reality that was experienced as bewildering. The plans did not take sufficiently into account the existing social and spatial sphere of the neighborhood. As it was unclear at that moment what was to be understood by that, continuation of the planning process was postponed to 2005. In the meantime, however, the Arnhem administrative machinery continued to work on a document stating all the conditions and regulations that should be taken into account for the infill implementation. These were published in April 2005, without prior knowledge of the neighborhood, and approved by the city government. According to this document, the building of 110 homes will start in 2007. Which are the conditional imperatives described in the document? To what extent does it take any notice of the residents’ conceptualization of neighborhood space?

The document contains a lot of legal language, but in the end some very concrete statements are formulated on how existing spatial qualities will be integrated into the zoning plan. The ambition is to fit the urban development plan into the structure and sphere of the neighborhood, although there is no further elaboration on these concepts. From the text, it becomes clear, however, that structure and sphere are exclusively ecological and physical concepts, with no reference at all to social or cultural frameworks. All attention is given to landscape, green space, ecology and cultural history. The value of the landscape is solely defined in terms of the terrain, which should not be dug off. Ecology gets quite a lot of attention. Birds, bats and other animals use the neighborhood as their natural habitat. Bos-cages, which are of fundamental importance for their flying routes and other movements, should remain intact as much as possible. Before the building work starts a bat expert will be consulted for advice. History, especially archeology, needs respect as well, and further study is needed to identify the valuable objects. It is clear from the planning document that the planning zone conceptualization completely abstracts from the people that are presently living in the neighborhood. Birds and bats seem to be much more important than people. Long forgotten history, which has only meaning for experts in archeology, gets priority over recent lived human history.

Planners' and everyday representations of space

Two different worlds, discourses or knowledge systems are claiming the future of a piece of land. For the neighborhood this land is of vital importance for social life and identity. For the city government it is a planning zone, an abstract space like so many others, ready to be transformed in order to accomplish political goals. Both actor-groups refer to the same material object, a piece of land; both reflect on present and future qualities of this spatial unit. But there are fundamental differences, which explain why we are confronted with completely contrasting representations. Neighborhood representation is based on everyday experiences and practices. Neighborhood space is conceived as a space of everyday interaction and practice, as space embedded with individual and collective memories, inextricable bound up with identity and belonging. Thinking about the future, loss of this space becomes a matter of personal loss, of alienation and social impoverishment. Representation is thus embedded in lived reality and the prospect of loss; it is framed into a language of community and cohesion.

The city government document is framed against the background of a totally different reality: a political reality of money, power, business and efficiency. Although it avows local participation and social consideration, it is in fact a piece that reveals a completely political, economic and legal construction of space. Indeed in order to transform neighborhood space into a future building site, the representation of its actual state must necessarily be abstracted from human presence; it must be represented as a planning zone, as a potential building site. A human *tabula rasa* perspective is the most strategic representation for gaining support for spatial innovation. It is therefore clear that the city government is not communicating with the neighborhood, but with project developers, keen to buy up land that can be easily developed, with an electorate, demanding an implementation of the housing construction quota, with anti-sprawl pressure groups, and so on.

The neighborhood Hoogstede-Klingelbeek frames the consequences of new housing development in terms of loss. The loss of space, and the coming of a significant number of new residents, is seen as a threat to community life and sense-of-place. In this way, the residents implicitly express an image of their neighborhood as a unity, which existence and character are based on a specific locational interaction order. Neighborhood space represents a meaningful arrangement of people and objects, synthesized by moral ideas about community. From this perspective, it is completely understandable that an external political appropriation of this space, which denies its character, causes a high level of ontological insecurity.

Public-private, sociability and the design of public space

“A village in the city.” That is how the Hoogstede-Klingelbeek residents describe their own neighborhood. “Everybody knows everybody, and we help each other whenever necessary.” People refer to neighborly support, the pleasant atmosphere, the intensity of social contacts, sense of responsibility and the impressive amount of common in- and outdoor activities. In the streets people say hallo to each others, stop for a little chat, and curiously ‘inspect’ small changes in gardens, houses and open spaces. There is an extensive network of volunteers, looking after elderly people, keeping neighborhood space in good order, and organizing all kinds of activities. The general feeling is one of trust, reciprocity and security. This does not mean, that people are constantly on top of each others, suffer from social control, or from any of the other drawbacks of small community life. On the contrary, the kind of community spirit found here is combined with a strong feeling of freedom and liberalism. Care and interest are not associated with any merging into each others private lives. It is a commitment, a shared feeling of moral and responsible behavior, not something pressed on you. The neighborhood is not an ‘open-door’ society, where people freely walk in and out of your private dwelling. One informant: “There is a village atmosphere, but it does not have the negative features of a village in the sense of a strong social control. We are in that sense urban people, but then with a lot of attention for each others.” Another one: “It is here not like in a working-class neighborhood. We don’t walk in and out of the neighbors’ houses. The door is not always open, and we don’t discuss everything with one another. I think most people here very much value their privacy.” Social control does however exist in the residential area. If children misbehave in the playground, for instance, they will be called to order. The streets are also meticulously watched over. Although there is no official neighborhood watch system, the conduct of strangers, or of people ringing at doorbells with suspicious motivations, is immediately spotted and if necessary other people are warned to be careful.

Most of the residents are not really dependent on neighborhood contacts, supervision or care. They have a busy life with social contacts beyond the neighborhood, and thanks to professional caring relations, nobody depends on neighborhood assistance. It is not a closed culture, a closed network of interdependencies. It is typically a constructed community, initially of course based on proximity, but ultimately on an open attitude to neighborly contacts, the discovery of mutual interests and life-styles, and a shared attachment to the neighborhood environment. The community characteristics, which certainly exist at the level of collective representations and practices, are not based on indispensable interdependencies or needs, but on genuine feelings of both commonality and distance. The combination of commonality and distance, of interdependency and autonomy, of social cohesion and liberalism, explains the specific way in which community life is performed, and why outdoor space plays such an important role in it.

The boundaries between public and private life are generally very strict, in the Netherlands. Inside the private domain, outsiders are only welcome on invitation and on special occasions. You are invited for a drink, a birthday of house warming party, to admire the new baby or the refashioned kitchen. Sociability is bound to the strict order of organized times and occasions. Public space is the space of strangers, and the space of spontaneous, superficial meetings with acquaintances. Contacts with strangers are avoided, or otherwise framed into a professional role performance. If people really want sociability outside the private sphere, they organize it in semi-public places, for instance in a café, a coffee-house, the sports field, the fitness club, or whatever. In fact, my impression is that public space has a minor role as a meeting place for people. Sociability has a highly organized character in or outside the private home: it is based on the creation of occasions.

There are of course exceptions, for instance in places with an active pub life, or there where young people are hanging around in their favorite places at street corners, but in general, sociability outside the family sphere has an organized character. Oldenburg (1979), in his essay on ‘third place’ in the United States, argues that urban and residential development in the 20th century has contributed to

this private-public pattern. Residential areas have become monotonous rows of blocks, with nothing else. He argues that the design of public space can play an important role in creating occasions for sociability. People will never get to know each others, or discover the potential of sociability, if there are no meeting places, or chances to meet each other as inhabitants of a residential area. Jan Gehl (1987) argues along the same line that in modern architecture and urban planning social and optional activities in public space have practically been annihilated. Gehl and Oldenburg signal a clear connection between the character of open space on the one hand, and its potentialities as a place where people can meet, get to know each others, and develop more regular interaction patterns. But existing public space can also be appropriated by residents, and transformed to such an extent, that these prerequisites are a direct reflection of a neighborhood's desire to give social life space for expression and for community building. It is clear, however, that this can only happen under two conditions. First of all, public space must have a very open script, it must be weakly organized; and secondly, neighbors must have some preceding collective feeling in order to appropriate space for collective use. This is exactly what happened in the Hoogstede-Klingelbeek neighborhood. Before analyzing this collective appropriation of space, I have to clarify some concepts. What is appropriation? Which different modes of appropriation of space can be distinguished, and how are these related to the creation of weakly and strongly organized spaces?

The appropriation of home, neighborhood and public space

Feldman and Stall (2004) describe appropriation of space as "individuals' and groups' creation, choice, possession, modification, enhancement of, care for, and /or simply intentional use of a space to make it one's own" (p. 184). They emphasize that it is an interactive process, which implies transforming the physical environment, and a transformation of the groups and individuals themselves. In the process of appropriating a physical setting, the self or the social are expressed in spatial form, and this in turn has a transformative effect on people. The reciprocal character of appropriation is nicely expressed by Tom Fisher's (2004) phrase "What we touch, touches us". According to Modh (1998), in the appropriation of space, there is a two-way communication between a person and surroundings: "The term appropriation implies to gain something, but also to give something from yourself to the environment." (p. 4). It is an exchange, a mutually transformative process.

From an actor-perspective, appropriation primarily depends on power relationships. Differently empowered actor groups may compete for space, while at the same time the transformative power of an actor group depends on the character of the space itself. In order to assess actors' capacities, we thus need to consider power relationships, and how power gets embedded into space. Power relations in a society are expressed into bounded space and architectural forms. Or, as Feldman and Stall (2004, p. 187) indicate, "places that are organized, codified, and institutionalized according to professional models privilege so-called expert knowledge and opinions over those of lay-persons." Lefebvre conceptualizes social conflicts and the politics of space as a domination versus appropriation struggle, emphasizing the human potential for the appropriation of space through social resistance. He sees it as a struggle between capitalist and community users (Lefebvre 1991, p. 349). The more space is dominated the less susceptible it becomes to appropriation. The appropriation debate is therefore, in the Lefebvrian tradition, very much associated with the rights to the city, against tendencies of functional domination and exclusion (see Mitchell, 2003).

In her analysis of street life, Malone (2002) draws our attention to a differentiation of public spaces into 'open' or weakly classified spaces and 'closed', or strongly classified spaces. Closed spaces are the result of group appropriation, imposing dominant values and exclusive access. Open spaces, by contrast allow for much more diversity and the unfolding of a variety of social activities and experiences. Closed spaces are often viewed in a negative sense by urban critics. They associate it with surveillance, discipline and exclusion, and ascribe it to a tendency of private appropriation or domination

of public space by commercial and political interests. As an oppositional strategy, it is viewed in a much more positive way, however.

Lofland's (1998) characterization of the parochial realm as the social space of community, acquaintances and neighbors who are involved in personal networks carries such positive connotations. Similarly, Oldenburg's (1997) 'third place' can also be considered as an appropriated place, captured by people in order to escape from the regularities of home and work. All locations carry meanings and intentions of designers, controllers, and users, but many studies have indicated that people are to some extent capable of re-appropriating space by giving it meaning and using it in their own ways, by both social and material appropriation. In fact, 'rewriting' space, by physical alterations, meaning giving, usage and developing moral standards, are important ways in which ordinary people are involved in the transformation of space (see Gotham, 2003 and Gotham and Brumley, 2002). Environment-society relationships may be contested by everyday forms of appropriation, as shown by Feldman and Stall (2004, 1994) in their study of a Chicago public housing neighborhood. They describe the struggle of local residents in appropriating and managing on-site facilities. The way in which neighborhoods transform the physical environment into a meaningful place, a place they consider their own, may be realized by a variety of means: "Individuals or groups may intentionally occupy the setting; possess, construct, modify, enhance, or care for a physical setting; mark a setting with identifying signs, symbols, or activities; and/or simply represent a setting in words or images" (Feldman and Stall, 2004, p. 185). Power is thus inscribed in space, but depending on the power relationships between actors, space can be transformed into a realm reflecting the intentions and usages of formerly disempowered groups.

Appropriation, ontological security and transgression

Most literature on space appropriation refers either to the ways in which people turn private houses into homes, or on forms of resistance by people in everyday public space. From these studies it becomes clear that peoples' active role in the construction of space is associated with achieving a kind of ontological security. The private home and garden seem to be the spaces par excellence where people can create their own world and express their own identity. Although most people do not build their own home, and the essential division in rooms and floors cannot be altered, a lot of effort is put into decoration and alteration in order to create a home place, that most corresponds with personal and family values and practices. Studies on home space appropriation and domestication are mostly in the Heideggerian tradition of dwelling (Korosec-Serfaty, 1984, 1985; Mallet 2004; Blunt 2005). Kate Fox' (2004) meticulous analysis of English 'do-it-yourself' culture is a particularly good example of the significance of the material component of appropriation in the private sphere.

The home and the search for secure, known places can be considered as spaces for accomplishing ontological security (see for instance Dupuis and Thorns 1988 and Easthope, 2004). David Seamon (1979) argues that appropriation is associated with emotional attachment to place and a sense of threat sentiment. It is mostly applied to spaces with a high intensity of use and attachment and provides a person a place of oneness and order in a wider world that is public, often chaotic. Neighborhood appropriation can be seen as an attempt to extend this sentiment of 'oneness' to the public sphere of residential space (see Brunson et al. , 2001 on the creation of defensible space).

In contrast to home space, the appropriation of public space is often studied as an act of domination or as resistance. From the perspective of resistance it is described in terms of transgression, while domination is maintained by 'purification' and eliminating 'out of place' behavior. People who claim territorial space for usages and identities not corresponding to dominant values are confronted with property restrictions, surveillance and the increasing privatization of public space in monotypic enclaves, like shopping malls, estheticized streets and squares. As far as people share cultural predispositions, and are capable of reading the texture of a place in approximately the same way, space in-

fringements do not occasionally occur. Most people understand the boundaries between public and private space and have quite precise notions about which forms of behavior or activities can be performed where, how and when. This feeling for in- and out-of-place behavior is thus not just a question of state discipline and government regulation, but equally part of a shared cultural background, social control and sense of place.

It is now generally recognized that the design and organization specific places or buildings (see Gieryn 2002, Lees 2001, Dovey 1999) involves persuading or affirming people to act in accordance with certain expectations of what is considered 'good and proper'. It involves the construction of a script with built-in norms and values, but also legal rules and legislation. According to Cresswell, "order is inscribed through and in space and place." (Cresswell, 1996, 55). The feeling of a place, and the capacity or willingness to read and understand spatial signs, symbols is not self evident, however. According to Holloway and Hubbard (2001), places are always struggled over and contested "the production, occupation and control of place is caught up in an ongoing struggle between different groups and individuals"

It is apparent that some social groups have more power than others to determine what is desirable and where and that the struggle for power over place is taking place both at the political/legal level and at the level of everyday, diffuse forms of power exercise. According to Holloway and Hubbard (2001), in the complex struggle for sense of place "the often taken-for-granted nature of place is revised and reworked." The order that is imposed 'from above' is not only challenged, but also lived and transformed at 'street level' where "individuals and groups create their own geographies, using places in ways very different than bureaucrats and administrators intend."

Earlier in this section I mentioned the concept of ontological security. According to Giddens this has to do with 'being-in-the world'. It is associated with confidence that human beings have with in the continuity of their self-identity and in the constancy of the surrounding social and material world of action; it is based on confidence and trust (Giddens, 1991 p. 92). The experience of familiar social and material environments is very important for daily routines and habits, and the shattering of those routines by environmental changes may cause anxiety (p. 98). I think Giddens' notion of ontological security is linked with the capacities people have in controlling their own world. As peoples' lifeworlds are scattered in space, this security is most often sought in familiar places, which are transformed into 'known' and 'own' places.

Ontological security is based on appropriation, and can therefore be best achieved in places that are relatively free from powerful pre-coded, or weakly coded social and material logics. Ontological security points to a large degree of correspondence between the production and the use of space by the same group of actors, and can be best performed peacefully in an 'open script' context, or in a conquerable context by struggle and the mobilization of power and transgression. There is a clear parallel here with concepts that are used in social technology studies. Mackay and Gillespie (1992), for instance, distinguish the conception and development of technology, during which a functional and symbolical encoding takes place, and the appropriation by users. Users' capacities to appropriate technologies depend on the polysemy of the design, i.e. the amount of freedom embedded in the script. The metaphor of scripts, codes in relation to technical objects, landscapes, buildings and architectural forms in general inspires research on the ease and possibilities of understanding and interpretation on the one and users' capacity to appropriate 'open' and 'closed' scripts (see also Akrich, 1992).

Structural congruency and incongruency: actor and agency

Concluding this section, I think it is possible to classify spaces by the degree to which actors who actively structure space are also interacting, living and consuming those spaces. How strong is the correlation between the structuring of space through society and the structuring of society through space? Are the codes that are embedded in space, encoded by the same people that 'wrote the script'?

At one extreme there may be a perfect understanding of place, a place is known; the spatial habitus corresponds with the behavioral habitus. At the other extreme is the situation where people are in places that have been structured by actors from a logic that is not their own. They are confronted with material and social agency that is either not understood or not agreed with. This feeling of being out of place may be totally acceptable, but may also raise feelings of exclusion or disorientation. In this sense it is clear that there is no 'objective' place. How a place is perceived, experienced and used, what people want from a place, and how they assess its qualities, depend on an interactive structure of feelings. The ideal, open public space is, for instance, capable of accommodating many different actors and usages because the social scripting is characterized by openness. Parochial places, appropriated by community collectives, or minority groups, are much more closed, and only provide ontological security for specific users, but exclude others.

Structural congruency exists when the production and reproduction of socio-material space (the agency of scripting) is based on or corresponds with the day-to-day usage and experience by the users of space. Structural incongruency exists when the production and reproduction process results in spaces that are not based or do not correspond with users' utilization and experience. Their presence and interaction raises feelings of being 'out of place.' It is clear, however, that it is not always possible to categorize a location as belonging in one or the other category, as it is based on a subjective actor-dependent perspective. Some people may be marginalized in their capacity to appropriate the same space, which offers a high degree of structural congruency for others. Jacobs' (1962) and Augé's (1995) critique of space-modernization can easily be read as a critique of alienation and dispossession. Many studies argue that people have 'lost their place' as a result of marginalizing them in the process of transformation. There is a growing literature on phobia on the one hand, and the search for ontological security in gated communities on the other (see Low, 2003; Vidler 1992; Carter 2002; Davidson, 2003).

The social basis of neighborhood resistance and appropriation

Neighborhood appropriation of space can be seen as resistance against domination, and as a strategy to achieve ontological security. In this section, I will describe the social and political contexts that encouraged the Hoogstede-Klingelbeek to appropriate the residential area.

The Hoogstede-Klingelbeek neighborhood was constructed from the early 1970s onwards in a context of social homogenization on the one hand, and political circumstances on the other. Until the 1970s the neighborhood was divided into three social zones. The lower part was the territory of the original village, before it was encapsulated by the city of Arnhem. The inhabitants were farmers and industrial workers. The higher parts were built up in the 1920s and 1930s. Here large upper-middle class houses were built in a garden-city style of design. Long-time inhabitants refer to this part of the neighborhood as the 'gold-coast', or the chic people. The middle part was developed in the 1950s and 1960s by a local enterprise, which built terraced rented houses for its middle-class employees. These differences vanished gradually, however, in a leveling process as a result of gentrification. The village population was replaced by newcomers, and the rented houses came in the hands of owner-occupiers. This leveling process did not of course homogenize the neighborhood completely, but what they had increasingly in common was attachment to the residential environment and similar social backgrounds. The area was considered a very privileged site: near the centre of the city, good infrastructural connections, and characterized by an attractive green-blue landscape.

The external political factor in the neighborhood construction process was that the city government had designated the unbuilt open space in the neighborhood as a future site for house-building. These plans had existed for a long time, but during the 1970 they were announced to be implemented very soon. A small group of inhabitants decided to resist these plans. More and more people joined this resistance, and in 1978 it was decided to create an official neighborhood organization, with membership, statutes and objectives. The aim of the organization was (and still is): improving the physical,

social and cultural neighborhood environment. The organization successfully managed to agitate against the plans, but this did not mean the end of the organization. Neighborhood activism had initially brought together people with a common interest in defending neighborhood space, but it soon turned out that they shared much more, notably an interest in each others. This social basis appeared to be a significant force in a subsequent intensive process of neighborhood creation. At the moment, 80% of the residents are member of the organization. It has developed into a neighborhood-wide platform for numerous activities and events. Many of these activities involve all people from the neighborhood, such as the yearly New Year, Easter and Saint-Nicolas celebrations, or barbecues, street parties, sport days etc. For these activities, outdoor space is very important. Many activities bring only a selected group of neighbors together; they are organized in so-called hobby clubs and they meet regularly in someone's house. At the moment there are eleven clubs, and the number is still growing. Finally there are neighborhood committees, who have a special responsibility for accomplishing tasks that concern the whole neighborhood. Apart from these organized activities, neighbors often spontaneously decide to do things together, like going to the movies, walking or cycling, watching football etc.

Earlier in this paper I mentioned that sociability beyond the private sphere in the Netherlands tends to be dependent on creating an occasion, organizing something. I assumed that this might be related with the uneasiness people feel towards unexpected private space invasions and purposeless flanderies. I think, therefore, the creation of occasions, of socially accepted 'hangouts' is important for neighborhood sociability. The role of the neighborhood organization is of fundamental significance in this respect. It not only brings people together in indoor activities, but has also 'materialized' occasions in outdoor space. This material appropriation is both engendered by and strengthens social appropriation.

The open space in the centre of the neighborhood consisted originally of an agricultural field, and some scattered, weakly classified intermediate spaces. These were unused, but did have a planning designation as a future building site. In a situation of territorial threat, the endangered group faces in theory two possibilities. It can passively wait and live through the experience of losing its territory, or it can organize defense by protesting against annihilation. The Hoogstede-Klingelbeek neighborhood successfully organized defense, but it did more: in the years to come it strengthened its grip on neighborhood space, transforming it into a strongly organized collective space. This made it more difficult for the city government to realize its political appropriation. In general, implementing the political appropriation of space is easier in the context of power imbalance between actor networks. In the 1970s, neighborhood space was still only weakly organized, and the city government was probably just too late to enforce its monopolist power position. By integrating neighborhood space into its collective actor network, it became more and more important for neighborhood 'survival,' and the residents were increasingly determined to resist dispossession. The process of space appropriation was most likely not a conscious decision of empowerment. It was rather a spontaneous collective effort to create space for an increasing number of community activities, which slowly developed into indispensable interdependencies between space and people.

The appropriation of space in the situation I have described above, was a socially organized act of resistance against the threat of political domination. Without this threat, the neighborhood might have done the same thing, but its significance would have been different. Appropriating space by inscribing it with a dominant neighborhood script, clearly made it less accessible for government appropriation on the one hand, while it also had a high social and symbolic value in strengthening the feeling of community. Neighborhood space became defensible space, playing a significant role in building ontological security. Before analyzing the process of material and social appropriation, I will give some more detailed attention to the interaction between social space and material space. Appropriation, as I have mentioned earlier in this paper, is an interactive process, which involves a transformation of the physical environment, and a transformation of people. In order to understand how materiality and sociality are constructed into a pattern of structural congruency, I will now focus on the significance of the situated interaction order.

The situated interaction order of materiality and sociality

In her book *Raumsoziologie*, Martina Löw (2001) argues that space is a relational collective of people and objects. Space is for actors a condition for action and a product that is reproduced in and transformed through action. Everyday practices, perception, and representations link people with objects. Löw uses the dual concept of synthesis (*Syntheseleistung*) and spacing as the basics building blocks in the constitutions of space, thus bridging the duality of the material and the social in a unifying concept of social space. In our everyday speech, this concept of space is clearly reflected. We only rarely use the word 'space' and if we do it is always connected to its potential qualities of using it, or doing something with it. In everyday use 'space' is where things happen, and for that reason, our spatial categories always express a synthesis between activities, objects and boundaries. A living room, for instance, refers to the specific location and use of a partition in the house; a play-ground, similarly points to an outside space for playing; a pedestrian area to a specific urban zone. Thinking about space unvaryingly connects activities, people and bounded objects. Even if space references do not immediately include activities or use, such as harbor, street or park, these are immediately associated with a visual image and use.

A sociological concept of space, which does not view space as a mere container of action, but as a synthesis of objects and people and as a product of human agency, embedded with human agency, does not oppose society and space, although it is difficult to avoid a binary terminology analytically. The socialization of space refers to the fact that human intervention creates space, that the ensemble of spatial boundaries, objects, functions, practices, rules and so on find their expression in a spatial-material form. These spatial forms are thus embedded with human agency, and have performative power on human action (spatialization of sociality).

Applying these concepts to a situational analysis brings us to what Goffman (1963; 1983) calls the interaction order, or to Giddens' 'locale': the spatially situated settings of human interaction, the concrete setting of for instance a building, a street, a residential area or any other bounded public or private space. According to Giddens 1979, p. 57) individuals take into account not only the effects of their own actions and the actions and reactions of those around them, but also the settings within which interaction takes place. I follow Brain (2005) in his assertion that the spatial and architectural order, is more than just a backdrop of interaction, but is clearly part of the interaction order (see also Hamilton, 2002, and Milligan 1998). Space is permeated with culture, language, imagination, memory and power. Materiality has not only taken social meanings, it is also a medium through which people enact social agency, which in turn shapes the nature of that social agency. According to Dale, "humans are part of the material world, not transcendent gods or magicians, able to manipulate the material without being incorporated or changed by it." (p. 656) This duality of materiality, as incorporating and performing agency and meaning, is a starting point for investigating how this dynamic interaction is shaped by and shapes everyday life. I will try to show that spatial interaction can be seen as a constant process of exchange between people and between people and things and that this interactional exchange is a form of reciprocal appropriation. In this interaction order we can distinguish at least five forms in which people appropriate space and are appropriated by space: material, social, symbolic moral, and political appropriation. These are dynamic processes, which either reproduce or transform the character of space through time. In this paper I will focus on material and social space, and I will only incidentally refer to space as a symbolic, moral and political order.

Material space

The first form of reciprocal appropriation focuses on the production of spatial thingness and order. This material appropriation of space involves the spacing and placing of material object and boundaries. In fact, the 'origin' of space is based on a transformation of natural conditions, in erecting

routes, dwellings etc., and the partitioning of space into functional zones. The material and topological ordering of space demands an “approach to ‘social materiality’, whereby social processes and structures and material processes and structures are seen as mutually enacting” (Dale, 2005: 655). This approach relates to theories of material agency and affordances, as for instance developed in material culture studies (Miller, 1997; Dant, 2005, 1999), cultural anthropology (see in Schiffer, 1999; Appadurai, 1986; Ingold, 2000), social archeology (Tilley, 1999; Fahlander 2001) architectural sociology (Dovey, 1999 Gieryn, 2002), actor-network theory (Latour, 2005) organizational studies (Dale, 2005) environmental and ecological psychology, and technology studies. It is impossible to discuss all these different perspectives and heated debates here, if I could at all (see for a review Dant 2005). Instead I only point to some basic insights, trying to relate these to the study of spatial interaction.

Material appropriation is perhaps the most visible and pervasive human activity of spatial transformation. Changing places by building new houses, walls, fences, streets, trees, gardens and dividing up space into bounded zones has an enormous visual and behavioral impact. A lot of spatial resentment stems from the fact that people don’t like something, or because it does not function very well, which clearly refers to the character of spatial encounters. People not only create things, they also react to them, and then not so much to the things themselves, but rather as a medium of human agency. Material appropriation, resulting in a specific physical spatial constellation is a meaningful act. People intentionally decide where objects will be placed, what they are supposed to do, how they should be used, when, and by whom. Through material appropriation actors create a system of signs, meanings, and intentions. The material artifacts are embedded with and mediate human agency. They are the human ‘props’ that facilitate practices and interactions; together these make up the material space. This social materiality of objects, makes it possible to speak of social objects and of material agency. Material appropriation mirrors a society’s needs, and the spatial order of things thus reflects this social logic, which in its turn produces and reproduces human activities and interactions.

The appropriation of space by material transformation, through the creation, arrangement and connectivity of objects, is a powerful way to structure social life. It is utterly reciprocal, in the sense that material appropriation of space results in an interaction mode that is strongly structured by the built-in intentions. People, in all there practices, interactions and movements are appropriated by material objects. It is clear that this is performed in a mediated form, it is a kind of communication, doubly articulated by the interface between the intentions and agency built into the object world and the users of individual and collective actors using space. Material agency (or actants in actor-network theory), like any other kind of agency is therefore not to be associated with material determinism. The things themselves do nothing. Material agency depends on understanding and respecting the messages that are communicated. Communication between human and non-human agency is therefore a complex process of meaning giving. A process that is complicated by the fact that people not only act and interact in a material, but also in a social context.

Social space

The second kind of reciprocal appropriation is based on practice, on doing, on spatial relationships and spatial behavior. If it is true that the importance of space lies in understanding it as a material product of society, a manifestation of social relations, then the way in which social relations capture these spaces is very important. Social spacing should be understood in the first place as a process of ‘distributing’ people, activities and functions over space. This is not a random process, but happens in close relationship to the material space that has been created for specific purposes. The creation of material space can never be considered without the intention of enabling the realization of activities, of satisfying the social demand for space. The principles underlying the partitioning of physical space into functional architectural zones are confirmed in a partitioning of social spaces or activity spaces, attracting specific groups of people, enacting specific activities. Thus, a residential area is inhabited by

people who have a house there; a station by people getting on the train; agricultural fields by farmers etc. Spatial divisions find their expressions in generic terms as agricultural landscapes, shopping areas, industrial landscapes, leisure landscapes, and so on.

Social spacing is also the spacing of social interaction. As time-space analysis has made clear, peoples' everyday movements bring them to a variety of spaces: from the space of family interactions in the home, to the interaction with familiar people in the neighborhood, with strangers in public space, with shopkeepers in a department store, with colleagues at work, and with friends in a café. Each of these spaces is characterized by a specific interaction mode, with people playing different roles. The spatial setting provides a sort of stage on which more or less routine modes of behavior and interaction are performed. The distribution of peoples' activities and interactions is both enabled and constrained by the physical setting. The degrees of freedom and improvisation may vary according to the character of space. Thus open, public space with mixed use, allows much more freedom than strictly organized semi-public spaces. As emphasized in the section on material spacing, the script written into material space has no meaning if people do not understand it, or if they deliberately cross the boundaries of socially acceptable behavior.

The connections between the design of material space and its social appropriation or use, is an important field of scientific study, which has been especially applied to utility building and design, such as transport nodes, factories, office buildings, schools, libraries, shopping malls, museums etc. Design theory for public spaces, such as residential areas, parks, squares, and open space in general is much less developed, however. Although Jan Gehl (1987) and William Whyte (1980), and such organizations as 'Living streets' (UK) and 'Projects for public spaces' (USA) represent a long tradition of studying and promoting a design-generated lively open space, it seems very difficult to create and plan the public realm as social space (however, see Carmona et al. 2003; and the interesting attempts by Thwaites, 2001, 2005 and studies on pedestrianism by Isaacs, 2000 and Demerath and Levinger, 2003).

The third relevant aspect in social spacing concerns the dynamics of social interaction as a semi-autonomous factor in determining the character of space. Here I refer to processes of social inclusion and exclusion, of spatial encounters, resulting in cultural boundaries and filtering out processes. In the Netherlands, for instance, gay spaces have never been designed or assigned as part of deliberate planning. These spaces are appropriated in a slow process of taking over portions of public space (see Bulkens 2005). Some people notice this and are attracted to it, while other people start avoiding these places because they want to have nothing to do with it. Similar processes of socio-spatial encounters can be found in numerous places, where certain groups gradually become the dominant users. Teenage hangouts, ethnic concentrations in parks, skaters in public squares, nude bathers, fashionable shopkeepers etc. may appropriate space, attracting specific subgroups, and excluding others. These spontaneous socio-spatial processes may fundamentally change the character of space, resulting also in material transformations. The effect of spatial encounters between different cultural and social subgroups is associated with what I described earlier as the deliberate breaching of spatial codes by transgression and out-of-place behavior. The spatial 'struggles' evolving from this, can be interpreted as territorial struggles, as a clash between different senses of place and the redefinition of boundaries.

Social appropriation is thus not always a matter of simply matching pre-defined boundaries and functions with 'proper' social usages and practices. It is also a result of spontaneous social encounters and social redefinition of places. These processes should not be associated only with so-called 'deviant' or counter-cultural groups. Innovations are mostly generated by such processes in everyday life by ordinary people, and these are very often only later followed by official interventions by planning, design and politics. Having described the different mechanisms of space appropriation, I will now focus on the way in which the residents of the Hoogstede-Klingelbeek neighborhood have transformed their residential space into collective space.

Open spaces



Streets and houses



Open space activities



Open space activities



Neighborhood space: the material locus of interaction and activities

Neighborhood community construction in Hoogstede-Klingelbeek is expressed by the construction of 'meeting places.' It involves the transformation of space into meaningful places of action and interaction. I will discuss some of these exemplary places in order to raise the more general significance of spatial expression. The most important place in the neighborhood, both symbolically and socially is the 'geitenwei.' The geitenwei literally translates as 'goat's meadow', referring to presence of a goat, named Niels. There is much more than just a meadow and a goat, however. Originally, there was an uncultivated wild field, once an orchard belonging to a farm house. About 10 years ago, the residents took the initiative to clear it up and to transform it into the central neighborhood meeting place. This process of social-material appropriation was accomplished without any formalities or subsidies, and did not exclude any existing users. The formal status of the field was its ownership by the city and its future status as a building site. As long as nothing happened there, it was a 'free space,' an open script, ready to be captured. In the course of the years, the field was cleared out, without changing its original character as an orchard. The old fruit tree in the middle takes a respectable place and is considered as one of the most attractive visual elements. In the field, which is not fenced off and is accessible for anyone, also for people from outside the neighborhood, we find a range of objects. Niels, the goat, has a small fenced-off territory, next to this is a small shelter for Betje, the pig. The animals are fed by a group of residents with peels and old bread that is collected in the neighborhood. The animals have a high attraction value. Whenever people go for a walk, they pay a visit to Betje and Niels. They talk to the animals, bring some food, and relax a little bit on one of the benches. Betje and Niels are always a topic of conversation.

The field is also filled with playthings for children, such as swing, a seesaw, a slide with a climbing frame, and a ping-pong table. For adults there is a boule court with a sheltered bench. Recently, at the occasion of the 25th anniversary of the neighborhood association, the field has been enriched with a monumental bench, with a mosaic inlaid work, representing all the clubs united in the neighborhood. It is a symbol of the neighborhood, put in the central neighborhood location. Whenever people sit there, they are not just looking at some playthings, trees and animals. They sit in a place of their own creation, which expresses neighborhood solidarity and pride. It is a place that attracts people, where people meet spontaneously, where children play. As such it is not just an expression of neighborhood spirit. By facilitating social activities and interaction, it strengthens and reproduces social bonding. This situated interaction order between materiality and sociality represents a good example of how placing and spacing shape a material order that seamlessly corresponds with the social order that is inscribed in and enacted upon it.

The field not only functions as an occasional meeting place. It is also the location of all major neighborhood events, when large tables, filled with delicacies, and chairs are arranged under the big tree. One of the residents talks with enthusiasm about the geitenwei: "It is a meeting place; it belongs to all of us. Here we do things together. If we have visitors, the first thing we do is a walk to the geitenwei. It is actually funny, because there is not much to be seen." I think the neighbors are proud to show that living in a residential area is much more than having a house and a garden. By showing off outdoor space that is not particularly beautiful, but does represent that you are part of a community, people demonstrate something that is generally highly valued. The geitenwei is a symbolic space par excellence, which can only be experienced and felt by the residents themselves. It has also been constructed as a moral space. Although the field is not owned by the neighborhood, and actually belongs to the formal category of public space, it is viewed and controlled as collectively owned neighborhood space. That implies that the interaction code is subjected to neighborhood social control. Local residents will never tolerate it if people from other neighborhood would use the playground or organize a pick-nick there. There are no such signs as 'private property' or anything else that would give outsiders the impression of entering inclusive space, but the enclosed location of the field and the unmistakably 'non-professional' anti-design character make it clear that this is collective space, closely

associated with a specific group of people. One neighbor expressed this exclusiveness idea as follows: "The geitenwei is the core of the neighborhood. Everybody knows that. It is the safest place of the neighborhood: between the houses, the bushes, no traffic. It is a bit hidden away; it is ours." It is hidden away physically, but also socially for outsiders.

Another example of neighborhood appropriation is the vineyard, which also has a very important social and symbolic function. The idea of planting vines was initially not a neighborhood project. It came from an individual resident, who more or less squatted a piece of wild land in the eastern part of the vicinity. He planted some dozens of vines, and when this proved to be very successful, it attracted broad attention and interest, and it soon developed into a neighborhood project. The vineyard association was born. As keeping up a vineyard requires a lot of knowledge, the core group of the associated consists of people who have gradually specialized themselves in planting, pruning, soil treatment and so on. This group is assisted by volunteers, who work in the vineyard every Saturday morning and during the summer also on Wednesday evenings. At the moment the vineyard consists of 300 plants. Of course the great day is when the picking begins, and numerous people gather around the field to help or just look. A couple of days before the harvest, all residents receive a letter in which they are invited to help and to participate in the harvest party at the end of the day. When it started, the wine was locally consumed by local residents, but with growing production, there is now even a small market, and the quality of the red and white wines seems to be so good that it has attracted national interest by wine specialist.

The significance of the vineyard goes far beyond the strictly local level. While the geitenwei is secretly kept as an exclusive neighborhood space, a purely internal symbol of unity, the vineyard also has an external symbolic value. It is a demonstration of identity and pride to the world beyond the neighborhood. It shows what can be achieved and is therefore a potential factor of mobilizing support for protecting the vineyard against destruction. It shows how objects can play an important role in mobilizing outside actors into an actor network that tries to defend space. The vineyard is a good example of socio-material appropriation. Its creation constitutes an important contribution to the dimension of collective space, dominated by local social activities and interactions.

The vineyard is a particularly strongly organized space, perfectly representing the unity of social and material logics. Thanks to its capacity to mobilize external empowerment and recognition, it will be very difficult for political authorities to break into this script and to implement its political appropriation. Material, social and symbolic appropriation have left such a strong imprint on this space, and the vineyard itself plays such an important role in neighborhood community reproduction, that it is hard to imagine that the residents will give it up. According the vineyard managers, "the vineyard is very important for the neighborhood. It represents a community spirit and commitment. The vineyard is a visual exponent of the fact that the residents appreciate doing a lot of things together. It adds something to the neighborhood. I know this from the response I get during the harvest party and the huge interest for our product. People love to drink wine from their own neighborhood."

I don't think it is necessary to give more examples of how the neighborhood appropriates space. Actually the same pattern it repeated in different parts of the neighborhood. It begins with the material appropriation of rough unused spaces, no existing users have to be excluded, the work is done collectively and daily use shows a high level of structural congruency in an interactive order where autonomous coding and corresponding autonomous decoding works out in symmetry of materiality and sociality. The reciprocal interaction between people and space appropriates actors into neighborhood activity networks, which both produce and reproduce space according to the same logic. Other collective spaces are the gardening plots, the football field, and several paths connecting collective spaces.

Conclusion

Infill housing plans in a residential area have significant effects on the redefinition of place. I have described the sequencing of this redefinition process from the perspectives of appropriation and rela-

tional materiality. The open space in the Hoogstede-Klingelbeek neighborhood was initially a relatively loose configuration of social and natural elements. Although it had all the characteristics of an 'unfinished area', waiting to be appropriated; it was not yet an object that was assembled into actor networks. Apart from the agricultural field, which was in use by a farmer, the open space was neglected. It resembled Lim's (2001) 'space of indeterminacy,' or Edensor's (2005) 'ruined' space: left-over spaces from the past, inevitably subjected to demolition and reconstruction. In the mid-1970s, the contours of this reconstruction were explicitly announced by the city government, and from that moment onwards, the weakly classified space of indeterminacy became an object of contestation, expressed by its progressive incorporation into two opposing actor networks, each strengthening the tightness of social and material bundling. The political appropriation by the city government radically changed the neighborhood's perception of residential space, and this triggered not only the establishment of a neighborhood association, but also a process of space appropriation. I have argued that the social basis for space appropriation rested on a process of social homogenization and a generally developing appreciation of the neighborhood environment. Initially, the neighborhood managed to challenge the city government's plans, and it was until the turn of the century that the whole issue came up again. By then the situation had changed dramatically.

The city government had organized a much stronger actor network, encompassing political support for infill housing, legitimized by a strong pressure on the housing market and the need to protect landscapes at the edge of the city. The city's housing association, local project developers, architects and urban developers were also enrolled in the project. The representation of open space in the residential area was framed in terms of zoning principles and political responsibilities to accommodate a growing urban population. The way in which the city government redefined the object space clearly shows, that new agency was inscribed into the residential area by political appropriation. This agency engendered new zoning plans, inviting architects and planners to design residential infill, activities by civil servants to settle all the legal details and so on. The entities that made up the government's actor network formed a hybrid collective of human and non-human agents. This relationality of objects and agency in a heterogeneous network (relational materiality), shows that entities in networks are shaped by, and can only be understood through, their relations and connectivity to other entities (see Law 1999, p. 4). The redefinition of open space in the Hoogstede-Klingelbeek neighborhood as a building site was in fact established in the context of creating new relational materialities. It can only be understood as the outcome of a specific social-material network.

The Hoogstede-Klingelbeek neighborhood, however, had also built up new relational materialities. In a process of material and social appropriation, its relationship with residential space had been completely redefined, resulting in a strong defensible actor-network. While the city government's appropriation inscribed 'building site' agency into residential space, the neighborhood reacted by counter-appropriation activities. By doing so, it not only redefined space in an abstract or symbolic way; it also transformed material space by imposing its own zoning principles and placing objects. This in turn strengthened relational materiality in a neighborhood actor network, resulting in extensive social-material interdependencies. I have described neighborhood appropriation of space as an interactive process of exchanging social and material agency. From a weakly classified space, the neighborhood transformed residential space into strongly classified collective space, with a high degree of structural congruency and ontological security. Although this process was initially triggered by external political appropriation, it was certainly also dependent on available social and cultural capital among neighborhood residents. It was based on a feeling of commonality and shared attachment to place, but also on a deeply rooted cultural assumption that the expression and construction of collectivity depended on creating facilities and occasions in the parochial realm, thus protecting privacy and overcoming the accidental and casual character of the public realm. I also think that the initial encouragement to defend space against political appropriation created a momentum of spontaneous community construction, without any conscious attempt of empowering the residents for future resistance.

The recent new confrontation between the neighborhood and the city government opposes too strong actor networks, each assembled around the same spatial object. The differential meaning of this object is the result of inscribing it with contesting kinds of agency within different interaction modes. For the neighborhood, infill housing threatens ontological security and sense-of-place. Material space constitutes a fundamental role in neighborhood life, which goes far beyond private interests. The city government has not included any of these relational materialities into its plans. Although the neighborhood has played an active role in the planning process so far, it was never really incorporated into the government actor network, because the residents could not be assembled around the idea of a building site. The neighborhood has tried many times to incorporate politicians and high officials in their network, by inviting them for a tour in the area, by personal contacts, and so on. This has certainly increased knowledge and appreciation, but it seems to be very difficult to incorporate everyday conceptions of place quality in the planning and design machinery. Architects and urban planners are professional place makers. They bring into practice all kinds of ideals about esthetics, functionality, use and atmosphere. But it seems to be much more difficult to find inspiration from existing quality places. The assignment given to developers and designers in the Hoogstede-Klingelbeek neighborhood was filled with politically correct references to landscape, nature, ecology and history; but there was no reference to the existing human habitat. What remains to be done by the neighborhood residents in the near future, is not trying to resist infill housing, but to actively try to influence the actual design process from their own perspective of social spatial quality.

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