# EXPLORING AMBITERRITORY:
## no-man's-land in post-war morphologies, confusing users and complicating maintenance

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## Abstract

Although territorial issues are typically not part of space syntax research, territorial issues have always been part of spatial configurations. Already The social logic of space highlights the fundamental differences between the interior and (private) and the exterior (public). This paper expands this straightforward scheme by investigating a very particular territorial phenomenon in urban open space. When territories are contradictory or blurred, an *ambiterritory* (a no-man's-land) is created. GIS-analyses show that ambiterritory is mostly found in post-war modernist morphologies.

A theoretical framework defines two types ambiterritory. *Goods ambiterritory* (Type A) are the mismatch of lived and perceived space in terms of the divergence of private and public territorialities defined by intervisibility and use. Territorial human actions are translated into material actants in space and create *disturbed public ambiterritory* (A1) and *disturbed private ambiterritory* (A2). *Legal ambiterritory* (Type B) appears when use value and property owner do not match. This creates *public pseudo-property* (B1) and *private pseudo-property* (B2).

A GIS-study was applied to the framework in ten city districts in Stockholm: three urban grid areas, one postmodern area, three villa areas, and three post-war modernist areas. The results are clear and unambiguous. Post war modernist areas and in-fills create extensive ambiterritory. In the modernist areas, 4-8% of open space (A1), 7-12% of public property (B1), or 14-15% of private property is lost to ambiterritory. These findings where confirmed by interviews with experienced professionals in public open space management. Ambiterritories are hence used by no one, left by management, creating an uncertain void that makes it costly for society.

The framework presented in this paper must be considered as an initial theoretical sketch, far from being complete. There are still many factors left out and uncorrelated. A fundamental difficulty is the limitations in getting quantitative empirical data. Hypotheses and preliminary findings nonetheless indicate that what has been called ambiterritoriality ought to be something worth further investigation and that GIS can be a very useful tool. There is also a need for problematizing the debate on public space and margins. Take for example the concepts so commonly used in urban research and urban design practice "semi private" and "semi public", which clearly lack distinction. Space syntax-theory has great potential to put territoriality into new light.

027-02

## Introduction

This article does not intend to define or construct a comprehensive theory of urban territoriality. Rather, it aims to illustrate a theoretical expedition into some empirical observations of the contemporary urban landscape, a diffuse and fuzzy territoriality.

In contemporary urban theory, it is common to start from Foucault's straightforward definition of territory as an "area controlled by a certain power" (1980). Commonly used in human geography, sociology, and architecture theory, Sack defines territory "…territoriality will be defined as the attempt by an individual or group that affects, influence or control people, phenomena and relationships by delimiting and asserting control over a geographic area. This area will be called territory." (1986) Sack is one of several influential social scientists (such as Foucault, Habermas, and Lefebvre) that describe how modern capitalist society has evolved through territorial transformations.

In the 20th century, modernist urbanism created suburban squares, parks, roads, and pathways. This urbanism, however, also created, sometimes unconsciously, other sorts of in-between-spaces like the "Brachland" of highways, leftovers of brownfields, vacant lots, and bits of nature (Cupers & Miessen 2006, p. 55). These spaces were and still are very public spaces accessible for everyone, but they are also particularly uncontrolled because of their remoteness to public presence and private interventions. Cupers and Miessen call these spaces the margins, places that allow minorities and people who live alternative lifestyles to act without being disturbed.

Some of the 20th century in-between-spaces, however, are of another kind; maybe they were once public, but are not any more. Because society changes, at the moment towards a more liberal state, they have become something else. I have chosen to call these kinds of spaces ambiterritories [i]. The Latin prefix ambi- means "both sides" and exists in words like, ambiguity and ambivalence, referring to something that affects both sides and primarily to vagueness and uncertainty. In my experience, ambiterritoriality is often left out of contemporary urban debate because it represents small-scale phenomena. As a matter of fact, this paper suggests that it produces a large-scale dilemma for contemporary urban life and urban planning, development, and management.

*Figure 1:*

*Photographs of ambiterritory in post-war morphologies in Stockholm [ii]*

**Exploring the Ambiterritory**

In short, my claim is that ambiterritory is best described as no-man's-land. This concept is yet a deceitful one. Cupers and Miessen and other contemporary theorists claim that no-man's-land means "neutral areas … not claimed officially … not subject of the control of individuals and institutions" (Cupers & Miessen 2006, p. 92). Is this really the common used meaning of the word no-man's-land? One can argue that it is not and that it is much closer to what is written in Wikipedia.

"No man's land is a term for a land that is not occupied or more specifically land that is under dispute between parties that will not occupy it because of fear or uncertainty. It is also a term for the stretch of land between two border posts, between when one exits one country at their border post and when one enters the next country at their border post, usually just a few metres away, though at some (usually remote) border crossings it can be measured in kilometres". (Excerpt from Wikipedia 20/09/2006)

027-03

Hence one can simply say that there are two types of uncertainties in urban open (outdoor) space. The first one creates opportunities and freedom (public space and margins), and the other one creates confusion and conflict (ambiterritory). The first uncertainty depends on both a stabile democracy that secures public space and on the lack of territorial control of the margins. The second negative uncertainty appears when territorial interventions collide, when there are fuzzy and unclear situations between territorialities.

To pinpoint what is really in conflict here, the concept of territoriality must be dissected. Kärrholm (2005) Latour's Actor-Network-Theory can be used as a tool to explore territoriality. Latour, whose ideas are similar to Foucault's ideas of how power is produced and reproduced, emphasizes that power is constantly undergoing redefinitions and change. Latour extracts power relations in the network of actors, which can be both people (actions) and artefacts (actants). It is these networks that produce territoriality. More fixed territorialities, such as playgrounds in open space, are the consequence of stabilized networks (Latour 1998). The sandy pits, the play equipment, and the run down bushes are actants. Present children and parents are actions that transform a specific playground to a specific territory. A territory that is inhabited by strong actants is evidently more stabile. Social anthropologist Edward Hall calls this a "fixed-featured space"; he calls a territory that is temporarily occupied "informal space" (1966, pp. 101-111).

With a starting point from Actor-Network-Theory, one can start searching for the active components of ambiterritory, the combinations of territorialities and spatialities that probably create this negative uncertainty. A first basic division of territorialities can be made from Lefebvre's triad of space–the lived, the perceived, and the conceived (1991, pp. 38-39) and then applying them to territorial powers and territorial spaces.

*Table 1:*

*A typology of territorialities inspired by Lefebvre's triad of space*

|  | Lived | Perceived | Conceived |
|---|---|---|---|
| Territorial powers | Actions | Actants | Rights |
| Territorial space | Presence in space | Material space | Property/Plan |

Although Table 1 is a crude simplification (e.g., artefacts can be perceived in space, people, and property), it helps to sort out some basic categories of territoriality: territory created by human presence (action) in space (informal space); territory created by material objects and artefacts (actants) in space (fixed-featured space); and territory

created by law and spatial rights defined by property or plans. One possible definition of ambiterritory is thus the mismatch between these territorialities. Each of these territorial powers and spaces can also be sorted by the social character of actors, e.g., whether public or private or something in between. The conflict between public and private territorialities can be another way of identifying ambiterritory.

### The Private vs. the Public

Figure 2 plainly illustrates this paper's assumption of how territorial interventions possibly shape ambiterritory in urban environments. It is focused on the explanation of ambiterritory in urban open space and is not at all a complete model of territoriality [iii].

027-04

**Figure 2:**

*Interventions between private and public territorialities and the production of ambiterritory*
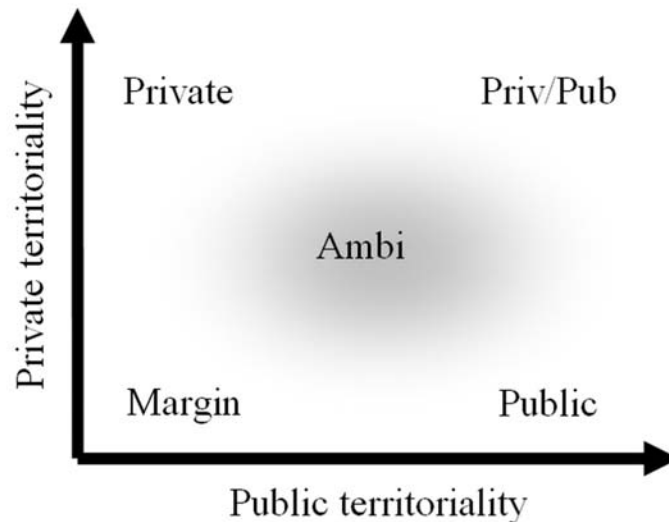


The diagram's simple proposition is this. When there is strong private territorial control by individuals or a specific group and no or little public presence, there is private territory. In addition, with a lot of people present and with little individual control, public territory is created. When there are a little of both, the margin appears. When there are a lot of both, most likely a 'flip' situation occurs where it is either the private or the public that becomes the dominating territoriality. The hypothesis here presented is that when there some of both a potentially confusing and negative uncertainty can appear. Who is using this space? Who is claiming this space? Who has the rights to use it? These are questions that arise from ambiterritory. "Who" is the actor? In the search for ambiterritory, actors are from now on principally labelled private or public.

In political economy, public goods are defined as accessible to many people, non-excludable. Public goods are also non-rivalrous, which means that any consumption will not reduce the amount of the goods available for consumption by others (Samuelson 1954). Public space and margins are theoretically public goods. Private good is the opposite. It is excludable and rivalrous. Any consumption reduces the good available for others. Although urban space is never pure private or public, these economic concepts capture the essence of what is private and public. A remark on the commonly used words "semi private" and "semi public" space has to be made here. From the point of view of political economy there is no thing as "semi". There are only different sizes of groups attached to goods, thus labelled "club goods". For the sake of argument club goods is in this paper sorted under private goods. As a matter of fact ambiterritory could also be called a sort of semi private/public space, which adds to the confusion of these concepts.

To understand why certain things such as urban space turn private or public by actions and actants, its social character must be scrutinised. Table 2, with support from contemporary social theory and architectural theory, describes the production of private and public territorialities in a generalized model. The principal aim of this model is to search for ambiterritory. This is why it is not in any way a complete diagram. As shown in Table 3, Table 2 further develops Figure 2.

*Table 2:*

*Action and corresponding actant production of territorialities defined by intervisibility and use*

027-05

| Actor | INTERVISIBILITY | | USE | |
|---|---|---|---|---|
| | Action | Actant | Action | Actant |
| | Temporal by human | Stabilized by artefacts | Temporal by human | Stabilized by artefacts |
| Private | Supervision | Building | Occupation | Things |
| Public | Co-presence | Spatial integration | Movement | Street/Entrance |

In the search for ambiterritory, the private and the public is characterized by two basic social entities–intervisibility and use. Their territorial power is translated into action in space and its corresponding actants in space. Let us start with how public territoriality is maintained through intervisibility in urban space by co-presence.

### Public Territorialization

In Simmel's essay "The Stranger" (1908) there is a point of departure for discussing public territoriality. The fundamental characteristic of 'the stranger' is in Simmel's meaning "no owner of soil"–the opposite of private territoriality. A stranger is not just anyone unknown. The unknown becomes the stranger according to distance. The closer the unknown individual gets to you, the more that person becomes potentially strange or alien. There seem then to be a relationship between accessible population and the production of strangers. The denser and more integrated an area is, the more potential strangers you will encounter and the higher the mutual co-presence in space. High co-presence, or high intervisibility between people, should be a most basic character of public action in urban space (see square 2:1– second row, first column in Table 2).

What about the public use of space? Simmel also describes the stranger as "fundamentally mobile". When people are moving in space and not situated or occupied in space, more public-ness than private-ness is produced (square 2:3). Similar to co-presence, the more people moving, the more public space is being produced. Clearly, movement is not the only way the public exists in urban space Parks and plazas are truly public and not only for movement. Their publicness certainly grows from the multiplicity of users and use values, or in Foucault's words, heterogeneity in space (1967). This kind of publicness is not addressed in this paper's framework for ambiterritory.

What is then the corresponding actants (artefacts) to these public actions? Concerning movement, the material equivalent in cities is obviously the street and its entrances (square 2:4). The street is really the symbol for the collective interest of getting around in the city, but even a pathway in a park contains similar territorial connotations. Entrances are the most fundamental interface between the interior space (private) and the exterior space (public). Hillier claims, a compatible to Simmel's arguments, that

"Interiors tend to define more of an ideological space, in the sense of a fixed system of categories and relations that are continually re-affirmed by use, whereas exteriors [open space] define a transactional or even political space, in that it constructs a more

fluid system of encounters and avoidances which is constantly re-negotiated by use". (Hillier & Hansson 1984, p.20)

"Exterior space" in cities, primarily the streets, seems to have something generally public about it, and it is basically due to the multiplicity of users and the density of movers and of strangers. The degree to which an urban space is fronted with entrances, what also is called constitution in space syntax theory, can also represent the potential number of movers into that space (Hillier & Hanson 1984, Hillier 1988).

027-06

Understanding actants as they are related to co-presence is a little more structurally complex. Hillier establishes that people co-present in a space create a "virtual community". The size of this virtual community should, in relation to Simmel, also depend on the number of people present in the same space. Connecting to space syntax research on spatial configuration and movement one can argue that spatially integrated i.e. highly accessible-streets and pathways that produce a lot of co-presence of strangers also appear more public. It can therefore be claimed to capture a sense of centrality (i.e. a sense of publicness) from the highly integrated and central to the more segregated and isolated (square 2:2). This proposition seems even more conceivable since integration analysis rests upon axial space, i.e. configurations of spaces where everyone is co-present [iv]. A further development in the investigation of the centrality of open spaces has been proposed by Cutini (2003), which adds spatial clustering co-efficiency to integration [v].

### *Private territorialization*

In search for ambiterritorial privatization of space by intervisibility, it can be analysed as somewhat the opposite of the public. Private control of space by an individual or a specific group is rather a situation characterized by supervision (square 1:1). On a societal level, the characteristics of supervision have been thoroughly described by Foucault (e.g., Panopticism 1997). On the individual level one can turn to Hall, which shows that people are constantly surrounded by a personal territory that creates an "informal space" wherever the person is present. This informal space is best described in terms of different distances from the individual. Hall divides this distance into four major categories: intimate (0-0.5 meter), personal (0.5-1.2 meter), social (1.2-3 meter), and public (>3 meter). The distance that is of most interest here is what is called far phase public distance, a distance that is 10 meters and more. At this distance "…meaning conveyed by the normal voice are lost as are the details of facial expression…Much of the nonverbal of the communication shifts to gestures and body stance" (Hall 1966, p. 125). It seems that true private informal space absolutely ends at 10 meters.

What can be a corresponding materialized actant to this phenomenon of informal space? What is frozen supervision in the city? For Newman, as with Foucault, buildings and their windows can present a strong territorial control (square 1:2). Buildings can be placed so that an open space is under constant surveillance by the eyes of windows (Newman 1972, pp. 110-111) [vi]. As with Hall, this private actant supervision should work within about 10 meters of every building [vii].

Lastly, turning to the issue of privatized space by use, it can also be characterized in opposition to what is public. If public territoriality by use is associated with movement, private territoriality can be defined by the occupation of space (square 1:3). This is the basis for Hall's space concept. Informal space is first of all occupational space. In addition, private occupation is defined as space used by few people. What are the corresponding actants that occupy urban open space?

Traces of occupation in urban space is most commonly in the shape of, to use Hall's terminology, semi-fixed objects such as chairs, benches, blankets, children's toys, as well as fixed objects such as signs, plants, and pavement. On public property, these objects come and go temporarily due to public maintenance and authority. Newman emphasizes physical accessibility that creates private territory as well as symbols (1972, p. 63). This is indeed a claim that can be embraced by Latour's Actor-Network-Theory.

*Table 3:*

*Interventions between private and public territorialities and the production of ambiterritory by action and corresponding actants*

027-07

| HIGH | Enclosed property | High Occupation Supervision | PRIVATE | PRIVATE | PRIV / PUBL |
|---|---|---|---|---|---|
| LOW | Appearance of things Close building | Little Occupation Supervision | PRIVATE | AMBI | PUBLIC |
| NONE | No things Distant building | No Occupation Supervision | MARGIN | PUBLIC | PUBLIC |
| PRIVATE TERRITORIALITY | | ACTION | No Co-presence Movement | Little Co-presence Movement | High Co-presence Movement |
| | ACTANT | | No Accessibility Far street | Little Integration Distant street | High Integration Close street |
| | PUBLIC TERRITORIALITY | | NONE | LOW | HIGH |

Table 3 (a development of Figure 2 in Table 2) basically summarizes the article so far. In terms of actions, when there is some private occupation and/or some private supervision at the same time as there is some co-presence and/or movement, there is probably ambiterritory. In terms of actants, ambiterritory is probably present in a space that has some private things and/or is close to a building and at the same time has little spatial integration and/or is far from streets or entrances.

## Observations and Study Areas

Territorial phenomena are difficult to observe and correlations are hard to find. This is especially evident when it comes to ambiterritories since they are basically non-events. The basic anthropological character of ambiterritory is that nothing is happening there. Qualitative studies, such as interviews or questionnaires, seem a way to grasp ambiterritory. In extensive field studies in 2000-2006 in Stockholm, I observed these spaces and was startled by their non-use. These observations, together with my background as a park planner within the city's urban planning department in 2002, raised these crucial issues about open space users and management [viii].

### *Study Areas - Ten City Districts*

To research ambiterritories, ten 100-hectare study areas were chosen for in-depth GIS-analyses. The areas can be put in four morphological groups. Within every group, there are morphological differences, which are in themselves interesting.

- Urban grid area: Norrmalm (1600-1800), Östermalm (1600-1800), Södermalm (1600-1800)

- Post-modernist area: Skarpnäck (1982-94)

- Modernist area: Årsta (1943-50), Högdalen (1953-56), Rågsved (1956-59

- Villa area: Gamla Enskede (1910-1930), Stureby (1920-1930), Örby (1900-1930)

The spatial characteristics for the study areas are quite significant. For example, the urban grids have high density, little private property, small property sizes, large number of properties and axial lines in comparison to the modernist areas. The villa areas are similar to the

urban grids, but they are less dense and have smaller properties. The postmodernist area is a mix of the urban grid and the modernist area.

| Study area | Floor Area Ratio | Property area (ha) | Mean property size (ha) | Number of properties | Number of entrances | Number of axial lines | Mean axial line length (meter) |
|---|---|---|---|---|---|---|---|
| Norrmalm | 2.24 | 64.29 | 0.10 | 632 | 1395 | 104 | 258.06 |
| Östermalm | 2.18 | 67.41 | 0.10 | 695 | 1475 | 64 | 379.50 |
| Södermalm | 2.03 | 60.18 | 0.13 | 481 | 1283 | 131 | 221.07 |
| Skarpnäck | 0.45 | 40.22 | 0.40 | 100 | 519 | 280 | 111.25 |
| Årsta | 0.50 | 54.23 | 0.25 | 216 | 770 | 296 | 108.53 |
| Högdalen | 0.52 | 53.38 | 0.45 | 118 | 754 | 435 | 100.00 |
| Rågsved | 0.44 | 51.91 | 0.46 | 112 | 519 | 337 | 102.88 |
| Gamla Enskede | 0.19 | 57.25 | 0.06 | 956 | 1249 | 170 | 167.55 |
| Stureby | 0.13 | 74.38 | 0.08 | 897 | 1098 | 143 | 162.05 |
| Örby | 0.13 | 75.64 | 0.08 | 983 | 1186 | 134 | 168.87 |

027-08

*Table 4:*

*Spatial data for the study areas*

*Figure 3:*

*Photographs 5-8 from upper left; Östermalm, Gamla Enskede, Årsta, Högdalen*

## Photographs

During 2006, I have often visited the study areas for observation [ix]. During these visits, I photographed territorial or ambiterritorial phenomena.



Picture 5 of the urban grid (Östermalm, Norrmalm and Södermalm) shows typical urban form of blocks, streets, and parks. Almost everywhere public property open space is bordered by public streets, except in institution areas (e.g., schools) and modernist in-fill. Södermalm is the inner city area where you find most post-war in-fills (Marcus 2000). The villa and garden city areas (Gamla Enskede, Stureby and Örby) are set in a grid (Picture 2). Picture 3 and 4 of the post-war modernist areas (Årsta, Högdalen and Rågsved) clearly show how the Le Corbusian concept "buildings-in-a-park" have created diffuse space and potential ambiterritory.

## A Framework for Ambiterritorial Analysis

A proposal of two types of ambiterritorial productions is presented here: Goods ambiterritory (Type A) and Legal ambiterritory (Type B).

## Type A: Goods Ambiterritory

Ambiterritory has so far been defined as the mismatch or conflict in lived and perceived space, such as goods or use values, in terms of the divergence of private and public territorialities defined by intervisibility and use. When sorting the actions and actants that create this negative uncertainty by intervisibility and use, as done in Figure 4, two types of ambiterritory appear.

*Figure 4:*

*Interventions between intervisibility and use that create two different ambiterritories*
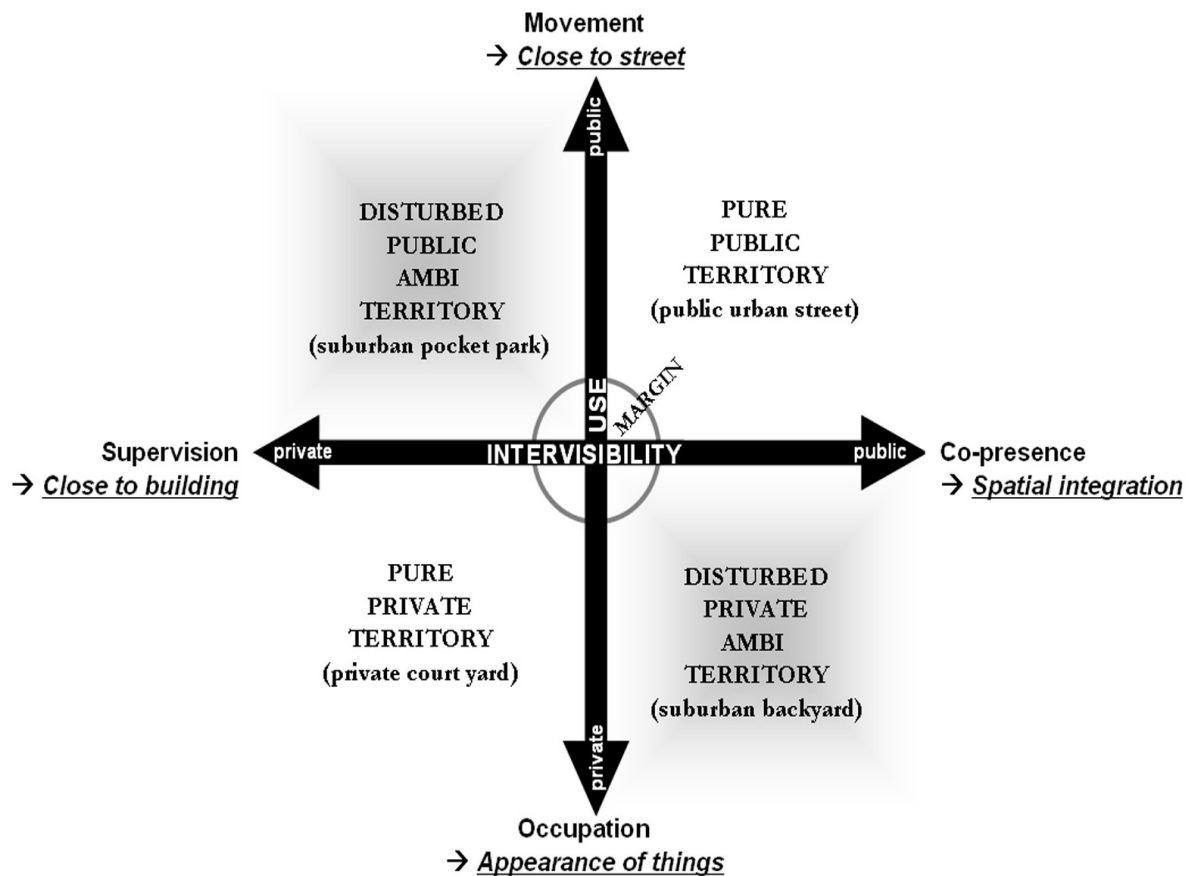
027-09



One could be called 'disturbed public ambiterritory' (A1)–public use of space (here movement) is interfered with private supervision. One could be called 'disturbed private ambiterritory' (A2)–private occupation of space is interfered with public co-presence. It is also possible to identify the characteristics, or rather the absence of them, of the margin. Pure public territory appears as the interplay between high movement and high co-presence. Pure private territory appears as the interplay between strong supervision and strong occupation. The word pure is used here because it relates to the economic concept of goods. Ambiterritory is hence a strange good, which is partly rivalrous and partly excludable.
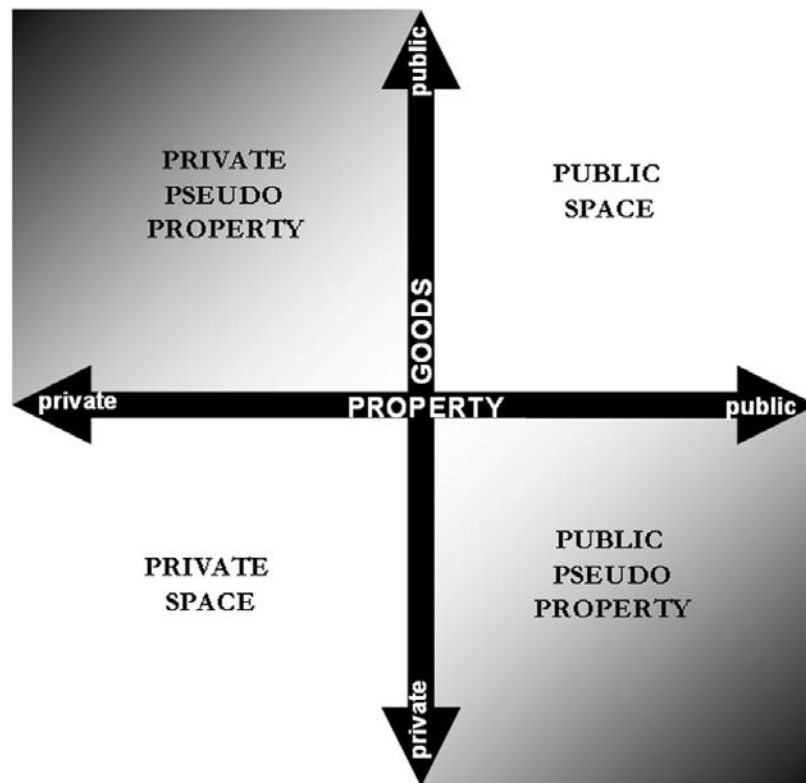
## Type B: Legal Ambiterritory

If there is pure public territory for the citizens or users of the city, there can still be a problem for society. Since "the purchase of private property rights secures exclusive rights to dominate a parcel of space" (Harvey 1989, p. 197), there is a democratic justice and an institutional efficiency problem if (B1) public authorities own and maintain the land but is in some way private goods or if (B2) a private company or individual owns and maintains the land but is in some way public goods. Figure 5 illustrates this simple contradiction, where B1 is called public pseudo-property and B2 is called private-pseudo property.

**Figure 5:**

*Interventions between spatial property and spatial goods that create two different pseudo-properties*

027-10



The obvious situation when type B ambiterritory appears is when property borders are not visible or hard to locate in the urban landscape. If the goods territories overlap property space in a contradicting way, then complications for private as well as public maintenance probably arise. Theoretically, this means a cost for society, both private and public managers.

## GIS-Analyses

Based on the described ambiterritorial theory, it is possible to construct a GIS-model to identify possible ambiterritory in ten morphologically different city districts in Stockholm. Because the municipality of Stockholm has a great deal of available GIS-data, it is possible to do relatively detailed GIS-analyses.

### *Analyses*

The method of recognizing potential ambiterritory in GIS basically consists of three steps:

1. Select the user's space (private or public).

2. Select the visual interference from disturbing actants.

3. Subtract the intervention from counteracting 'flip'-actants.

The first step 1) defines 'the disturbed'. The second step 2) defines the disturbance. The last step 3) defines different sorts of protection from the disturbance in the form of counteracting actants that probably will 'flip' ambiterritory over to pure private or public territory. Because the strength of 'flip'-actants is not obvious, the analyses are made by gradually adding one 'flip'-actant at a time and gradually minimizing potential ambiterritory.

### Type A1 - disturbed public ambiterritory

1. Select all public accessible open space.

2. Select space that overlaps 10 m buffer of private buildings (> 50 $m^2$).

3. Subtract 10 m buffer streets (A.1.1), entrances (A.1.2), and pathways (A1.3).

027-11



**Figure 6:**

*Results of analyses A11, A12, and A13. Chart shows possible disturbed public ambiterritory in hectares within study areas. Maps show results (in grey) in parts of Norrmalm, Årsta, and Stureby*

A1 analysis shows clearly that the modernist areas suffer from disturbed public ambiterritories. For example, Årsta could have 4-8 hectares of the study area (depending on the power of 'flip'-actants). This means 4-8% is non-usable space, possibly "waste of space". In Östermalm, 0.2-0.3 % is non-usable, found in institutional areas or post-war in-fills.

**Type A2 - disturbed private ambiterritory**

Since there is no available data on private things in urban space, this analysis is difficult to execute. However, the results from B2 and A1 could together be associated with A2 since it is very likely that private things, such as chairs, tables, and plantings, in public accessible open space appear close to private buildings and/or on private property. This proposition also emphasizes that ambiterritory always works ways, simultaneously disturbing the private and the public.

### Type B1 - public pseudo property

1. Select all public property open space.

2. Select space that overlaps 10 m buffer of private buildings (> 50 m$^2$).

3. Subtract 10 m buffer streets (B.1.1), entrances (B.1.2), and pathways (B.1.3).
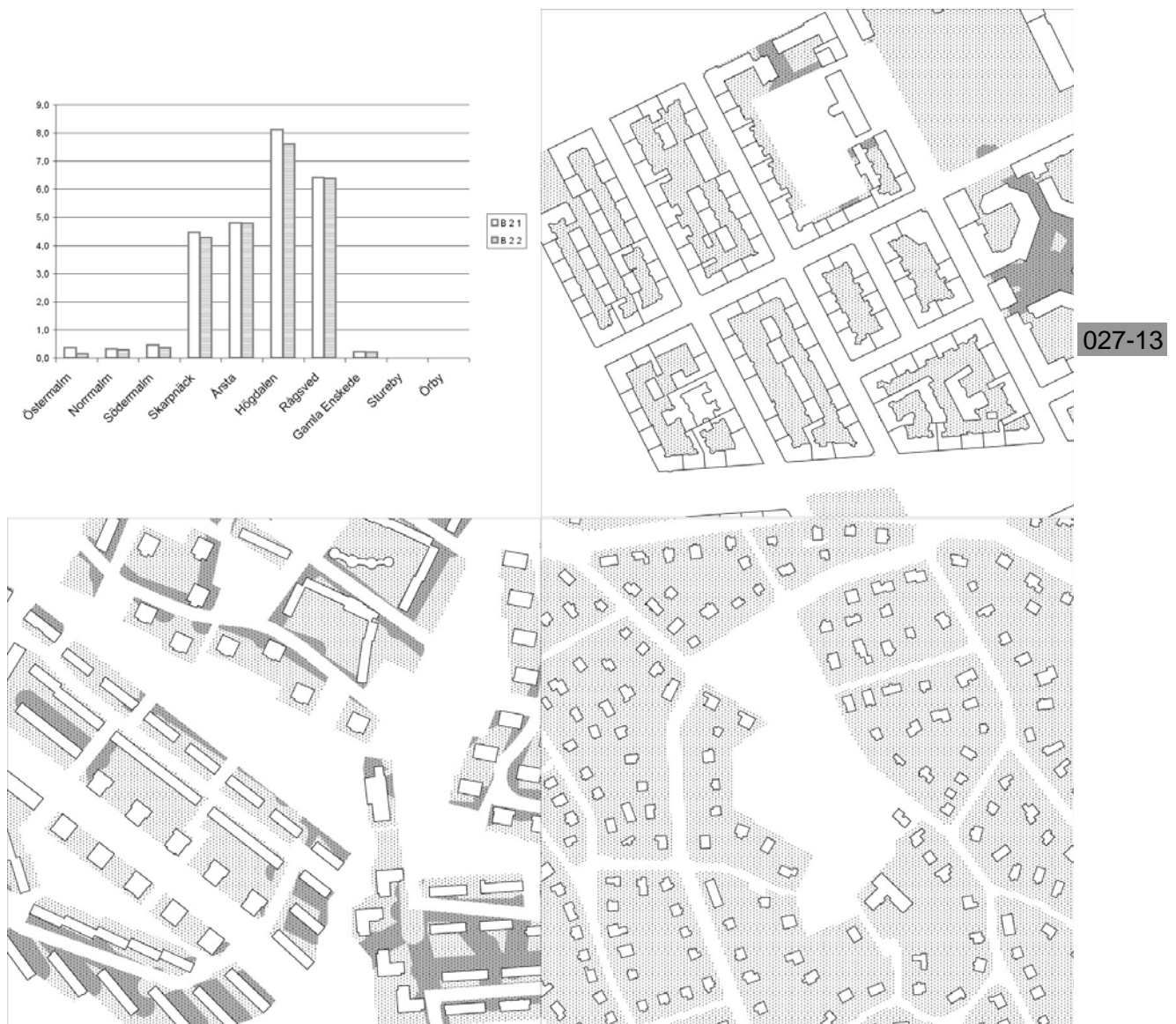
027-12



**Figure 7:**

*Results of analyses B11, B12, and B13 (in grey) and public property (dotted). The chart shows public pseudo property in hectares within the study areas. Maps show results (in grey) in parts of Norrmalm, Årsta, and Stureby (public property is dotted)*

B1 analysis shows clearly that the modernist areas suffer from public pseudo-property. Again Årsta could have 0.9-1.4 hectares of the study area, which means 7-12% of public property open space could be contradictory to public space management, i.e., possibly "waste of maintenance". In Östermalm, public pseudo property open space is 0.05-0.7%.

### Type B2 - private pseudo-property

1. Select all publicly accessible private property open space.

2. Select space that overlaps 10 m buffer of low integrated streets and pathways (axial lines which belongs to the lower 90% in radius 5-integration analysis seem to capture this best).

3. Subtract 10 m high-integrated streets and pathways (B.2.1), 10 m buffer of public buildings (B.2.2).

027-13

**Figure 8:**

*Results of analyses B21 and B22. The chart shows private pseudo property in hectares within study areas. Maps show results (in grey) in parts of Norrmalm, Årsta, and Stureby (public property is dotted)*

B2 analysis shows clearly that the modernist areas suffer from private pseudo-property. Högdalen could have 7.6-8.1 hectares in the study area, which means 14-15% of private property open space could be contradictory to private property managers, i.e., possibly "waste of maintenance". In Östermalm, private pseudo property open space is 0.2-0.5%.

## Discussion

As mentioned, it is difficult to find empirical data to support findings on territoriality. One way to efficiently obtain comprehensive knowledge is to go to experienced professionals. To obtain this information, we interviewed managers of public property open space. Their experience in what spaces work and do not work and what they have to maintain due to wear and tear are very valuable when it comes to capturing a non-event phenomenon such as ambiterritory. The five head managers of the chosen city districts were interviewed by telephone. Two major questions were discussed: Is public property in open space easy to find for managers? Is public property visible in open space for citizens?

As seen in the chart below, the answers were quite clear and unambiguous although every respondent have different views and experiences of open space users and management.

| Study area | Property appearance for managers | Territory appearance for users |
|---|---|---|
| Östermalm | Yes, to a great extent | Yes, to a great extent |
| Norrmalm | Yes, to some extent | Yes, to some extent |
| Södermalm | Yes, to some extent | Yes, to a great extent |
| Skarpnäck | Yes, to a little extent | Yes, to some extent |
| Årsta | No | No |
| Högdalen | No | No |
| Rågsved | No | No |
| Gamla Enskede | Yes, to some extent | Yes, to a little extent |
| Stureby | Yes, to some extent | Yes, to a little extent |
| Örby | Yes, to some extent | Yes, to a great extent |

027-14

***Table 5:***

*Answers on the questions: Is public property in open space easy to find for managers? Is public property visible in open space for citizens?*

It is quite evident that urban grids and villa areas seem to be easier to manage and easier to "read" for citizens than the modernist areas. Some characteristic quotations about modernist areas are as follows: "It is often impossible to see the property border here…you need a map to measure it out…as a common citizen you would never see them"; "isolated spaces close to residential buildings are not used by the public"; "Lawns are divided in half"; "It takes time to learn this area;" "If we change maintenance personnel, we would have a big job educating them." Quotations about the urban grids and villa areas include the following: "There are no problems identifying what is public property here"; and "With maps, it is an easy task for an entrepreneur to learn the area".

The framework for ambiterritorial analyses suggested in this paper must nevertheless be considered as an initial theoretical sketch, far from being complete. There are still many factors left out and uncorrelated. Many of the initial assumptions do not rest on firm empirical ground, such as the relation between co-presence and spatial integration. There are many other spatial analyses that could be used here, such as the convexity of space, clustering co-efficient or control. But there is also a risk in making the model too complex and hard to comprehend. A researcher that engages him or herself in territorial issues must accept its fuzziness. A fundamental difficulty is the limitations in getting quantitative empirical data. Especially ambiterritory seems to be a very qualitative entity.

Hypotheses and preliminary findings here presented nonetheless indicate that what has been called ambiterritoriality ought to be something worth further investigation and that GIS can be a very useful tool. For one thing, there is a need for problematizing the debate on public space and margins, not only from the popular point of view of commercialism, as done by urban theorists like Richard Sennet, Sharon Zukin, Michael Sorkin, Manuel Castells, Mike Davis among others, but also from a point of view of co-presence and use, as introduced by for example Henri Lefebvre. This paper's investigations show that not only "defensible space"-theories are applicable, many space syntax-theories are too.

Although territorial issues have not been in the forefront of space syntax it is beyond doubt that the configurational theories developed by Bill Hillier and others can make considerable contributions to this field of research. Take for example the concepts so commonly used in urban research and urban design practice "semi private" and "semi public", which clearly lack distinction. Space syntax-theory has great potential to put territoriality into new light.

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027-16

i.   This phenomenon has been briefly observed and commented on by architectural theorists like Oscar Newman (Newman 1972, p. 52) and Jan Gehl (Gehl 1980, p. 63).

ii.  Photograph 1 is taken in Rinkeby, a modernist area from 1960s, from spaces that are accessible to the public. Photograph 2 shows a public accessible space in Tensta, a modernist area from the 1960s where the residents have built their own small gardens along the private façade creating a disturbed private ambiterritory outside. Photograph 3 shows Gärdet, a modernist area from the 1930s. It is typical private pseudo-property. The woman in the picture is pruning the green space on her property. This space, however, is clearly publicly accessible and property borders are not visible. In an on-site interview, she states that it is very disturbing when people walk across "their" lawn and that they very seldom use this space because of this disturbance. Photograph 4 shows typical public pseudo-property in Tensta. The lawn has been cut along side the building on private property, but not on the public property. The property border has suddenly become visible by maintenance.

iii. It is furthermore not evident how it is applicable to indoor spaces, such as a commercial shopping mall.

iv.  These ideas of a "territorial syntax" has also been discussed by architecture theorist Kim Dovey (1999, p. 23).

v.   This model of analysis has however not been tested in this paper due to limitations in VGA-software.

vi.  Although one can criticize his design principles for being too simplified, only taking the benefits of "defence" as starting point and not the benefits from intervisibility and social integration (Hillier & Sahbaz 2005).

vii. A peculiar detail in Swedish and Nordic territorial culture must be noted here. In Sweden, the national law of "The right to common access" (Allemansrätten), which states that everyone has right to access nature irrespective of ownership; this right is reduced within a certain radius of building. This radius is by practice between 10-20 meters. In Swedish planning practice, this conceived private space around a building, which is not affected by "the right of common access", is called "tomtplats". Even if this conceived law is mostly exercised in the countryside, it is common knowledge and culture among most Swedish citizens. It is unclear how the law should be interpreted in suburbia, but one can certainly say that the conceived idea of "common access" is largely present among the Swedish urban population.

viii. In 2000-2002, I made an extensive open space survey in Stockholm in a project called Stockholm Sociotope Map. The survey meant on-site observations of all open space within Stockholm municipality. For a methodological description of the project, see Stadsbyggnadskontoret 2003 (in Swedish). All sociotope maps are downloadable from www.stockholm.se (Stadsbyggnadskontoret 2002).

ix.  These areas have also been studied in my earlier thesis work (Ståhle 2005).