TERRITORIAL CHARACTERISTICS OF OUTDOOR SPACE, AKCAYA SETTLEMENT, PONTIANAK CITY

Ivan Adiel Abednego

Master Student at Department of Architecture, Sepuluh Nopember Institute of Technology

e-mail: ivanadiel3@gmail.com

ABSTRACT

Changes in the function of space have an impact on user activity in the outdoor space. The introduction of the characteristics of the user group is necessary so that the utilization of space can be maximized. The purpose of this research is to identify usage patterns and find out the characteristics of outdoor space territories. The strategy in this study used a qualitative descriptive strategy with observational research techniques, behavior mapping, and documentation. The results obtained are 1) secondary territorial use of outer space occurs by involving special and general users. This can occur because the use of semi-permanent elements is a characteristic of the secondary territory. 2) the secondary territory category can occur because access is open, with joint control of space and joint ownership of space.

Keywords: characteristics, territory, outdoor space

INTRODUCTION

There are two sustainable development programs based on UN-Habitat (2012) that specifically discuss the social community in urban settlements, namely the 11th goal, make cities and human settlements inclusive, safe, resilient, and sustainable, and the 16th goal of peaceful and inclusive societies (justice and peace). One part of the residential space that has the potential to achieve these goals is the outdoor space of urban settlements. The housing environment substantially affects the space and social interaction among residents, therefore outdoor space the settlement becomes a social space to achieve the goals of sustainable development.

The existence of government policies in providing socio-economic activities in outdoor spaces in Akcaya Settlements, Pontianak City, is of particular concern to the wider community in the use of outdoor space in urban settlements. Based on the findings of Kustaman (2017), Akcaya's outdoor function has changed so that the wider community can access the outdoor space. This has the potential to create community groups due to changes in the function of outdoor space into socio-economic space.

Behavioral privacy is not only individually but also in groups in a space known as a territory. Based on the involvement of behavior in the daily needs of individuals/groups and the frequency of their use, Altman (1980) divides territories into three categories, namely primary territory, secondary territory, and public territory. The existence of categories in the territory is in line with the division of categories in the outdoor space of the settlement. Similarly, Marcus (2003) states that outdoor space is divided into three broad categories, namely the first category which is private such as private yards, private plantations, and so on; the second category is public such as environmental parks and roads that are publicly owned and accessible to all. Furthermore, the third category is semi-public which consists of spaces such as company squares or university campuses. These territorial categories can be distinguished in detail based on their territorial characteristics. Therefore it is necessary to re-identify the characteristics of the use of outdoor space the settlement in research studies.

The purpose of this study is to identify the use of the outdoor space and find the characteristics of the territorial users in that space. This is useful for the theory of territorial characteristics in the context of outer space of urban settlements and the involvement of the community in a space according to the characteristics seen in the research study location.

THEORY / RESEARCH METHODS

Characteristics of the Outdoor Space Territory

According to Altman (1975), territory formation has three processes, namely the marking process, the personalization process, and the identity expression process. Here humans (individuals/groups) give signs to their territory as a form of their power over certain spaces. This sign is personalized by the owner to differentiate it from other territories. Furthermore, identity expression is carried out to represent the existence of a human relationship with his group or social environment. This series of processes is carried out to confirm the existence of the territory.

The basic character of a territory is about the ownership and order of the place, the personalization or marking of the physical and non-physical territories, and the rules or order to defend against disturbance. Physical restrictions such as fences or other physical perimeters are carried out due to the limited actions of territory owners to protect their area. Violation of physical boundaries can be easily seen if there are other parties who, without the permission of the territory owner, access their personal space. Meanwhile, non-physical boundaries are the agreement of everyone so that claims to the territory are more absolute. Non-physical boundaries can be in the form of an arrangement of something in a place that is considered to be its territory in the form of using architectural furniture or using space according to community wishes. Territory functions to determine ownership or who is in control of the place and to determine the space and divide the function of each room or location. Furthermore, Altman (1975) shows that when one idea is linked to another, a territory can be concluded as follows:

- 1. There are controls and ownership of a place or object, either permanent or temporary.
- 2. The place or object may be small or large
- 3. Ownership applies, perhaps by a person or group
- 4. Territoriality can provide several functions, including social functions (status, identity, family stability) and physical functions
- 5. Territories are often personal or marked
- 6. Defenses may appear when territorial boundaries are disturbed

Hussein El-Sharkawy (1979) in Lang (1987: 150), shows four types of territories that are useful in environmental design, namely: (1) Attached territory, which is a personal space owned by a person; (2) Central territory, is the house and building with its ownership; (3) Supporting territory; semi-private and semi-public zones such as corridors, swimming pools, front gardens, back gardens; (4) Peripheral territory; which are public spaces such as shared sports fields and residential parks. According to Altman (1980), there is a division of territories based on the use of outdoor space, namely (1) the primary territory is an area that is owned or used exclusively that is recognized by others and is controlled permanently and becomes a major part of daily activities; (2) secondary territory is an area that is not used exclusively by a person or group and the area is larger than the primary territory although it is controlled periodically; while (3) the public territory is an area that is used and can be entered by anyone, but he must comply with the norms and rules in that area. Based on this division, there is a connected understanding (Altman (1980), Hussein El-Sharkawy (1979) regarding territorialism in maintaining the privacy of individuals or groups in the territory of use space.

Outdoor space is a container that can bring together individuals or groups or is a place that has the potential for social interaction. These spaces provide opportunities for individuals to engage in high-level social interactions (Faridan, 2013). Outdoor space can also be referred to as part of a settlement because it contains elements that are in harmony with the settlement, namely the activities of individuals/groups of people that build social interactions.

One part of the outdoor space is the public space based on the previous category. Carmona (2003) suggests dividing the typology of public space into three parts in common with the previous division of categories, namely:

- 1. *External Public Space*, this public space is in the form of an outdoor space where everyone can access that space.
- 2. *Internal public space* is a public space in the form of public facilities managed by the government and can be accessed at any time.
- 3. *External and Internal public space*, public space in the form of public facilities managed by the private sector with restrictions set by the owner of the space.

Research Methods

Groat & Wang (2013) formulate an architectural research methodology by describing the characteristics of naturalistic research which emphasizes natural settings that are directly related to human life, focusinges on interpretation and meaning (where researchers play an important role), presentings a comprehensive

picture of phenomena, and focusings on contemporary phenomena. Data collection involves the community. Outdoor space as a natural object is closely related to the use of qualitative strategies. Research with a qualitative strategy is examining something in its natural setting, trying to understand or interpret it according to what is understood by the people being studied. Research involves a wide variety of empirical material.

Participant observation is defined as a process in which observers attend a social situation for the benefit of academic investigation. (Simmons and McCall, 1969). Apart from participant observation, data collection was also carried out through in-depth interviews. This type of interview is included in qualitative research, in which the implementation is freer when compared to structured interviews. The purpose of this type of interview is to investigate problems more openly, in which the interviewee is asked for their opinions and ideas. In conducting interviews, researchers need to listen carefully and take notes on what the informants say.

One of the data collection processes besides observation is behavior mapping. According to Haryadi (1995), this method or technique is mapping based on the place where the activity takes place, which aims to find out how humans or a group of humans utilize, use, or accommodate their behavior at a certain time and place. This study, specifically use place centered mapping behavior. This was motivated by the conditions of the outdoor space with various users using it so that researcher could not take samples of several users for mapping.

This qualitative research uses data analysis according to Miles and Huberman. The data analysis steps according to Miles and Huberman in Sugiyono (2018) are as follows:

- 1. Input data
- 2. Data collection
- 3. Data reduction
- 4. Data display
- 5. Conclusion and verification

The Akcaya settlement has one residential park used by the Pontianak community, namely the Akcaya Park. This park is a public space because it not only accommodates the needs of the general public, but residents of surrounding housing can use it directly. This is found in the outdoor space of the settlement in zone A Figure 1 in the presence of parks, neighborhood roads, and building yards.



Figure 1. Mapping of Selected Study Sites Source: Author, 2020

RESULTS AND DISCUSSION

In this study, there are two objectives to be achieved, namely identifying patterns of use of outdoor space and finding the characteristics of outdoor space territories in urban settlements. The data collection process uses observational techniques through behavioral mapping to identify patterns of space use and perform qualitative descriptive analysis. Furthermore, specific data collection was carried out by indepth interviews with selected respondents, so that the final results found suitable territorial characteristics for research studies.

Urban Settlement Space Use Patterns

Based on the results of field observations, it was found that outdoor users were divided into two groups, namely special users and general users. The special user comes from the Akcaya settlement. General users consist of street vendors and visitors to outdoor spaces in urban settlements. The division of the research location segmentation consists of three parts, both segments 1, 2, and 3, with three categories of outdoor space, both parks, neighborhood roads, and building yards. Illustration of field conditions can be seen in Figure 2 as follows:

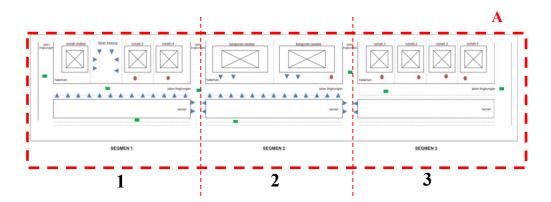


Figure 2. Situation Description of Outdoor Users in City Settlements Source: Author, 2020

Based on the results of the behavioral mapping, it is found that the use of territories and their categories are as follows:

1. Segment 1 Outdoor space

Based on field observations there was a division of territorial use patterns. The first part is on the yards with residents as special users forming the primary territory. Control is carried out permanently and is a major part of the user's daily activities. This can be observed in Figure 3 which shows that there are physical boundaries that limit space users. Based on table 3, it appears that as many as 15 respondents used the space not only for parking vehicles but also for commercial activities so that the territory of the space turned into a secondary territory because it was open to public users. In contrast to what happens on environmental roads, there is a pattern of secondary territory use, that is, the area is wider than the primary territory even though it is controlled regularly. This occurs in two controls for outdoor users, both street vendors and residents (Figure 3). Based on table 3, the neighborhood road is not only used by residents for circulation, but traders are also used for economic activities. Therefore, space is open but with common control. Furthermore, the park area is a public territory, with a variety of both specialized and external users being involved in this section. Based on table 3, activities in the park are very active so that they can involve various community groups indirectly. Therefore, space is open but with common control. Furthermore, the park area is a public territory, with a variety of both specialized and external users being involved in this section.

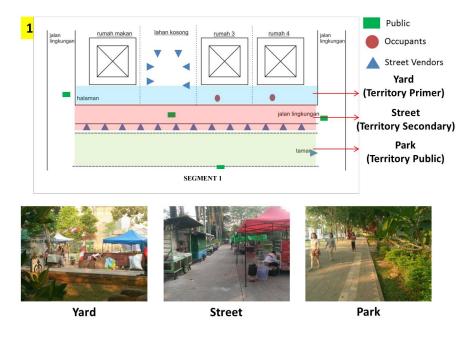


Figure 3. Segment Location Mapping 1 Source: Author, 2020

Table 3. Outdoor Space User Activities, Segment 1

	User		Time & Activities				
Category		The place	Morning	Noon	Afternoon	Night	
			(06.00-	(10.00-	(14.00-	(18.00-	
			10.00)	14.00)	18.00)	22.00)	
			Activity	Activity	Activity	Activity	
User (Special) 23 people	Occupants (15 people)	Yard	Parking	Commercial	Commercial	Commercial	
		Street	Accessibility	Accessibility	Accessibility Recreation	Accessibility Recreation	
		Parks	Sports	Recreation	Sports	Recreation	
	Outdoor spacers (8 people)	Yard	Parking	Parking	Parking	Parking	
		Street	Accessibility	Accessibility	Accessibility Recreation	Accessibility Recreation	
		Parks	Sports	Recreation	Sports	Recreation	
	Street	Yard	-	-	-	-	
User (From the outdoor space) 35 people	vendors (15 people)	Street	-	-	Commercial	Commercial	
		Parks	-	-	-	-	
	Public (20 people)	Yard	-	-	-	-	
		Street	Accessibility	Accessibility	Accessibility Recreation	Accessibility Recreation	
		Parks	Sports	Recreation	Sports	Recreation	
Total	58 people						

Source: Author, 2020

2. Segment 2 Outdoor space

In contrast to the results of data collection in segment 1, in segment 2 there is a change in the categorization of outdoor space based on user behavior. The change occurs in the primary territory in the park, the secondary territory occurs in the yard of the building and the public territory occurs on the neighborhood road. Based on Figure 4 and Table 4, very routine activities occur on environmental roads as user accessibility. This is unlike the garden which is private so that only certain users can access the space. While on the yards because it is an office building, it is quite actively used by users. Apart from being an office building, the building yard is used as a commercial area by street vendors in the afternoon until evening (table 4).

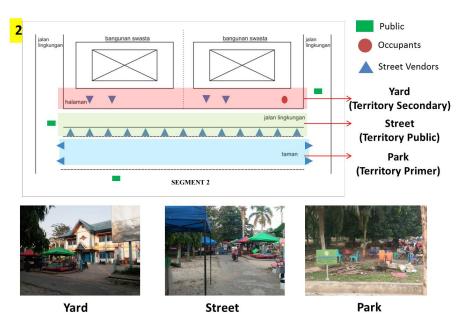


Figure 4. Segment Location Mapping 2 Source: Author, 2020

Table 4. Outdoor Space User Activities, Segment 2

	User		Time & Activities			
Category		The place	Morning (06.00- 10.00)	Noon (10.00- 14.00)	Afternoon (14.00- 18.00)	Night (18.00- 22.00)
			Activity	Activity	Activity	Activity
	Occupants (15 people)	Yard	Parking	Commercial	Commercial	Commercial
User (Special) 23 people		Street	Accessibility	Accessibility	Accessibility	Accessibility
		Parks	-	-	-	-

-	User		Time & Activities			
Category		The place	Morning (06.00- 10.00)	Noon (10.00- 14.00)	Afternoon (14.00- 18.00)	Night (18.00- 22.00)
			Activity	Activity	Activity	Activity
User (From the	0.44	Yard	Parking	Parking	Parking	Parking
	Outdoor spacers (8 people)	Street	Accessibility	Accessibility	Accessibility Recreation	Accessibility Recreation
		Parks	Sports	Recreation	Sports	Recreation
	Street	Yard	-	-	Commercial	Commercial
	vendors (15 people)	Street	-	-	Commercial	Commercial
		Parks	-	-	-	-
outdoor	Public (20 people)	Yard	-	-	-	-
space) 35 people		Street	Accessibility	Accessibility	Access; Recreation	Access; Recreation
		Parks	-	-	-	-
Total	58 people					

Source: Author, 2020

3. Segment 3 Outdoor space

Based on the results of data collection, there is no significant difference between segments 1 and 3. However, some activities do not occur in segment 3 but occur in segment 1, namely commercial activities by street vendors. This affects the formation of territories indirectly so that the neighborhood road area is used by special and outdoor space users as accessibility to reach the yards and garden (table 5). Therefore there is a difference in activity on the function of the environmental roads which can be seen in Figure 5 as follows.

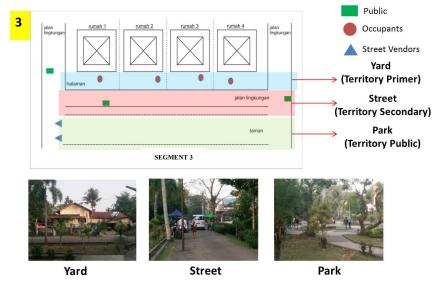


Figure 5. Segment Location Mapping 3 Source: Author, 2020

Table 5. Outdoor Space User Activities, Segment 3

	User		Time & Activities				
Categor y		The place	Morning (06.00- 10.00)	Noon (10.00- 14.00)	Afternoon (14.00- 18.00)	Night (18.00- 22.00)	
			Activity	Activity	Activity	Activity	
	Occupant	Yard	Parking	Commercial	Commercial	Commercial	
	S	Stree	Accessibilit	Accessibilit	Accessibilit	Accessibilit	
	(10	t	у	у	у	у	
User	people)	Parks	Sports	Recreation	Sports	Recreation	
(Special)	Outdoor spacers (4 people)	Yard	Parking	Parking	Parking	Parking	
		Stree	Accessibilit	Accessibilit	Accessibilit	Accessibilit	
		t	у	у	у	у	
		Parks	Sports	Recreation	Sports	Recreation	
	Street vendors (0 people) Public (10 people)	Yard	-	-	-	-	
User		Stree t	-	-	-	-	
(From		Parks	-	-	-	-	
the		Yard	-	-	-	-	
outdoor		Stree	Accessibilit	Accessibilit	Accessibilit	Accessibilit	
space)		t	у	y	y	у	
		Parks	Sports	Recreation	Sports	Recreation	
Total	24 people						

Source: Author, 2020

Based on the results of field data collection, table 6 is a summary that displays the categories of territories along with users and places. This summary also helps to reduce data in the subsequent analysis process related to territorial mechanisms that occur in the object of research.

Table 6. Summary of the territory outdoor space

Outdoor	Sub. Outdoor	User	Zoning	Category Territory
	Parks 1	Ext & Int user	Public	T. Public
Segment 1	Street 1	Ext & Int user	Semi-Public	T. Secondary
	Yard 1	Ext / Int user	Semi-Private	T. Secondary
	Parks 2	Int user	Private	T. Private
Segment 2	Street 2	Ext & Int user	Semi-Public	T. Secondary
	Yard 2	Ext / Int user	Semi-Private	T. Secondary
	Parks 3	Ext & Int user	Public	T. Public
Segment 3	Street 3	Ext / Int user	Semi-Public	T. Secondary
	Yard 3	Int user	Private	T. Private

Source: Author, 2020

Based on the summary table 6 each segment tends to form secondary territories. Secondary territories have ownership that is not that of any one

individual, as other people can enter and be seen as credible users in control of the space at regular intervals. This is in line with Sharkawy, 1979 in Lang (1987: 150) that supporting territory as semi-public territory is controlled periodically by several individuals or groups. Secondary territories are personalized during the limit time with rules stating that users are entitled to use them.

Based on the previous discussion in table 6, the pattern of using outdoor space in the secondary territory has the potential to occur in the object of research. This is evidenced by the existence of a hierarchy of semi-public and semi-private outdoor space connected to secondary territory categories that act as a supporter of any function of the outdoor space. Therefore, it is necessary to reduce the data in table 6 to obtain more specific results as shown in table 7 as follows.

Outdoor	Sub. Outdoor	Category Territory	Ownership	Control	Access
Segment	Segment Street 1		Ext & Int user	Limited	Open
1	Yard 1	T. Secondary	Ext / Int user	Limited	Closed
Segment 2	Street 2	T. Secondary	Ext & Int user	Limited	Open
2	Yard 2	T. Secondary	Ext / Int user	Limited	Open
Segment 3	Street 3	T. Secondary	Ext / Int user	Limited	Closed

Table 7. Outdoor use patterns

Source: Author, 2020

Based on the data in table 7, there is a research result that includes aspects of ownership, control, and access. This can be startup in finding territorial characteristics that occur in the object of research. In the table there is open access which includes elements of place and user, while limited control includes activities and time. Checking these elements can be by looking at the results of data collection in a behavioral mapping. There are differences in access and control based on the ownership and function of the outdoor space. Therefore this has the potential to be linked directly to understanding the characteristics of the territory.

Characteristics of the Outdoor Space Territory

Based on the results, that the outdoor space user pattern occurs is secondary territory, this territory is characterized by open access for special users and general users in the outdoor space, then there is control of time and activities that are shared between users of the outdoor space. This statement is not only proven by the user activity system but by seeing the system setting that occurs in three dimensions of outdoor space. According to Altman (1975), territory formation consists of three processes, namely the marking process, the personalization process, and the identity

expression process. Here humans (individuals/groups) give signs to their territory as a form of their power over certain spaces. This sign is personalized by the owner to differentiate it from other territories. Furthermore, identity expression is carried out to represent the existence of a human's relationship with his group or social environment. This series of processes is carried out to confirm the existence of the territory.

The basic character starts from personalization or physical and non-physical area marking and rules or structures to defend against disturbance. Physical restrictions such as fences or other physical perimeters are carried out due to the limited actions of territory owners to protect their area. Violation of physical boundaries can be easily seen if there are other parties who, without the permission of the territory owner, access their personal space. The existence of secondary territories has physical limitations permanently. In contrast to the primary territory, the building yard has physical boundaries in the form of a fence to separate the function of the space. (Figure 6). This happens to prevent access for general users, both from street vendors and the public.

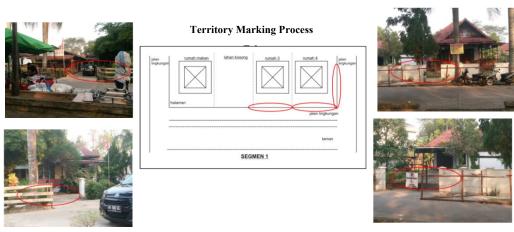


Figure 6. Teritory Marking Process Source: Author, 2020

Meanwhile, non-physical boundaries are the agreement of everyone so that claims to the territory are more absolute. Non-physical boundaries can be in the form of an arrangement of something in a place that is considered to be its territory in the form of using architectural furniture or using space according to the group wishes. Based on this statement, there are architectural non-physical boundaries that occur on yardswith the presence of street vendors (Figure 7). The existence of this temporary furniture element is part of the ownership of the street vendors who carry out commercial activities on the neighborhood road.



Figure 7. Personalization Territory Source: Author, 2020

Territory functions to determine ownership, division of functions, and determine the identity of the space itself. Secondary territorial existence with responsible ownership by the user, so that other people can enter and control the room periodically controlled. As stated by Brower (1980: 186), community territori are categorized as secondary territories that are periodically controlled by certain users. This is in line with Sharkawy, 1979 in Lang (1987: 150) that supporting territory as the semi-public territory is controlled periodically by several individuals or groups. Secondary territories are personalized as long as they are legal, with rules stating that users are entitled to use them.

CONCLUSIONS

The territorial characteristics of the outdoor space of urban settlements can be found through the process of identifying patterns of use and the elaboration of the territorial formation process from ownership, marking, and spatial identity. Based on the process of identifying patterns of use of outdoor space, a secondary territorial pattern is formed. This is created from the tendency to use space on environmental roads with free access for special and outdoor space users as well as joint control of space both in terms of time and place. Also, the use of environmental roads undergoes a secondary territory formation process with moderate ownership

characteristics or the shared responsibility of both special users and the community. There is a marking of a physical element in the form of a non-permanent furniture element by the merchant user.

Secondary territories can serve as support for the primary and public spatial function categories. This happens because there are groups of street vendors with economic activities that can involve the community and special users. Not only that, but the function of space with secondary territories can also be fully utilized, including time, place, and activity. Therefore, the existence of a secondary territory can unify the function of space with good utilization.

Changes in the function of outdoor space on environmental roads lead to the formation of secondary territories with socioeconomic activities. These activities play a role in the sustainable development of urban settlements, namely by involving various users, both general and specific. It can occur because of the cooperation between space users with open access. Therefore, the existence of the secondary territory can function in reviving a built environment.

REFERENCES

- Altman, Irwin. (1975) *The Environment and Social Behavior: Privacy, Personal Space, Territory and Crowding*, Brooks / Cole, Monterey, California.
- Altman, Irwin (1980) *Introduction Culture and Environment*, Cole Publishing Company Monterey, California.
- Brower, S.N. (1980) Territory in Urban Settings, in Human Behavior and Environment. Plenary Press, NY and London
- Haryadi & B. Setiawan. (1995) *Architecture of Environment and Behavior, An Introduction to Theory, Methodology, and Applications*, Directorate General of Higher Education, Ministry of Education and Culture.
- Kustaman & Abubakar Alwi, (2017) Pola Pemanfaatan Ruang Terbuka Oleh Pedagang Kaki Lima Di Kota Pontianak, Studi Kasus: Taman Akcaya. Tanjungpura University, in Jurnal Teknik Sipil, Vol. 17.
- Lang, Jon. (1987) Creating Architectural Theory, The Role of the Behavioral Sciences in Environmental Design, Van Nostrand Reinhold Company.
- Lang, J. Moleski, Walter (2010) Functionalism Revisited: Architecture Theory and Practice and the Behavioral Sciences, Ashgate, Sydney.
- Marcus, Clare Cooper. (2003) "Shared Outdoor Space and Community Life", Places, 15 (2), p. 32-41
- Porteous, J. Douglas. (1977) *Environment and Behavior*, Addison Wesley Publishing Company, England.
- Rapoport, A. (1977) Human Aspect of Urban Form, Pergamon Press, New York
- Sugiyono. (2018) *Metode Penelitian kuantitatif, kualitatif, dan R&D*, Alfabetta Publisher, Bandung.
- Wang, D., & Groat, LN (2013) Architectural research methods: David Wang, Linda N. Groat (Second Edition), Hoboken: Wiley.
- Un-Habitat. (2012) State of the world's cities 2012/2013: Bridging the urban divide: inclusive cities.