

Reading Body Posture: The Action Mechanism to Achieve Lively Urban Public Spaces The Lived Experience on Alexandria Corniche

Doaa Kamal El-din Kamel Hassan

Architecture Department, Faculty of Engineering, Ain Shams University
dooohatem@yahoo.com

Abstract: Urban open spaces help to improve air and water quality, improve public health, afford recreation and respite, in addition to enhancing cities' economy and vitality. In urban open spaces, planning and designing of physical facilities that include sitting, food, retailing and toilets have a great impact on the workability and appeal of such spaces. Refuge symbols, or more clearly benches and other sitting and resting elements, are the most vital aspects that encourage people to use urban open spaces. The issue of how to design and locate refuge symbols is inherent in focusing on people, understanding their posture and positioning. Therefore, this paper aims at interpreting body posture and positioning in relation to demographic variety; consequently, it suggests quality criteria for sitting elements in order to create lively urban spaces.

[Reading Body Posture: The Action Mechanism to Achieve Lively Urban Public Spaces the Lived Experience on Alexandria Corniche] Journal of American Science 2012; 8(2):357-365]. (ISSN: 1545-1003). <http://www.americanscience.org>.51

Key Words: Urban Public Spaces- Social Interaction- Body Posture- Preferences in Open Spaces- Prospect and Refuge

1. Introduction:

People's claims about their own beliefs and actions are often contradicted by their behavior. Scientific literature documents this incongruity and admits the frequency of this characteristically human disparity. Observation can be a powerful evidence of people's report about themselves during interviews and focus groups.

In his research in 1971, Albert Mehrabian— a social psychologist Professor at the University of Los Angeles – compared the strengths of verbal and non-verbal messages. He revealed that (55%) of the meaning comes from the visual body language, while (38%) is derived from the non-verbal elements of speech: the way in which the words are delivered – tone, pitch, and pace; and only (7%) comes from the actual words [1].

According to this study, together with other recent researches, reading and interpreting body language became the core of the communication process; and hence it is important to mention that body language comprises three interrelated components: "facial expressions", which are cues displayed using body parts from the head region, "gestures", the actions/movements of body parts, and finally, "postures", cues that are displayed using body parts such as the torso, arms and legs [2].

Despite the combined relation among all body cues, body posture is the issue of concern in this paper. Jan Gehl a Danish architect and urban design consultant, emphasized that the quality of an urban environment depends on the life and vitality of a place [3]. It is not enough to focus on the architectural design

and the aesthetics of the materials and details, people might come to look at the beautiful design, but they will not use, inhabit or stay for long in the place. In urban environments, open spaces is a core element which should not be neglected. They are closely related to urban dwellers' daily lives, especially in cities with high population density [4], and hence it is vital to be deliberately planned, focusing on both culture and nature. Therefore, focusing on people, how they use urban spaces, where they sit, and the physical characteristics that have an impact on space usage, could be a dramatic key in creating such spaces.

1.1 Hypothesis

Focusing on people, understanding their posture and positioning in the light of demographic variety – choices of seating, where the most populated benches are located, how they are designed and used and who uses them – is the key to understand how physical facilities, specifically refuge symbols in open spaces, should be devised. Shortly, reading body posture is the action mechanism to create lively urban spaces.

1.2 Objective: This paper aims at understanding body posture and positioning, considering demographic variety. Consequently, quality criteria for designing refuge symbols as inherent characteristics of lively urban public spaces can be established.

1.2 Methodology

It is known that seashore is a type of environments of persistent appeal as Tuan said in his book, *Topophilia*. Therefore, creating successful Corniche in

coastal cities such as Alexandria is crucial in urban quality. Regardless of creating a balanced city environment where cars, people on bikes and people walking on foot can coexist, it is essential to create spots where people can enjoy all day long, considering demographic variety and weather conditions.

Two sites along Alexandria Corniche were chosen as case studies. A non-participative, semi-structured observation method was devised for recording basic

data about the characteristics, location and activities of groups and individuals within the observation sites. Observation has been carried in 2010 during March and April on weekends. Field visits were all day long, each location took about 2-3 hours, with visits being paid to each location at different times of the day (from 10:00 am to 1:00 pm, from 1:00 pm to 4:00 pm, and from 4:00 pm to 7:00 pm).

Table 1: The Observation Matrix.

		Body Posture (openness, flexibility and focus)		
		Activities	Spots of Gathering and Sitting Features	Opportunities to See (Sea and monument prospects)
Demography	Gender	Male		
		Female		
	Age	Children		
		Teens		
		Young Adults		
		Middle-aged		
	State of Grouping	Elderly people		
		Individual		
		Couples		
		Groups or Families		

The focus in each location was on people's postures and positioning. *Openness, flexibility and movements, and direction and focus* are aspects to understand body posture. *Openness* can be reflected in positions of arms and legs, in addition to the relative position to other people and objects. It is associated with being concealed or protected with objects or natural elements. Objects can make a person feel safer – either physically or psychologically. It is important also to evaluate spaces according to *flexibility and movements* (proxemics and personal space) that they offer to change postures. *Direction and focus*, which means studying posture orientation to a specific goal, should be examined as well. Demographic variety is considered according to gender, age and state of grouping (individuals, couples, groups or families). For each site an observation sheet was devised that comprised an outline diagram of the key features of the site, and a matrix where observed data could be recorded (Table 1).

2. Prior Literature

Social life and interactions in urban public spaces is a complicated issue that was addressed in many researches before. Some handled the concept of preferences and the physical features of open spaces, while others focused on people themselves.

There are a lot of theorists, architects and planners who wrote about preferences in landscape and open

spaces. Tuan, Appleton, and Kaplan and Kaplan are well-known names in this field. Each of them explained people's preferences using his own terminology. Tuan coined the term "Topophilia", which means human beings' affective ties with the material environment that range from the direct physical contact to the sense of attachment and symbolism [5]. Appleton interpreted people's preferences in landscape whatever its style is, in terms of the desired balance of "prospect and refuge" [6]; while Kaplan and Kaplan explained it due to the "content of the scene and its spatial configuration" [7]. Despite these differences in explaining preferences, two central matters can be drawn out: prospects to natural scenes and possibilities to stay.

In addition to these concepts, there are others who consider studying social life in urban spaces: squares, parks and streets. An American urbanist, William H. Whyte, was one of those who described the substance of urban public life in an objective and measurable way. He began to use direct observation to describe behavior in urban settings [8]. Jan Gehl also emphasized that criterion for urban quality starts with people's use of spaces and knowledge about behavioral patterns [9].

Focusing on people, where they stay and what they do is actually the core of spirited urban public spaces. Thus, reading body posture and positioning is the approach to create such spaces. Postures generally refer

to the different positions that the human body can take. Posture is understood through such indicators as direction of lean, body orientation, arm and leg position, and body openness. Body postures and positioning (the relation to physical features such as sitting elements, fences or any other refuge symbol) are a real reflection of people's preferences in urban spaces.

Reading body posture is like any socio-cultural phenomenon that should be reviewed, analyzed, and then evaluated. "Review" is the phase in which you have to build up the segments in order to make sense of the whole picture. Open your eyes and ears. Turn off your biased, over-analytical brain and observe the way a child observes [10]. After collecting raw data, the "Analysis" phase takes place, considering *openness, flexibility and movements, and direction and focus*. Finally, it is "Evaluation", the phase in which we should take decisions; i.e. we should give meanings to all observed cues taking into account how our preconceived notions can filter what we see. Shortly, it can be said that this phase is the phase of interpretation.

Achieving quality criteria for lively urban spaces was previously tackled by others; but the focus here is to understand body posture and positioning to achieve well-designed and planned "settable" places. This paper is a qualitative research that mainly depends on the researcher – the measurement device [11]. Nevertheless, it is important to assure objectivity in reading body posture by considering context, clusters (sufficient samples/evidence), and description versus interpretation.

3. Interactions in Spaces: The Lived Experiences

This part presents an overview of the observation in certain spots along Alexandria Corniche. Before going through the lived experience, the rationale for selecting the study locations and the particular public spaces observed should be explained. This study aims at looking in depth at one of the most important coastal cities in Egypt – Alexandria. It is known that water paths – if exist – whether they confront rivers or seas, are of a great significance in planning sites. Undoubtedly, no town or city is exactly the same as another; and as for Alexandria Corniche in particular, each part has its own identity. However, focusing on specific spots in detail could explore issues that might be relevant to locations elsewhere, and is thus preferable to superficially studying the whole Corniche.

The historical locations of Al-Muntazah Palace and Qayitbay Castle are chosen for this study. Each of these sites is an urban public space that has a monument representing a certain era in the history of Alexandria. Such places acquire their reputation from both their

historical significance and geographical location – confronting the Mediterranean Sea.

People's interests and activities in such open spaces are optional. They include children's play, passive activities and active recreation. Examples of passive activities are: wandering to get a breath of fresh air, standing around or sitting just to have fun. Active recreation often takes place in groups and may include sports (Gehl 365). Generally, passive activities which are linked with the mental health of the restorative opportunities are the most frequently undertaken activities along the sea Corniche [12].

The location of Al-Muntazah Palace includes a palace, extensive gardens in Al-Muntazah district of Alexandria and a number of piers. It was built on a low plateau in the East of central Alexandria, overlooking a beach on the Mediterranean Sea. The royal gardens are open as a public landscape park and forest reserve (Fig. 1). The site at Qayitbay Citadel is a charming promenade where people can enjoy passive activities and a lot of active recreation, such as bicycling. The Citadel is situated at the entrance of the eastern harbor on the eastern point of the Pharos Island (Fig. 2).

By using the observation matrix that determines demography and body posture as basic interrelated variables in this research, interaction in places has been reviewed and analyzed. A complicated demography and body posture associated with different activities, sitting possibilities and direction of focus has been detected as follows:

Males and females represent nearly the same proportion. They spend their time talking, playing games and contemplating nature, specifically the sea view, or even watching other people. Males are fishing and cycling. Both males and females seek sea edges, back benches, and built-in benches, whereas the concrete blocks of the sea wall are mostly used by males.

Regardless of seeking the same sitting features, males and females differ in some of their postures. Males display more relaxed postures than females. They use more personal space than females, and are likely to invade others' personal space. Women are more selective than men as to where they sit, more sensitive to annoyances, and spend more time investigating the various possibilities.

In compliance with prior literature, men tend to sit in open positions while women tend to sit in closed positions. Differences in leg positions are more notable than differences in arm positions. In regard to arm and leg combinations, the most common combination for men is open arm/open leg. There are no significant differences between arm and leg combinations of women [13] (Figs. 3, 4).

Children spend their time gamboling, cycling, riding scooters, and playing with balls; while young

adults (20-40 years), middle-aged (40-60 years) and elderly people (above 60 years) are observed talking and watching, in couples or groups. Despite age

differences, they all use the same sitting features. Fences and concrete blocks of the sea wall are often used by teens and young adults.



(Fig. 1) The site at Al-Muntazah Park.



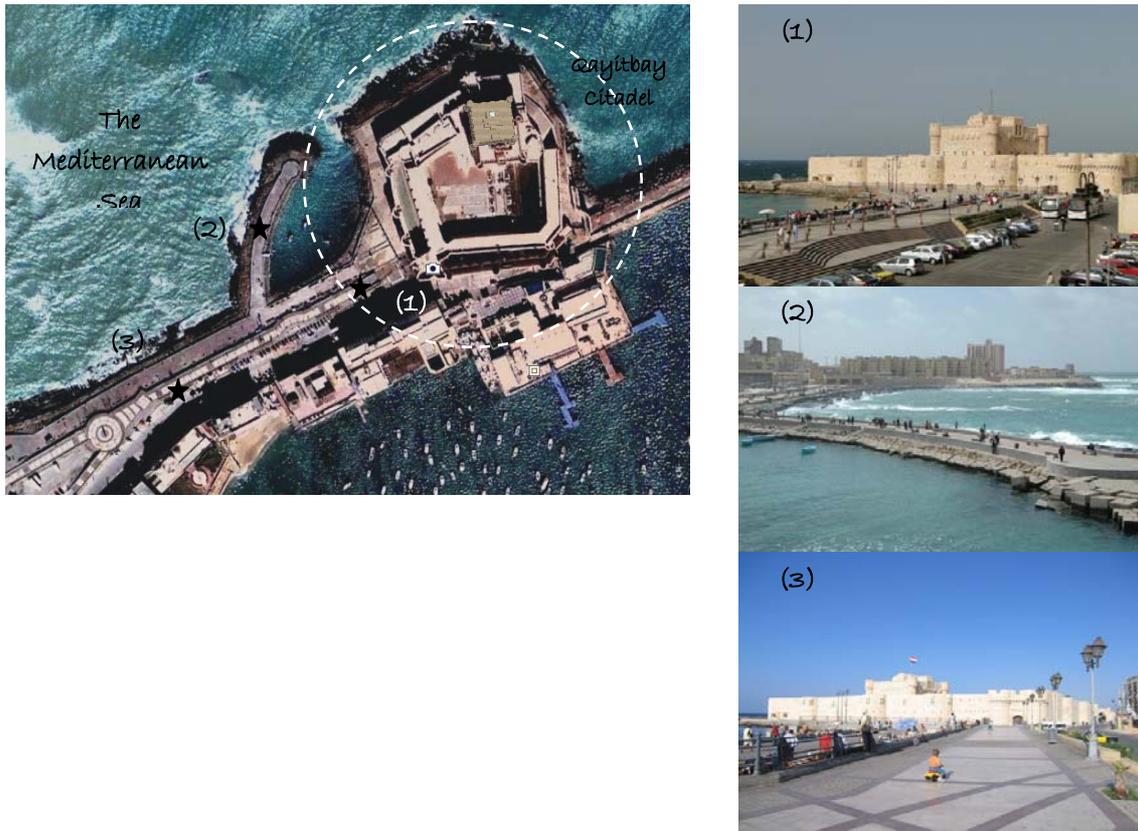
It has been noticed that a typical bench which is located in various positions along the sea Corniche is not chosen, compared to the wide-built edge or built-in seats along the sea edge (Fig 5). In this respect, it is important to mention that families and groups did not make use of these benches in spite of their parallelism to the sea edge (benches and the sea edge form two sitting possibilities that face each other). The design of benches may be uncomfortable to sit, and hence are disused or misused.

Sea edges are also preferred by both genders and all ages, according to their nearness to the sea. Moreover, the shape of the sea edge affects its usage. Wide-built edges support opportunities for males and females, but it is hard for females to use thin parapets (Figs. 6, 7). In addition, it has been observed that groups and families gather along the sea edge (some individuals are standing facing others who are sitting on the sea edge).

Definitely, this style of gathering cannot stand for a long time since it does not support adequate sitting features for all group members.

"A dimension that is truly important is the human backside. It is a dimension many architects ignore. Not often will you find a ledge or bench that is deep enough to be sittable on both sides. Some are not sittable on one [14]."

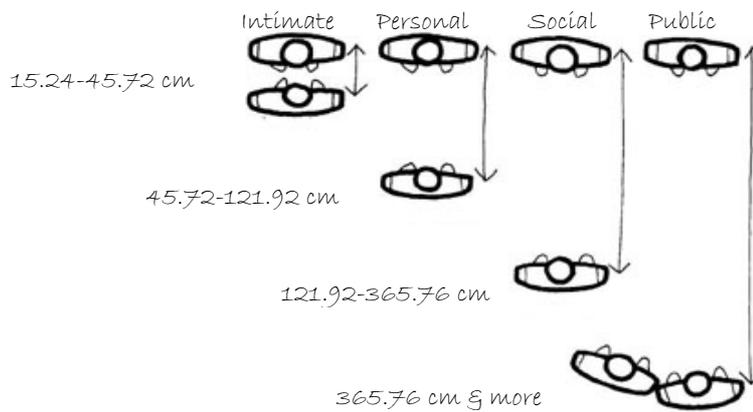
Concrete blocks that form sea wall in various locations on Alexandria Corniche are believed to be the most inviting sitting place. Sitting or even standing on these blocks support a direct and simple panorama for the sea prospect. Such arrangement of those blocks provides refuge possibilities for families and groups as well as solitary experience, but in many occasions it is hard for children and elderly people to reach, or walk among, them (Fig. 8).



(Fig. 2) The promenade at the site of Qayitbay Castle.



(Fig. 3) Gender Differences: men and women often use the same refuge symbols, but women are more likely than males to adopt a closed position. Women fold their arms in front of the body and cross their legs or keep them together. Direction of lean is often towards the front since all sitting elements do not have back.



(Fig. 4) Distance Relationships among People [15].



(Fig. 5) Benches: empty or misused.

"Fixed individual seats deny choice. The designer is saying: "you sit here and you sit there". This is arrogant of him. People are much better at this than designers [14]."



(Fig. 6) Wide-built edge: females seek the wide sea edge to get sea prospect – closed position; but definitely it is not suitable to sit for long; this can be denoted from body lean.



(Fig. 7) Sea parapet: closed standing position (A) versus open sitting position (B).



(Fig. 8) It has been noticed that concrete blocks of the sea wall provide engaging refuge symbols for males and females, groups and individuals, and people of all ages. It appears from these snapshots that direction of lean is always towards the front; definitely this can be justified by the uncomfortable sitting (no back). Body orientation is associated with two factors: sea prospect and interaction with others in the case of being in a group.

4. Findings and Discussion

This part considers extracting meanings and drawing out quality criteria for how to design and plan “sittable” spaces. From the lived experience, it can be concluded that people make use of all possibilities of sitting features, whether they are allocated for such use, like wide-built edges and benches, or not, such as sea walls.

Sitting elements are pivotal in such spaces; people need refuge while enjoying social interaction, reading and watching sea prospects. Nevertheless, and in accordance with what people displayed in their postures and positioning, chosen locations succeeded in attracting people not for their adequate design as a public open space but because it is a water space which is endearing in itself.

Regarding openness, flexibility and movement, direction and focus all “sittable” spaces in the chosen locations support sea prospects which is considered the main focus that people’s positions are mainly directed to. People commonly sit or stand reposefully, but females have been often seen in a more closed position – folding their arms in front of their bodies and crossing their legs or keeping them together.

Flexibility in sitting positions is limited, especially for females, since all sitting elements are just like a bench without a back. Seats without backs affect torso lean and people feel uncomfortable after a while. Furthermore, sitting elements do not support opportunities for gathering. Groups and families have no chance to have a comfortable arrangement of seats to interact together while enjoying natural scenes. They are forced to alter their positions between standing and sitting.

People's posture and positioning is a real guidance to evaluate sitting possibilities in urban public spaces. Consequently, quality criteria for designing adequate sitting spaces can be concluded by focusing on people, not the architectural design and aesthetics of materials and details; and this can be achieved as follows:

Workability

The usefulness of benches and other seats depends on both their location and design. They should be designed in a standard height and width considering back comfort. Needs of gender differences and all age groups, in addition to state of grouping, must be met.

Protection

Sitting elements should be designed to support protection, i.e. to provide safety, either physically and psychologically. This can be done by creating different zones of sitting that support different requirements of demographic groups, emphasizing privacy and

suggesting solutions for protection against sense experiences – weather conditions, especially sun and rain, as well as noise.

Enjoyment

Well planned positioning of sitting elements where desirable prospects can be watched is crucial to realize comfort and enjoyment. Distances between benches or any other “sittable” spaces should be considered to provide privacy, feeling of security and free entertainment.

Identity and Aesthetic Quality

As spaces should have character, physical features of these spaces are aspects to enhance this character. Sitting elements and their arrangement should be designed and located to denote meanings associated with "spirit of place".

5. Conclusion

Urban public spaces, especially water spaces, are one of the most attractive spaces. A successful design of such spaces is a relative issue that is associated with the physical attributes. Designing and planning of “sittable” spaces is one of the most central physical facilities in urban public spaces. In this study, two historical sites at Alexandria Corniche were chosen. Provided sitting elements are sufficient but not used efficiently as observed from people’s posture and positioning (Table.1). It is important to provide such spaces with a variety of sitting elements that meet the needs of gender social structure, age and state of grouping.

In brief, focusing on people; understanding their body posture and positioning has a vital role in evaluating “sittable” spaces, and hence settling a strategy to design these physical facilities that affect vitality of spaces

Table 2: An outline of the procedures carried out to evaluate open spaces by means of reading body posture and positioning. **Reading Body Posture:**

The Action Mechanism to Achieve Lively Urban Public Spaces								
Procedures	(1)	The Focus		Body posture and positioning				
	(2)	Phases of Reading Body Postures and Positioning	Description versus Interpretation					
			In order to reach the best results, it is crucial to differentiate between description and interpretation through the different phases of reading body posture and positioning					
	(3)	Phases of Reading Body Postures and Positioning	Description	Review	Using observation matrix sheet (Collecting raw data –no mental processes)			
			Interpretation	Analysis	Analyzing raw data considering: <table border="1" style="width: 100%; text-align: center;"> <tr> <td>Openness</td> <td>Flexibility & Movement</td> <td>Direction & Focus</td> </tr> <tr> <td>Positions of body parts (arms and legs) and relation to barriers</td> <td>Proxemics and personal space (feeling free in changing body posture)</td> <td>Body lean and direction to a specific focus</td> </tr> </table>	Openness	Flexibility & Movement	Direction & Focus
Openness	Flexibility & Movement	Direction & Focus						
Positions of body parts (arms and legs) and relation to barriers	Proxemics and personal space (feeling free in changing body posture)	Body lean and direction to a specific focus						
(3)	Phases of Reading Body Postures and Positioning	Evaluation	Giving meanings to all observed cues in order to understand and evaluate the whole scene.					

Corresponding author

Doaa Kamal El-din Kamel Hassan
 Architecture Department, Faculty of Engineering, Ain
 Shams University
dooohatem@yahoo.com

References

1. Borg, James. *Body Language: 7 Easy Lessons to Master the Silent Language*. FT Press, 2010, 17.
2. Tan, Shawna C.G, and Alexander Nareyek. "Integrating Facial, Gesture, and Posture Emotion Expression for 3D Virtual Agent." *Microsoft Academic Search*. 23 May 2010, 2 <<http://www.ai-center.com/publications/tan-cgames09.pdf>>.
3. Gehl, Jan. "Three Types of Outdoor Activities and Life Between Buildings". From 'Life Between Buildings: Using Public Space' (1987). *The Urban Design Reader*. By Michael Larice and Elizabeth Macdonald. London and New York: Routledge, 2007, 365.
4. Shulin, Shi. "Health Promoting Effects of Enclosure of Urban Public Open Spaces: Through Behavioral studies in Hong Kong." *Universitas 21 International Graduate Research Conference: Sustainable Cities for the Future*. Melbourne & Brisbane, Nov 29 – Dec 5, 2009. 19 May 2010, 159 <<http://www.universitas21.com/GRC/GRC2009/SHI.pdf>>.
5. Tuan, Yi-Fu. *Topophilia: A Study of Environmental Perception, Attitudes, and Values*. New York: Columbia University, 1990, 93.
6. Appleton, Jay. *The Experience of Landscape*. John Wiley & Sons, 1996, 207-210
7. Kaplan, Rachel, and Stephen Kaplan. *The Experience of Nature: A Psychological Perspective*. Cambridge University, 1989, 4, 40. Whyte, William
8. H. "Social Life of Small Urban Spaces". *Time-Saver Standards for Urban Design*. McGraw-Hill, 2003, 2.12-1.
9. Sohlt, Helle. "Life, spaces, and buildings – turning the traditional planning process upside down". *Walk21-V Cities for People, the Fifth International Conference on Walking in the 21st Century*, June 9-11 2004, Copenhagen, Denmark. 5 November 2011, 3. <www.citiesforpeople.dk/www.walk21.com>.
10. Hartley, Gregory, and Maryann Karinch. *I Can Read You Like a Book*. Career Press, 2007, 65, 66, 115.
11. Groat, Linda, and David Wang. *Architectural Research Methods*. John Wiley & Sons, 2002, 179.
12. Woolley, Helen. *Urban Open Spaces*. London: Spon Press, 2003, 12, 13.
13. Morin, Celie, and Jessica Maxfield. "Gender Differences in Sitting Positions of College Students and Explanation of these Differences". *Sociological Perspectives. The Undergraduate Sociology Journal at the University of New Hampshire*, Spring 2010. 7 July 2011, 1, 2, 8. <www.unh.edu/sociology/media/Podcasts/CelieMorin.pdf>.
14. Whyte, William H. *City: Rediscovering the Center*. University of Pennsylvania, 2009, 114, 121.
15. De Chiara, Joseph, Julius Panero and Martin Zelnik. *Time-Saver: Standards for Interior Design and Space Planning*. McGraw-Hill, 1992, 1119.
16. Holland, Caroline, Andrew Clark, Jeanne Katz, and Sheila Peace. *Social Interaction in Urban Public Places*. Joseph Rowntree Foundation, 2007. 2 January 2010. <www.jrf.org.uk/sites/files/jrf/2017-interactions-public-places.pdf>

1/25/2012