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## **Central urban squares mediating unexpected encounters between different income classes**

Praças centrais mediando encontros inesperados entre membros de diferentes classes sociais

*Paula Barros<sup>1</sup>, UFMG, p.barros@yahoo.com.br*

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<sup>1</sup> Professora Adjunta, Departamento de Projetos, EA UFMG.

## ABSTRACT

The recent worsened of the social inequalities with the global economic crises demands more research on how urban design proposals may facilitate unexpected encounters between different income classes. The present study aims to deeper our understanding on how the physical and spatial properties of central urban squares may support socialization between strangers that experience highly contrasting urban conditions in a daily basis. Such knowledge may benefit planning and urban design practices in different countries around the world, mostly those whose population has suffered from social and economic inequalities. To achieve this aim, this study explores the use of Liberdade Square, Raul Soares Square and Estação Square by homeless people and other users. By studying these well-used public urban open spaces in Belo Horizonte, a Brazilian large city, lessons may be learned on how to design public urban open spaces socially more inclusive. A mix of methods was chosen to gather primary data in situ: (i) unstructured observation, (ii) systematic observation, and (iii) face-to-face semi-structure interview. A quali-quantitative approach to data analysis was adopted. It was found that those people perceived to be unappropriated tend to carry out optional social activities at the edges, or rather, at the backstage of central urban squares, possibly to avoid conflict. Most importantly, the evidence suggests that environmental pleasantness tends to facilitate active social interaction between undesirables and the other users in central urban squares.

**Palavras Chave:** social inclusion; social interaction; urban design

## RESUMO

O agravamento das desigualdades sociais em função das crises econômicas globais demanda mais pesquisa sobre como o desenho urbano pode facilitar interações sociais entre pessoas pertencentes a classes sociais de diferente poder aquisitivo. O presente estudo tem como objetivo aprofundar o conhecimento acumulado até o momento sobre como os aspectos físicos e espaciais das praças centrais podem facilitar a socialização entre desconhecidos que vivenciam condições urbanas altamente contrastantes no seu cotidiano. Tal conhecimento pode beneficiar as práticas de planejamento e urbanismo em diferentes países ao redor do mundo, principalmente aqueles que enfrentam contrastantes desigualdades sociais e econômicas. Para alcançar esse objetivo, este estudo analisa o uso social em três praças localizadas na área central de Belo Horizonte por pessoas em situação de rua e outros usuários: Praça da Liberdade, da Praça Raul Soares e da Praça da Estação. Ao estudar esses espaços públicos podem ser aprendidas lições sobre como projetar espaços públicos socialmente mais inclusivos. Uma combinação de métodos foi escolhida para coleta de dados in situ: (i) observação não estruturada, (ii) observação sistemática e (iii) entrevista semi-estruturada face-a-face. Foi adotada uma abordagem quali-quantitativa para a análise de dados. Constatou-se que as pessoas pertencentes às classes mais baixas tendem a realizar atividades sociais opcionais no “fundo” das praças centrais, possivelmente para evitar conflitos. Mais importante ainda, as evidências sugerem praças consideradas mais aprazíveis tendem a ancorar mais conversas entre indesejáveis e os outros usuários.

**Keywords/Palabras Clave:** inclusão social, interação social, desenho urbano

## INTRODUÇÃO

The role that design has to play in the generation of more inclusive urban environments has been an important topic in theory, teaching and practice of urban design, as reflected in the large amount of literature on how physical attributes may attract and retain a large range of people in public open spaces. However, how urban design may frame interactions between lower and higher income social groups have been under-researched. The recent worsened of the social inequalities with the global economic crises demands more research on how urban design solutions may facilitate unexpected encounters between different income classes.

To address the research question “How may design solutions facilitate active interaction between different classes in public open spaces?”, this paper explores the daily use of three central urban squares by “undesirable” and “desirable” users within the context of Belo Horizonte, a capital city with approximately 2,5 million of inhabitants located in the Southeast of Brazil. Undesirables, or people who are usually perceived as being unpleasant or threatening, are traditionally not present in discussions on urban design.

Public urban squares in Brazil, a country impacted by longstanding social and economic inequalities, have played a fundamental role in mediating unexpected encounters between different income classes in the country. It follows that by studying these well-used public urban open spaces in Belo Horizonte, lessons may be learned on how to design public urban open spaces that are likely to attract and retain a large range of users. It is important bear in mind that although social mix has been associated with a series of benefits, such as opportunities to exercise citizenship, tolerance and solidarity, conflict may also emerge.

Liberdade Square, Raul Soares Square and Estação Square were chosen as case study sites because these touristic attractions represent a potentially enlightening opportunity to explore how the most common human needs and preferences may be met by urban open spaces. A mix of methods was chosen to gather primary data in situ: (i) unstructured observation, (ii) systematic observation, and (iii) face-to-face semi-structure interview. Photos were discretely taken because visual recording affords further analysis after the event. A quali-quantitative approach to data analysis was adopted.

The present study, which is part of a PhD research developed at Oxford Brookes University, aims to deeper our understanding on how the physical and spatial conditions of public open spaces may support socialization between strangers that experience highly contrasting urban conditions in a daily basis. Such knowledge may benefit planning and urban design practices in different countries around the world, mostly those whose population has suffered from social and economic inequalities.

## HUMAN-ENVIRONMENT INTER-RELATIONSHIPS

Research has shown that interactions between people and environments involve four interconnected phases interweaved with emotional reactions: perception, cognition, evaluation and action (Downs and Stea, 1973, 1977; Rapoport, 1977, 1982). In order to perform our daily activities, we need not only to select multisensory information but also to organize and synthesise it our cognitive maps (Downs and Stea, 1973, 1977). For the purposes of this study, cognitive maps shape the way people relate to particular spaces.

When individual cognitive maps are combined, they form a collective cognitive map. The research on which this paper is based argues that rather than relying exclusively on their own preferences and intuitional agendas, urban designers should aim to understand user preferences by empirically studying the inter-relationships between collective cognitive maps and the behavioural patterns of users of particular public open spaces.

The present research assumes that the physical and social dimensions of a space altogether suggest what people has the “right” to be there, doing what, with whom, how, when and for how long. It follows that urban design is not going to determine the social use of public open spaces, but influence, frame, facilitate or inhibit.

## **METODOLOGY**

The study, which is part of a PhD research developed at Oxford Brookes University, adopted a multiple case study approach and urban square as a unity of analysis. Urban squares, for the purposes of this research, are defined as “[...] public open spaces meant for leisure and social mingling, accessible to the population and free of vehicles.” (Robba and Macedo, 2003, p. 17).

Estação Square, a type of hardscaped square, Liberdade Square and Raul Soares Square, both soft-landscaped urban squares, were chosen as case study sites. The former category includes those urban squares characterized with a predominantly hard surfaced area, resembling plazas in Europe, and the latter includes those urban squares where paved areas and planting tend to be finely balanced.

A pilot phase of the research was used to identify and test what would be observed from users of the different case study sites during the empirical fieldwork activities. It is necessary to point out at this juncture that a distinction was made between stationary and ambulant (or transient) users of public open spaces. To increase the representativeness of the sample, the fieldwork activities were scheduled on different weekdays. Stationary users younger than 16 years old were excluded from the study because of ethical reasons.

During the second stage of the research – the data collection phase – in Liberdade Square, Raul Soares Square and Estação Square, 453 stationary users carrying out optional activities were interviewed and 1231 optional stationary activities were observed during the systematic observation sessions carried out in 2006. Optional stationary activities are those that people choose to do (Gehl, 1987). The third stage of the research involved mapping and analysing qualitatively the behavioural and perceptual data collected in situ.

## **RESULTS AND DISCUSSION**

### **Users evaluations of central urban squares**

Stationary users carrying out optional social activities were asked to evaluate the quality of the space where they were spending time and ambulant users were asked to evaluate the quality of the route that they had just experienced in the urban square in question. Five scales were used for answers to both questions: ‘very unpleasant’, ‘unpleasant’, ‘indifferent’, ‘pleasant’ and ‘very pleasant’.



Only few stationary users in Liberdade Square (2.7%), Raul Soares Square (23.2%) and Estação Square (15.0%) evaluated the space where they were carrying out a stationary activity as ‘unpleasant’. The results of this research, therefore, suggest that central urban squares in the context of Belo Horizonte were likely to be perceived as public open spaces which provided for pleasurable optional stationary activities.

A Kruskal-Wallis test found that the satisfaction levels with the spaces where the stationary optional activities were being carried out in Liberdade Square, Raul Soares Square and Estação Square differed significantly ( $p=.001$ ). Mann-Whitney U tests revealed that the satisfaction scores of stationary users in Liberdade Square were significantly higher than those of stationary users in Estação Square, which, in turn, were significantly higher than those of stationary users in Raul Soares Square (see Table 1). The evidence suggests that Liberdade Square tended to accommodate stationary social activities better than the other study areas did.

Table 1: Differences between stationary users in Liberdade Square, Raul Soares Square and Estação Square in terms of evaluation of static experience in these urban squares.

| Case studies   |  |  |
|--|--|--|
| Raul Soares Square and Estação Square                | Raul Soares Square and Liberdade Square            | Estação Square and Liberdade Square                  |
| $U=7500.5, N_1=125, N_2=140,$<br>two-tailed $p=.013$ | $U=4862, N_1=125, N_2=149,$<br>two-tailed $p=.001$ | $U=6800.5, N_1=140, N_2=149,$<br>two-tailed $p=.001$ |

Source: semi-structured interview in situ, fieldwork.

A Kruskal-Wallis The quantitative analysis of the data obtained from systematic behavioural sessions shows that undesirables were less frequently observed undertaking stationary optional activities in Liberdade Square (3.2 %), Raul Soares Square (14.7 %) and Estação Square (4.7%). This suggests that undesirables carrying out optional stationary activities are a minority in the case study sites.

However, although undesirables are not likely to carry out optional stationary activities in central urban squares in the context of Belo Horizonte, at least during weekdays at lunch time, statistical analysis revealed that undesirables were more likely to perform optional stationary activities in Raul Soares Square. During the fieldwork activities, Raul Soares Square was comparatively a very badly-maintained urban square (Figure 1).



Figure 1: A marginalized user watching the passing scene in Raul Soares Square.

Raul Soares Square, the case study site that lacked adequate maintenance during the fieldwork activities, presented the larger concentration of undesirable users carrying out optional activities. This event reflects what has happened in the city as a whole, lower income groups are tolerated in spaces characterized by very poor physical conditions and that do not fit the upper income classes demands. The lower income groups may decode the lack of care as a sign that they are socially allowed to carry out leisure activities in that “left” space.

### Urban design and active social interactions between undesirables and the other users

Distance is used to regulate intimacy and intensity in various social experiences. In this context, research has suggested that in urban public open spaces people tend to be felt in direct relation to each other within a distance of 3m from each other (Gehl, 2010; Lynch, 1971). More meaningful forms of human contact take place at shorter distances because in this circumstance the amount of sensory information gathered increases greatly as long as other senses start to supplement the sense of sight (Gehl, 2010).

The analysis of data collected through systematic behavioural sessions was divided into two categories: (i) users at a distance of 3m from any other (or less), and (ii) users at a distance greater than 3m from any other. A Chi-square test for independence (with Yates Continuity Correction) indicated a significant association between group stationary activity and spatial proximity in all the case study sites (Table 2).

The results suggested that stationary users at a distance within 3m from each other are more likely to carry out more intense forms of social contact, such as conversing, than those at greater distances. Although there is no guarantee that being at short distances to one another will engender meaningful social contact between marginalized and non-marginalized groups, the results suggest that any potential opportunities for interaction are being influenced by the effects of proximity.

Table 2: Association between group activity and spatial proximity.

| Case studies                           |   |   |
|--|---|---|
| Liberdade Square                       | Raul Soares Square                      | Estação Square                          |
| $\chi^2 (1, n=464)=, p =.001, phi=.55$ | $\chi^2 (1, n=464)=, p =.001, phi =.78$ | $\chi^2 (1, n=128)=, p =.001, phi =.54$ |

Source: structured observation, fieldwork.

The results demonstrates that physical layout of central urban squares can provide choices and opportunities to carry out social activities at short distances from other people, situations which, in turn, may propel users to start a conversation. Figures 2, 3 and 4 show the distribution of optional stationary activities carried out by (i) ‘undesirables’, (ii) ‘desirables’, and (iii) ‘both classes of users’ at a distance  $\leq 3m$  from each other.

The behavioural maps indicate that low and higher income social groups tend to avoid being at short distances from each other, a social condition which inhibits the development of more intense forms of social contacts (see Figures 3, 4 and 5). As discussed, although short distances between strangers do not mean that they will start a conversation, being up close to each other does mean that more complex forms of social contact can grow from it. In this regard, the result of the present research suggests that undesirable and desirable users tend to avoid being at short distances from each other, a situation which inhibits the development of more intense forms of social contacts.

The evidence also shows that those marginalized users tended to spend time at the backstage of public open spaces while the non-marginalized in highly visible locations, such as the bandstand in Liberdade Square and the Monumento à Terra Mineira in Estação Square (see Figures 3, 4 and 5). Significantly, it was found that in Liberdade Square – the most appreciated case study site to carry out stationary optional activity – social contact between undesirables and desirables was more frequently observed when compared to the other case study sites.

The behavioural maps also shows those users deemed as unappropriated are more likely to form small clusters at the backstage of central urban squares: seating edges that offer refuge and comfort. Besides environmental and social conditions, highly visible urban design elements, such as the bandstand at Liberdade Square, tend to anchor large clusters of desirable users. This result indicate that the socio-spatial fragmentation that take place at large-scale are replicated at the micro-scale of urban environments: the most powerful social groups tend to concentrate in the most prominent spots, while the losers attempt to blend with the background possibly to avoid conflict.

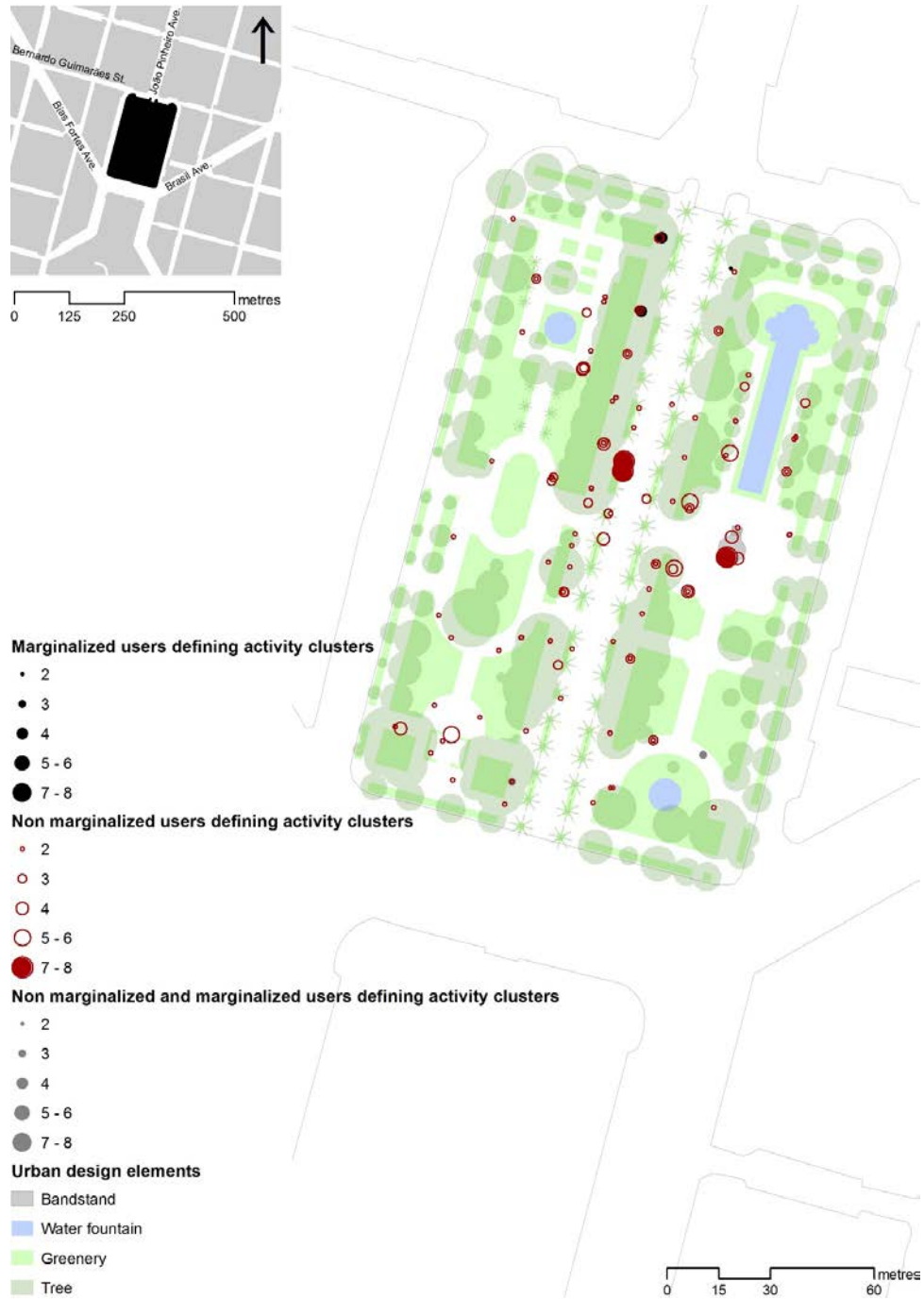


Figure 3: Behavioural map showing activity clusters in Liberdade Square.

Source: structured observation, fieldwork.



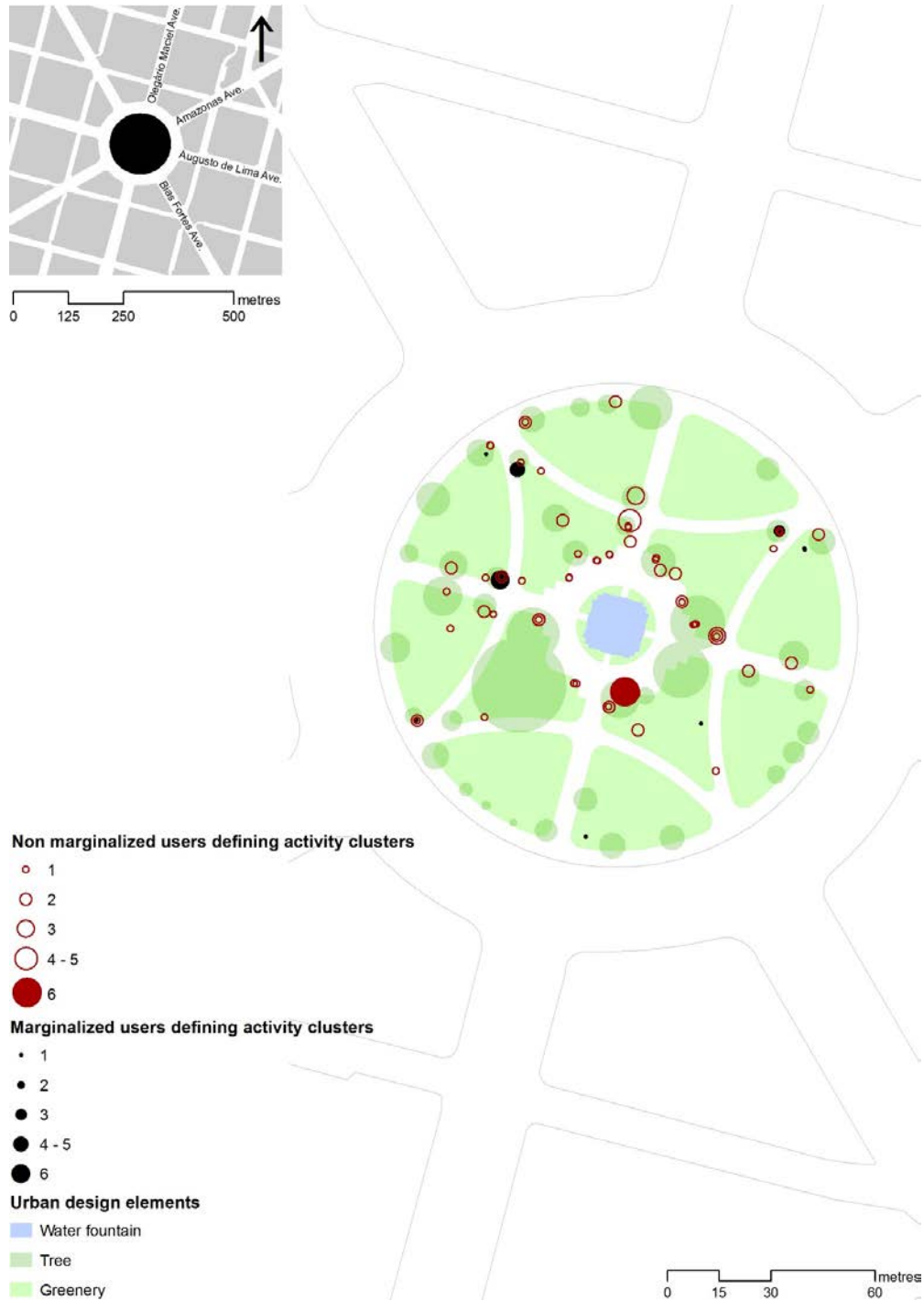


Figure 4: Behavioural map showing activity clusters in Raul Soares Square.

Source: structured observation, fieldwork.

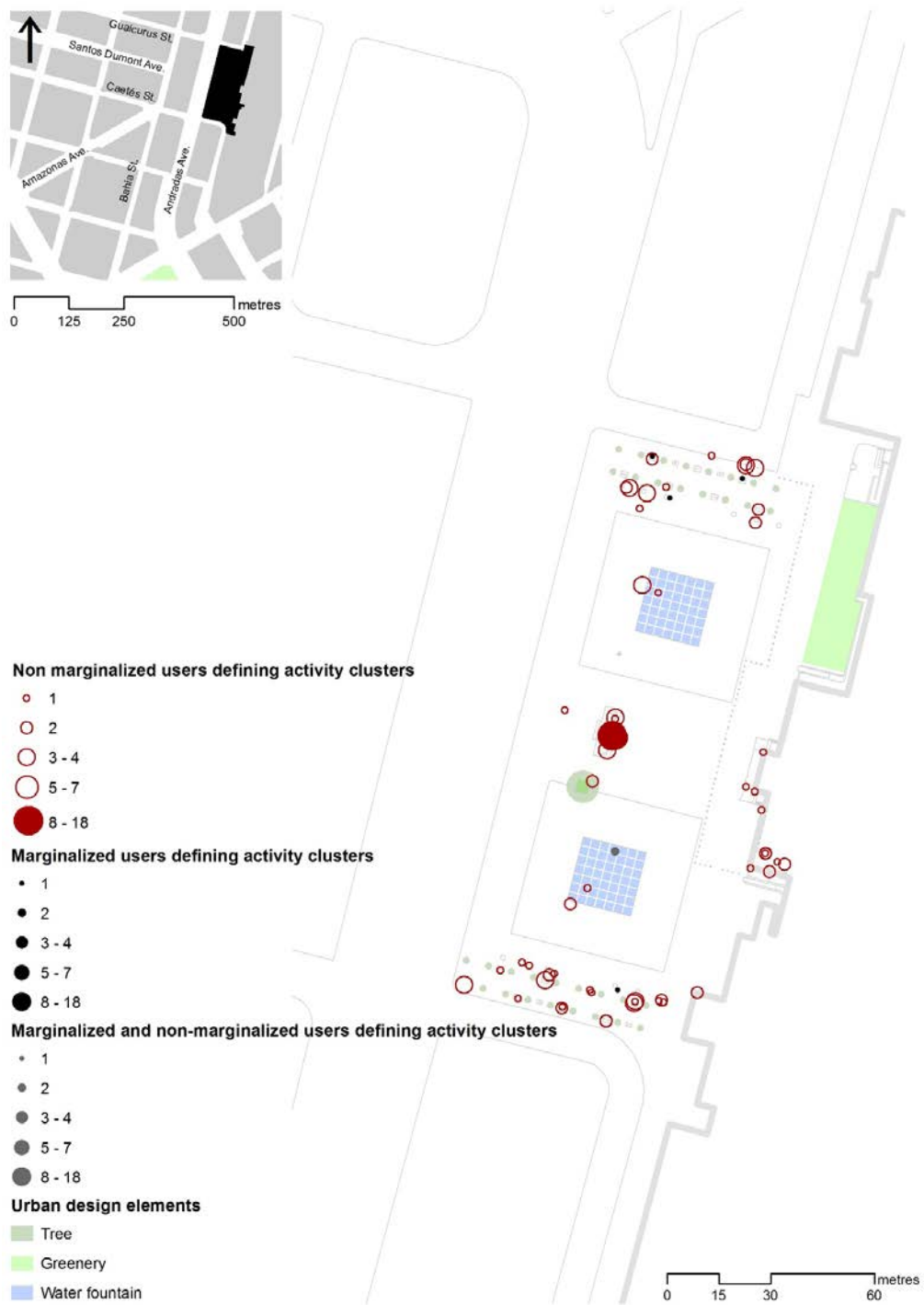


Figure 5: Behavioural map showing activity clusters in Estação Square.

Source: structured observation, fieldwork.

## CONCLUSIONS

The promotion of socially more heterogeneous public open spaces has been on the public agenda of several cities around the world. Social interactions have been associated with several benefits: attenuation of stigmatization, enhancement of social control, greater ability to influence political decision, expansion of social network and enrichment of community life. However, there has been a tendency to remove from public open spaces those users deemed as unappropriated by the most powerful groups.

The results of the study reinforce the idea that urban design can contribute to sustaining social activities and interactions in public open spaces but there is still much we do not understand about this complex set of design challenges. Further research is needed to deepen our understanding of how different social groups, such as undesirables, experience urban open spaces.

The research also demonstrated how those people perceived to be unappropriated by the majority of users of public open spaces tend to prefer to spend time at the backstage of public open space possibly to avoid conflict. Most importantly, the evidence shows that fostering opportunities for social interaction between traditionally marginalised and non-marginalised groups is more likely to take place in urban open spaces perceived to be 'pleasant' than those that are less-maintained and managed. The contention of this paper is that urban design can and should play a more central and progressive role in creating inclusive public open spaces.

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