

Modelling Urban Experiences

Zuidas, Amsterdam

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Abstract

How can urban designers develop an emotionally satisfying environment not only for today's users but also for coming generations? Which devices can they use to elicit interesting and relevant urban experiences? This paper attempts to answer these questions by analyzing the design of Zuidas, a new city centre emerging in the outskirts of Amsterdam. This ambitious project of developing a new international city centre has been carefully planned not only in respect to traditional urban planning aspects such as infrastructure, environmental factors and aesthetics, but also in order to generate genuine relevant and interesting urban experiences.

The overarching purpose of this paper is to introduce a general model of the psychological structure of experiences and to illustrate how this model can be used in construing and analyzing emotional design.

Conference Theme: Modelling Experience

Keywords: Urban experiences, the structure of experiences, emotional design

Zuidas, a new city centre in Amsterdam

Amsterdam is currently developing a new city centre, Zuidas (meaning South-Axis), in the outskirts of the existing city. The project has a total building volume of approximately 2.5 million square meters and will be completed in 25 years. It is intended to provide housing for 25.000 citizens, international headquarters of major corporations, smaller knowledge intensive and/or creative industries, new cultural institutions, high profile shopping areas and nightlife venues. The project implies a costly restructuring of the existing infrastructure. Today the area is traversed by a railroad and highway connecting the airport of Schiphol with the eastern and southern parts of the country. These axes are of national importance but cut off the suburb of Buitenveldert from the southern agglomeration of the city, and hence have to become a subterranean trajectory if this new centre is going to be developed.

The development of Zuidas marks a paradigmatic shift in understanding urbanity. Until the end of the 20th century the municipality of Amsterdam clinged to a mono-centric conception of the urban environment by focusing on the importance of reinforcing the old city centre. But by developing Zuidas, Amsterdam is for the first time viewed as a nodal point in a polycentric urban network stretching from Haarlem in the west to Almere in the east and Utrecht in the south. To remain the dominant node in this network the city's peripheral sub-centres have to develop into centres of their own on equal footing as the old centre. These future centres are already harbouring significant activities, though mainly within the service industries. The challenge is thus to develop a sufficient mix of functions in these areas in order to develop their centre-like qualities.

Whereas earlier plans took urbanity for granted, a feature of this plan is that an attractive form of urban life has to be supported if Amsterdam wants to keep its position in the global competition on visitors, top level companies and a highly skilled work force. Our article will discuss what such urban experiences could be, how they relate to the psychological structure of experiences, and how they could be meaningfully generated in urban design.

The urban experience

Urban sociologists and economic geographers have identified two main indicators of urbanity. Firstly, big cities are the loci of administration and of economic power. They are "central places" with a high concentration of agents engaged in the production,

distribution and consumption of information, goods and services as well as in decision-making and counselling (Bahrtdt 1961). Secondly, big cities are characterized by density. Historically cities were compact units crowded by people engaging in the many activities implied by the concentration of power and money. This made cities attractive for supply companies, specialized in supporting core industries with goods and information. Thus the larger and more compact a city, the more specialized functions does it provide, and the more attractive it is for visitors, inhabitants and new settlers (Wirth 1957).

Important urban experiences are derived from these two indicators. Urban life is characterized by versatility due to the mix of specialized providers of goods and services and differentiated groups of customers. Cities are crowded with people frequenting the many opportunities for shopping, socializing and education and thus contributing innovation and exploration. But the mere amount of people and perceptual impressions also favour a blasé and reserved attitude in the city-dweller to safeguard inner feelings and thoughts from the turbulence of public life (Simmel 1903). One consequence of this attitude is a clear conception of the distinctions between public and private life. Another one is the ability to utilize surprises and challenges in public life to develop private sentiments (Lofland 1998). A main attraction of urban life is undoubtedly the opportunity for face-to-face interactions. To manage this contact in a both correct (informal or courteous) and emotionally satisfying way is essential for experiencing urbanity.

The vitality of urban centres depends on catering for the needs of those who live, work or visit there. Cities have to actively provide urban experiences. Firstly this involves developing interesting sites to visit, versatile shopping, leisure and cultural venues, excellent health and educational facilities and good job opportunities. Secondly, the emergence of network-cities highlights accessibility and connectivity as two further key indicators of urbanity: urbanity is characterized by interconnected activities transgressing and utilizing the urban environment (Castells 1996).

To develop places that stimulate contact and connectivity is paramount in designing urban experiences. But before discussing how design might enhance urban experience, we have to examine the predicaments of experience design and elaborate on the psychological structure of experiences.

Designing experiences

Designing experiences should aim at producing sentiments, emotions and insights that are relevant as well as interesting for the user/consumer. This is by no means easily attained.

Firstly, experiences are very much the outcome of users' ways of dealing with the input some producer has created. Users are actively contributing to generating experiences. Producers in the traditional sense are at best providers of frames for experiencing as they try to manage the external stimuli to which users are to be exposed. But producers are not able to control the internal processes that make up a significant part in producing the experience. Urban design should accordingly be concerned with creating frames for experiences that can be handed over to owners, tenants, workers, shoppers, visitors, etc. who in the end determine the quality of urban life. Designers may set the stage, but it is the users who create the scene for urban experiences.

Secondly, 'good' experiences are both interesting and relevant. They are interesting because they challenge the user's established values, habits and lifestyle. Interesting experiences offer opportunities for change and development. On the other hand 'good' experiences have to be relevant too and do as such not change or challenge everything. They ensure that the user remains recognizable and comprehensible to his or her peers. Relevant experiences thereby also offer opportunities for affirmation and stabilization. In this way good experiences are characterized by matching the motivational predispositions of the user and by being both stimulating and predictable. In wanting to create frames for 'good' experiences designers thus have to work with the tension or conflict between "interest" and "relevance" in order to produce stimuli that can be judged as both "different" (exciting, new) and "evident" (predictable, known).

Thirdly, the process of crafting design solutions eliciting 'good' experiences is not merely a matter of producing stimuli that might match the personality or lifestyle of the user. Experiences are produced in social settings, which neither designer nor consumer/user can control. Experiences are determined by contingencies of time, space and mind. Urban designers have to manage and hence control space in order to create frames for experiences, but their dilemma is that they are designing very long lasting products for an unforeseeable future. This time factor cannot be controlled.

The contingencies of mind are equally uncontrollable but insight into the psychological structure of experiencing may serve as a guideline for design practice.

The structure of experience

Accordingly we understand experiences as the outcome of an internal processing of external impulses. In recent years neuroscience (Damasio 1994, Panksepp 1998) and the

psychology of emotions (Frijda 1999) have made considerable advances in our understanding of decision-making and in the nature of experiences. This research emphasizes that behaviour to a large extent is emotionally motivated, and that most of the brain's operations are unconscious and automatic. From a biological point of view experiences are physiological and emotional responses to stimuli. But experiences also have individual meaning and social purport in regard to life-projects and identity formation (Tajfel and Turner 1986). Experiencing should thus be understood as a dynamic interrelation between largely unconscious biological levels and a reflexive and socially comprehensible level.

A simple framework for making the structure of experience applicable to design practice consists of four levels of response. These levels are of an increasingly complex character. In order for an experience to be significant and memorable an outcome on a lower level has to affect the higher level: unconscious reactions have to be transformed into meaningful events or actions. On the other hand the wish to experience something significant on a higher level may motivate the organism for actions on the lower levels: e.g. buying something new or extraordinary, visiting unknown places. This framework is sketched in Figure 1.

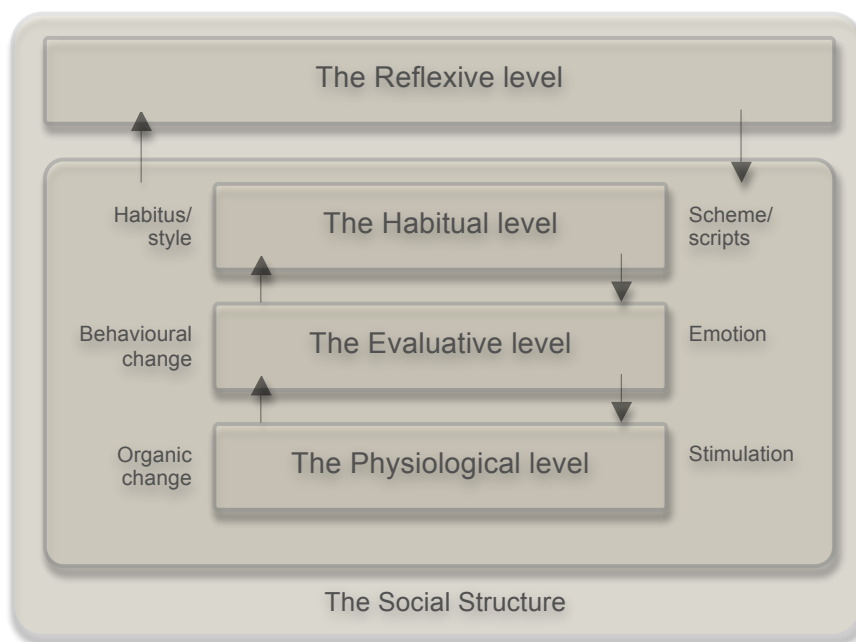


Figure 1. The Structure of Experience

At the physiological level, the organism is in a constant state of tension in order to tackle the tasks necessary for survival. This tension or arousal can be very low, as in sleep, or very high, e.g. in case of danger. On the next level, physiological changes lead to

behavioural adaptations. When confronted with a pleasurable or painful arousal the organism may avert from its on-going activity either to enjoy this sudden moment of pleasure or to escape from pain. This response is emotional, in that emotions function to activate or de-activate, block or promote behaviour. This kind of decision-making is instantaneous and largely unconscious and is pivotal in relation to our preferences and habits. Habits thus consist of behavioural schemes that make our way of relating to the world automatic and predictable (Piaget 1980).

At the reflexive level, pleasant sensations, emotional responses and altered expectations, characterizing the largely unconscious operations on the biological level, are transformed into new understandings of our own existence or our environment. Having become conscious, experiences can be verbalized and shared by a community. Reflexivity is this on-going process of evaluating actual experiences, defining new types of experiences, imagining what their effect might be and considering how big the chances are, that such experiences and such an effect might come true. Table 1 sums up some defining characteristics for these four levels of experiencing.

LEVEL	MODE	OBJECT OF ANALYSIS	DOMAIN	THEME
Reflexive	Narration	Social agency	Communication	Identity
Habitual	Cognition	Groups	Automatisation	Scheme
Evaluative	Emotion	Organism	Behavioural change	Control
Physiological	Pleasure	Nervous system	Organic change	Stimuli

Table 1. The Categorisation of the Structure of Experience

The essence of this model is that stimulation of the organism is transformed into emotions, collective dispositions and communicable meanings. In the interrelation between the physiological and emotional level the organic responses to a stimulus is at stake. The exchanges between the emotional level and that of habits determine how the content of the experience is going to be categorized (as ‘good’ or ‘bad’, ‘worth repeating’ or ‘better to avoid’ etc.). Stimulation and automatic responses are finally turned into memorable lived experience in the dialectics between the habitual and the reflexive level.

The structure of urban experiences

The essential attraction of urban experiences is that they contribute to self-development by being challenging and versatile and by relying on intense face-to-face interactions in

the public sphere. The dominant emotions in this type of spatial experience are thus those related to the brain's "seeking system" (Panksepp 1998): the joy of discovering something unexpected, the urge to explore new fields and the play with other sides of one's identity than those habitually staged.

Physiologically pleasure is derived primarily from stimulation and excitement, i.e. from increased arousal by being confronted with something unexpected. But points of rest and relaxation are necessary to counterbalance the risks of too much arousal (i.e. stress).

Attractive urban environments are therefore characterized by ample space for "time-out": parks, plazas, cafés, etc., which in addition offer possibilities for socializing with strangers. Moreover landmarks and a clear grid may prevent the city-dweller from getting lost in the crowd. The urge for intensity does not erase a need for orientation and feeling safe. Negative emotions (anxiety, fear) have to be controlled or prevented, for the impression of the urban environment to be positive.

On the level of habits the urban experience is very much a matter of "accommodation" (Piaget 1980): of integrating new impressions in existing cognitive schemes in order to expand one's knowledge of the world and/or to refine one's gamut of feelings. For this to happen, the interesting inputs must in some way match the relevance structure established by previous experiences. At this level urban experiences presuppose a dialectics of transgression and affirmation, essential to the innovative quality of urban life. At the reflexive level such dynamics are mandatory for an ongoing identity project favouring self-development. In this perspective personal identity is a process continuously in the making rather than a stable fix-point for outer directed actions. These characteristics of the urban experience are summed up in the following figure:

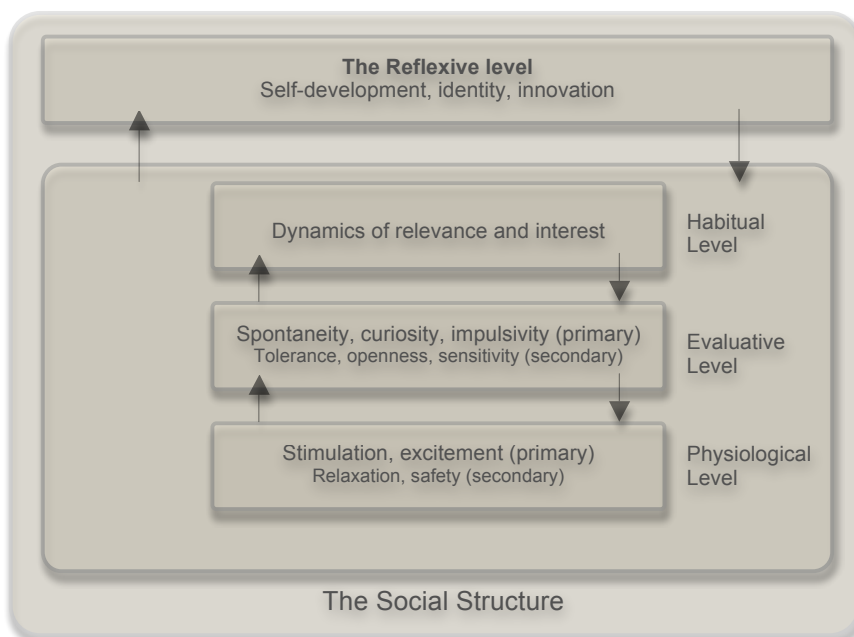


Figure 2 The Structure of Urban Experiences

The importance of such urban experiences will of course vary significantly among groups of city-dwellers. For some visitors these experiences may give zest to for example their suburban existence. They use regular trips to urban centres to add flavour to their daily existence. Other groups of urban residents may on the other hand use the urban setting to get permanent thrills. By living on the edge and striving for ever more intense temptations they relish the sensations of being alive. Many “gentrifiers” though strive for urban experiences for the sake of ongoing self-development. Arousal is but a tool to reach this goal.

Designing urban experiences in Zuidas

In a city like Amsterdam that attracts approximately 20 million visitors each year, yet also depends heavily on attracting, housing and maintaining a highly-skilled well-educated work force, urban designers have to create experiential frames that may be interesting and relevant to visitors and permanent residents alike. We will try to outline how design may be utilized to support the urban experience in Zuidas.

Accessibility

Compared to other prestigious projects like La Défense (Paris), Docklands (London), Postdamer Platz (Berlin), Zuidas is unique in its accessibility, one of the new key indicators of urbanity. Accessibility works at three levels (de Bruijn 2007). At the level of the “local system” Zuidas integrates the now disconnected districts of Zuid in the north and Buitenveldert in the south with a population of 130.000 people. In terms of the “daily system” 7 million people, almost half of the Dutch population can travel to Zuidas under one hour to work or shop. On the level of the “world system”, Schiphol is amongst the top 4 European airports and serves 45 million passengers each year. This accessibility certainly contributes to Zuidas as a world-class business-site, but in order to develop the potentials of the “local and daily systems” careful planning in terms of urban experiences is required. Shoppers within the “daily system” must be persuaded to choose this new district for their next day-trip. Zuidas must be mapped as a place with extraordinary opportunities for shopping and/or cultural activities by containing a number of flagship-stores and ‘brandscapes’ (e.g. Apple Store, Prada or Niketown) not currently available in

the Netherlands. Inhabitants within the “local system” must be invited to re-orientate their shopping preferences. This implies influencing their relevance-structure at the level of habits by accommodating enough convenience stores adding to the quality of everyday life and making it a more obvious place to visit than other outlets in the vicinity.

Centrality

The physical restructuring of habits means creating frames for urban experience that invites new patterns of movement. This involves developing an urban lay out that is integrated into the existing environment and yet distinguishes it from the neighbouring districts by being their new centre. The probable solution to this challenge is a road map, clearly inspired by the morphology in the neighbouring district in the north: i.e. with a grid system of east-west roads and north-south streets, connecting seamlessly with the map of the north district. On the vertical level, Zuidas will correspond more with the high-rise environment of the southern district, but with towers stressing the centre-like character of Zuidas (de Bruijn 2007). Being a visual magnet that nonetheless fits naturally into the built environment, Zuidas should become an obvious place for local dwellers and at the same time be the gateway for one-day visitors to other attractive places in southern Amsterdam (e.g. the Olympic Stadium, the Museum district or high-end shopping areas).

Density

To be successful, Zuidas has to become a sensuously stimulating place to go, work, shop or live. To advance such qualities it is seminal to create density in the public sphere, one of the classical indicators of urbanity. Translated into the Zuidas-conditions this means designing relatively narrow streets for local motor traffic, rhythmically interrupted by small squares and public gardens. Surrounded by blocks with walls of approximately 30 metres high this conveys the arousing impression of being in a compact urban interior (de Bruijn 2005). This sensation of being in a place bursting with life will increase further if different functions are rigorously mixed. If law firms for example are located side by side with groceries, fashionable shops and housing blocks this will create an urban versatility engaging many different people in manifold activities.

Versatility

Essential to a lively urban setting is housing. Permanent residents contribute crucially to the urban experience. It is intended that Zuidas will house a variety of residents by building both luxury apartments and more affordable accommodations. Therefore the share of housing (42%) will be high, preventing the district from becoming a ghost town after office hours. Furthermore the municipality has determined that 30% of the space available for residential purposes has to be social housing. A similar mix is attempted for office space. At the moment 25.000 people are working in Zuidas growing to approximately 55.000 in 2030. Ideally spoken this increase should come not only from new international enterprises establishing themselves in the district but also from small firms within the knowledge-intensive and creative sector, thus boosting the innovative character of Zuidas and at the same time contributing to advance the “network qualities” of the district (interconnectivity). The multiplicity and versatility of functions enhance the possibility of finding something of one’s liking but also to discover hitherto unknown options for self-development.

Contact

By creating an “interior” in public space, chances of unexpected encounters and meaningful face-to-face interactions between strangers is furthered. An important architectural device for facilitating such contacts is the construction of plinths. A plinth regulates the degree in which users and uses are coupled or separated by either attenuating or accentuating the boundaries between the public and private spheres. Plinths of two or three storeys integrate private domains and housing but also offices, into the public realm, whereas plinths of only one storey serve to segregate these realms. In Zuidas an attempt is being made to build high plinths, so housing blocks can harbour public institutions (libraries, smaller museums or galleries) and shops or high-rise office buildings can accommodate restaurants, bars and cafés open also to the general public (de Bruijn 2005). Such plinths contribute to the intensity of the urban experience. Moreover, the mixing of users and uses may further contact between different groups of users and lead to a better understanding of other people’s preoccupations and preferences, thereby contributing to more tolerance and openness.

The sum of devices

The basic architectural devices to create relevant and interesting urban experiences in Zuidas can be summarized in the following model:

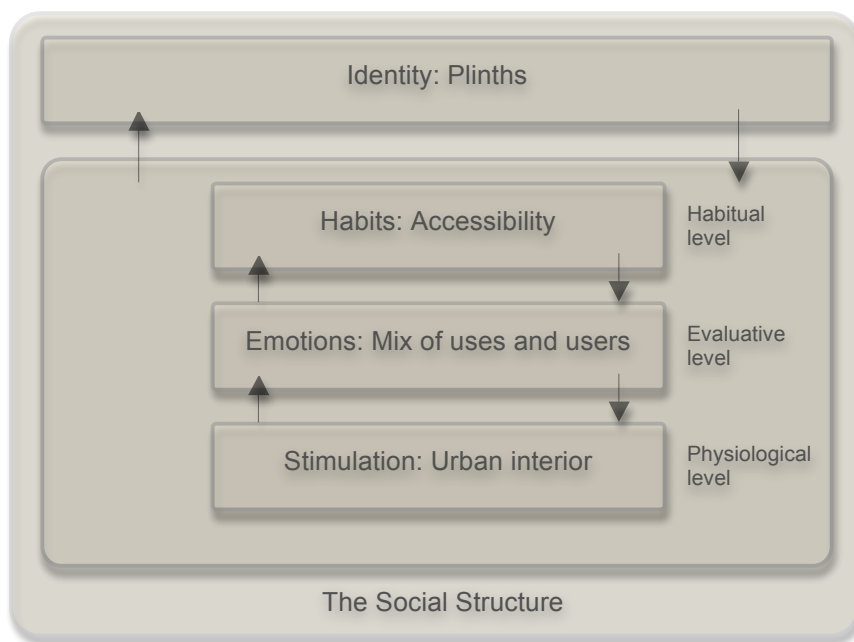


Figure 3 Architectural devices for Zuidas

The key to creating urban experiences in Zuidas for a diverse group of users is superb accessibility. Designing the urban grid as an urban interior creates opportunities for generating excitement as well as relaxation. The content of this interior specifies which emotions being catered for. A varied mix of uses and users is crucial for bringing about positive emotions, related to the joy of discovering something surprising and unexpected as to feeling comfortable and secure. Interesting and relevant urban experiences are generated when the emotional “seeking” and “balance systems” are activated. In an urban setting experiences become meaningful, when intense and varied face-to-face interactions contribute to self-development. Such identity projects are encouraged in a setting where it is possible to transgress the demarcations of the public and the private sphere. Plinths of considerable size contribute to such attenuation of realms.

Concluding remarks

Amsterdam is perhaps “the world’s smallest metropolis”. It is a global tourist destination and has many qualities for visitors and residents. But the weaknesses of Amsterdam are just as obvious. Access to the inner city is far from smooth, making “old Amsterdam”

unattractive as the headquarters for international businesses. At the moment Amsterdam also lacks genuine world-class shopping facilities. Zuidas is meant to compensate for such deficiencies, thus enabling the Amsterdam-region to compete with other global centres of commerce. Compared to similar European projects, Zuidas is unique in wanting to generate genuine urban experiences. It is to become not only an office or shopping area, but also a truly urban environment. The large percentage of housing should contribute to this aspiration. A detailed planning is required if Zuidas is to become a place that:

- Elicits surprise and variation
- Supports the needs of inhabitants for stability and predictability
- Satisfies the wish of international corporations for prestigious imagery
- Fulfils the demand of starters in the knowledge-intensive industries for inspiring yet cheap office space.

Such versatile places are created not by planners but by the people living, working or going there. It is the effect of the lived, everyday experience. What planners can do is to produce frames that invite people to generate such experiences and thus contribute to the history of the place by investing their own memories and actions – i.e. their personal history – in the built environment. The purpose of urban design is thus to create pathways in space that may be formative for positive emotions and thereby for the personal and social production of meanings.

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