

Design for All

Why does the outdoor environment matter?

How the design of gardens, streets, neighbourhoods and open spaces can make a difference to older people's wellbeing and quality of life.

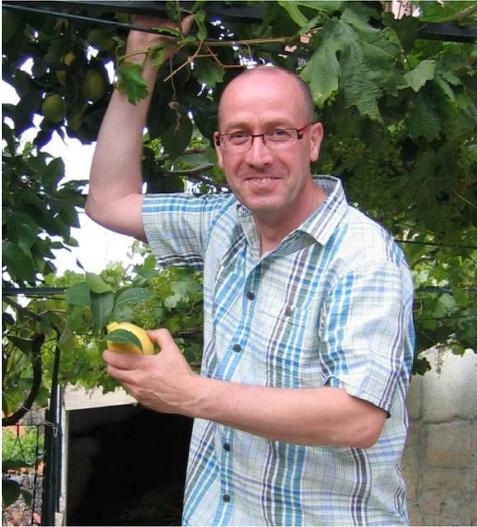


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GUEST EDITOR:



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We want to be outdoors, out there, out now!

Marcus Ormerod and Rita Newton,

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The papers in this issue of the Design for All Institute of India newsletter address the broad area of the external environment, with a focus on the relationship between the provision and quality of accessible urban outdoor space and its impact on health and wellbeing. Why does this need particular attention? Because, while much has been gained in the last twenty years or so in making buildings accessible for all, the spaces and places forming the routes between these 'islands of accessibility' continue to present barriers that frustrate the journey. There are additional challenges and complications: the ownership and stewardship of external environments is often not clearly defined and, when the opportunity for change and improvement *does* occur, it is difficult to get all-party agreement on what should be done and how to ensure the end product is inclusive. Furthermore, the guidance and legislation for such areas can often be conflicting and less easy to apply due to topographical constraints.

William Sullivan, Professor of Landscape Architecture at the University of Illinois at Urbana-Champaign, brings to our attention recent research which he describes as having produced some startling results – people who have more exposure to urban green spaces (compared with those who have less exposure) have been shown to live longer, are less

likely to produce low-birth-weight babies, and engage in less aggression and violence. Yet whilst city life can be exciting, it can also be stressful and exhausting – especially if it is inaccessible, and we know that chronic exposure to stressful events and unhealthy settings puts people at higher risk of cardiac disease and stroke and it also threatens our mental health. In his article, William guides us through a number of studies on nature and stress reduction, and hints at how we might understand the relationship between exposure to nature and lifespan, and suggests that there are challenges in enacting policies to protect and enhance green open spaces in our cities, but that we can all play our part in ensuring that cities are green.

David Rudlin, Director of URBED (Urbanism Environment and Design), takes up the challenge laid down by William Sullivan – that we need green space – to argue that, whilst the historical drive to increase the level of green space in our cities is important, the critical issue is the *quality* of the green space rather than the quantity – ‘too much ill-defined open space undermines the quality, safety, efficiency and sustainability of these areas’. In order to help us to understand this quality drive, David walks us through the development of open spaces in our cities using the UK as a context. He provides stark examples, one of which is walking his dogs at night in an area of Manchester which is considered to be less safe, yet he argues that the park is one of the safest places because it captures many of the principles of good open space design, and the ‘rules’ of the park work. The importance of residential outdoor space is also re-iterated in David’s article and he

reminds us that, in most urban areas, private and communal gardens make the largest contribution to the green infrastructure of the area.

Catharine Ward Thompson, Professor of Landscape Architecture at the University of Edinburgh, has been working with participants who experience barriers to accessing the outdoors, exploring the salutogenic power of open space: its potential to help people stay mentally and physically well and to have a good quality of life, regardless of any stresses or impairments. Catharine's paper complements that of David Rudlin by providing an evidence base from a number of research projects, particularly those focussed on older people, people living in deprived communities and people from different ethnic communities, to clearly demonstrate the relationship between getting outdoors and quality of life.

Elizabeth (Libby) Burton, Professor of Sustainable Building Design and Wellbeing at the University of Warwick, and her colleague Dr Lynne Mitchell, have studied residential outdoor space for a number of years, particularly in the context of older people, and their article challenges us to consider whether it is a burden or a pleasure. Whilst residential outdoor space accounts for around 25% of the UK's urban environment, and most people often cite their garden as their favourite place, there is little robust evidence as to its impact on wellbeing and quality of life. Libby and Lynne found that residential space is indeed important, and that it was valued by most of their participants, and that some of the positive effects of residential outdoor space on wellbeing actually strengthen as people age.

However, there were barriers, such as poor weather, fear of falling, the effort involved, poor maintenance, access difficulties and lack of space and lack of privacy. Their findings tie back to those of David Rudlin's in that quality and choice are more important than size of residential outdoor space.

Rob Methorst, Senior Advisor at the Rijkswaterstaat Centre for Transport and Navigation, reminds us of the importance of understanding walking, since there is little point in providing quality green space if people cannot easily get to it, particularly on foot. There is limited research on walkability policy, with an over-emphasis on cycling. In particular, Rob reminds us that often older people, children, or those on low income are often 'captive' walkers meaning that they have no alternative but to travel on foot, and that because many policy makers are predominantly car users they do not automatically see what less fortunate people experience. Rob reports on two international research projects on pedestrians, walking and sojourning policy and suggests that by using the 'cascade' principle there is opportunity to improve the quality of the walking experience.

Marketta Kyttä, Senior Research Fellow in Urban and Regional Studies at Aalto University, leads a multi-disciplinary team developing the award winning softGIS methodology as a tool to analyse both 'soft' subjective data with 'hard' objective geographic information systems (GIS) data. Marketta argues that we need to better understand associations and relationships between the urban structure, people's experiences, behaviour and wellbeing in order to have more

meaningful place based analysis. Integrating these parameters within urban planning is ambitious, but the examples provided in the paper of Helsinki and Turka show us how the softGIS software may provide a way forward.

Rachel Russell, Occupational Therapist and PhD student, continues the theme of understanding the requirements of the people using outdoor space, but she focuses on the home itself and explores the potential of Building Information Modelling (BIM) as a tool that may help improve communication of accessibility issues with end users in the design process. BIM is digital software that has the potential to support all those involved in the construction process – from initial outset of design, through to occupation and use, and from 2016 it will be adopted for all UK publically-financed building projects. Yet there has been little attention on the end user, and Rachel describes how her research will focus on how BIM can be used with older residents to evaluate how a proposed building or space can better support their everyday tasks.

The clear message from these seven papers is that getting out and about is important for many aspects of our lives, and that accessible open spaces (at a range of scales, from the garden to the local park) are likely to have positive impacts on health. The authors demonstrate that it is the quality of the space that is critical, as are the linkages to it, and how we measure and understand it. The challenge for the inclusive design community is in supporting designers, planners and policy makers to implement change to improve both the quality and accessibility of our outdoor environment. We hope that by

covering a range of research from leading, international experts – detailing new methodologies and contexts, as well as findings – that we have given you some fresh ideas and momentum to make that happen.



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William Sullivan is Professor of Landscape Architecture at the University of Illinois at Urbana-Champaign. Having trained as a Landscape Architect, he obtained a PhD in Natural Resources with a concentration in Environment & Behavior in 1991 and has since taught Environmental Design at Kansas State University, the University of Michigan, and at Illinois. His research interests focus on the impact of the built environment on human health and wellbeing and he has published extensively in this area, most recently in The Routledge Handbook of Urban Ecology. Having won a number of academic awards and competitive grants, he is the current President of the Council of Environmental Deans and Directors and Director of the Education Justice Project's Prison Garden programme at the Danville Correctional Center, Illinois.

Landscapes of health and hope

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Abstract

The conditions of modern living (work and life pressures and the physical places we inhabit) threaten the health and wellbeing of millions of Europeans. Chronic exposure to stressful events and unhealthy settings put individuals at higher risk of cardiac disease and stroke, and also threatens their mental health. There is mounting evidence, however, that exposure to places that include trees, grass, and open space can reduce the psychological symptoms of stress and promote recovery from mental fatigue. Some recent research has produced startling results: compared to individuals who have less exposure to urban green, those who have more have been show to live longer, are less likely to produce low-birth-weight babies, and engage in less aggression and violence. In this paper, I consider these recent findings and discuss the implications for, and importance of, having everyday contact with green, open spaces.

1. Introduction

City living can be exciting – full of opportunities, choices, and possibilities. But it can also be stressful and exhausting. Cities can feel congested and noisy. They can also feel demanding, as

though you need all your resources to successfully navigate your way through city life. The consequences of living under stressful, mentally fatiguing conditions are far from trivial.

An individual's capacity to moderate the demands and pressures of everyday life has profound and far-reaching consequences for their health. Chronic exposure to stressful events and unhealthy settings put individuals at higher risk of cardiac disease and stroke, and also threatens their mental health. There is mounting evidence, however, that exposure to places that include trees, grass, and open space can reduce the psychological symptoms of stress and promote recovery from mental fatigue (c.f., Bowler, et al., 2010; Kaplan & Kaplan, 1989; Ryan, et al., 2010).

Some of the research has produced startling results: compared to individuals who have less exposure to urban green spaces, those who have more exposure have been shown to live longer, are less likely to produce low-birth-weight babies, and engage in less aggression and violence. As we'll see below, some of these findings speak to our common concern for developing equitable living conditions in cities.

In this paper, I consider recent studies that examine the impact of having exposure to green, open spaces; examine the findings in terms of human health with a particular focus on the relationship between exposure to green open spaces and stress; and discuss the implications for, and importance of, having everyday contact with green, open spaces.

2. Nature and stress reduction

To what extent does contact with nature reduce the experience of stress – the physiological and psychological responses to stressful situations? To answer this question, we look to a number of studies in which people’s stress reactions are assessed after they were exposed to varying levels of green, open space.

One line of studies comes from reports of individuals feeling calm or being able to function more effectively after being in or viewing a green space. In one such study, individuals exposed to urban forests reported feelings of ‘peacefulness’, ‘tranquility’, and ‘relaxation’ (Ulrich, 1993). Another study showed that individuals who had participated in a nature vacation reported decreased levels of occupational stress after the vacation (McDonald, 1996).

Similarly, in a study of patients about to undergo dental surgery, views of an aquarium with fish reduced anxiety and discomfort, and increased scores for patient compliance during surgery (Ulrich, 1992). A more recent study demonstrated a connection between visiting an urban green space and levels of stress: the more often the visits, the fewer reported illnesses related to stress (Grahn & Stigsdotter, 2003).

For children, exposure to green spaces has been shown to moderate the impact of stressful life events. In a study of 337 rural children, the impact of life stress was lower among children with high levels of nearby nature than among those with little nearby nature (Wells & Evans, 2003).

Another line of studies concerning the relationship between contact with nature and lower levels of stress comes from clinical tests of *physiological functioning*. In one such study, 120 individuals watched a stressful film and then were shown videos of either urban or natural settings. Individuals who viewed natural scenes showed significantly faster physiological recovery from stress than individuals who were assigned to watch the urban scenes (Ulrich, et al., 1991).

In a similar study, 160 individuals viewed one of four different video-taped simulated drives through outdoor environments immediately following and preceding mildly stressful events. Participants who viewed drives that showed very little vegetation, relative to participants who viewed nature-dominated drives, showed greater physiological activity indicative of stress. In addition, participants who viewed nature-dominated drives experienced quicker recovery from stress and greater immunisation to subsequent stress than participants who viewed drives that showed very little vegetation (Parsons, et al., 1991).



Figure 1. A growing amount of evidence demonstrates the health benefits of having everyday contact with green, open spaces.

Similar findings have resulted from studies of workers exposed to indoor plants (Lohr, 1996), and workers in rooms with views that varied by level of naturalness outside their office windows (Chang & Chen, 2005).

In sum, there is considerable anecdotal and empirical evidence that contact with urban green spaces is associated with lower levels of stress. At this point, however, there is still important work that needs to be done. We do not know what *dose* of urban open space is necessary to produce lower levels of stress. That is, we do not understand the shape of the dose-response curve for exposure of urban green space on stress. This is a critical gap in our understanding and it prevents us from making specific recommendations to designers, planners, and policy-makers about how to design and distribute open spaces within urban areas.

3. Does exposure to nature guard against early death?

There is reason to believe that, for urban dwellers, regular contact with green, open spaces, will result in lower levels of physiological activity indicative of stress. Although we do not know how much exposure is necessary to have an impact on longevity, three recent studies suggest that the impacts – both in terms of health and in terms of economics – may be enormous.

The first hint that living near an urban green space (as opposed to living in a less green urban area) may result in an increase in longevity comes from a study of elderly people in Tokyo.

That study found that living in areas with walkable green spaces was positively associated with the longevity of Tokyo's senior citizens independent of their age, sex, marital status, baseline functional status, and socioeconomic status (Takano, Nakamura, & Watanabe, 2002). That is, after accounting for all kinds of things that we know are associated with living longer, this study found that individuals who lived in close proximity to green, open spaces did in fact live longer than their counterparts who lived in less green surroundings.

The second hint comes from a recent study conducted in northwest Florida. In this study, Hu and his colleagues examined a variety of characteristics of neighbourhoods and found that neighbourhood greenness was negatively related to the incidence of mortality from stroke (Hu, Liebans, & Rao, 2008). That is, people who had greater exposure to green, open spaces were less likely to die of a stroke. This finding held after controlling for other potential confounding factors such as income and air pollution.



Figure 2. Green neighbourhoods are associated with increased longevity in a number of studies.

The third hint comes from a study of all residents of England between 2001 to 2005. Mitchell & Popham (2008) classified the population of England at younger than retirement age (greater than 40 million people) into groups based on income and distance to a green space from their home. They obtained individual mortality records from those people who died during the study period (more than 366,000 people) and established that an association between income and mortality varied by exposure to green space. Mitchell and Popham report that all-cause mortality, and mortality from circulatory diseases, were lower in populations living in the greenest areas.

As can be seen in Figure 3 below, the association between exposure to green space and the likelihood of death was not the same for individuals in each of the three income categories. For individuals in the highest-income category, there was no statistically significant relationship between green space exposure and likelihood of death. But for the middle-income group, there was a statistically significant, negative relationship: the greater the exposure to green spaces, the lower the likelihood of death. This relationship was even more pronounced for individuals in the low-income group.

How do we explain the lack of a relationship between income, proximity to green spaces near home, and likelihood of death for the highest-income earners? Although we do not know for sure, I suspect that knowing the amount of green space near a wealthier person's home is not a good measure of the amount of green space to which these individuals *actually get exposed*. I suspect that compared to people who earn less money, high-

income earners are more likely to travel, play golf, engage in other activities that bring them in to contact with green spaces, or simply to seek out green experiences. Knowing the amount of green space surrounding a low-income person's home, however, is likely to be a good measure of their exposure to green spaces.

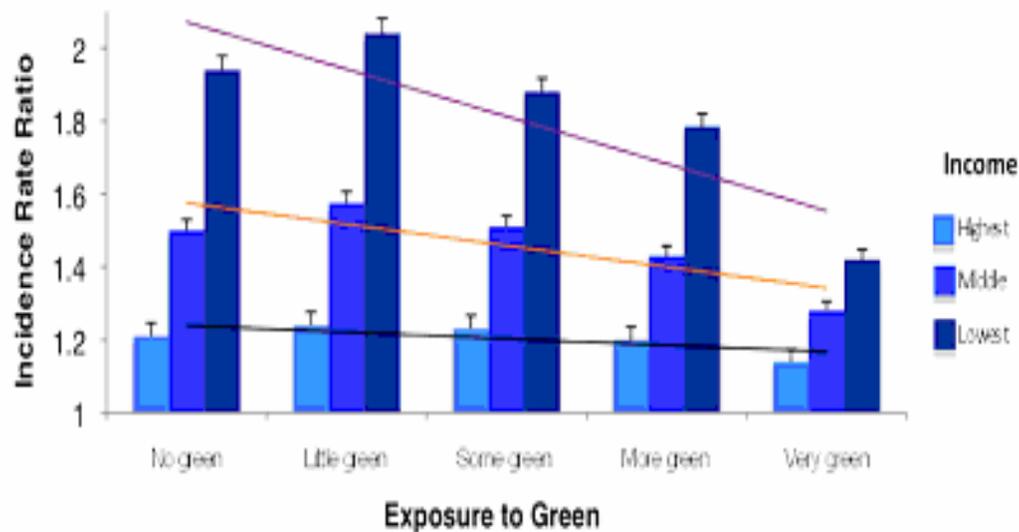


Figure 3. In the Mitchell and Popham study, the Incidence Rate Ratio, that is, the likelihood of dying during the study, was negatively associated with exposure to green spaces near the homes of people in the middle and low-income groups. For these two groups, greater exposure to urban forest was associated with lower likelihood of death.

It is worth taking a moment to consider the implications of this study. The findings indicate that for individuals in the middle and low-income groups, having everyday contact with green spaces is a matter of *justice and equity*. Look back at Figure 3 and examine the disparity between likelihood of death at various levels of green for individuals in the high and low-income categories. Notice the extent to which the disparity decreases as exposure to green spaces increases. These

findings suggest that providing green spaces throughout a community is not merely a wonderful thing because green spaces make communities more attractive. It suggests something much more fundamental to the development of an equitable and just society. Providing adequate green, open spaces may dramatically reduce the disparity in death rates associated with income. For individuals who are not at the top of the income scale, easy access to green, open spaces appears to have a dramatic impact on health and longevity.

In sum, there is growing evidence that exposure to green open spaces reduces the level of stress that individuals experience and that lower levels of stress result in longer, healthier lives. The impact, however, is not the same for people across a range of incomes. For middle income and low-income earners, living near a green, open space seems particularly important.

4. Key concluding points

In light of the research findings described above, it is altogether appropriate to enact policies to protect and enhance green open spaces in cities. Such policies should encourage the development and management of green spaces that are easily accessible from homes, schools, and the places where people work. Accessible open spaces are likely to have positive impacts on health.

Urban planners, designers, ecologists, and the public can help create cities that promote health by providing abundant opportunities for people to have contact with green open spaces. In addition to urban parks, such contact can occur

along tree-lined streets, and on school campuses, hospital grounds, civic centres, and in public housing neighbourhoods.

Based on the empirical evidence reviewed here, it is clear that having a green space nearby is more than just an aesthetic amenity. Such spaces are a critical part of healthy urban habitats.

Keywords: *health, wellbeing, healthy places*

Theme: *physical environment, health and wellbeing*

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William Sullivan



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The day of the Triffids

David Rudlin

Director of URBED (Urbanism Environment Design)

Abstract

This is the story of a green monster that grew and grew and ended up swallowing the city that it was meant to save. For years we have sought to reform the city, reducing its density and increasing the amount of open space. This can be traced from the Victorian park to the garden city culminating in Le Corbusier's Ville Radieuse. Green space is important for social and environmental reasons. However, like many good things, these benefits do not necessarily increase in proportion to the amount of space provided. There comes a point where there is so much open space that densities fall to levels where urban areas become unsustainable. This can, however, be overcome through design. The design of open space is vital and if done badly, will undermine all of the potential benefits. If done well, the smallest of spaces can have a huge impact.

Introduction

It's a risky business writing a paper on open space that argues that open space is not always a good thing. However, there are very few 'good things' that don't become a problem if taken to excess and open space in cities is one of them. I will argue in this paper that the historical drive to increase the level of open space in our cities is important but that the crucial issue is the quality of open space rather than the quantity. Too much ill-

defined open space undermines the quality, safety, efficiency and sustainability of urban areas.

Staring at the SUN

My interest at URBED, for the last 20 years, has been how to create successful, sustainable urban neighbourhoods. This started in the 1990s with our involvement in the redevelopment of the Hulme estate in Manchester and later a series of research projects (Rudlin & Falk, 1995) that became the Sustainable Urban Neighbourhood (SUN) Initiative (Rudlin, 2006) funded by the UK Government and the EU.

Our starting point was the belief that the pattern of settlements in the UK at the end of the 20th century was profoundly unsustainable. Rather than focus, as much research on sustainability did, on the design of energy-efficient homes, we argued that the pattern of settlements was the big sustainability issue. The gradual accretion of low-density suburbs was hollowing out our towns and cities. The average density of new housing at the time was 23 units/ha and the most rapidly increasing source of CO₂ emissions was transport.

There was much debate; perhaps heated argument would be more accurate, in the 1990s about the acceptability of forcing people back into cities. The population was voting with their feet for leafy suburbia and should not be dragged kicking and screaming back to dark, overcrowded dangerous and dirty cities – or so we were told. We were called 'new Jacobites' by our critics, something meant as a criticism but which of course made us enormously happy!(Jane 1961). In actual fact the aim

of the SUN Initiative was not to force or cajole or even to regulate. We wanted to make cities so attractive that people would want to move back.

On the whole in the last 15 years this is largely what has happened. We can argue about the property bubble in city-centre apartments, but overall, a huge amount of urban housing has been built in the UK in the last decade, much of it very successful. The density of new housing has risen to 43 units/ha and the proportion of new housing in built urban areas to just over 70% (DCLG-2006) (apologies, these are English figures). Whether this will continue is unclear as the housebuilders retreat to suburbia in their post-recession agitation and the government gently loosens the strings of planning policy. Yet I believe that something has changed and UK cities will never again be the same.

Back in the 1990s the Sustainable Urban Neighbourhood was developed as a model of high-density mixed-use urban development that could attract people back to urban areas. Of course, other sustainable urban models are also available in the shops, including the Urban Village, the American Pedestrian Pocket, the Eco Quartiere in France, sustainable urban extensions in Germany and the Bo neighbourhoods of Scandinavia. However, back in the 1990s, it was difficult to point to UK examples. Indeed we wrote at the time that there was not one planned neighbourhood created in the UK in the 20th century that would merit conservation area status in the future. Not one place that people really loved, that had the richness and diversity of a historic town or even a Georgian or

Victorian suburb. So we had to content ourselves with field trips to Amsterdam, Freiburg or Malmo to learn how to build good high-density housing. We have got better since then, with early examples like Crown Street in Glasgow and Hulme in Manchester and more recently, Millennium Villages and city-centre apartment schemes that are a half decent attempt to create sustainable urban form. But it still doesn't come easily to us and it is interesting to ask why this is.

Why is it so difficult?

There are many reasons for this: the lack of ambition in the UK development industry, the conservatism of house buyers, the sprawl of our cities, etc. However, as someone who started my career as a local authority planner, I started to realise that one of the problems is the planning system itself. In other words, the very system created to improve towns and cities is part of the reason why many of them are so crap.

This is the central theme of the book I co-authored with Nicholas Falk republished last year as *Sustainable Urban Neighbourhood*(Rudlin & Falk,2009). In this we describe how the Victorian industrial city became so awful that the English at least lost faith in the very idea of cities. Planning was brought into existence not to make cities more beautiful, as happened in France, but to tame them and smooth off their rough edges. This included sanitation, pollution, sunlight, housing standards, traffic, safety and, of course... green space.

In cities without a tree or a scrap of open space, the Victorian parks movement is one of our greatest legacies. Every evening

I walk my dogs in Alexandra Park on the edge of Moss Side in Manchester, opened in 1868 and still a beautiful space and remarkably safe given its location. At a time when the sea of terraces in Moss Side around the park were entirely unrelieved by greenery or play space or even private gardens, the park must have been a wonder.

The next stage in the taming of the city came with the garden city movement at the beginning of the 20th century (Howard - 1898). This took the argument to another level by redesigning the city around sunlight, fresh air and... open space. We remember now the early schemes by the garden city pioneers like Hampstead Garden Suburb and Welwyn Garden City that were to be such influential models for 20th-century planners. We forget the theory within which they sat that suggested that the garden city would cover the whole country, with a dispersed network of low-density settlements incorporating within them their own agriculture and recreational space. In the US, something similar was developed by Frank Lloyd Wright called Broadacre,(Fishman-1982) in which every American family was to be given their own acre of land so that they were self-sufficient yet still be able to get around by high-speed personal transport (helicopters).

It is clear that density and open space were a source of debate at the time. In 1912, Raymond Unwin published a pamphlet called 'Nothing gained by overcrowding' (Unwin-1912). This argued that, for a given number of people, there was a requirement of so much open space, school grounds, recreational facilities, etc. As the density of housing rose, these

requirements increased, taking more and more land. Efforts to increase housing density were therefore subject to a law of diminishing returns because higher densities reduced the amount of land available for housing. Mind you, the ideal garden city density was 15 units/acre, which translates to 37 units/ha, considerably higher than the 23u/ha mentioned earlier.

Next came Le Corbusier who was a great architect but completely mad when it came to urban planning or for that matter social reform. His plans for the Ville Radieuse in Paris solved Unwin's dilemma by building on stilts. He proposed a city where the entire land area was open space with the people, shops, schools and workspaces accommodated in towers on piloti floating over the rolling landscape. It would be mad had it not been taken so seriously through the work of CIAM (Congress International de l'Architecture Moderne) which for many years was the leading urban think tank in Europe publishing its Charter of Athens in 1933 and holding a major congress in Coventry in 1952(CIAM-1952) from which the city has never really recovered.

The influence of this history can be seen in every suburb and council estate from the second half of the 20th century. The suburb is marked with an obsession with private space, the council estate with a fetish about public space, much of it undulating and dotted with trees, useless for wildlife or indeed playing football and dangerous to cross at night.

How much is too much?

Green space is important in a city, it provides space for recreation, play and sports, it allows ecological diversity, helps microclimate and enhances visual appeal. However, like many good things, these benefits do not necessarily increase in proportion to the amount of open space provided. There comes a point where there is so much open space (both public and private) that the density of activity fall to levels where it is no longer possible to support local shops and facilities, where bus services are no longer viable, where walking distances become such that everyone drives, where the lack of other pedestrians makes places feel unsafe, where unsupervised open areas are taken over by gangs of youths and become difficult to maintain. You can have too much of a good thing.

Open space standards in England are set by each local authority and they vary across the country. We have worked in areas where the standard is based on proximity in terms of how far every home should be from a local play area, park, etc. Often they are based on a certain amount of open space per house or per person. For many years, the 'gold standard' for open space provision was the National Playing Field Association's six-acre standard first published in 1925. The most recent version was published in 2008(FIT-2008). This sets a standard of 1.6ha of sports fields and 0.8ha of play provision per 1,000 people as well as standards for proximity. Natural England(Natural England-2010) has also produced standards for natural green space based on area and proximity (every home within 300m of a 2ha natural space) and a provision standard of 1ha/1000 people to a nature reserve. The

National Society of Allotment and Leisure Gardeners (www.nsalg.org.uk/) has a standard of 20 plots per 1000 households. Some authorities also have standards for private space. This is all very confusing but what is clear is that the amount of open space in our plans is never enough.

It is not my intention here to get into the complexity of standards, however, it is clear from our experience that these standards are doable in suburban developments such as a scheme of 1600 units that we have been developing in Wigan. Here we have 37ha of housing land and just under 13ha of open space, which would meet the six-acre standard (depending on the mix and occupancy figures used). This results in 1ha of open space for every 3ha of housing land (1:3). However, in urban areas, the situation is very different and in London we have just got planning consent for a scheme of high density two- and three-bed apartments, where the standard would have required 2ha of open space for every 3ha of development (1:1.5). It is these latter urban situations that are the problem, perhaps unsurprisingly given that the six-acre standard came out of the garden city movement.

It is instructive to compare these ratios to the open space ratios of our great cities. London, with its tradition of great parks, has an open space ratio of 1:7(Rudlin & Hemani-Climax city) and Paris is similar. My point is that open space standards, like many of the rules that regulate development, remain a reaction to the Victorian city. We have spent a century trying to right a wrong. We have instigated planning policies, housing standards, privacy distances, density guidelines,

highway standards and of course, open space yardsticks to try and reform the city. Each profession has been busy optimising their particular area of responsibility but cities aren't like that. Optimise one area and others will suffer. Cities are a set of messy compromises, nothing is perfect but the whole is more than the sum of these messy parts.

The principles of design

We need a new approach to open space in urban areas, one that focuses not so much on quantity as on quality. The benefits of open space relate to the way in which it is designed. As I said, every evening I walk my dogs in Alexandra Park in the middle of Moss Side in Manchester. This is, supposedly, one of the most dangerous parts of the city but the park is one of the safest places, because of the way it is designed. Contrast this to, say, the Medlock Valley running through East Manchester. This was designed as a green corridor and a recreational resource for the surrounding communities. Some parts work, but others are characterised by burnt-out cars, graffiti and vandalism. The difference is the way that the space is designed.

Many of the principles of good open space design are the same as those that guide good urban spaces. In rural areas, isolation and solitude may be a good thing, but in a city, safety and security comes from other people. Alexandra Park, like many traditional parks, works because there are generally enough people around with good intentions to make it feel safe. These include the dog-walkers, like myself, fishermen, parents and children on their way to the day centre in the heart of the park,

cyclists using the cycle route that crosses the park at a diagonal, the football teams and the Asian cricket league that seems to play at some unearthly hour in the morning. There are many others and they change with the seasons from the sunbathers in the summer to the kids on their new bikes on Christmas day. All of this, remember, in a park that is in the heart of Moss Side, supposedly one of the most dangerous districts in Manchester.

Local green spaces, pocket parks and playgrounds have different rules. Here the security of 'other people' generally comes from the people in the surrounding buildings (or at least the perception that there may be people overlooking the space). Like good streets, small green spaces feel safe when they are small enough to be overlooked by surrounding roads, housing and other buildings. Too often spaces are designed to the rear of houses and away from roads on the basis that this will make them safer. This can work in suburban areas, but in urban neighbourhoods, it can often mean that these spaces are not supervised and therefore attract youths and become a target for antisocial behaviour.

Very local space tends to be in private gardens and it is important that urban housing includes private space. In apartment schemes, this takes the form of private courtyards, balconies and roof gardens and for housing, it means gardens and terraces. The important thing about this private space is security; strangers shouldn't be able to access the space without fear of challenge. This is obvious for private gardens but is often overlooked for communal space in apartment

schemes. The easiest and most traditional way of doing this is to use the perimeter block, which creates a clear definition between external public space and internal private space. In most urban areas this private space makes the largest contribution to the green infrastructure of the area. I live in a Victorian suburb that has no public open space but which is full of wildlife and almost obscured on the aerial photographs by its trees.

Don't get me wrong

It is not that I am anti-open space, far from it. I just object to the view that the more green space we have, the better it will be. Too much green space not only becomes a problem in its own right in terms of management and security, it also undermines the qualities of urbanism that are so important to the safe functioning of towns and cities. Too much green space – which is what many standards still demand – means that densities are reduced, children are too far from school not to be driven, buses become unviable, shops lack sufficient local customers to survive so that the people have to drive to the supermarket and neighbourhoods lack activity and feel unsafe. A balance needs to be struck between the benefits that open space brings and these impacts on urban life. Good urban areas should be net contributors to biodiversity with trees, green walls and roofs, gardens and balconies. They should have a hierarchy of open space and while suburban areas may be able to meet the 6-acre standard, urban areas can probably meet only half of this. However, even in the densest urban areas, these open spaces through good design can do twice the work

and can become spaces that people love, which was something that never happened to Le Corbusier's green landscape.

Keywords: *urbanism, sustainability, opens space, standards, urban design*

Theme: *inclusive design and sustainable community planning*

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David Rudlin



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Greening the divide: disadvantaged user groups and healthy open spaces

Prof Catharine Ward Thompson

We all know that access to gardens and other open spaces can be therapeutic during times of illness, but are there stronger, more positive associations between health and landscape? Since its foundation in 2001, the Edinburgh-based OPENspace research centre has been striving to find out. Working with participants who experience barriers to accessing the outdoors, we have been exploring the salutogenic power of open space: its potential to help people stay mentally and physically well and to have a good quality of life, regardless of any stresses or impairments. This is vital given current public health concerns over increasing levels of obesity, type II diabetes, cardiovascular ill health and poor mental health, particularly in young people.

The relationship between poor physical and mental health is both complex and interrelated, but it would appear that some environments can act as a prophylactic against both. The relationship with the person is two-way, meaning that supportive open spaces can support what people want to do in the way of outdoor activity but also encourage healthy behaviour on the part of the individual. Though physical activity is the most obvious form of 'healthy behaviour' – from walking to get from A to B to doing sport – there are other ways in which access to the outdoors can encourage wellbeing

and improve quality of life. Indeed, OPENspace research has found that, for some people, physical activity is a secondary benefit to getting outdoors, with the primary purpose being to relax and mentally unwind by “getting away from it all” or to see friends and engage in community life.

Evidence is demanded for public policy and practice today but, throughout history, people have identified connections between the landscape and health and attempted to understand the mechanisms behind the relationship. In ancient Greece, for example, ‘healing cults’ used the landscape setting as a primary criterion for developing sites such as the Sanctuary of Asklepios at Epidaurus (now a UNESCO World Heritage Site) – the equivalent of a modern hospital or convalescent home. As the Western world urbanised, the Roman poet Martial introduced the concept of *rus in urbe* (countryside in the city) to denote the virtues and importance of urban greenery, both as part of the scenery and as an environment to be experienced. Over time, this was developed by proponents of the landscape garden and urban park movements in Europe and North America, particularly as towns and cities grew during the industrial revolution.

The challenge we face today is that, due to the scale and density of building in the last one hundred years, the lessons learned in previous centuries have been ignored and greenery squeezed out of the environments we have created for daily living and working. Particularly in our towns and cities, the places we use every day often present more hazards to health than benefits. Recent policy-making on regenerating

brownfield land has provided us with a clear opportunity to redress the balance, though the demands of the profit-led development industry are a challenge. It is within this context that OPENspace has engaged with residents of urban locations to identify why getting outdoors matters and which attributes of open spaces most effectively support healthy attitudes and behaviour.



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In a study for the former Commission for Architecture and the Built Environment, 'Community green: using local spaces to tackle inequality and improve health' (CABE Space, 2010), OPENspace surveyed over 500 residents of neighbourhoods selected for their high deprivation, high percentages of black and minority ethnic populations and varying quality of urban green space. The survey, supported by an extensive literature

review, found that, if people perceive the quality of their local green space to be good, they are more likely to report better health and to be satisfied with their neighbourhood (a key factor in quality of life). Over half of the people interviewed said that they would take more exercise if the quality of their local green space was better and sixty per cent said that if their local green space was more pleasant, and they began to use it more, they would expect their physical health to improve. Forty-eight per cent thought it could improve their mental health and forty-six per cent that it would improve their relationships with family and friends.

In the CABE study, we found that public open spaces were most often reached on foot. In a study focusing on older people, Inclusive Design for Getting Outdoors (I'DGO), this finding was corroborated by evidence from over 770 participants aged 65+. Participants who lived within 10 minutes' walk of a local urban green space were twice as likely to achieve the recommended levels of healthy walking (2.5 hours) per week, and more than twice as likely to be satisfied with life, compared with those who did not; the quality of the paths to local open spaces also made a difference to the total time people spent outdoors. The three main reasons given for going out were to socialise, to exercise, and to take in fresh air and nature and, in general, participants who felt supported by the design and maintenance of their local neighbourhood were around three times more likely to be in good health compared to those who did not.

Analysis using stated preference techniques to tease out the comparative importance of different features in the

environment, carried out as part of the I'DGO study, found that participants placed a great importance on tree-lined paths and dense greenery in their local open spaces and highly prioritised aesthetically pleasing environments, especially those with water features and wildlife. Other recent OPENspace work has further explored the value of wild spaces in and around urban areas for disadvantaged groups, for example, our Woods in and Around Towns (WIAT) evaluation for Forestry Commission Scotland and our scoping study for Natural England, 'Wild Adventure Space: its role in teenagers' lives'. In the GreenHealth project, we are being funded by the Scottish Government, alongside colleagues at the James Hutton Institute (Aberdeen) and the University of Glasgow, to work with people living in deprived towns and cities across Scotland, aiming to determine any link between stress levels and the greenness of the participants' environments. Our interest in these issues continues and I am delighted, on the strength of our ten year portfolio, to have been invited to sit on the Scottish Government's 'Good Places, Better Health Evaluation Group', which looks specifically at the salutogenic potential of place, and to have recently secured a £1m grant from the NHS' National Institute for Health Research (NIHR) for further work in the area.

Professor Catharine Ward Thompson is Director of the OPENspace research centre at the University of Edinburgh and Heriot-Watt University (www.openspace.eca.ac.uk). This article was originally written for Eco Construct magazine (www.eco-construct.co.uk) and is reproduced here with the kind permission of the Editor.

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Prof Catharine Ward Thompson



Elizabeth Burton is Professor of Sustainable Building Design and Wellbeing at the University of Warwick and a Principal Investigator of Inclusive Design for Getting Outdoors (I'DGO). Having established the WISE (Wellbeing in Sustainable Environments) research unit at Oxford Brookes University, she moved into her current post in September 2009, forging a cross-disciplinary link between the School of Health and Social Studies and the School of Engineering. An Architect and Urban Designer by training, her aim as a researcher is to develop a sound evidence base for architectural practice; an objective recently furthered by a Dream Fellowship from the UK Engineering and Physical Sciences Research Council. Elizabeth is passionate about the social aspects of sustainability and the impact of the built environment on people's wellbeing, quality of life and mental health and has particular expertise in ageing research, including dementia-friendly design.



Dr Lynne Mitchell is a Senior Research Fellow in the School of Health and Social Studies at the University of Warwick. She is the co-founder of the WISE (Wellbeing in Sustainable Environments) research unit, which moved from the Oxford Institute for Sustainable Development, Oxford Brookes University to the Institute of Health, University of Warwick in September 2009. She is a qualified planner with a keen interest in raising awareness of how the built environment at all scales impacts on the lives of older people, both with and without dementia, and how this can be addressed. To achieve this, her research focuses on how the indoor and outdoor built environment can be improved, through inclusive architecture, planning and urban design, to enhance older people's health and wellbeing.

Residential outdoor space for older people: a burden or a pleasure?

Prof Elizabeth Burton, Dr Lynne Mitchell

Residential outdoor space accounts for around 25% of the UK's urban environment and, at all life stages, people often cite their garden as being their "favourite place". However, while access to a garden, balcony or patio is generally thought of as being therapeutic, there is little robust evidence as to its impact on wellbeing and quality of life. The WISE research unit at the University of Warwick has been seeking to redress this balance, with specific reference to older people. Our study is part of the second phase of the Inclusive Design for Getting Outdoors project, I'DGO TOO, funded by the UK Engineering and Physical Science Research Council (EPSRC), which reported its findings on 26th April 2012 at Europe House in London, in celebration of the European Year for Active Ageing.

In the years leading up to the end of the 20th century, the preference among policy makers and developers in the UK was to place housing in high-density urban areas. According to Lord Rogers of Riverside in *Towards an Urban Renaissance* (1999), building to higher densities was a truly sustainable urban planning solution: enabling the widespread re-use of brownfield land and the rejuvenation of city centres, while offering enhanced spatial and environmental efficiency. For older people, the benefits of high-density living were thought

to be easy access to local services, facilities and public transport and opportunities for social interaction. Mid-to-high rise apartment blocks became the backbone of many regeneration projects - residential and mixed use - and the space allocated to residential outdoor space (ROS) tended to be minimal.

The decline in the levels of ROS in the UK has been marginally reversed in the past decade, but not in favour of 'greening' the living environment. Indeed, what is distinctive about housing built post 2000 is that its residential outdoor space is *less* green than it has been from the early Victorian period onwards. At the same time, there has been an increase in the amount of housing built specifically for older people, from retirement homes to 'sheltered' and 'extra care' housing (what is known, internationally, as housing for 'assisted living'). In our I'DGO TOO study, we found that most housing built for older people was likely to have below average levels of ROS, very little of it private.

Before our study, there was no research evidence either supporting or disproving the widespread assumption that most older people, primarily for reasons of upkeep, would prefer to share a communal garden or to have no outdoor space at all connected to their dwelling. We wanted to find out if this was true or if older people *did* in fact value residential outdoor space and feel that access to it impacted on their health and wellbeing. Was a pleasing view from inside the home equally or more important to them than physical access to ROS and did people's wants and needs change over time? We also wanted

to know if there were links between different types of residential outdoor space and/or certain design features and enhanced quality of life.

Although little research had been done in this area prior to I'DGO TOO, some existing policy and guidance *did* yield clues as to what features of residential outdoor space (ROS) might be important for older people's wellbeing. Working with an international panel of experts and other partners, WISE reviewed the available literature, discussed its implications and created a seven point summary of the factors most likely to have an impact:

- 1. the type of ROS e.g. shared or private garden, parking space, balcony, storage space etc.*
- 2. the amount of ROS i.e. the total area including each different type*
- 3. the form or layout of ROS, e.g. its general shape, its location in relation to the property and how it is oriented*
- 4. the detailed design of ROS e.g. whether it is green or paved, what type of planting there is etc.*
- 5. the nature of ROS boundaries e.g. fences, walls, hedges*
- 6. the nature of ROS thresholds e.g. whether there is direct or indirect access from a communal stairwell, shared hallway, private front or back door etc.*
- 7. the views of ROS from inside the home*

In tandem, after reviewing standardised measures of wellbeing, we identified ways in which being in – or being able to see – a favourite residential outdoor setting could impact positively on an older person. This is our point-by-point

summary:

- 1. satisfaction from being able to use the space for practical activities, such as hanging out washing, growing food, storing property, maintaining vehicles and parking***
- 2. enjoyment from being able to use the space for leisure activities, such as entertaining visitors, sitting outside, gardening, keeping pets or feeding wildlife***
- 3. pleasure from the appearance of the space and the way it enhances the dwelling***
- 4. relaxation and comfort***
- 5. enjoyment from social interaction with neighbours and passers-by and feeling part of the community***
- 6. wellness from gaining exercise and having access to fresh air***

As we were interested in the different types of outdoor spaces to be found around the home, and their impact on wellbeing, we wanted our participants to think about a range of settings, include those not currently available to them. This had a big influence on how we talked to people and gathered information. Our chosen method was a self-completed questionnaire, closely tied in with the 'factors and outcomes' identified by us and our partners through literature reviews. Developed and tested through pilot drafts, this questionnaire comprised five key parts:

- 1. Current experience of residential outdoor space. In this section, we asked respondents about the outdoor environments they currently had access to day-to-day. We wanted to know if**

these spaces conformed to a particular type (or mixture of types), what form they took and how easy it was to access them from the home. We also looked at their usability, in terms of what kind of activities they could accommodate and when. On a more subjective level, we asked respondents how satisfied they were with their residential outdoor space, what was positive and negative about the places available to them and how they were affected by factors such as privacy, upkeep etc. It is important to note, in this instance, that barriers to using an outdoor setting can be perceived as well as physical.

2. What an ideal residential outdoor space would look like. This section was almost entirely subjective on the part of our respondents, though – in answering it – they could draw on earlier experience of other residential outdoor environments. Again, we wanted to measure factors such as type, form, access and usability: asking people to imagine how best a ROS could support their needs.

3. Views from the home. This section dealt with a purely visual response to residential outdoor settings and asked questions about respondents' current and ideal environments. We wanted to know how important pleasant views were to older people, how satisfied they were with their existing circumstances, how they would define the character of the view currently available to them and what an ideal ROS would look like, from their perspective.

4. Wellbeing in the home and locale. In this section, we gauged people's perceptions of their home, immediate neighbourhood and quality of life. On a self-rated basis, we measured how

satisfied older respondents were with their homes, how much they enjoyed life, how healthy, active and independent they perceived themselves to be and whether they felt part of a community.

5. Personal and household data. This section was given over to facts such as: the type and tenure of dwelling; the living accommodation and floor level(s) available; length of residence; size of household; the number of children who lived in or visited the home; and the gender, age, socio-economic status and ethnicity of the resident(s).

Our goal was to obtain a mix of participants, reflecting the natural diversity of the UK's older population. In addition to talking to residents of age-specific housing – such as retirement homes and sheltered accommodation – we wanted to hear from older people 'ageing-in-place', that is, living in the community, whether in a privately owned residence or in social housing. We included different forms and densities of residential development: high-density 'urban renaissance' housing (completed from 1999 onwards); and more traditional, lower-density contexts. Appropriate developments were identified with the help of: research partners, including Cognatum, Places for People and the Peabody Housing Association; satellite imagery; and a number of websites, including those of the Commission for Architecture and the Built Environment, the Elderly Accommodation Counsel, the Office for National Statistics and relevant local authorities.



Courtesy: "©John Macgonagle", and the names of the ladies Joan Turner and Violet Laidlaw

Our survey was UK-wide in scope and we received 2,558 responses; 1,229 from participants aged 65 or above. Questionnaire data was supplemented by objective data on various aspects of ROS type, design and density, measured from images taken via remote digital sources (EDINA Digimap Carto, Google Earth and Microsoft Bing Bird's Eye). 30 participants then took part in a more in-depth, qualitative element of the study conducted in their home environment. This involved a 'walk along', semi-structured interview about current and ideal ROS scenarios.

Our findings were consistent with the key message arising from both phases of Inclusive Design for Getting Outdoors and all six I'DGO studies to date. This is that the desire to get out and about does not diminish in older age, nor does the variety of activities people like to do outdoors. The majority of our 1,229 participants aged 65+ said that their residential outdoor space was, indeed, important to them. In the same age

category, 80% of respondents said that they enjoyed using their ROS.

I'DGO has found that many older people find it difficult to get around outdoors, which can act as both a physical and psychological barrier to going outside. The reason is often the poor design, provision or upkeep of the environment; something that we have found is true of both ROS and the wider neighbourhood. Almost half (45.6%) of our participants said that they could not do everything that they would like to do in the residential outdoor space available to them. The main barriers cited were poor weather, fear of falling, the effort involved, poor maintenance, access difficulties, lack of space and lack of privacy.

Our study has found no evidence that having less residential outdoor space, more of which is shared, is a problem. The greatest impact on our participants' wellbeing came from having their own patio or simply a green view. This means that in promoting higher densities to achieve environmental benefits, it is not inevitable that social goals are compromised. However, while size of ROS wasn't important, quality and choice was, as the more types of ROS participants had, whether owned or shared, the greater their satisfaction.

Residential outdoor space was valued, by the majority of our participants, for providing a source of social interaction; front gardens, however small, in particular. We also found that some of the positive effects of residential outdoor space on wellbeing actually strengthen as people age, including being active in

ROS in warmer weather. To allow older people to age healthily, both physically and socially, the main goal of designers and developers should be to provide green ROS which maximises opportunities for social interaction. Rather than encouraging older people to live in housing without outdoor space – or with only restricted access or ownership – policy and practice should be enabling them, through design and support, to access, maintain and enjoy their outdoor space, whether it is their private property or shared.

The findings reported here are a summary. For further information, please email Professor Elizabeth Burton (e.burton@warwick.ac.uk) or Dr Lynne Mitchell (Lynne.Mitchell@warwick.ac.uk) or visit www.idgo.ac.uk for the latest news on journal articles, conferences and other knowledge exchange activities and outputs.

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Taking care of the changing needs of pedestrians in evolving communities

Rob Methorst

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Netherlands***

Basic principles for walkability policy development, interventions and implementation start with the pedestrian (Steg & Vlek: NOA) and Design for All (Universal Design) including safety principles; comprehensive analysis; the Cascade principle.

In this paper, the analysis covers facts, expected changes and context and preconditions for policy development. Under facts, some perspectives and the indicators for mobility, sojourning, safety and security, and satisfaction are highlighted. Under expected changes, major trends are identified. Under context and preconditions, public opinion, knowledge, a willingness to intervene and improve and some positive consequences of walking are summarised.

The paper also presents some solutions. Four levels of intervention are distinguished: pre-conditional measures, strategic activity level measures, tactical level measures and operational activity level measures.

The recommendations are:

- ***Target the independent mobility of the elderly, and car dependency***
- ***Invest in awareness building***

- *Evolving communities necessitate comprehensive studies*
- *Apply the cascade principle.*

1. Introduction.

With regard to the City of Geneva's Pedestrian Masterplan, Wiedmer-Dozio¹ aptly expresses what governmental tasks regarding the pedestrian comprise:

'Taking care of [the] pedestrian is managing everyday life's commonplace events, [it] is having an interest for and being sensitive to the unseen. No glory nor glamour. It is all about discretion, and is nevertheless our life's foundation.'

Clearly, walking is essential for accessibility and functioning socially. A little more than 25% of the time people spend in public space is spent on foot. About 18% of all door-to-door trips are made on foot (190 km per person, per year). Obviously, without walking, other forms of travel are not possible. One needs to walk to and from one's car, bicycle, public transport, etc. This generates some 1,800 short walking trips, averaging 70 metres, per year, totalling 130 km distance walked per person, per year (Methorst, 2010-2). Walking is the 'glue' of the transport system (Risser, 2010).

Oddly, there is relatively little research on walkability policy. Admittedly, there is an increasing body of literature on what are called 'slow modes', 'vulnerable road users', 'non-motorised traffic' or 'human powered modes', but a closer look

¹ *Marie-José Wiedmer-Dozio is head of the Service de l'urbanisme de la ville de Genève (Director Urban Planning City of Geneva).*

reveals that this research focuses on cycling and that the pedestrian is discounted most of the time. People, and researchers are no exception, they do not seem to believe in walking (Lavadinho, 2010).

Recently two international research projects on pedestrians, walking and sojourning policy development have been carried out: the COST 358 Pedestrians' Quality Needs project, and the OECD/ITF Working Group [on] Pedestrian Safety, Urban Space and Health. These studies have substantiated Jan Gehl's statement that there is more to walking than walking. Walking: It's not rocket science, it's much more complicated than that.

2. Basic principles

In the COST 358 Pedestrians' Quality Needs project, with regard to policy development, it was agreed to start from a number of basic principles:

- 1. *Start with the pedestrian***
- 2. *Design for All / Universal Design***
- 3. *Comprehensive analysis***
- 4. *The Cascade principle.***

2.1. *Start with the pedestrian*

Usually policy development starts from the span of control of the domain that takes the initiative. The general idea is then to solve walking and sojourning problems while opportunity knocks, like updating legislation, street or intersection renovation, traffic management programmes, etc. In practice, this leads to suboptimal solutions, as other issues are given

priority. Most of the time, these issues are perceived as more urgent, are better documented, backed up by more powerful stakeholders or viewed as politically attractive. The pedestrian should be seen as the key element in the system to be improved (see Figure 1).

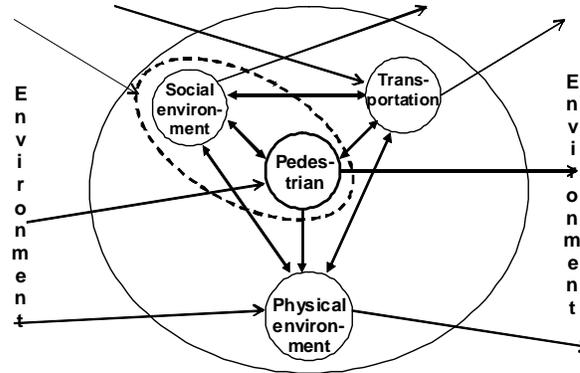


Figure 1 Model of pedestrian system (Methorst et al, 2010)

Starting with the pedestrian’s needs and abilities can be expected to provide more helpful insights into the support that is required for walking and sojourning in public space. Steg and Vlek suggest that needs, opportunities and abilities (NOA) together determine behaviour. Starting with the pedestrian will mean that a system needs to be adapted to the pedestrian and not vice versa.

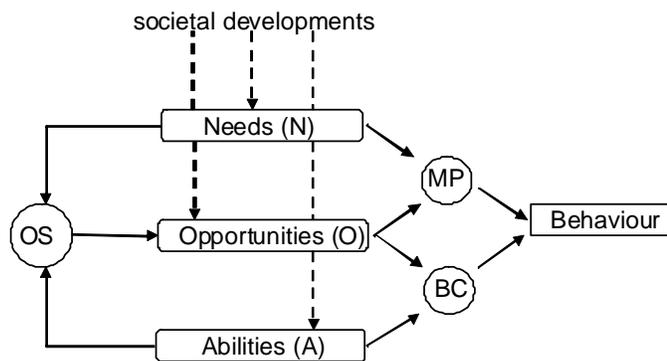


Figure 2 NOA model (after Steg & Vlek, 2008)

2.2. Design for All / Universal Design

Design for All (= Universal design = Inclusive Design) is an approach to the design of products, services and environments to be usable by as many people as possible regardless of age, ability or situation (see Figure 3). It strives to be a broad-spectrum solution that helps everyone, not just people with disabilities. It also recognises the importance of how things look and appeals to a wide range of potential users. The key precept is that all individuals, particularly those that have no option but to walk, are enabled to choose to walk and that there are no unacceptable impediments regarding their choice to do so.

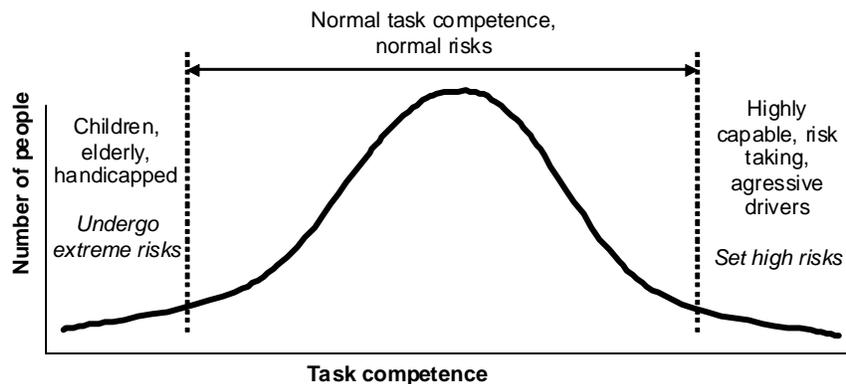


Figure 3 Populations for Design for All (Methorst et al, 2010)

2.3. Comprehensive analysis

Policy development should include all factors that affect conditions for walking and sojourning in public space. As not all phenomena are substantiated by empirical evidence, information gaps need to be identified and addressed through insights gained by approximations from models of the

pedestrian system. Analysis and policy development need to go beyond empirical data.

2.4. The Cascade principle

This principle states that at all activity and planning levels, the context sets the stage for activity. Consequently, it is most effective and efficient to intervene at the highest possible level. Macro level conditions and interventions set the scene for the functioning of the system in terms of lower activity levels, corresponding with the sequence of walking and sojourning decisions: activity, destination, mode and route choices, walking behaviour (orientation, speed), actual walking and sojourning (interaction). It is therefore very sensible to start intervention programme development by looking at the practical options for intervening at the macro level, then dealing with the meso level and finally, with the micro level (Methorst, 2000). The principle is shown in Figure 4.

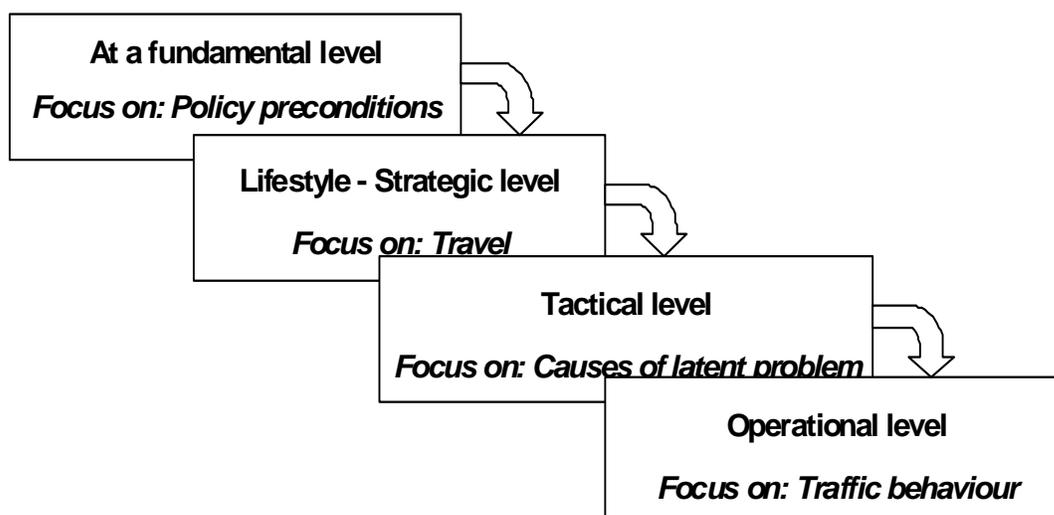


Figure 4 Cascade of interventions (Methorst et al, 2010)

3. Analysis

3.1. Facts

There is ample evidence showing that mobility, including walking, relates to people's needs and abilities as well as the opportunities that are offered to them. For example, people need food. To get food, they need to go to a supermarket. For that they need to be able to travel to it. One can only do that on foot if there is a supermarket within walking distance and when the conditions along the way are good enough to actually reach the supermarket.

Behaviour takes place on several planes: on the general lifestyle level (where to live, employment, holiday decisions, etc), on the day-to-day strategic level (where to go, when and how), on a tactical level (which route to take, attention level, how quickly to move) and at an operational level (how to walk and react to traffic and others in the environment). All these levels need policy attention.

In practice, many problems with regard to walking are hidden from the policymakers' sight. They, like most people, see particularly what problems they have themselves, and not so much what others' experience. As most of them are male, between ages 25 and 50, in good health, having a fair income and owning a car, they do not automatically see what less fortunate people experience. Furthermore, with regard to walking and sojourning, there are many biases in statistics and information. Comprehensive analysis is needed to uncover (partially) hidden matters.

With regard to abilities and opportunities, children, the elderly, persons with mobility handicaps and low-income people often are captive walkers, meaning that they have no alternative other than to go on foot. They are also less able to cope with difficulties while walking; they have special needs.

Pedestrian mobility includes both door-to-door walking and walking to and from other transport modes. On average, walking to and from other modes takes almost as much time and energy as door-to-door walking. The average total time spent walking is about 100 hours per year, per person. As mentioned above, there is, however, inequality in mobility opportunities. About 50% of the population does not have the choice to go by car. For the elderly, essential trips concern those related to services/health, social contacts, exercise. For them, proximity is a crucial requirement.

Sojourning can be seen as an objective in itself. It is estimated that the average time spent in public space for sojourning reasons equals the total walking time: about 100 hours per year, per person.

Regarding safety and security, in statistical terms and the public's perception, it is seriously biased. Dutch and Swedish studies have shown that the dominant accident type is falls. There are 4–9 x more victims from falls than by traffic accidents. Furthermore, it became clear that, as a road user, the elderly are not a risk, but at risk.

Regarding satisfaction, there is hardly any information available. This makes it difficult to develop suitable strategies for improvements, as the only reference then is the perception of the policymaker.

3.2. Expected changes

From both the PQN and OECD/ITF projects, we learned that major trends affecting the pedestrian's position are:

1. Ageing of the population:

- *The number of persons with limited abilities will increase substantially, demanding higher quality levels of the walking environment*
- *The total workforce will not increase, but the demand for services will increase substantially; there will be insufficient capacity regarding services and support*
- *The number of vulnerable persons will increase, leading to larger numbers of casualties, even if the number of accidents does not increase*
- *More people will have free time*
- *As the older people's average level of education and income grow and they become more used to the quality on offer, they will have higher expectations regarding use of their free time and recreation*

2. Increasing car dependency:

- *There will be a growing inequality of access to transport, making larger numbers of people dependent on the help of others or just suffer the consequences.*

3. Increasing car and HGV traffic:

- *More traffic on the roads means that in particular, the less able population will have trouble and be at increased risk while crossing the (main) roads*

4. Climate change:

- *There will be more weather extremes: wind, heat, cold, rain, snow. This will lead to suppressed mobility, and an increased risk of falls and risk in emergency situations and disasters*

5. Increasing raw materials' prices:

- *As raw materials like oil, iron and precious metals become rarer, their cost will go up. Consequently, transport will be less affordable*

6. Call for healthier lifestyles:

- *As the average population becomes richer, it will also be more obese, consume more alcohol, etc. This leads to substantial health and services/support expenses, which need to be met or rather, prevented.*

7. Governments will lose power and influence, and they will have lower investment budgets.

3.3. Context and preconditions

In practice, existing preconditions regarding walking policy and policy implementation determine their aims, ambitions, effectiveness and efficiency.

Public opinion, which heavily influences the practitioners and politicians' opinions and attitudes, is a first determinant. Currently, the popular idea is that walking is a choice and not

really a problem as there are good alternatives (Amato, 2004). This opinion needs to be corrected, because in fact, about half of the population do *not* have good alternatives. They suffer the consequences of increasing car-dependency (Risser, 2010).

A second factor is knowledge, particularly that of practitioners and decision makers. Up till now, walking has received little scientific attention. This seems to be shifting, however. Data availability, resulting in low potency arguments and severely biased data are an additional obstacle. In many cases, adequate knowledge about walking is absent on the work floor level.

A third factor is a willingness to intervene and improve. There appears to be no strong walking advocacy as negotiator; stakeholders without power have most to lose; there is little economic drive: no financial interest; low cost facilities. It is clear from many studies that walking is a solution to many urgent problems, such as lack of space, health, environment, a shortage of raw materials, security, etc.

It is not yet clear what the benefits of walking are for the larger system. This still is an area that needs to be substantiated. The PQN study includes some theoretical considerations, and very recently the WHO presented the HEAT checklist for assessing the economic benefits of walking.

Another obstacle is that the financial benefits do not flow back to the payer of the measures. Local authorities do not get the benefits: they are spread over the general population and are hidden, indirect savings for national governments.

4. Solutions

We strongly recommend that the Cascade principle is applied, by first setting the stage and ensuring that preconditions for concrete measures are in place. Crucial activities in this regard are:

a. General preconditions, resulting in the proper atmosphere for the improvement of walkability conditions:

- *Building awareness of the economic benefits of walking and sojourning*
- *Data collection and management*
- *Monitor and evaluate policy implementation*
- *Knowledge management and research planning; education of practitioners*
- *Issue national guidelines, policy papers and 'carrots'*
- *Enforce proximity of services in land use*
- *Organise fall prevention*

b. Strategic activity level measures

- *Improve connectivity, accessibility, conspicuousness and information*
- *Promote awareness of attractiveness and true opportunities*
- *Road classification: separation traffic flow – sojourning*

c. Tactical activity level measures

- *Route guidance*
- *Supply shortcuts*

- *Improve network safety*

d. Operational activity level measures

- *Forgiving pavements and roadsides*
- *Safe crossing facilities*
- *Improve convenience, conspicuousness and comfort of walking facilities*
- *Systematic maintenance, removing obstacles and cleaning; organise winter maintenance*
- *Control absence of obstacles in pedestrian space*
- *Issue permit policy for works in progress*
- *Monitor and evaluate usability of public space*

5. Recommendations

Our recommendations, based on the PQN and OECD/ITF work are:

- *Target the independent mobility of the elderly; and car dependency*
- *Invest in positive awareness building: we can solve the matter*
- *Evolving communities necessitate comprehensive studies:*
 - *Rule: Garbage in – garbage out*
 - *Quest for the unseen*
- *Undetected problems are expensive*
- *Apply the Cascade principle: ad-hoc approaches waste money.*

Keywords: *pedestrians, transport policy analysis, road safety, mobility*

Theme: *age-friendly built environments from childhood to old age*

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The inhabitant friendly, health promoting urban structure

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Abstract

The intriguing associations between urban structure and inhabitants' experiences, behaviour and wellbeing are in the core of people-environment research. With a new, place-based approach the various interpretations of inhabitant friendly, health promotive urban environments a) can be studied in close connection to the actual physical characteristics of the locations and b) the research findings can be transferred to the practitioners in visually informative form. The SoftGIS methodology developed in Aalto University enables the combination of 'soft' subjective data with 'hard', objective GIS-data. With the help of internet-based queries large empirical data can be gathered among various user groups, both children and adults. The softGIS data collected from the Helsinki metropolitan area and in the city of Turku among both adults (n=3100) and children (n=2800) reveal interesting associations between urban density, the proportion of green structure, the perceived quality of the environment, active living and the wellbeing and happiness of inhabitants.

1. Introduction

1.1 Current urban planning challenge: Urban infill policy

Communities around the world share a common challenge: how to develop existing environments and plan new communities that are able to combine ecologically sustainable urban structure with inhabitant friendly characteristics of urban settings. These include high perceived environmental quality, good access to personally meaningful places and health and wellbeing promoting qualities of the physical environment.

Among many others, Jabareen (2006) has identified design concepts that are central to ecologically sustainable urban form. These entail compactness, sustainable transport, density, mixed land uses, diversity, passive solar design, and greening; urban structure qualities that often manifest themselves in the form of compact cities. Consequently, it is not surprising that the densification on the grounds of ecological sustainability is currently the hottest topic in the planning field.

In addition to the ecological benefits, urban densification can, however, also lead to a fall in the perceived quality of the living environment, contribute to unexpected changes in everyday life practices and affect the wellbeing of inhabitants. In New Zealand, for example, where people traditionally value sparse housing, residents have experienced negatively the changes in their living environment after intensification and are afraid of losing the quality of life of the garden city (Vallance et al, 2005). Research in the UK reveals that a higher density

population and built form do not necessarily produce the benefits suggested by those in favour of the compact city (Williams, 1999). These examples show that urban infill policy can be problematic and challenging. However, more systematic research is needed that simultaneously considers the urban structure characteristics and inhabitants' experiences.

1.2 Urban structure and inhabitants' health and wellbeing

The recent literature concerning the health promotive qualities of urban structure shows somewhat contradictory results. On the one hand, there is fairly compelling evidence to show that a compact urban structure with high neighbourhood accessibility is associated with the higher probability of walking and cycling to school, doing errands and going to work (Cervero and Radisch, 1996; Krizek, 2003). Urban sprawl is shown to be related to a lower level of physical daily activity and a higher risk of overweight and hypertension. This body of literature suggests that a dense urban structure contributes to positive *physical* health outcomes (Ewing et al, 2003).

On the other hand, the literature concerning the health benefits of the natural environment shows that the proximity to nature associated with sparse building promotes mental health as a setting for stress restoration (Van den Berg et al, 2003). Also the type of green setting matters: restorative experiences are stronger in exercise and activity outdoor areas, waterside environments and extensively managed natural settings than in places in built urban settings or urban parks (Korpela et al,

2010). To conclude, low density, green settings entail distinct *mental* health promotive qualities.

Evidence concerning the urban structure characteristics that promote *social* health is more limited. According to some studies, a moderate level of density is related to an increased sense of community (Brown and Cropper, 2001; Kim and Kaplan, 2004). Dense building is, however, also related to reduced perceptions of safety and experiences of crowding (Gómez-Jacinto & Hombrados-Mendieta, 2002; Miceli et al, 2004). More than density levels as such, a strong sense of community is enhanced by investment in public and semi-public urban spaces.

These somewhat contradictory results originating from different research traditions make the applications of research findings in urban planning difficult both for practitioners and politicians. To overcome these difficulties, I suggest a more context sensitive approach: instead of research solely looking for general associations between urban structure and inhabitants' experiences and health, a more place-based research is needed.

A prerequisite for a place-based approach is the understanding of the materiality in the person-environment relationship and the related theoretical tools. For myself, a central theoretical approach has been the ecological perceptual psychology by J.J. Gibson (1979) and his key concept, affordance (Heft, 2001; Kyttä, 2008). Affordances refer to both the perceiver and the object of perception simultaneously. The actualization of

affordances is coded socio-culturally, and the material environment conveys messages about 'right' and 'wrong' ways to behave and use the environment. Making affordances perceptible can be seen as a central task for designers. In urban planning, the applications of affordance theory are rare. Nevertheless, planners should exhibit interest in the extent to which the affordances of designed spaces are really actualized for the users (Kyttä et al, 2011b).

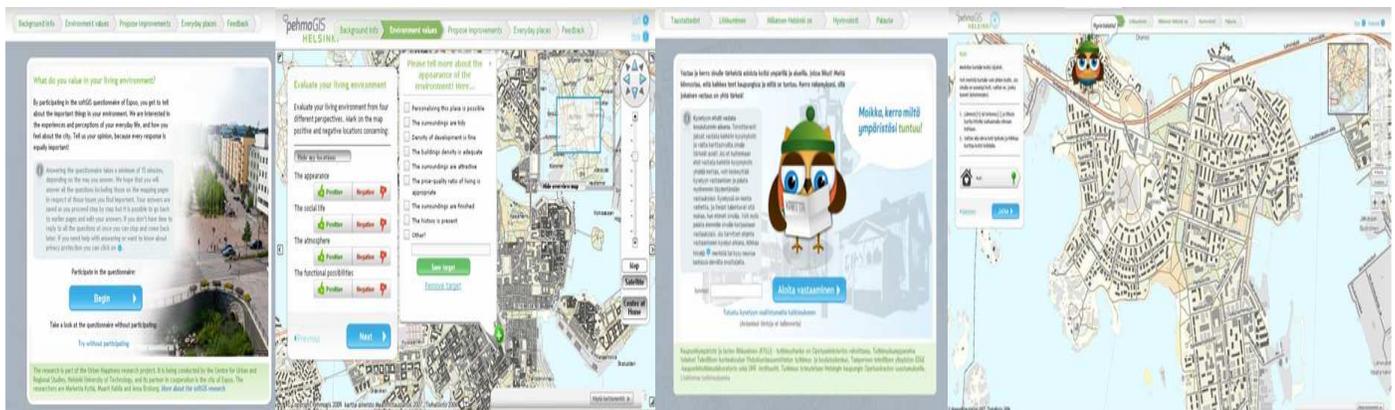


Figure 1. The softGIS applications used in Helsinki metropolitan area among adults (left) and children (right).

3. Empirical evidence from softGIS studies in Finland

3.1 Methodology

The place-based understanding of the people-environment relationship is not only a theoretical but also a methodological challenge. The internet-based softGIS methodology developed in Aalto University since 2005 relies on collecting, analysing and delivering soft, localised, geocoded knowledge produced by the residents of a certain area. SoftGIS methods have been tested already in eleven Finnish cities with promising results

and over 9000 Finns have participated in these studies (Kahila & Kyttä, 2009). These methods have been developed in close co-operation with urban planners and the collected database makes systematic GIS and statistical analyses possible.

In this paper I will present some results from softGIS studies in the Helsinki metropolitan area and in the city of Turku. The research in Helsinki and the neighbouring city Espoo among adults (n=3119) was carried out in 2009. The random sample of 15-65 year-old inhabitants was collected from 11 neighbourhoods. The studies with children were realized in the cities of Helsinki in 2010 (n=1128) and in Turku in 2008 (n=1863). The respondents in both of these studies were fifth graders (11-12 years) and seventh graders (13-14 years). The children's data were collected in schools: in Helsinki, from 17 schools in six neighbourhoods and in Turku, from 54 schools in all parts of the city. The softGIS applications were tailored to make them as user friendly as possible for the study of the inhabitant groups at hand (see Figure 1).

3.2 Results concerning adults' experiences of the urban environment

According to our findings, the relationship between urban density and inhabitants' experiences is not straightforward at all. Earlier evidence from Britain (Bramley & Power, 2009a; Bramley et al, 2009b) and also our previous findings from four Finnish small towns (Kyttä et al, 2011b) suggested that experiential outcomes would be more positive in low density settings than in more densely built urban locations.

In contrast to these results, the study in the Helsinki metropolitan area revealed that the relationship between urban density and the perceived overall quality of the living environment² appears not to be negative or linear. The general pattern of the relationship between the two dimensions was curvilinear: the average perceived environmental quality increased until the density level reached around 100 housing units/ha. After that it decreased again. A series of regression analyses indicated that the rather high density levels between 70 and 130 housing units/ha had a very significant positive association with the perceived environmental quality after controlling for eight different background variables³ including income level. The density of the environment was measured individually per 500-m buffer from each respondent's home. The average density level was 65 housing units/ha, but in different neighbourhoods it varied between 25 and 157 hu/ha (Kyttä & Broberg, 2010).

Besides the above person-based analysis and the evaluation of the characteristics of home settings, we also performed place-based analysis to study the structure of experienced places beyond the home surroundings. These analyses revealed somewhat opposite results compared to the person-based

² *The perceived quality of environment was a mean of four evaluations (0-100) concerning own living environment, namely, the quality of social life, functional possibilities, physical appearance and atmosphere.*

³ *Regression analyses were controlled for all the background variables that were significantly associated with the perceived environmental quality score. These included: age, gender, dwelling size, household type, tenure, income level and the number of bicycles and public traffic tickets per household.*

analysis. We found significant, positive associations between green structure proportion and the probability that the place was experienced positively. The place-based affordances were studied in four main categories: appearance, functional possibilities, atmosphere and social life. In each category the inhabitants were able to define their experiences at a more detailed level using eight subcategories. It appeared that social affordances were generally located in significantly more dense places than other types of affordances. In this case, the urban structure variables were calculated within a 50m buffer around the places that inhabitants had marked on the map.

The overall, perceived environmental quality was associated positively both with the general wellbeing of respondents and with the scores of perceived happiness, perceived health and perceived quality of life. These associations were controlled for the eight different background variables. Direct associations between the urban structure factors and wellbeing variables were not found.

3.2 Results concerning children's experiences of the urban environment

Our recent studies among children in the cities of Turku (Kyttä et al, 2011a) and Helsinki (Broberg et al, 2011) show also intriguing relationships between urban structure characteristics and children's experiences, behaviour patterns and wellbeing.

In both the Helsinki and Turku study, we found a negative association between the amount of green structure around the

child's home and the active travel mode to school. The study in Turku was showing also that the more green a child's home setting was, the further away were the affordances that a child had marked. Children, however, enjoyed also larger territorial ranges in lower density neighbourhoods. Also in the Helsinki study, the green structure proportion was positively associated with a larger territorial range of children.

The place-based analysis in both cities revealed that urban density predicted an active travel mode and independent access (access permitted alone) to personally meaningful places. Urban density also prefigured the degree of likeability of places that a child had marked.

Both in the Turku and Helsinki study, children's behaviour patterns and environmental experiences were associated with health and wellbeing measures. Children in Turku were less likely to be overweight if they travelled to school actively. In Helsinki, instead, only the amount of moderate physical activity during free time decreased the risk of overweight. Interestingly, also environmental fears increased this risk among children in Helsinki. Fears predicted also the number of daily symptoms⁴ in both samples. The number of fears had no association with urban structure variables. We found only one direct link between urban structure variables and children's health and wellbeing variables: in the Turku study, a large

⁴ *These were measured using the HBSC Symptom Checklist: how often a child suffers headache, abdominal pain, backache, feels low, irritable or is in a bad mood, feels nervous, has sleeping difficulties or experiences dizziness.*

proportion of green structure in the child's home environment was positively associated with good perceived overall health.

These findings suggest that both densely built settings and places with a high proportion of green structure have clear qualities of a child-friendly environment. The next question is whether it is possible to combine these benefits in a single urban structure.

4. Locality sensitive analysis and the application of research findings in urban planning

The above findings corroborate the earlier, partly mixed results concerning the connections between urban structure variables and inhabitants' experiences, behaviour patterns and health. They suggest that we have to be careful in defining the type of health benefits that we are talking about and the geographical scope of our research findings.

The above, rather general softGIS data analysis were complemented with a more locality sensitive approach by Kahila (2010). Place-based information concerning the local strengths and weaknesses – the unique neighbourhood character (Dovey, 2010) – is essential here. The respect for existing characteristics of an area is crucial especially in urban densification projects in determining what type and extent of intensification is acceptable to local residents (Minnery, 1992). What is locally important is not only the intensification but also the form it takes.

Figure 2 visualizes various softGIS data from one neighbourhood. Information concerning the located positive and negative affordances, residents' everyday life practices and their suggestions about future renovation projects is attached to specific places. Also the flexibility of the residents towards alterations is evaluated. This more qualitative, profound, and locality sensitive analysis serves as a useful baseline data in planning. In the case of Kannelmäki neighbourhood, we actually tested the usefulness of softGIS data for planning (see Figure 3). We found that the place-based, experiential information from inhabitants shaped and changed the ideas of the planner. If densification is realised sensitively and experientially, most valuable areas are preserved and the weakest areas improved, leading, we hope, to an increase in the social acceptability of intensification.

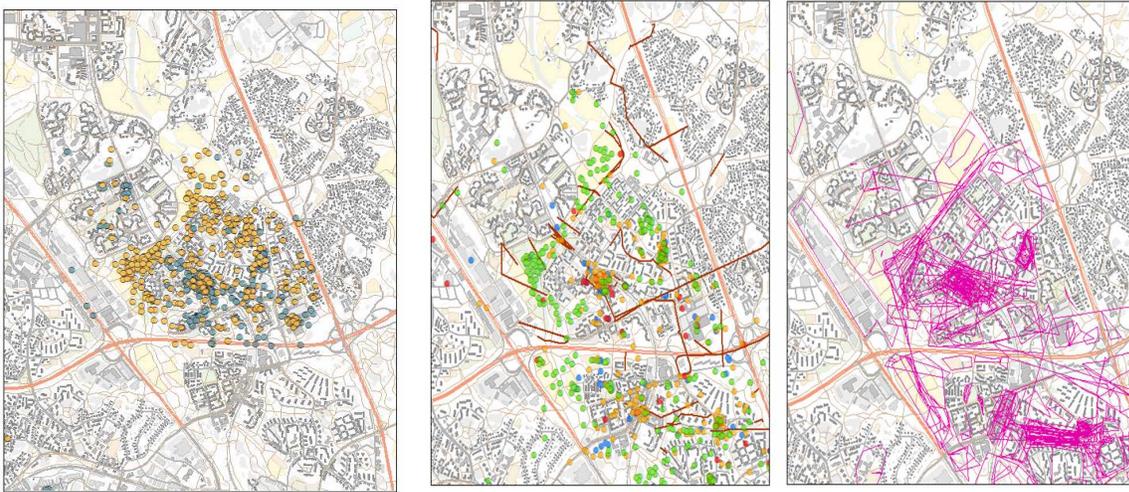


Figure 2. Studies of the unique neighbourhood character. From left to right: positive and negative affordances; suggested improvements; and subareas that inhabitants hope will be improved.



Figure 3. Urban infill project plan where softGIS data has been used. (Plan by architect Niilo Ikonen.)

Our current attempt is to embed softGIS methodology even deeper into the actual urban planning practice. This includes new internet-based tools to support the different phases of the planning process. Planners will also get their own tool kits to explore and analyse the softGIS data online.

An essential challenge for urban planners and designers is to be able to combine macro- and micro-level research findings to actual planning tasks. New urban concepts will probably emerge that simultaneously guarantee access to green areas' suitable density of the physical structure. Integrating individual wellbeing and environmentalism in urban planning using empirical research results is ambitious. If we are to increase human wellbeing with fewer resources, new research

data and innovations, and close co-operation with practitioners is needed in the planning sector.

Key concluding points

- **Rather high urban density can include inhabitant friendly characteristics both for adults and children.**
- **Accessible green spaces are also crucial as health-promotive urban spaces.**
- **Critical reflection and comparison of research finding from different subfields is needed.**
- **Internet-based softGIS methodology produces applicable data for locality sensitive urban planning.**

Keywords: *green structure, urban environment, health, inhabitants, softGIS methodology*

Theme: *physical environment, health and wellbeing*

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Building Information Modelling: A way of ensuring buildings and spaces support the everyday activities older people need, want and have to do?

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As an Occupational Therapist, I have an interest in how aspects of the internal and external built environment supports people to do the everyday tasks they want, need and have to do. Before starting my doctoral studies at the University of Salford, I was responsible for working with individuals disabled by poorly designed homes. My role involved working with people with a range of physical, sensory and cognitive impairments, identifying barriers within the environment and recommending housing modifications to overcome them.

One of the greatest challenges when evaluating a proposed housing modification is being able to interpret, from a two-dimensional computer aided design (CAD) drawing, if the proposed design will provide the individual with the environment to support them to do the everyday tasks they want to do. Very few of occupational therapists have any formal architectural training and flare to be able to competently interpret 2 CAD drawings and to then

communicate this to the individual they are working with. 3D and 4D CAD designs overcome this problem by creating realistic proposed environments to explore and analyse, however, as an occupational therapist I was rarely given access to this level of design detail. Hence, my excitement when I was invited to apply for a research bursary to investigate Building Information Modelling (BIM), the heart of which is 3D and 4D computer aided design.

Building Information Modelling (BIM) is digital software that enables the designers (including occupational therapists), engineering and construction (AEC) industries to, “build, analyze and test a building design” (Sacks et al. 2004). The rationale for using BIM is the sustainable and lean value gained for both the client and end users during the life cycle of a building. BIM achieves this through the integration of design, construction and building management processes. With these aspirations in mind, the AEC industry’s interest and uptake of BIM has been further motivated by the UK governments mandate for it’s adoption in all publicly financed building projects by the year 2016.

Despite the reported benefits for end users of the built environment, little attention in the literature has been given to how users will be engaged in the use of BIM. This lack of focus may be an unintended consequence of an industry having to adjust rapidly to the practicalities of implementing new integrated methods of working. However, end user involvement in building design and construction has been shown to positively influence the outcome of delivering

building and spaces that people want and are able to use (Kernohan 1992). Therefore, how end users are integrated into the use of BIM needs to be addressed. This will be the focus of my research, specifically how BIM can be used with older users, to evaluate how a proposed building or space supports the everyday tasks individuals need to do.

Why focus on older people and the activities they need to do? For older people the way a building performs can significantly affect their level of independence, health and wellbeing. Furthermore, in the UK homes and communities are expected to support older people's choice to age in place. The challenge for designers is to establish during the conceptual design if the proposed building or space will address the needs of users of and to ensure their requirements are integrated throughout the remaining design and construction process.

How can the above aspirations be achieved? Post Occupancy Evaluation (POE) is a common method of integrating end user involvement into the design feedback mechanism. A key function of POE is for the design team to evaluate and learn how a building performs and whether it meets the requirements of its users. The design team then builds upon the knowledge gathered during the POE to drive future improvements in building design.

As POEs occur after the building is commissioned, the disadvantages are; waste of resources having to rectify issues identified during the evaluation and potential harm to end users because of the poor performance of the building or space.

As BIM creates detailed simulation and virtual 3D and 4D models of environments from the beginning stages of the building process, it seems appropriate to ask the question, how can BIM be used to perform Pre Occupancy Evaluations with end users of buildings during the design process?

An exploration of the literature has identified others are exploring BIM as a pre-occupancy evaluation tool but with this work as had an emphasis on office workers (Shen et al 2011). Therefore, with a focus on older people, I intend to explore three questions. Firstly, how can older users of buildings and spaces be included in the use of BIM during the conceptual phase of building design? Secondly, what processes are required to support the use of BIM as a pre-occupancy evaluation tool? Thirdly, how can information and data collected from the pre-occupancy evaluation are embedded within in the model so that it enhances the life cycle of the building. The hope being, that one day BIM will provide occupational therapist and other practitioners with the confidence and assurance that the building and spaces they help to design will support individuals to do the things they want, need and have to do in their everyday lives.

Reference:

Kernohan, D. Gray, J. Daish, J. 1992. User Paricipation in Building Design and Managment. London: Butterworth Architecture

Sacks, R., C. M. Eastman, et al. 2004. "Parametric 3D modeling in building construction with examples from precast concrete." Automation in Construction 13(3): 291-312.

Shen, W. Shen, Q. Sun, Q. 2011. "Building Information Modeling user activity simulation and evaluation method for improving designer -user communications." Automation in Consturction 21 (1): 148 - 160



Rachel Russell

July 2012 Vol-7, No-7

Dr. Eujin Pei is a Senior Lecturer in Product and Furniture Design at De Montfort University in the United Kingdom. His research interests include inclusive design, multi-disciplinary design and additive manufacture. He has worked at leading institutions including Brunel University, Loughborough University, University of Southampton and Vaal University of Technology. Dr. Eujin is a Fellow of the Royal Society for the Arts, Manufactures and Commerce and a member of the Editorial Advisory Board for the Journal of Assembly Automation. Email: epei@dmu.ac.uk



August 2012 Vol-7, No-8

This is special issue with Portugal and the Guest editor will be Ms. Ana Maria Marquis Garcia Rodrigues holds a Business Management degree . Since 2008 is the Managing Partner of *Accessible Portugal*, a Portuguese tourism company founded in 2005 and focused on people with special needs, their family and friends. *Accessible Portugal* has been talking with major players in the field, spreading good policies and practices and suggesting reasonable changes which would benefit all in their places or projects.



September 2012 Vol-7 No-9

The theme of special issue is: "Design of equipments for carrying out physiotherapy at home" with Department of Industrial Design ,School of Planning and Architecture, New Delhi and Guest Editor will be Manoj Mathur, Professor and Head of Department and Ms. Kritya Gera Lecturer in Industrial Design



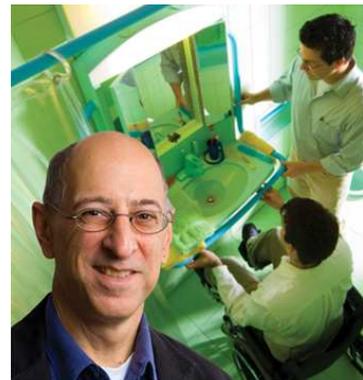
November 2012 Vol-7 No-11

Josyane Franc Director of International Affairs Cite du Design & Saint- Etienne School of Art & Design (ESADSE) since 1989. She has accepted our invitation as Guest Editor for special issue on designers from France.



December 2012 Vol-7 No-12

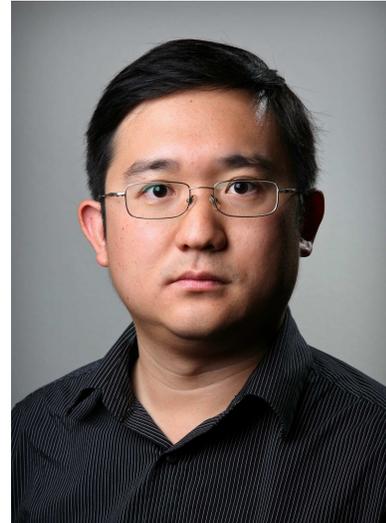
Edward Steinfeld, Arch. D., AIA , Professor of Architecture and Director Center for Inclusive Design and Environmental Access School of Architecture and Planning University at Buffalo, State University of New York will be the Guest Editor of December 2012 Vol-7 No-12



A year 2013 dedicated to young designers

May 2013 Vol-8 No-5

Dr. Kenneth Joh is an Assistant Professor in the Department of Landscape Architecture and Urban Planning at Texas A&M University, Program Coordinator of the Graduate Certificate Program in Transportation Planning, and an Assistant Research Scientist at the Texas Transportation Institute. He will be the Guest Editor of this special issue



July 2013 Vol-8 No-7

Christian Guellerin is president of Cumulus, the International Association of Universities and Schools of Design, Art and Media since 2007. The organization counts 178 establishments in 44 countries. He is also the executive director of the Ecole de design Nantes Atlantique, which trains professionals to create and innovate for socio-economic development, with an interface between technology, economics, and the sciences. Today they're expanding to China and India. He writes on design and pedagogy. He will act as philosopher & guide for this special issue and students of different streams will participate in this special issue.



August 2013 Vol-8 No-8

Dr. Antika Sawadsri PhD in Architecture, Planning and Landscape University of Newcastle upon Tyne, UK. Lecturer, School of Interior-Architectural Design (2004-present) Faculty of Architecture King Mongkut's Institute of Technology Ladkrabang (KMITL) Thailand will supervise this special issue of student designers.



Chairman's Desk:



Dr. Sunil Bhatia

Indoor has character where designers have peculiar abilities to design what they wish because of its partial control over environment and their designing to meet the desired objective is simple, possible and achievable. Indoor design is different from that of outdoor. Two different indoor designs may be identical but two outdoor could never be. Reason is variation & different degrees of environments constitute the system and the designer has evolving knowledge that proves inadequate to control completely but helps in partially controlling these parameters. Majority still behave in erratic and goes out of control. Man struggles to win over keeps him on learning. Slight changes in a parameter that adds a new dimension and may prove the reason of disturb of the existing system or ruin it completely. Table tennis or badminton are the game played in indoor because a slight variation in air density or wind flow or direction or atmospheric pressure can harm the beauty of game and what player is supposed to perform cannot exhibit. In traditional game of football, hockey or say cricket is

developed in open & mostly outdoor played where good players are expected to create special effects by using change in parameters for their advantages. Legend footballer David Beckham is best known for scoring big goals for England did the miracle by inventing new style of kick of shooting the ball into goal with such fine trajectory with the wind flow for change in direction that confused the opponents goalkeeper's anticipation and that proved a winning shot. He has achieved that height because it was an outdoor game. 'A slight change in one parameter in a system creates the ripple effects and where it will strike with what intensity is difficult to predict.' Designers should avoid those products/services where they are unable to predict the impact of change of any parameters. It may lead to such disaster that may shake the foundation of human existence.

Outdoor is complex, difficult and achievable to a limited extent because standardization is missing. Wherever the standards are possible we should use for achieving our objectives. There is lot of scope of improvement and majority of time we feel handicapped in designing because of lack of knowledge. It is our appeal that more and more standard should be designed within studio and uses the same as far as possible in outdoor design. It is similar to agricultural scientists that they design everything in laboratory and later on use in fields for better yields. Universal design should be a major consideration in planning outdoor spaces to ensure full enjoyment of home for years to come. With a bit of forethought, designer can create a beautiful, accessible patio or deck that seamlessly connect with

existing home's interior, expanding daytime and evening living space .Prof David Rudlin has mentioned in his article 'The design of open space is vital and if done badly, will undermine all of the potential benefits. If done well, the smallest of spaces can have a huge impact.'

Design of indoor ultimately depends on who is the user. If it is design of a tomb where user is dead, environments will not affect him and his demands of sanitation, water, electricity etc. are nowhere and designers ignore these. So designer will focus on building with minimal needs. If designer designs the house where humans are planning to live, he will look into their objectives , water supply, sewerage, control, environment by using lighting, air conditioners or to keep warm fireplace with chimneys, designs of ventilators, windows, doors for security and to make it all accessible . These are not difficult task if will is strong. Designers study every minute detail that can create problems to living person and uses as far as possible well established standard designs.

One of students designed the multipurpose cart with small wheels that could pull manually. I just asked 'Do you think that construction site will have same plane what you have imagined of floor of room? Do you know it has difficult terrain and your cart will prove ineffective?' The fault of that designer was in his thought process and he could not visualize the outdoor environments and the designed cart thinking at the time of design about indoor environments. There are many benefits of designing the outdoor and specially landscape. There is an article of Prof William who has said 'Chronic exposure to

stressful events and unhealthy settings put individuals at higher risk of cardiac disease and stroke, and also threatens their mental health. There is mounting evidence, however, that exposure to places that include trees, grass, and open space can reduce the psychological symptoms of stress and promote recovery from mental fatigue. Some recent research has produced startling results: compared to individuals who have less exposure to urban green, those who have more have been shown to live longer, are less likely to produce low-birth-weight babies, and engage in less aggression and violence.' He is conveying that design of outdoor is associated with social, psychological & biological environments for well beings of humans and ignoring may cost a lot for generations. Dr. Kaytta has also expressed the similar view in her article. Communities around the world share a common challenge: how to develop existing environments and plan new communities that are able to combine ecologically sustainable urban structure with inhabitant friendly characteristics of urban settings. These include high perceived environmental quality, good access to personally meaningful places and health and wellbeing promoting qualities of the physical environment.

Life should not be compelled to live in limited space. We spend our longer part of life time in confined places thinking as free bird because no one can stop us to move out whenever we wish. No one is forcing us to stay in confinement and we are not treated as prisoner. If the challenged persons are forced to live in limited area with accessibility it is confined life as a prisoner. He/she has not committed any crime so why they should live life of prisoner. Design of outdoor is required and no

one should feel inaccessible anywhere. Everyone in this world once or many occasions experiences as challenged person inspite of spending normal human life. I am a normal human with normal abilities was standing other side of the canal and width was that long that it was difficult to cross by jumping .I was fearing that my jump will be inadequate and I might fall in forceful flowing water and drowning will prove reason of my death. That time I was feeling challenged. The journey from challenged to normal is interesting. An ordinary person might have thought to use the log that might have helped in crossing by walking by balancing. It was design with some risk because balancing was required to walk over the log but chances of drowning was not eliminated. Later on to eliminate the balancing, they might have introduced many logs tied with rope and person can cross by walking over floating platform. As technologies changed so their needs they designed bridge, rope and multilevel bridges where wheel chairs bound person or light or heavy automobiles can move from one side to another. How the design of gardens, streets neighborhoods and open spaces can make the differences to older people's wellbeing and quality of life is the challenge to modern designers. Inclusive design for getting outdoors is significant. When outdoor environments are implemented correctly with universal design features, everyone moves through the space in the same way. There are no differences due to age or ability.

There are many ways of learning, one is indoor that is class room education and other is outdoor that is watching, participating in adventure or say experiential learning. Indoor education alone cannot open the faculty of the mind and to

make the person an exact man he should pass through outdoor education. Will Nixon, who reminds us that 'Using the real world is the way learning has happened for 99.9% of human existence. Only in the last hundred years have we put it into a little box called a classroom.' It is my own experiences that those who are challenged are living in indoor environments under various protections are not as smart as people with same challenge living in outdoor or in open public places. Reason is every moment these people face new challenges and to survive in tough conditions they learn a lot for their living. Those live in protected environments get scare when leave them in open and experience some kind of fear because they are experiencing new challenges that they have never faced. It is advisable that every child should be left in open for learning along with class room education. This rare blend of the people will prove more useful for progress of the society. Common definitions of outdoor education are difficult to achieve because interpretations vary according to culture, philosophy, and local conditions. Students may excel in class room enviornments because it is closed and well directed toward the desired objectives and students are bound to perform what enviornments is designed for. Story is different when same students fail to perform what they have performed in class because their faculty of mind is not tuned to perform in varible enviornments and fail to forsee the change in totality of the designed product/ services. We should design our carriculum in such a way that where it should be right blend of indoor as well as outdoor design activities.

We are thankful to Guest Editor of this special issue Prof Marcus Ormerod and Ms. Rita Newton of SURFACE, Salford University, UK for covering such beautiful concepts of making the outdoor inclusive. My special thanks to Ms Máire Cox colleague of Prof Marcus Ormerod's on the Inclusive Design for Getting Outdoors (I'DGO) research project for organizing the special issue publication materials in utmost efficient manners. This is our second edition with SURFACE and an earlier issue was well received by readers and I hope the current will enjoy better position.

One touch of nature makes the whole world kin.

-Shakespeare Trollus and Cressida

With Regards

Dr. Sunil Bhatia

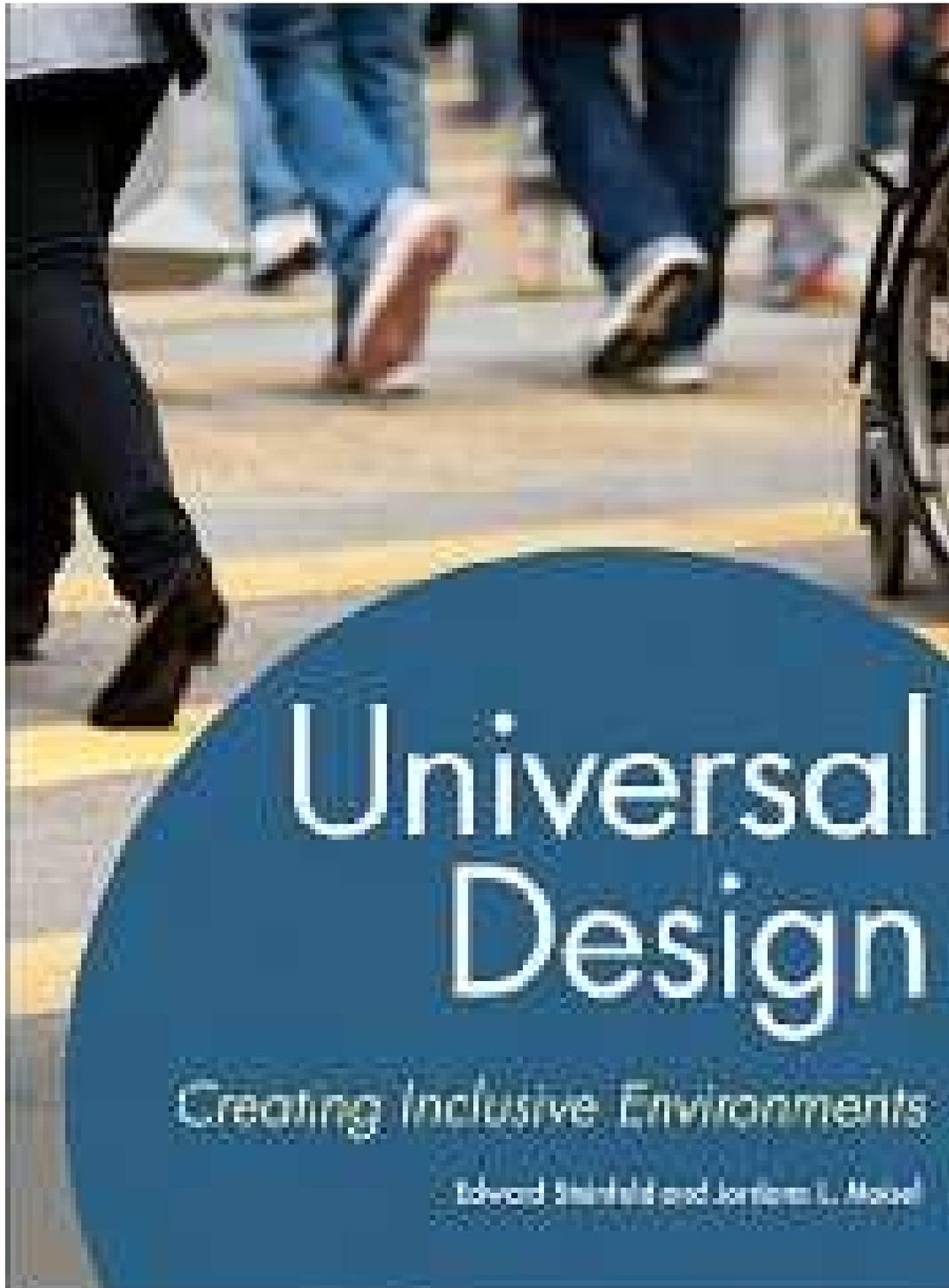
Design For All Institute of India

www.designforall.in

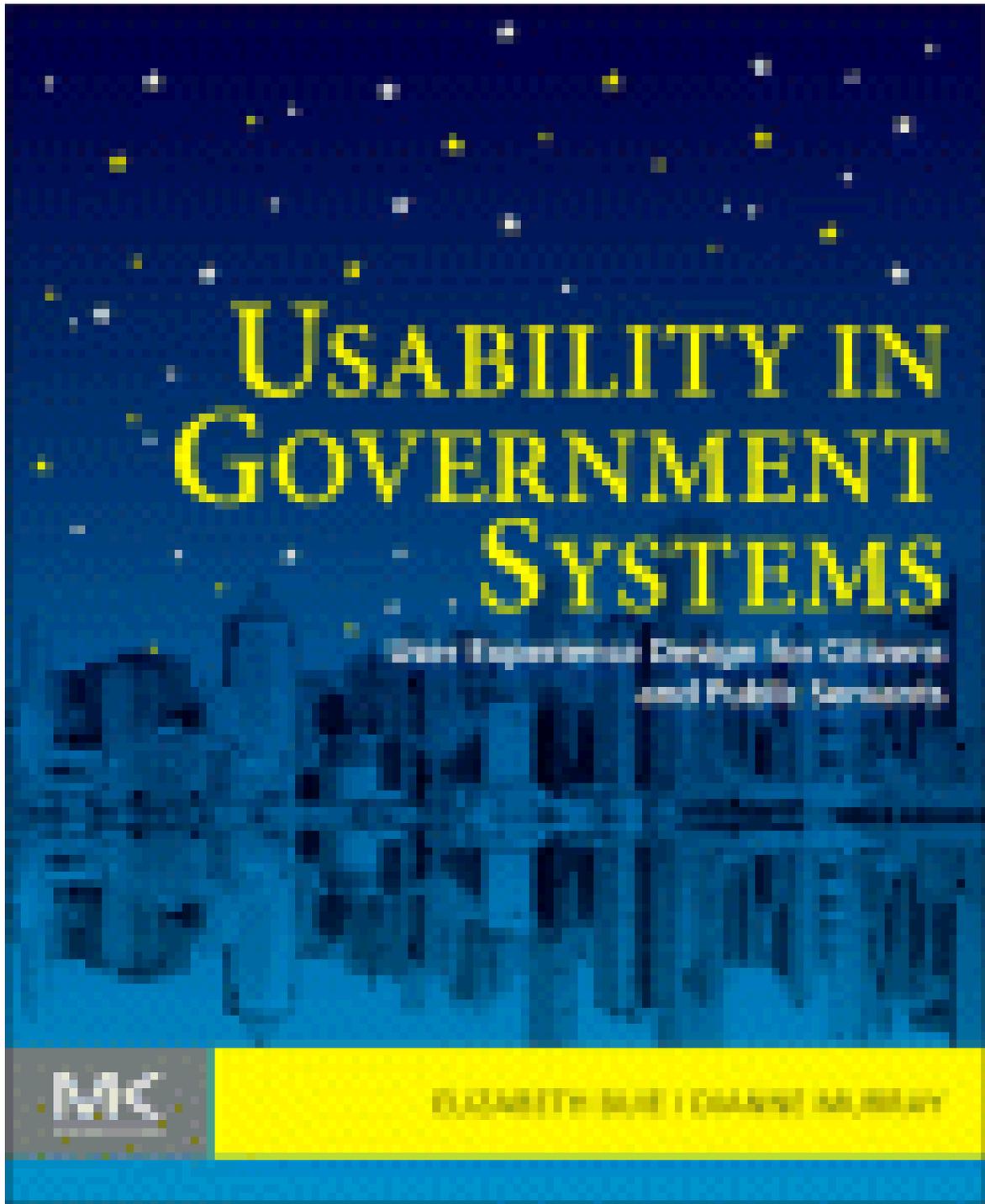
dr_subha@yahoo.com

91-11-27853470®

BOOK RECEIVED:



2.



APPEAL:

Exhibition Opportunities at ARTISANS', Kala Ghoda, Mumbai: Call for Artists/ Artisans/ Designers!

ARTISANS' is seeking proposals from high quality artisans and designers wishing to exhibit and sell their work. Founded in 2011 by Radhi Parekh (Class of '80, NID), ARTISANS' offers a programme of changing exhibitions, lecture and workshops for all ages. The convergence of art, craft and design is our leitmotif. Located in the heart of the art district of Mumbai, ARTISANS' dramatic 1000+ square footprint reaches up to a 16 ft. high pyramidal roof, with windows facing a historic 1884 synagogue. It has state of the art air-conditioning, lighting, sound, and audiovisual systems.

Both emerging and established artisans and applied artists are welcome to apply. Selections will be made according to criteria. Your submission should include the following. (Electronic applications are preferable. If mailed and you need a return of images please submit a stamped addressed envelope)

A CV which includes contact details, previous exhibitions, commissions and awards

An artist's statement with a description of the concept, technique and materials of the proposed work

2-5 images of current work with dimensions

Closing Date: 5pm, Friday 25 May 2012 for exhibitions from June 2012 – January 2013. For 2013, the date is ongoing

Web link: <http://www.facebook.com/pages/ARTISANS/216370368389023>

Email: Email Pooja Nagpal, Gallery Assistant, at

artisanscentre@gmail.com or contact +91 98201 45397

Mail: Radhi Parekh, ARTISANS', 52-56 Dr V B Gandhi Marg, Kala Ghoda, Mumbai 400 001

NEWS:

1.

World Industrial Design Day

'What is industrial design?' – Icsid invites design professionals and enthusiasts to provide the answer to help foster global awareness.



You know that chair you're sitting in? Someone designed it. The mouse you're holding? Also designed. Take a look around the room – there's not much in there that wasn't, at one point, sketched up in an industrial designer's notebook.

The World Industrial Design Day – held annually on 29 June – is an opportunity to celebrate all things industrial design.

In its fifth year, Icsid's annual event aims to highlight the role industrial design plays in enhancing the quality of life around the globe and to foster a greater understanding of the field.

With a rapidly changing world and unfathomable advancements in technology, the definition of industrial design itself is changing – so this year's theme cuts straight to the source: 'What is industrial design?'

Icsid is calling on designers and enthusiasts from around the world to answer this question by taking part in a video challenge to define industrial design.

Participants are being asked to submit 10-second videos profiling their definitions of industrial design and to upload them to YouTube under the title, 'Hey Icsid industrial design is'.

The invitation is open to all – both professionals and non-professionals – as Icsid's hope is to hear from everyone, in every language from all around the world in order to establish

a new global definition of the meaning of industrial design today.

The best submissions will be interwoven into a collective clip and shared with the world on 29 June.

“For the past four years the activities and celebrations held on 29 June have been instrumental in increasing awareness of the industrial design profession,” says Icsid President Professor Soon-in Lee.

“This year we’re bringing it back to basics, asking the question at the foundation of our organisation. ‘What is industrial design?’ We are eager to hear what kind of responses a question like this will yield.”



2. Design for knife: can cutlery help people with disabilities?

Is it possible to reinvent the knife, fork and spoon? Justin McGuirk meets designers who are shaking up the cutlery world



Futuristic fork ... Mickael Boulay's easy-to-grip fork, designed for hemiplegics

If design is everything "from the spoon to the city", as the Italian architect Ernesto Rogers put it in 1952, writing about design tends to gravitate towards the larger end of the spectrum. After all, there's not much to say about a spoon. Or is there? I've found myself thinking about cutlery twice in recent months. The first time was in an airport restaurant as I tried to hack my way through a steak with a serrated butter knife. Here, the security protocols of post-9/11 airports were getting in the way of a good meal.

The typographer Adrian Frutiger once remarked that "If you remember the shape of your spoon at lunch, it has to be the wrong shape." Frutiger was referring less to instances where the cutlery was literally the wrong shape – as my knife was – than to those where the designer had styled it to be more memorable. He believed that spoons, like letters, were merely tools – "one to take food from the bowl, the other to take information off the page". For the diner or reader to be comfortable, the cutlery or typeface has to almost disappear. For modernists like Frutiger, there was a morality to design:

every function had a perfect form, and to exceed that with some expression of ego was to stray into decadence. The critic Reyner Banham put it succinctly: "There is almost nothing a designer can do to, say, a spoon, a cup, a rolling pin, a wine glass or a broom, except fuck it up."

The conservative, almost unchanging nature of cutlery design shows that, while we are open to all sorts of culinary experimentation, we are intolerant of any extra interface between us and our food. I spoke to Alberto Alessi, who has commissioned some of the best-known cutlery sets of the 20th century (in so far as any cutlery set is well known), and he said: "It is very difficult to modify tradition. Maybe in two or three cases we've had a designer who had the courage to change a fork from four tines to three – and it was really dramatic." One such set, with a three-tined fork and curvaceous handles, was designed by the architect Jan Kaplicky. It didn't sell.



Although we all think we know what a fork and a spoon look like, designing one is somehow far from straightforward. Jasper Morrison once joked that it took him four years to design a fork, whereas a spoon – known as "the face" of the cutlery set – is easier. The spoon you have in your mind is an archetype, one that Alessi describes as "a clear representation of the maternal code". Spoons, you see, are embedded with our memories of being fed as children. Knives and forks, on the other hand, belong to the paternal code.

Changing shape of cutlery ... Mickael Boulay's set of forks, designed to help hemiplegics develop their motor skills

But not all forks and spoons are archetypes, which brings me to the second occasion lately when I found myself thinking about cutlery, rather than just shovelling food with it. I was at the Design Academy Eindhoven earlier this month, and one of the graduating students had designed a cutlery set for people with hemiplegia – a paralysis of one side of the body. Mickael

Boulay's concept was to create a set that can help the patient develop his or her motor skills. Working with a young hemiplegic, he created four sets – one for each stage of development. The first two sets are strange globular things, like palaeolithic tools with a space-age finish. Designed to be easy to grip, the fork resembles a toy elephant, and serves merely to steer the knife between its two front legs, or tines. As the patient's skills develop from a fist-grip to a finger-grip, the cutlery evolves into much more recognisable forms.

Boulay has this encouraging idea that "the human body is like plastic", and that just as we can become disabled, we can "unbecome" disabled. The adaptability of the human hand, even the partially abled one, is written into his cutlery set.

Alessi also tells a story about that adaptability. When he approached Achille Castiglioni to design a cutlery set for him in 1980, the Milanese maestro held a hexagonal pencil between his fingers to demonstrate that the hand is "designed" to be adaptable to all sorts of forms, and that functionalists had taken things too far. Castiglioni's set, called Dry, had unorthodox square handles and was extremely popular – though not as popular as another maestro's a few years later, Ettore Sottsass's Nuovo Milano cutlery, whose handles were designed to be "like a stone polished by the sea".

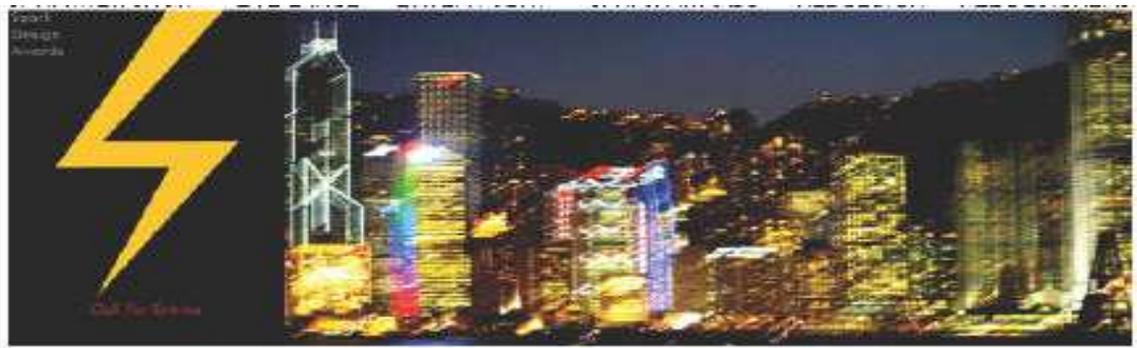
The question raised by Boulay's set is whether it would appeal to a non-hemiplegic customer. Would the association with disability turn people away, or would it open our eyes to the possibilities of eating with something other than an archetype? Indeed, the fact that we still use these ancient implements for pronging and slicing made me realise how little things change. The personal fork has been around since 4th-century Byzantium (although it didn't arrive in Britain until the 16th century). I wonder how long it will be before it is superseded by a new archetype. Will it be defined by a change of diet, or is the food we eat defined as much by our cutlery?

PROGRAM & EVENTS:

1.



2.



SPARK'S DEADLINES
Earlybird Discount Deadline
For All Spark Competitions Is
June 1: Concept, Product,
Spaces, Communication
& Mobility—Save Big Bucks

SPECIAL ALERT:
SPARK EARLYBIRD
DISCOUNT DEADLINE
FAST APPROACHING

3.



Maximinimization

2012台灣國際創意設計大賽
Taiwan International Design Competition

4.



4th International Conference on
Research into Design
ICoRD '13



ICoRD'13 : Global Product Development | Indian Institute of Technology Madras, Chennai, India | 7th-9th January 2013



Machine Design Section
Department of Mechanical Engineering
Indian Institute of Technology Madras



Centre for Product Design and Manufacturing
Indian Institute of Science, Bangalore

5.



International Workshop: Human Rights of Older Persons in Asia Pacific Region Focus on Health and Wellbeing.



The International Federation on Ageing in partnership with the Centre for Gerontological Studies in Thiruvananthapuram, India, are proud to announce an International Workshop on Human Rights of Older People in the Asia-Pacific Region with a special focus on health and wellbeing.



India accounts for 2nd largest population of older people in the region and in the world and has the 2nd largest democracy in the world. It has a well-established human rights system and a sound elder empowerment programme through its National Policy on Older Persons. The aim of this event is to explore the status of the rights of older persons in the context of existing regional and international instruments.

Workshop objectives

- To examine areas where the rights of older people are especially known to be vulnerable, e.g. social insurance including economic security, health security and family security
- To determine the nature and extent of gaps in protecting the rights of older people in the region
- To focus on the special conditions of marginalized groups - older people with disabilities, those who are in the oldest old age groups, older people who are dependent
- To raise awareness on the evolving machineries at country and regional level for implementation and monitoring of the recommendation of the Workshop and liaising with UN bodies

To register please contact Ms. Allison Gorman at agorman@ifa-fiv.org at the IFA, or Dr. Nayar, at the Center for Gerontological Studies, pkbnayar@rediffmail.com.

Please note the workshop is **FREE** of charge and space is limited.



6.



7.

asiamold

Guangzhou International Mould & Die Exhibition

19-Sep-12 to 21-Sep-12

**Poly World Trade Center Expo
(Pazhou)
Guangzhou, China**



8.

Two Day Seminar on

Product Design & Development

29th & 30th June 2012

Programme Schedule

Day 1	29-06-2012	Friday
9.00 am – 9.30 am	<u>Registration</u>	
9.30 am – 11.00 am	Business New Product Development and Product Design Methodology	Prof. Prakash Unakal, Professor & Head-DOD
<i>Tea Break</i>		
11.30 am – 1.00 pm	Product Design Process, Methods and Evaluation	Prof. Prakash Unakal, Professor & Head-DOD
<i>Lunch Break</i>		
2.00 pm – 3.30 pm	Design Methods and Reach	Mr. Manas Ranjan Mishra, Asst Prof. DOD
<i>Tea Break</i>		
4.00 pm – 5.30 pm	Quality Function Development and Product Design Specification	Mr. Manas Ranjan Mishra, Asst Prof. DOD
Day 2	30-06-2012	Saturday
9.30 am – 11.00 am	Ergonomics: Humanization of Products	Mr. Manas Ranjan Mishra, Asst Prof. DOD
<i>Tea Break</i>		
11.30 am – 1.00 pm	Product Usability and Testing	Mr. Manas Ranjan Mishra, Asst Prof. DOD
<i>Lunch Break</i>		
2.00 pm – 3.30 pm	Ergonomics and Hand Tools	Mr. Manas Ranjan Mishra, Asst Prof. DOD
<i>Tea Break</i>		
4.00 pm – 5.30 pm	Workshop on Body Movements & Applied Anthropometry	Mr. Manas Ranjan Mishra, Asst Prof. DOD

Topics to be covered:

- ✓ What is Design? Good Design?
- ✓ Why New Product?
- ✓ Stages in the Product Life Cycle
- ✓ Various Aspect of Product Design
- ✓ Principles of Total Design
- ✓ Factors Formulating Product Design
- ✓ Six Phases of Generic Development Process
- ✓ Investigating User Behavior: Questionnaires
- ✓ Ethnography: Understanding the Approach and Process
- ✓ Storyboard Analysis
- ✓ Fundamentals of Ergonomics
- ✓ Product Usability
- ✓ Hand Tools and Human Errors
- ✓ Body Movements and Anthropometry

Contact :

<p>Mr. Vijaykumar S. Manager – Academic Relations E-mail: vijaykumar@msrsas.org vijay.msrsas@gmail.com Mobile: +91 98863 94532</p>	<p>Ms. Archana Madhukar Executive – Academic Relations E-mail: archana.m@msrsas.org archanamrsas@gmail.com 080 – 4906 5555 Extn. 2111/2112</p>
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<p>Accommodation: Accommodation is available at our hostel on first come first served basis Single Occupancy – Rs. 500/-* Double Occupancy – Rs. 400/-* * Per person per day</p>	<p>Registration Fee: Industry – Rs. 3,500/- Govt Sector – Rs. 3,000/- Faculty – Rs. 2,000/- Students – Rs. 1,000/-</p>
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Note: Outstation participants to send only DD/ At par Cheque Payments to be made in favour of: M. S. Ramaiah School of Advanced Studies, Bengaluru

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10.



The average Smartphone has **22 apps**, most of them won't last longer than **two weeks**.

Will your's do any better?

Two ways you can hope to make your mobile apps / websites successful.

1. Lottery way: Take shortcuts, bulid on your exciting ideas with gut-feel driven design and hope it works. (BTW, there is a better chance of getting struck by lightning than winning a lottery).
2. Informed way: Treat your exciting ideas with **science** and **art** of designing apps / websites and increase your chances of
 - Creating a successful apps / websites
 - Avoiding bad reviews
 - Gaining significant ROI

11.





Awards Schedule

Applications open: 21 May 2012

Applications close: 3 July 2012

Winners announced: 19 September 2012

Key Contacts

Applicants:

design100

P: +61 3 9525 1255 E: awards@design100.com.au

Media:

Janna Wilkinson

P: +61 3 9651 8961 E: janna.wilkinson@dbi.vic.gov.au

13.



14.



JOB OPENINGS:

1.

looking for a top-class graphic/visual designer to join the UX team at Google.

Please note that this is a contract position with a minimum guarantee of 6 months engagement.

The designer will work on-site at the Bangalore office of Google.

An example of kind of output that we are looking for is:

<http://developer.android.com/design/patterns/multi-pane-layouts.html>

Interested folks may send in a link to their portfolio or upload their work samples on Google Drive or DropBox and send me a link.

Please do not attach your portfolio in the mail.

2.

iGATE is hiring UX professionals in Mumbai, Bangalore and Chennai.

Candidates should be willing to travel within and outside India .

UX Designer

A practitioner with 4-6 years of practical experience in User Experience Design or similar role. A passionate person with genuine enthusiasm for designing user experience for handheld devices/smart phones.

Responsibilities include:

- Define effective design strategy
- Create aesthetically sensible user interface designs
- Create paper and electronic prototypes (hi-Fidelity / low-Fidelity Prototypes)
- Create wireframes, prototypes, conceptual design and design specification document.
- Support Usability testing/evaluation methodologies
- Strive to ensure user satisfaction

UX Specialist

Extensive experience (6 plus years) in the design and development of business portals, Human Computer Interaction, defining user experience for handheld devices.

Consulting ability for Usability requirements

Responsibilities include:

- Responsible for defining high level interaction and information flow of the usability design
- Responsible for conducting usability test sessions & validation of proposed interaction design
- Responsible for incorporating client/user feedback into the product

- **Analyze usability requirements & translate to individual component targets**
- **Analyze the usability measurements & identify bottlenecks**
- **Liaison with Designers and Developers**
- **Ensure User Centered Design(UCD) process integration into the product development lifecycle**
- **Lead and design the usability activities**

XHTML/HTML Developer/JavaScript Developer/Web Developer

Graduate candidate having 4-5 years of solid experience converting given application wireframes /visual concepts into pixel perfect XHTML/HTML prototypes with emphasis on clean and clear semantic code, should have knowledge of accessibility guidelines, should be well versed in solving cross browser compatibility issues and clearly understand the client requirement documents.

Required skill sets as given below

- **XHTML/HTML/HTML5**
- **CSS/CSS3**
- **Dreamweaver**
- **JavaScript**
- **JQuery/Dojo/Mootools/ExtJS**
- **Image cropping**
- **Sencha Touch**
- **Any other Mobile technology**

iGATE UX Overview

iGATE has a large team of UX professionals including HCI/HFI certified team members. State of the art UX infrastructure which facilitates user analysis and testing using advanced tools and techniques. We provide conducive environment for the design fraternity to enhance and grow their user experience skills.

iGATE's User Experience (UX) practice's mission is to enhance user experience by partnering with clients and users. We are therefore equipped with the skills to achieve the highest standards of User Experience Management (UXM) with optimal usable solutions.

Please send in your resume as following

- UX Designer and Developer send resume to Sagina.Mary@igate.com
- UX Specialist position send resume to me mousumi.sarkar@igate.com

3.

We are looking for outstanding teachers and designers to teach a variety of courses that may include design studio, modeling and prototyping, modeling and manufacturing, human factors/ergonomics, ethnographic and marketing research, and professional practice and ethics.

Familiarity with, a range of current & emerging technologies, ability to teach across a range of digital media, and a commitment to integrate information technology (including CAD/CAM, three-dimensional prototyping, and two-dimensional visualization) in design and presentation processes of design are desirable assets.

Applications should include portfolio, a detailed résumé and cover letter including a description of interest areas and teaching philosophies. Candidates must apply online at careers@dypdc.com. Should you have questions contact the Director @ director@dypdc.com.

DYPDC is an exceptional combination of the educational legacy of DY Patil Group and legendary automotive styling expertise of Dilip Chhabria. Dilip Chhabria is a leading automobile designer, an alumnus of Art Center; he is an icon amongst the designers from India. He has to his credit over 650 designs on road, a unique feat for any automobile designer.

DYPDC offers full-time undergraduate and postgraduate degree programs in Automobile Design. It is equipped with state-of-the-art facilities at a campus that is spread over an area of 100 acres in Lohegaon, Pune. More details about us can be had from our website www.dypdc.com.

For more details about the positions visit - <http://www.dypdc.com/facultyopening.php>

To meet our current faculty team visit - <http://www.dypdc.com/faculty.php?pageid=5>

4.

we are looking for sr graphic designer (print, branding, packaging) with min 5 years experience in the field . do get in touch with us at work@studioabd.in with relevant portfolio . the location would be bangalore....

5.

Senior User Experience Designer

RSA, the Security Division of EMC, helps organizations protect private information and manage the identities of the people and applications accessing and exchanging that information. RSA Security's portfolio of solutions—including identity & access management, secure mobile & remote

access, secure enterprise access and secure transactions—are all designed to provide the most seamless e-security experience in the market.

We currently have an excellent career opportunity available for a Senior User Experience Designer to join our User Experience team located in our Bangalore office.

Primary responsibilities:

Lead the user interface design effort for one or more RSA products.

Work closely with Engineering, Product Management, Marketing and other groups within RSA to optimize the user experience for our customers and to make ease of use a product differentiator.

Create paper and online prototypes to gather early feedback. Must be familiar with the iterative design process and be able to develop web pages for integration into the product.

Communicate designs by creating storyboards, prototypes, user interface design specifications and crafting process flow diagrams.

Apply design standards to ensure a common look-and-feel across all RSA products.

Work with the User Experience Design team to optimize the design process.

Work closely with Usability Engineers to validate designs using a variety of methods, including usability testing, focus groups, surveys, etc.

Interact with end users and analyze feedback derived out of user surveys, questionnaires and user observation exercises.

Mentor and train other members of the User Experience Design team as necessary.

Qualifications required:

Minimum of 6 to 8 years experience leading user interface design efforts in a software development environment. Good interaction design skills are mandatory. Visual Design skills are highly desirable.

Exposure to various development methodologies (like waterfall, scrum, etc.) is required.

Must understand all phases of the software development process including planning and scheduling tasks. Experience designing complex web-based applications is required.

Experience developing personas, scenarios, wireframes, usability requirements, and leading brainstorming sessions.

Ability to work well with Engineering, Product Management and Marketing to validate product requirements and to convert requirements into usable product designs.

Experience validating designs using focus groups, surveys, usability testing, and other creative methods. Experience measuring usability and tracking results is a plus.

Demonstrated expertise with products such as: Photoshop, Illustrator, Flash, Dreamweaver, Director, and other professional design tools and project management tools like MS Project, Version One, etc., is a requirement. Exposure to toolkit libraries is desirable.

Must have excellent communication skills.

Must be passionate about improving software usability and optimizing the customer experience.

Must be a self-starter who thrives on working in a fast-paced environment.

Portfolio of work required.

Education:

- **Bachelor's Degree in a related field is required.**

Please send your resumes to: suneetha.kopuri@emc.com

6.

We are looking for talented visual designer to join our User experience team at Bangalore.

Experience in designing icons, and other visual assets for web based and desktop applications is required.

Detailed detailed Job description, and Apply online..

<http://careers.informatica.com/job/Bangalore-Senior-Visual-Designer-Job/1935123/>

In case you need more information, please get in touch with recruiter:

Email : mbs@informatica.com

Phone : 9845848847

7.

DesignFlyover (DFO) is a young and growing multidisciplinary design company. We are looking for a full time Interaction/Graphic designer with keen interest in UI Design and a strong graphics sensibility.

Job Role:

- Specific interest in User Interface Aesthetics.
- To be the go-to support in the workplace for UI, graphics and design sensibility needs.
- To be able to conceive fresh novel concepts and visual languages for each project depending on the context.
- Be interested in a wide spectrum of work such as Web, New media installations, Software UI, Info-graphics/data visualizations, publication, branding etc.
- A great portfolio and solid communication skills
- Thorough knowledge of tools such as Illustrator, Photoshop etc. Know-how of HTML / CSS , Javascript is a definite plus

Location: Mumbai

When: As soon as possible

DesignFlyover offers attractive remuneration along with aggressive performance-driven bonuses. For more information about us please visit <http://www.designflyover.com> <<http://www.kern-comm.com/>>

If this interests you, please send an updated resume with your Portfolio to joinus@designflyover.com

8.

We are Hiring the Best Brains in the Industry!!

hCentive is a leading product company based in Reston, VA. The company is co-founded by three serial entrepreneurs who have already been part of two very successful companies together.

- hCentive selected as a Finalist for the 2011 Red Herring Top 100 Asia Award.
- hCentive selected as a Finalist for Red Herring North America top 100.

Hcentive is in the business of simplifying the complex world of health insurance. We provide technology solutions for health insurers, state health insurance agencies and health care technology companies. These solutions help them reduce cost and administrative complexity, while enhancing

relationships
with their customers. For more information, visit www.hcentive.com

Position : HTML Coder

Location : Noida

Experience :2-6 yrs

JOB DESCRIPTION

Command over Dream weaver 7 Photoshop.

- **Should have knowledge of HTML5**
- **CSS3, CSS2**
- **Good knowledge of applying Java Script and JQuery.**
- **Excellent communication skills**
- **Good team player**

If the job profile interests you, do write back on sahil.jain@hcentive.com or reach me on 9891800419

9.

Please send the resumes along with portfolio of your work to

sajid.saiyed@philips.com

Sr. Visual Designer

(User Experience Design)

Job Summary for posting:

About the Company:

TP Vision is a dedicated company in the world of visual digital entertainment; fully committed to the renowned Philips TV brand. TP Vision engages in developing, manufacturing and marketing Philips branded TV sets in Europe, Russia, Middle East, Brazil, Argentina, Uruguay, Paraguay and selected countries in Asia-Pacific excluding China. See locations for more information.

TP Vision is seeking best-in-class Sr. Visual Designers to create and implement on screen visual language and identity for their next generation of products in the television ecosystem. Designers of this award-winning team will interact with Product Management and Engineering departments and will participate in the business creation process with emphasis on design related services and global strategic design integration with the various business units.

Job Summary

Develops Visual fully worked out design solutions. Works, with a high level of independence - according to the briefing, creative vision and art direction, in close co-operation with the other members of the design team and design leads. Follows the development of the design through to production. Must have the ability to work within tight deadlines and demonstrate a high degree of flexibility. Be able to translates overall (strategic) design directions into appropriate visual interface solutions. Prepares and maintains the relevant documentation according to the defined way of working, e.g .design briefs, reviews, etc.

Requirements

Professional

- Excellent User Interface design skills
- Attention to detail and a craving for perfection
- Experience working for Mobile and Tablet UI
- Knowledgeable about different screen resolutions and densities
- Good knowledge of on screen fonts and type rendering
- Capable to keep a broad perspective across different screens in the same ecosystem.
- Able to design and test visuals in motion with screen animations and transitions
- Professionally ambitious
- Knowledge of the Brand identity management.
- Good business command of the English language

Education and experience:

- Minimum of 6 years of proven experience in the industry or relevant line of work
- Masters / Bachelor degree in Interaction Design, Visual or Graphics design or relevant design area
- Knowledge of visual iconographical design and technical implementation
- Experience with multi-layer navigational systems
- Knowledge of display technologies, the limitations and applications
- Good understanding of design principles and concepts.
- Excellent command over UI design software (Adobe CS5.5+).

Personal:

- Able to balance creative and original with realistic and pragmatic approach
- Able to analyze and synthesize
- Flexible
- Self motivated and able to work in a team environment
- Proactive thinker and problem solver
- Team player
- Strong interpersonal and communication skills (at all levels in the organization)
- Able to adapt and thrive within an multicultural business environment
- Affinity to work in a fast paced environment, including tight deadlines

Marketing & Sales / Business:

- Good business awareness
- Basic communication and negotiating skills
- Good consultancy skills

Management:

- Basic project management skills, including planning and self organization skills
- Able to manage multiple complex tasks simultaneously

10.

There is an urgent opening at Logitech, Chennai for a User Interface Developer.

Logitech is a product company and working here is just **AWSOME!**

If you are interested in working on tangible interaction design then this the right place for you!

If you are a CSE/IT grad with an attitude to solve complex problems then, give it a shot.

We are looking for a 4+ years of experience in UI development. If you have the right talent, experience would not be a barrier ;)

Find the Job Description below.

Mandatory Skill:

HTML 5, CSS 3, Silverlight, JQuery(Highly Preferred), One scripting language experience(VBScript or Javascript) and also good exposure to .Net Framework

Essential Technical Specification:

One–two years of experience developing user interfaces for iPhone applications

Expertise with iPhone application development standards and trends

Knowledge of Apple’s Human Interface Guidelines for Mac and iPhone

Ability to turn wireframe specifications into working prototypes

Ability to turn low fidelity prototypes into high-fidelity prototypes

Ability to create Flash prototypes of interactive applications

Experience working within a collaborative team environment.

Advanced problem solving, coding, and debugging skills

Portfolio of past work

Behavioral Competencies & Values:

Effective spoken & written communication skills, assertive, proactive, leadership, goal driven, creative and a good team player.

Please mail your resumes to Pravin Kumar <pkumar1@logitech.com>

11.

Ode Designs pvt ltd, Mumbai is looking for a full time graphic designer & product designer with 1-2 years experience to join us as soon as possible. those interested mail your CV & portfolio

to info@odedesigns.in

GRAPHIC DESIGNER:

Job Description

- bachelors degree in graphic design or equivalent.
- 1-2 Years design experience
- expert level in adobe Photoshop, Illustrator, Indesign and Corel Draw,
- ability to sketch, illustrate and communicate visual ideas.
- excellent design skills including concept, illustration, typography and packaging design abilities plus a strong knowledge of print production.
- excellent communication and organizational skills
- ability to collaborate and work with others on a cross-functional team.
- ability to conceptualize innovative product ideas.
- attention to detail and accuracy

*** You will be in charge of all Print communication and**

Advertising for Ode Designs & A.P.N.A group of companies

*** Concept and Design of Advertisements**

*** Stationery Design, VM props (involving print media), Catalogues, Booklets, Brochures etc**

*** E-mailers and Web pages for announcements**

*** Communicate and coordinate with the Media for artworks, advertising in new magazines/newspapers**

PRODUCT DESIGNER:

Job Description

● bachelors degree in product design/fashion lifestyle & accessories design/furniture design or equivalent.

● 1-2 Years design experience

● expert level in adobe Photoshop, Corel Draw, AutoCAD/Rhinoceros, 3DsMax/Sketchup

● ability to sketch, illustrate and communicate visual ideas.

- excellent design skills including concept, understanding of production processes, materials and finishes.

Ability to interact with different departments like marketing, manufacturing/suppliers (including negotiating rates etc)

Remuneration will be as per industry standards.

Both the above positions are based in Mumbai.

about Ode Designs pvt. ltd

Ode Designs is the newest subsidiary in the A.P.N.A stable. It is the design wing of the group that develops fine/folk art, sculpture, apparel and jewelry in addition to lifestyle accessories (furniture, lighting, tabletop accessories)..

Ode Designs is not only inspired in the classical design tradition, seeking to preserve the best of our past culture in terms of both arts and crafts, but also derives inspiration from forms and practices of the present. Ode Designs sees beauty in the natural as well as manmade environment both in strength and form and replicates this in innovative design concepts through traditional craftsmen as well as modern processes.

Our expertise lies not only in our versatility in handling various forms of media, but also in producing unique works that have an innate connection to the living environment that individuals can relate and respond to.

12.

hCentive is a leading product company based in Reston, VA. The company is co-founded by three serial entrepreneurs who have already been part of two very successful companies together.

- hCentive selected as a Finalist for the 2011 Red Herring Top 100 Asia Award.

- hCentive selected as a Finalist for Red Herring North America top 100.

hCentive is in the business of simplifying the complex world of health insurance. We provide technology solutions for health insurers, state health insurance agencies and health care technology companies. These solutions help them reduce cost and administrative complexity, while enhancing relationships with their customers.

visit www.hcentive.com

Position : Sr UI Designer

Location : Noida

Experience : 3-6 yrs

Job Description

Desired Candidate Profile:-

- Extensive knowledge & familiarity with essential programs (Adobe, Photoshop, Illustrator, InDesign Flash and Coral draw)

- Essential knowledge of Html, CSS, Java, UI Design etc

- Ability to work well independently as well as in a team.

Job Description:-

- **Designing web layout, banners, logos etc.**
- **Creating graphics & front end functionality for various websites**
- **Design website, branded material including promotional material, advertisements & internal communication items as per the marketing need**

If the profile interests you, pls do share your profile on sahil.jain@hcentive.com or call on 9891800419



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We need your feedback on our publication and your support for popularizing the concept of our social movement of Design For All/ Universal/ Barrier free/ Inclusive Design. It is our further request kindly submit your latest articles, research findings , news and events with us for publication in our newsletter.*

With regards

Dr. Sunil Bhatia

Design For All Institute of India

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