



International Journal of Humanities & Social Science Studies (IJHSSS)
A Peer-Reviewed Bi-monthly Bi-lingual Research Journal
ISSN: 2349-6959 (Online), ISSN: 2349-6711 (Print)
Volume-II, Issue-I, July 2015, Page No. 123-133
Published by Scholar Publications, Karimganj, Assam, India, 788711
Website: <http://www.ijhsss.com>

Intangible Qualities of Good Urban Design

Dr. Magdalena Pilat-Borcuch

*Institute of Management, Faculty of Management and Administration, The Jan
Kochanowski University in Kielce, Poland*

Abstract

Just as good urban design is not easy to define; it is equally difficult to measure. In this paper the intangible qualities of good urban design is proposed to assess the current and future development of a city.

The term “intangible” includes areas of our lives that are not represented physically. It points to invisible realms of the human existence. As “intangible qualities of good urban design”, I regard: the nature and atmosphere of the city; movement, linkages, bandwidth and availability; mix-use, density and diversity.

The main research problem explored in this paper is: what is the attitude of the employees/employers at design studios and students of design from the School of Form in Poznań and the Jan Kochanowski University towards aspects defining intangible qualities of good urban design.

Key Words: Sociology, urban, city, good urban design, design.

Introduction: Cities are becoming increasingly important partners in socio-economic and cultural development as well as front line agents in meeting the expectations of national development.

Since 2008, cities have been the dominant places where people live¹. It means that we live in the urban century². It is expected that by the middle of the present century, 70 percent of the world's population will live in cities³. Other forecast states that over the next thirty years, two thirds of the worlds close to 10 billion populations is expected to live in urban locations⁴.

Very important aspect of the city development contains good urban design. This article is structured as follows: in the followings section, I develop the idea of creative cities and smart cities. Then I present indicators of good urban design. Finally, I present the main empirical results obtained

¹ H. Schandl, A. Capon, *Cities as social-ecological systems: linking metabolism, wellbeing and human health*, “Current Opinion in Environmental Sustainability” 2012, Vol. 4, Issue 4, p. 375.

² K. Kourit, P. Nijkamp, N. Reid, *The new urban world: Challenges and policy*, “Applied Geography” 2014, Vol. 49, p. 1.

³ F. Bandarin, *The Creative Power of Cities*, “City, Culture and Society” 2011, Vol. 2, Issue 3, p. 121; C. Carol, *How Good Design Can Improve Public Health*, GenslerOnCities, <http://www.gensleron.com/cities/2014/6/30/how-good-design-can-improve-public-health.html> [June 30, 2014].

⁴ T. Saaty, M. Sagir, *Global awareness, future city design and decision making*, “Journal of Systems Science and Systems Engineering” 2012, Vol. 21, Issue 3, p. 340.

in order to reach conclusions which include the meaning of proposed variable of intangible qualities of good urban design.

The City: In the early decades of the 20th century Robert Park stated that the city⁵ is, rather, a state of mind, a body of customs and traditions, and of the organized attitudes and sentiments that inhere in these customs and are transmitted with this tradition. The city is not, in other words, merely a physical mechanism and an artificial construction. It is involved in the vital processes of the people who compose it. It is a product of nature, and particularly of human nature⁶.

Today the complex urbanization process has many consequences for our societies. It is in response to these local and global urban challenges that the concept and movement of so-called “creative cities” and “network of creative cities” were born⁷.

Richard Florida developed the concept of creative capital, that demonstrates how to build a socially and economically lively community. Creative capital is comprised of what Florida called the “Three T’s” of technology, talent, and tolerance⁸. Communities that attract high levels of the three T’s would prosper as they become creative, while communities that could not attract these workers would decay do to the lack of creativity. Florida’s concept of the creative class has become popular among urban planners and political leaders⁹.

Referring to the above, the UNESCO Creative Cities Network¹⁰ defines cities as “creative hubs”, which foster socio-economic growth through creative industry development, and as “socio-cultural clusters”, connecting socio-culturally diverse communities to create a healthy urban environment¹¹.

City life in the future will be a living laboratory for smart technologies that can handle all major systems - water, transport, security, garbage, green buildings, clean energy, and more¹².

The city of the future is supposed to be cleaner and greener because of solar and hydrogen energy. Future cities will be equipped with solar panels, and with photovoltaic panels on rooftops. Every building will have smart technology that will distribute and conserve energy through the building where it is needed the most. It will be tied into the smart grid, selling power back and the smart grid will redistribute the energy in sections of the state and country where it is needed most. The future city will also be inhabited with huge balloons filled with algae that produce hydrogen.

⁵ P. Lannoy, *When Robert E. Park was (Re) writing “the city”: Biography, the social survey, and the science of sociology*, *The American Sociologist* 2004, Vol. 35, Issue 1, p. 36.

⁶ R. Park, *The city: suggestions from the investigation of human behavior in the urban environment* [in:] *The City*, ed. R. Park, E. W. Burgess, University of Chicago Press, Chicago 1925, p.1-2.

⁷ F. Bandarin, *The Creative Power of Cities*, „City, Culture and Society” 2011, Vol. 2, Issue 3, p. 121.

⁸ P. Lawton, E. Murphy, D. Redmond, *Residential preferences of the ‘creative class’?*, “Cities” 2013, Vol. 31, p. 48.

⁹ M. D. Moore, N. L. Recker, M. Heirigs, *Suicide and the Creative Class*, “Social Indicator Research” 2014, Vol. 119, p. 1616.

¹⁰ The world UNESCO Creative Cities network has 41 cities and gathers seven creativity areas: film, design, craft, literature, media art, music, folkart and gastronomy. B. Arandjelovic, Graz, *UNESCO City of Design and Historical Heritage*, “Cities” 2015, Vol. 43, p. 88.

¹¹ F. Bandarin, *The Creative Power of Cities*, “City, Culture and Society” 2011, Vol. 2, Issue 3, p. 121.

¹² S. Sassen, *Does a censored city mean a censored city?*, <http://www.bbc.com/news/technology-22538561>, dated: 18 August 2013.

This hydrogen will then either be run through stationary fuel cells to provide energy or be used as fuel. Future robots will have taken over the many tasks. People will only travel for vacation as the need to travel for business will be eliminated with the virtual business world. This vision of what future cities will look like is based on emerging technology that is available now. This modern technology will have to be refined and downsized in many cases for production quality. One can look for nanotechnology to have taken over in many fields¹³.

In addition, is worth to mention the smart city concept. The smart city concept originated from that of the “information city”, and incrementally evolved to an idea of an ICT-centered smart city. The concept of the smart city has six main dimensions: a smart economy, smart mobility, a smart environment, smart people, smart living, and smart governance¹⁴.

Smart cities represent a conceptual urban development model based on the utilization of human, collective, and technological capital for the enhancement of development and prosperity in urban agglomerations¹⁵. Smart city concept underlines the need for citywide planning and control, and the central function of ICT systems as the city digital nervous systems that obtains data from heterogeneous sources (e.g. sewers, parking spaces, security cameras, school thermostats, traffic lights, etc.)¹⁶.

Table 1. Soft domains the smart city concept

Domain	Description
Education and culture	Capitalising system education policy. Promoting cultural events and motivating people participation. Managing entertainment, tourism, and hospitality
Social inclusion and welfare	Making tools available to reduce barriers in social learning and participation, improving the quality of life, especially for the elder and disabled. Implementing social policies to attract and retain talented people
Public administration and (e-)government	Promoting digitized public administration, e-ballots and ICT based transparency of government activities in order to enhance citizens empowerment and involvement in public management
Economy	Facilitating innovation, entrepreneurship and integrating the city in national and global markets

Source: P. Neirotti, A. De Marco, C. A. Cagliano, G. Mangano, F. Scorrano, *Current trends in Smart City initiatives: Some stylized facts*, “Cities” 2014, Vol. 38, p. 27.

¹³ T. Saaty, M. Sagir, *Global awareness, future city design and decision making*, “Journal of Systems Science and Systems Engineering” 2012, Vol. 21, Issue 3, p. 341.

¹⁴ J. H. Lee, R. Phaal, S-H. Lee, *An integrated service-device-technology roadmap to smart city development*, “Technological Forecasting & Social Change” 2013, Vol. 80, p. 287.

¹⁵ M. Angelidou, *Smart city policies: A spatial approach*, “Cities” 2014, Vol. 41, Supplement 1, p. 53.

¹⁶ P. Neirotti, A. De Marco, C. A. Cagliano, G. Mangano, F. Scorrano, *Current trends in Smart City initiatives: Some stylized facts*, “Cities” 2014, Vol. 38, p. 26.

Table 2. Advantages and disadvantages of soft infrastructure strategies the smart city concept

Advantages	Disadvantages
Advancement of human capital; citizen empowerment (informed, educated, and participatory citizens), intellectual capital and knowledge creation	Cyberspace is not a purely public space, as not all people have equal access to it –besides, capitalistic market forces often dictate its use for private interests
Advancement of social capital; social sustainability and digital inclusion	The availability of vast amounts of data and information does not automatically guarantee the enhancement of knowledge, and it does not ensure its integrity
Behavioral change – sense of agency and meaning (i.e. the feeling of community and that we are co-owners and equally responsible for our city)	Access is not equal to participation; community engagement is not automatically incurred by accessibility to digital recourses
Humane approach; technology responsive to needs, skills and interests of users, respect for diversity and individuality	

Source: M. Angelidou, *Smart city policies: A spatial approach*, “Cities” 2014, Vol. 41, Supplement 1, p. 56.

Fundamental to the creative city thesis is the observation of intangible qualities such as the nature and atmosphere of the city; movement, linkages, bandwidth and availability; mix-use, density and diversity. The starting point for the examination of these factors (variables) is an analysis of good urban design indicators.

Indicators of good urban design: Urban design is concerned with the relationship between buildings and the people that make use of them. It goes beyond architectural merits of the building. It deals with the spaces between buildings, the way people use the spaces, and the experience of the city as we move from one place to another.

Jerry Spencer defines urban design as “creating the theatre of public life”. The urban designer Doug Paterson has defined urban design as “merging civitas and the urbs: building the values and ideals of a civilized place into the structure of a city”. Peter Batchelor and David Lewis define urban design as “design in an urban context”¹⁷.

Urban design needs to be “good” because helps to enhance the way the city functions and the way we feel about the city.

¹⁷ *What is Urban Design?*, Urban Design Group, <http://www.udg.org.uk/about/what-is-urban-design> [February 01, 2015].

Table 3. Principles of good urban design

Character	A place with its own identity
Continuity and enclosure	A place where public and private spaces are clearly distinguishable
Quality of the public realm	A place with attractive and successful outdoor areas
Ease of movement	A place that is easy to get to and move through
Legibility	A place that has a clear image and is easy to understand
Adaptability	A place that can change easily
Diversity	A place with variety and choice

Source: *Achieving good urban design – rainbow estate*,
http://www.merton.gov.uk/rainbow_design_report_june2013.pdf [February 02, 2015].

Good urban design can influence:

- The social and cultural nature of a place; how people interact with each other, how they move around, how the use a place and create a vibrant sense of public life in a place;
- The economic performance and socio-economic make-up of a locality – whether it be encouraging local business, attracting people to live there, whether the place is affordable and access to facilities and services is equitable;
- The physical scale, appearance and ambience of a place; the balance of uses in the built environment and the interface with the natural environment and their sustainability¹⁸.

Consequently it is worth to present ten indicators of good urban design.

Table 4. Ten indicators of good urban design

Indicator	Description
A Space Becomes a Place	To go from being just any physical location to a place people feel connected to takes design that considers human scale, culture, and the needs of that specific community as far as use, location, design, and scale.
Built on the Past	Building on the existing not only saves materials, but helps to create a richer experience rather than a completely new settlement with no character of its own.
Connected to the Landscape	It is incredibly important to consider the local ecology of a site before designing it- local watersheds, plant life, and potential impacts the development will have on the land are all vital in creating a good design
Expect the Unexpected	A good design has definition and character, but doesn't eliminate the possibility of changes in use or additions to the design in later years
Mix and Match	Mixed-use designs also bring in a wider variety of people, keep places interesting, and continue to thrive even if some uses slow

¹⁸*Achieving good urban design–rainbow**estate,*http://www.merton.gov.uk/rainbow_design_report_june2013.pdf [February 02, 2015].

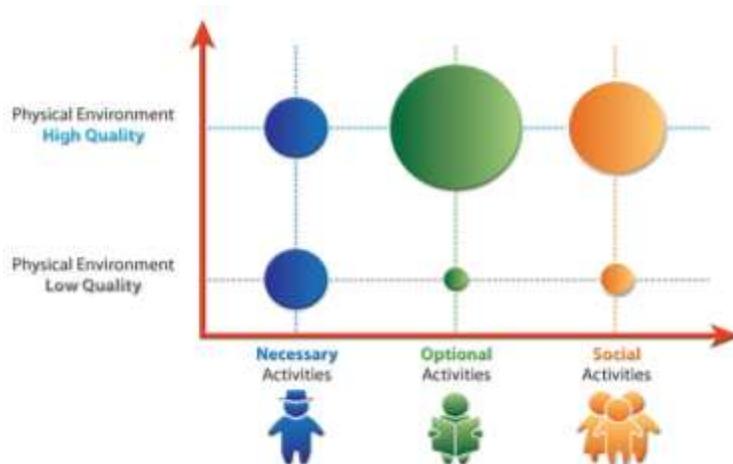
		down in the coming years.
Cohesion, Uniformity	Not	What many Americans love about old European cities are all the stone in old London or whitewashed plaster in Greece- but when we've tried to copy that in our suburbs, they just look monotonous. A careful but not demanding palette and material list keeps a design looking cohesive but not over designed and dull.
Economically Viable		If you create something too extravagant, the entire plan won't be built, which could really backfire upon the entire design and the livability of the new development.
Equitable and Inclusive		Designing for one socioeconomic class, whether in housing or retail, will create more socioeconomic disparity than already exists, a boring street life, and an area that outsiders don't feel welcome in. A good design includes people of all walks of life.
Environmentally Conscious		Using sustainable materials, considering the weather patterns, and building with green technology are all important factors in design, especially when considering the many problems with climate change and energy usage of today.
Focus on the People, Not the Car		Wide sidewalks, vegetated medians, street trees, and bulb-outs are all ways of making the pedestrian feel comfortable and slow cars down. If you want your design to have decent street life, be financially stable, and connect to people of all kinds, you need to put the pedestrian first.

Source: *Top 10 Indicators of Good Urban Design*,
<https://adashofdesign.wordpress.com/2010/10/11/good-urban-design/> [October 11, 2010].

Environmental Quality is the Physical Quality of the Built Environment. When it comes to *Necessary Activities*, the quality of the physical environment does not matter. A person needs to go to the bank or to the grocery store and is going to regardless of the quality of the built environment. Situation change when it comes to *Optional Activities*. Optional Activities are things like stopping to read the newspaper, sip on a cup of coffee, etc. These types of activities take place in high quality environments because people don't like to hang out in low quality places. Places that support optional activities foster *Social Activities*. Many urban designers say the mark of a successful urban space is its ability to support socialization or sociability¹⁹.

¹⁹ *Good Urban Design*, <http://protectdowntownathens.com/design-101/environmental-quality-good-urban-design/> [02.01.2015].

Figure 1. The nature of the relationship between environmental quality and human activity

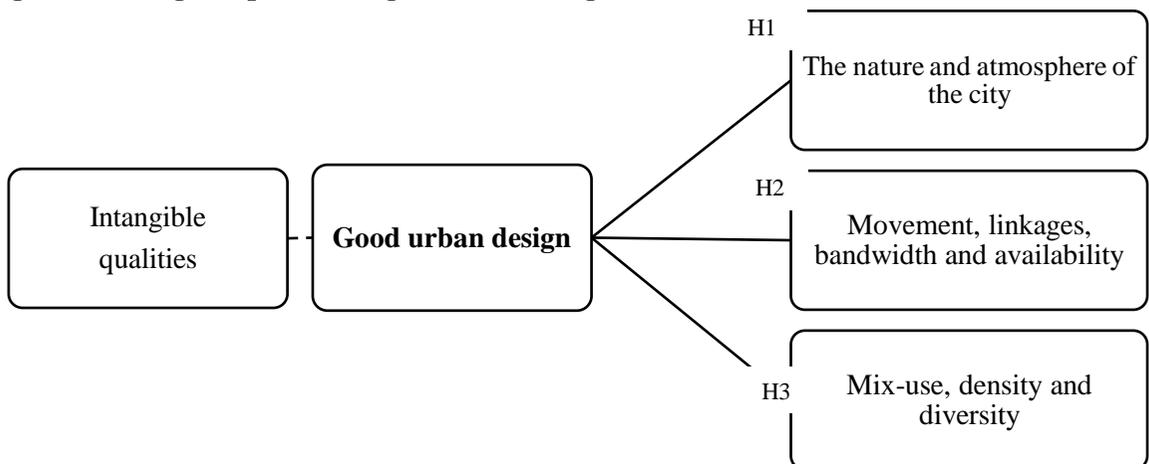


Source: *Good Urban Design*, <http://protectdowntownathens.com/design-101/environmental-quality-good-urban-design/> [February 01, 2015].

Methodology and hypothesis development: The main goal of this article is: to investigate how intangible qualities of good urban design operate in the consciousness of the examined group.

The main research problem explored in this paper is: what is the attitude of the employees/employers at design studios and students of design from the School of Form in Poznań and the Jan Kochanowski University towards aspects defining intangible qualities of good urban design.

Figure 2. Intangible qualities of good urban design



Source: Own analysis.

The detailed research problems explored in this paper are:

- Q1: What is the nature and atmosphere of the city in defining of intangible qualities good urban design?
- Q2: What is the significance of movement, linkages, bandwidth and availability in defining of intangible qualities good urban design?
- Q3: What is the significance of mix-use, density and diversity in defining of intangible qualities good urban design?

The detailed hypotheses explored in this paper are:

- H1: The nature and atmosphere of the city significantly define intangible qualities of good urban design;
- H2: Movement, linkages, bandwidth and availability significantly define intangible qualities of good urban design;
- H3: Mix-use, density and diversity significantly define intangible qualities of good urban design;

An open-ended online survey instrument was developed for this study. Data were collected from practicing designers, and students of design from the School of Form in Poznań and the Jan Kochanowski University.

To encourage response and to speed the data gathering process, Internet-based survey was constructed. The questionnaire was published in February 2014 and closed one month later.

The survey received a total of 43 responses (15 employees/employers at design companies; 18 students of design – from the Concordia Design in Poznań; 10 students of design – from the Jan Kochanowski University in Kielce).

To verify assumed hypotheses there were used measures of descriptive statistics (analysis of the frequency).

Data analysis and results: The first question concerned the nature and atmosphere of the city. Differences were observed in the examined group. For design students this factor proved to be significant (design students of the Jan Kochanowski University – 80%; design students of School of Form in Poznań – 66,7%). Employees/employed at design answered more conservatively (only 53,3% of respondents).

Table 5. What defines good urban design - The nature and atmosphere of the city

Profession		Percent	Valid Percent	Cumulative Percent
Employees/employers at design	Valid	No	46,7	46,7
		Yes	53,3	100,0
		Total	100,0	100,0
Design students – School of Form in Poznan	Valid	No	33,3	33,3
		Yes	66,7	100,0
		Total	100,0	100,0
Design students – The Jan Kochanowski University	Valid	No	20,0	20,0
		Yes	80,0	100,0
		Total	100,0	100,0

Source: Own analysis.

The next question concerned - movement, linkages, bandwidth and availability (promoting good connections and well integrated). Employees/employers at design answered similarly to design students the Jan Kochanowski University indicating that this factor is not important in defining good urban design (employees/employed – 66,7% answered no; design students the Jan Kochanowski University – 80% answered no). Differences were observed in design students School of Form opinions (61,1% - answered yes).

Table 6. What defines good urban design - Movement, linkages, bandwidth and availability (promoting good connections and well integrated)

Profession			Percent	Valid Percent	Cumulative Percent
Employees/employers at design	Valid	No	66,7	66,7	66,7
		Yes	33,3	33,3	100,0
		Total	100,0	100,0	
Design students – School of Form in Poznan	Valid	No	38,9	38,9	38,9
		Yes	61,1	61,1	100,0
		Total	100,0	100,0	
Design students – The Jan Kochanowski University	Valid	No	80,0	80,0	80,0
		Yes	20,0	20,0	100,0
		Total	100,0	100,0	

Source: Own analysis.

The last aspect contained: mix-use, density and diversity (promoting uses that add to the vitality and diversity). All examined groups were consistent that this factor is not important in the process of good urban design defining.

Table 7. What defines good urban design - Mix-use, density and diversity (promoting uses that add to the vitality and diversity)

Profession			Percent	Valid Percent	Cumulative Percent
Employees/employers at design	Valid	No	86,7	86,7	86,7
		Yes	13,3	13,3	100,0
		Total	100,0	100,0	
Design students – School of Form in Poznan	Valid	No	66,7	66,7	66,7
		Yes	33,3	33,3	100,0
		Total	100,0	100,0	
Design students – The Jan Kochanowski University	Valid	No	90,0	90,0	90,0
		Yes	10,0	10,0	100,0
		Total	100,0	100,0	

Source: Own analysis.

Discussion and Conclusions: This study examined the main research problem from which it follows, how presented intangible qualities of good urban design operate in the consciousness of the examined group.

Table 8. The detailed hypotheses verification

	Hypothesis	Verification		
		Employees/ employed at design	Design students – School of Form in Poznan	Design students – The Jan Kochanowski University
H 1	The nature and atmosphere of the city significantly define intangible qualities of good urban design	+	+	+
H 2	Movement, linkages, bandwidth and availability significantly define intangible qualities good urban design	-	+	-
H 3	Mix-use, density and diversity significantly define intangible qualities good urban design	-	-	-

Source: Own analysis.

In all analyzed groups first factor (the nature and atmosphere of the city) proved to be important. The second factor (movement, linkages, bandwidth and availability) proved to be rather unimportant (employees/employed at design and design students – The Jan Kochanowski University) than important (design students – School of Form in Poznan). And finally, the last factor (mix-use, density and diversity) proved to be unimportant in all examined groups.

Conclusion: Good urban design is not easy to define, however is mainly associated with tangible factors (qualities) e.g. building design, spatial coherence etc. The proposal of distinction “intangible” factors that are not represented physically turned out to be challenging. As for now intangible qualities are of secondary importance in defining good urban design. The presented results provide a basis for formulating such a thesis.

References:

1. *Achieving good urban design – rainbow estate*, http://www.merton.gov.uk/rainbow_design_report_june2013.pdf [February 02, 2015].
2. Angelidou M., *Smart city policies: A spatial approach*, “Cities” 2014, Vol. 41, Supplement 1.
3. Arandjelovic B., Graz, *UNESCO City of Design and Historical Heritage*, “Cities” 2015, Vol. 43.
4. Bandarin F., *The Creative Power of Cities*, „City, Culture and Society” 2011, Vol. 2, Issue 3.
5. Carol C., *How Good Design Can Improve Public Health*, GenslerOnCities, <http://www.gensleron.com/cities/2014/6/30/how-good-design-can-improve-public-health.html> [June 30, 2014].
6. *Good Urban Design*, <http://protectdowntownathens.com/design-101/environmental-quality-good-urban-design/> [02.01.2015].

7. Kourit K., Nijkamp P., Reid N., *The new urban world: Challenges and policy*, “Applied Geography” 2014, Vol. 49.
8. Lannoy P., *When Robert E. Park was (Re) writing “the city”: Biography, the social survey, and the science of sociology*, *The American Sociologist* 2004, Vol. 35, Issue 1.
9. Lawton P., Murphy E., Redmond D., *Residential preferences of the ‘creative class’?*, “Cities” 2013, Vol. 31.
10. Lee H., Phaal R., Lee S-H., *An integrated service-device-technology roadmap to smart city development*, “Technological Forecasting & Social Change” 2013, Vol. 80.
11. Moore M. D., Recker N. L., Heirigs M., *Suicide and the Creative Class*, “Social Indicator Research” 2014, Vol. 119.
12. Neirotti P., De Marco A., Cagliano C. A., Mangano G., Scorrano F., *Current trends in Smart City initiatives: Some stylized facts*, “Cities” 2014, Vol. 38.
13. Park R., *The city: suggestions from the investigation of human behavior in the urban environment* [in:] *The City*, ed. R. Park, E. W. Burgess, University of Chicago Press, Chicago 1925.
14. Saaty T., Sagir M., *Global awareness, future city design and decision making*, “Journal of Systems Science and Systems Engineering” 2012, Vol. 21, Issue 3.
15. Sassen S., *Does a sensed city mean a censored city?*, <http://www.bbc.com/news/technology-22538561>, dated: 18 August 2013.
16. Schandl H., Capon A., *Cities as social-ecological systems: linking metabolism, wellbeing and human health*, “Current Opinion in Environmental Sustainability” 2012, Vol. 4, Issue 4.
17. *Top 10 Indicators of Good Urban Design*, <https://adashofdesign.wordpress.com/2010/10/11/good-urban-design/> [October 11, 2010].
18. *What is Urban Design?*, Urban Design Group, <http://www.udg.org.uk/about/what-is-urban-design> [February 01, 2015].
