

# Conceptualizing the Perceptual Changes of City Imaging and their Impact on Urban Design

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**Abstract:** *The opportunities for viewing cities from overhead have become more prevalent. Developments in aerial photography and the spread of high observation points have changed our way of perceiving the city. The overhead image of the city has distinctive properties, types and applications which can be used in the practice of urban design to develop objective strategies for creating a qualitative visual image. This paper aims to identify how the design of cities can be improved by taking into consideration observations of the city from overhead. The proposed approach for improving such images considers the integration between different methods of city perception. This paper focuses on the technique of reading the city from above by identifying and analysing the most commonly observed elements in a city's overhead image. The factors which affect the quality of such images have been determined and the most effective criteria for improving the upper visual appearance have been identified. The results of this research can be beneficial for urban designers in making decisions about the image of the city. A qualitative overhead image can help city observers to better experience their city and to maintain a sense of orientation.*

**Keywords:** Overhead images, city perception, urban design, regeneration, contemporary city

## Introduction:

**A**

s the complexity of the images of contemporary cities all over the world increases, most of these images tend to be unknown or poorly known (Floridi, 2006).

In the previous centuries, it was a rare pleasure to fly over a city or to observe it from high level of vision. However, this opportunity has become more available in the contemporary vertical cities with a great number of high-rise buildings and flyovers.

Furthermore humans become more dependent on electronic images. Such images reveal the city from different perspectives and improve its visual accessibility and permeability. Therefore overhead images can do a lot for improving the spatial knowledge of the observers in addition to the different applications of such image in the field of urban design (figure 1).

The overhead views can reveal a lot of positive, negative and/or unexpected views which convey different impressions about the spatial order and the urban profile of the city. The contemporary hyper-visual city with a great diversity of functions, life styles and attractions which are fighting to catch the attention of observers should be re-imaged through an integrative system of observation points from different levels of vision. Ignoring this holistic concept of city imaging as a significant factor in regeneration plans is one of the reasons of the deteriorated overhead images of most contemporary cities.

As understanding of the needs of different types of city observers is a key issue for urban design, this paper aims to identify how the city design can meet the requirements of observing the city from overhead in order to reduce the visual stress of the deteriorated visual appearance of most contemporary cities. The urban design should adapt to the recent changes in the techniques of city imaging and perception. Based on this principle, the approach of regenerating the city image should take into account the integration between different methods of viewing the city; from the street level and from overhead level. This paper focuses on the technique of reading the city from above and the most observed objects in the overhead images of the city. The factors which affect the quality of such image have been determined and the most effective criteria to improve the upper visual appearance of the city have been identified. The results of this research can be beneficial for urban designers in making decision about improving the visual appearance of the city as a tool to advertise and brand the contemporary city. The qualitative overhead images can help city observers to experience their city and to maintain the sense of orientation.

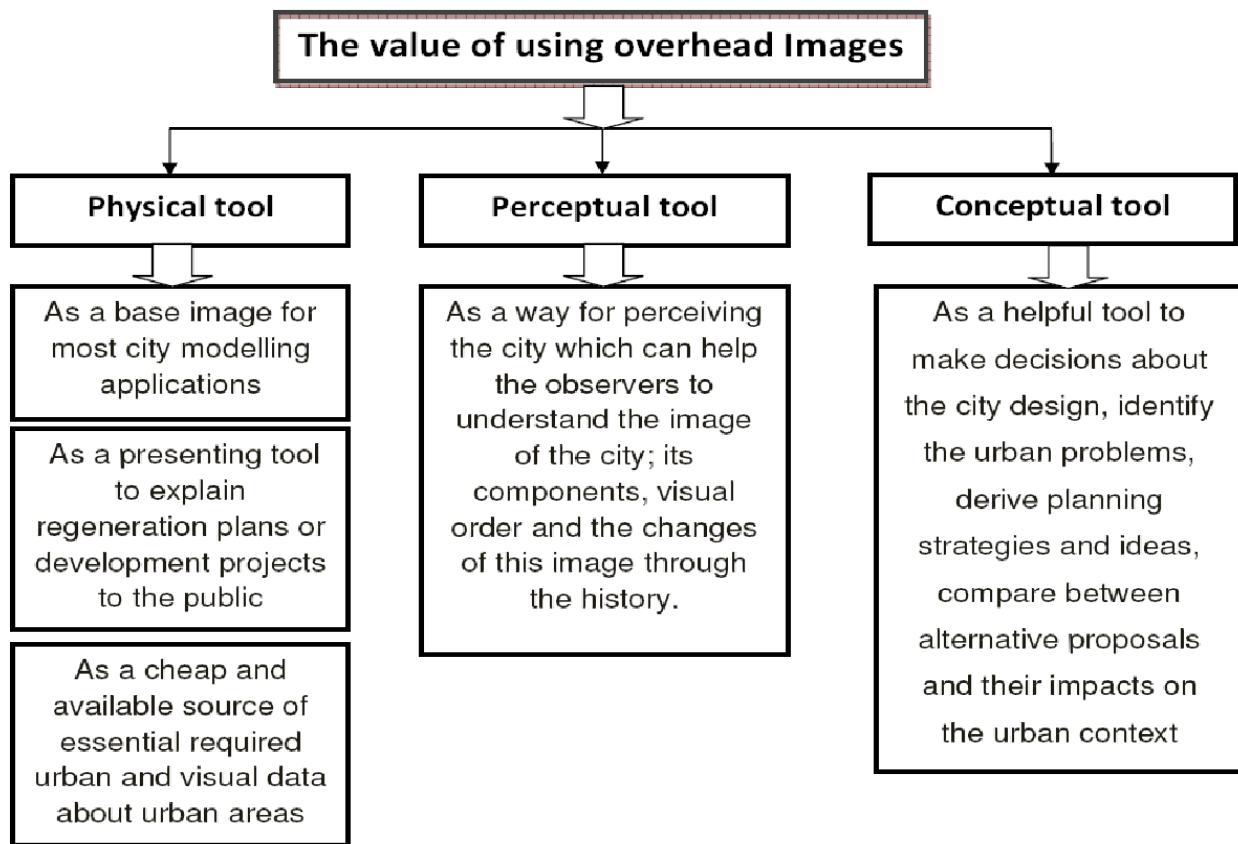


Fig. 01. The different applications of using overhead images in the field of urban design

## 1. Methodology:

Figure 2 illustrates the conceptual framework for improving the image of the city by starting with understanding the changes of the perceptual field to introduce the demanded criteria. These criteria should be translated and applied through planned actions to achieve a qualitative image.

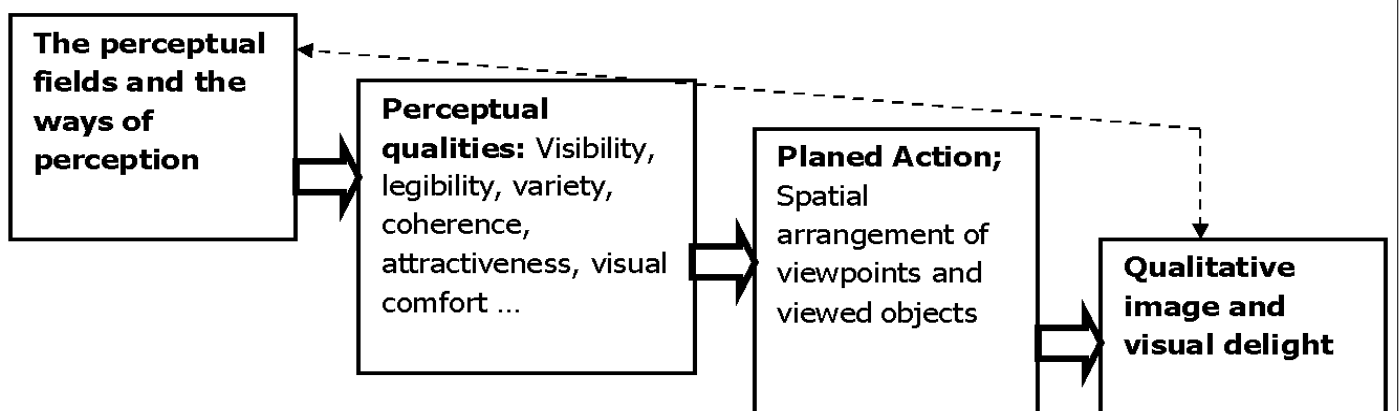


Fig. 02: The conceptual framework of improving the image of the city

Some researchers have suggested different ways of subdividing images into components (Gartner 1996: 457). Gartner in 1996, based on preceding work by Boulding (1961), contended that images consist of distinct ‘cognitive’ and ‘effective’ components. According to these concepts of analysing city image, attempting to develop the visual appearance of any city from above should go through two crucial approaches;

- The determination of the visual points of interest or the most observed components within the overhead image.
- The identification of the appropriate techniques to utilize these components effectively in order to improve the quality of the visual appearance of the city.

Analysing different types of aerial and overhead images of modern cities is used through the paper to highlight the advantages of imaging the city from high levels of vision, to identify the components of overhead images and to understand the factors which affect the quality of such images

## 2. Literature review:

Many researchers have dealt with urban design as the process of changing something within the users’ perception through an act (Fletcher, 2009). However, a small number of researches have been carried out concerning the influence of the ways of city perception; their changes, variables and requirements on the city design.

While research about the cognitive process, mental representations and ways of interpretation of the city image started during 1930’s and 1940’s, it has become more popular today. Kevin Lynch (1984) established five criteria which affect greatly the quality of the city form which are vitality, sense, fit, access and control. The most important conclusion was the theoretical approach about how the criteria of city design can be selected. Lynch confirmed that, the selection of criteria related to the design of the city should adapt with the changes of the city form.

The comparison between the criteria which have been set by Roy Cresswell (Cresswell, 1979) and by URBED (1997) shows that both references proposed the same criteria for qualitative image of the city centre district despite the long temporal gap between the two references. The proposed

criteria are based on viewing the city from the street level and there is no concern about any other perceptual way and its requirements.

Frank Fitzgerald (Fitzgerald, 2004) focused on the factors which affect the quality of aerial photographs. Fitzgerald dealt with this kind of image as a physical tool which has many advantages rather than as a perceptual tool or as a way of city perception which should be taken in account in developing approaches of city design.

### 3. Discussions:

Actually, the overhead views are affected by some factors related to the observers, height of eye level, time of vision, climate and environmental changes and the view angle. The city observers can be classified according to their state of movement into two groups. Firstly, the observers who view the city from static observation points while the other group of observers includes the transient observers who move through the city vertically or horizontally (see figure 3).

The height of the observation point plays an important role in determining the level of detail which can be perceived and the scale of the seen elements (see figure 4). Regarding the view angle can be affected mainly by the location of the observer and the type of aperture through which the viewers observe their city.



Fig. 03: Examples of vertical and horizontal movement, left: El-Bauen Park, Magdeburg, Germany (<http://www.mvgm-online.de>), middle: Cairo Tower, Cairo, Egypt (<http://www.trekearth.com>) and right: the teleferic as a slow mean of elevated transportation (<http://www.mvgm-online.de>)

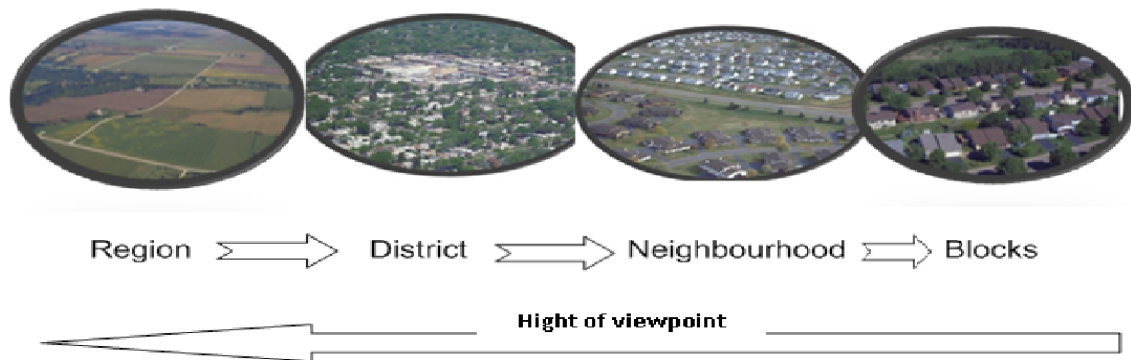


Fig.04: The impact of the height of the vision-level on the overhead images (Fitzgerald, 2004:p.7)



Viewing the city during the day is mainly affected by the amount of sunlight and shadows, which can be helpful in making sense about the height of buildings. But viewing the city at night is affected by the distribution of artificial lighting and its efficiency of developing legible night images (see figure 5).

Overhead images are more affected by climate changes in comparison to the image from the ground level. The distant sector of the overhead image is the most affected by climate change and pollution as seen in figure 6. Horizontal surfaces and elements of landscape usually have a more changeable appearance according to the season in comparison to vertical elements which are less affected by this factor (Fitzgerald, 2004).



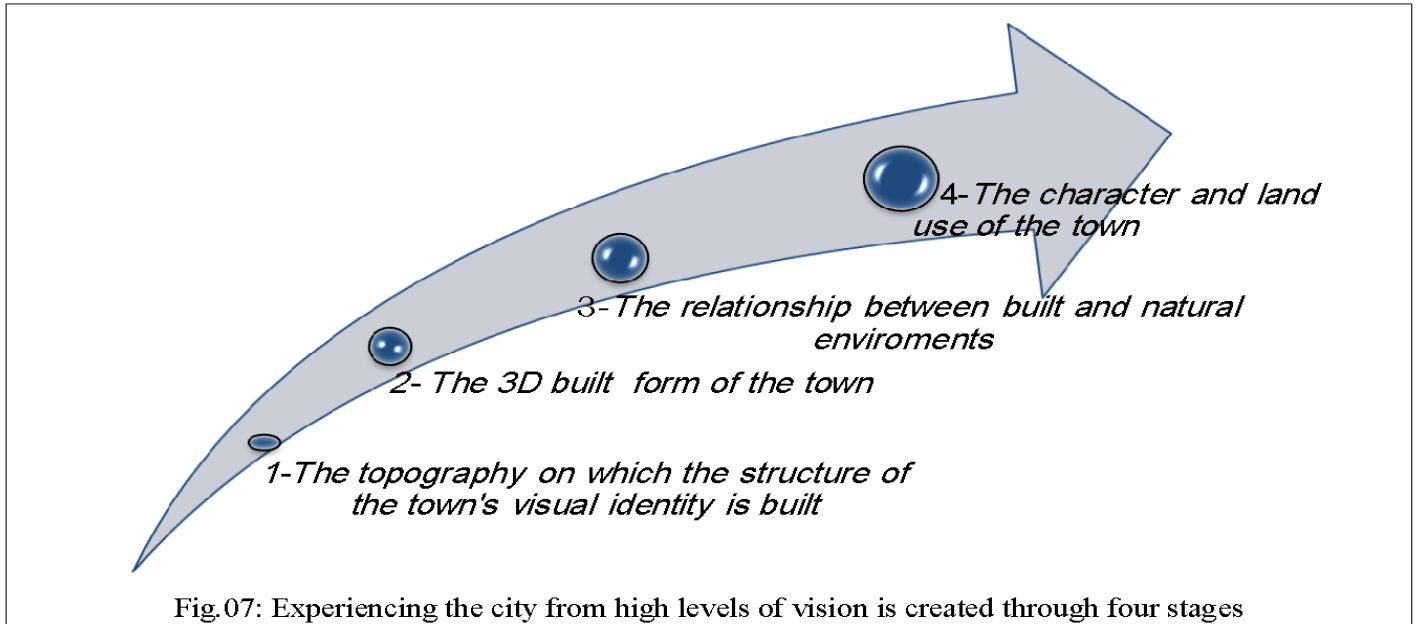
Fig. 05: The effect of the time of vision on the overhead image, Left: the overhead image of London at daytime (<http://www.google.co.uk/imgres>), Right: the overhead image of London at night (<http://www.urban75.org>)



Fig. 06: The overhead images are very sensitive to the climate change and environmental conditions, winter overhead and aerial views of South London, Colourless landscape covered by the snow (<http://www.dailymail.co.uk/>)

There are no certain rules which control the ability of interpreting the image of the city because it depends on various factors related to the observers and stimuli. We may perceive the city as piecemeal objects in a fragmental way and/or as spatial layouts through the overhead perspective

(see figure 7). In fact, observers can link the visual information in some way which allows them to develop what Kuippers (Kuipers, 1977) called a “common sense” of understanding an urban environment.



#### 4. The overhead images and the spatial knowledge?

In fact, the function of the image of the city is to provide a structured representation of the city's objects sufficient to serve as an index into memory (Lynch, 1960). A comprehensive view from high observation points can enhance imaginability and legibility of cities and assist users to maintain their sense of orientation because it shows the overall spatial organization of a setting and the articulation of form-giving features. “From above, it's easy to map, but on the ground there is no perspective to help you” (Hawkes, 2003: p.17). Viewing the city through its overhead images can reveal many of its features which are not possible to be perceived from the ground level. These aspects are as follows:

- The top of the buildings and roofscape (see figure 8).
- The relative positions of urban objects such as over, behind, beside, obscuring and surrounding.
- The relations between the different observed elements such as penetrated, subtracted, added, intersected, proportionality and balance.
- The Intensity of land uses and human activities.
- The configurational features; size, texture, scale, colour, sites and associations, heights and shadows of urban objects.
- Overhead images give a visual dominance to pathways as shown in figure 9 (Lynch, 1960). The streets network is conceived as a grid which holds the image's components together and represents a certain pattern of connections.





Fig.08: The over-head image of London, UK  
(<http://upload.wikimedia.org>)



Fig. 09: The streets network dominate the overhead image of the city, aerial view of London, UK  
(<http://www.guardian.co.uk/>)

## 5. Rethinking the image of the contemporary vertical cities:

City re-imaging is the purposeful representation and reconfiguration of a city's image to construct the contemporary meaning of 'the city' (Smith, 2005). In recent years many post-industrial cities have implemented ambitious re-imaging strategies to encourage the tourism and to market or brand the city. Many commentators now consider rethinking the image of the city as a tool for branding its places and attracting new investment.

Many of these schemes which link the visual appearance of the city to the business issue prioritise the image from the street level and there is a little attention devoted to the mechanisms through which observing the city changes. Moreover, the concept of imaging the city from high levels of vision has been ignored from these regeneration plans.

Overhead images of the city offer a wealth of visual stimuli. Therefore, identifying the most observed objects which catch the attention of the observer is very important step. From analysing many overhead and aerial images, the most observed objects in overhead images can be listed as follows:

- Regarding the built objects, the forms of the masses and any voids/internal courts within them in addition to their layouts are clearly readable in overhead images (See figure 10).
- Regarding the streets network, the movement axes, directions, intersections, destinations are clearer than the streetscape objects as shown in figure 10.
- The outline of open spaces and forms of public nodes are the focus of this views rather than the sense of the enclosure or openness of public spaces (see figure 11).
- The textures and colours of roofs and floors catch the eye more than the details of facades, walls, fences and vertical textures.
- The large-scale details are perceived before the small-scale details.
- The entire height of buildings and their shadows are observed clearly.
- Edges either natural or manmade act as visual frame for the image of the city.

- Landmarks, which take the central forms or combinations between horizontal and vertical elements, appear more readable than absolute vertical landmarks that have not any base. Moreover, animated landmarks are more readable than static:
- Human activities that take place on the top roofs such as social activities in roof gardens, restaurants, libraries and other uses are more obvious in overhead images.



Fig.10: The most observed objects in the over-head images (<http://www.webbaviation.co.uk>)

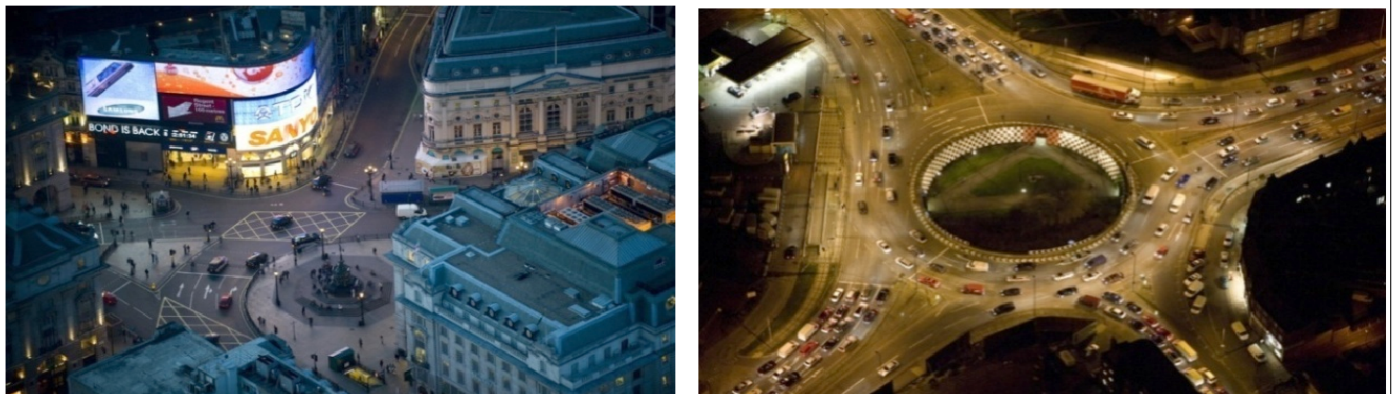


Fig.11: The forms of nodes and intersections represent areas of interest in over-head images (<http://www.boston.com>)

## 6. Qualitative overhead images:

Our contemporary cities display many problems which increase the perceptual stress and the visual discomfort see table 1.

**Table 1. the qualitative overhead images: the required criteria and the available tools to achieve these criteria:**

Criteria or Qualities for improving the over-head image of the city	The parameters or variables of the quality equation
Imageability	Landmarks, streets network, distinctive edges and focal points.
Liveability	Liveable roofs and terraces, public spaces, nodes for social activities, animated landmarks
Visual comfort	Harmony, rhythm, dominance, attraction, unity, richness and order of the different styles of urban objects – design of city lighting
Visibility (visual permeability )	Locations of high buildings, Open spaces, well designed lighting, transparency edges of streets and squares.
Variety, Diversity and order	Variable natural and manmade views, diverse points of observation.
Coherence and linkage	Clear edges, permeable streets network, distinctive visual or physical links between different urban patterns and compatible characters and visual attributes. Structured elements which can be easily grouped into an overall pattern.

**6-1 Diversity of the observation points:**

The qualitative approach for the city design should depend on the integration between different observation points from the street level and from higher levels. In addition to roof gardens, public terraces, flyovers and natural high locations, the high-rise buildings represent the dominant observation points in the contemporary cities especially in their central areas (see figure 12).

Tall buildings can be utilized in making a vision control on the city by studying carefully their locations related to the surrounding urban context. The following part discusses the role of tall buildings in improving the visual appearance of the city when it is viewed from above.



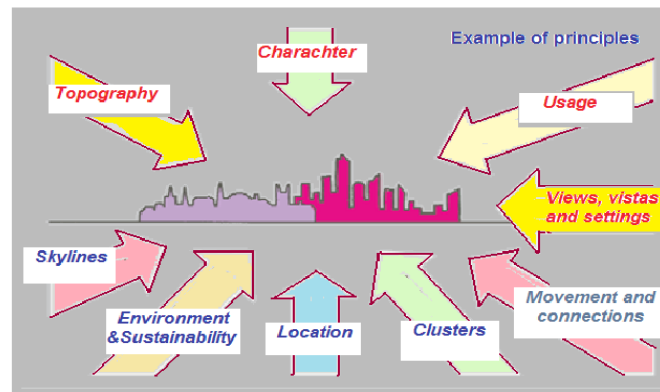


Fig. 12: The visual impact of tall buildings should be engaged with other functional and environmental impacts as a factor in regeneration action plans (LLDF, 2007: p.2)

- **High-rise buildings and the qualitative city image:**

As skyscrapers dominate the city's skyline, it becomes important to identify how tall buildings could contribute positively to organize the image of the city. Such buildings can make the city readable by marking focal areas such as city centres, infrastructural nodes, entrance points and certain venues (Klerks, 2009).

While the adopted conceptions in many literatures are tall buildings' technical, architectural, structural and economical distinction, their visual influences have other impact. Tall buildings act as unique observation points which enable users to enjoy viewing the city from the top. Additionally, high-rise buildings are the most visible buildings in the overhead images and they affect the urban grain, amount of natural light and streetscape (Strelitz, 2005).

To emphasize the visual importance of the interaction between tall buildings and their urban surroundings, we need to understand how this interaction is perceived through ground and overhead views. From the street level, the size, uses and design of the base floors has more of an impact than the above floors and the relation between indoor and outdoor spaces through the different entrances and terraces is crucial. On the contrary, from higher levels, the architectural details of upper floors (see figure 13), the entire height of the mass and its proportion which carries with it the senses of wealth, ambition, and dominance, both the icon and its background and the contribution of such buildings in composing the character of the area through its relation to the surrounding buildings are clearly captured.

The form of a tall building can be identified in the overhead images by its height, proportion and detailing. Therefore tall buildings should have distinguished design not only distinguished height. "A tall building is not a low building that extruded vertically, but one that is differently designed" (Strelitz, 2005: p.9) (see figure 14).

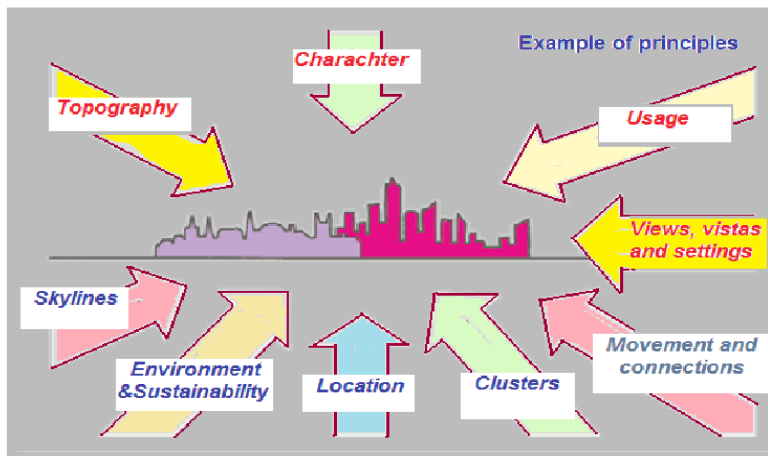


Fig.12: The visual impact of tall buildings should be engaged with other functional and environmental impacts as a factor in regeneration action plans (LLDF, 2007: p.2)

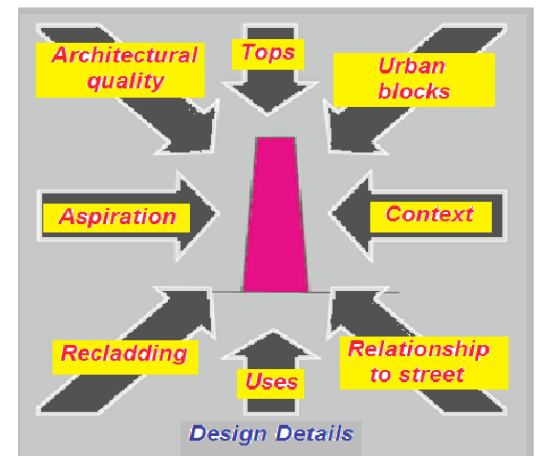


Fig.13: The overall form and design detail are crucial for improving the visual impact of high-rise buildings (LLDF, 2007: p.4)

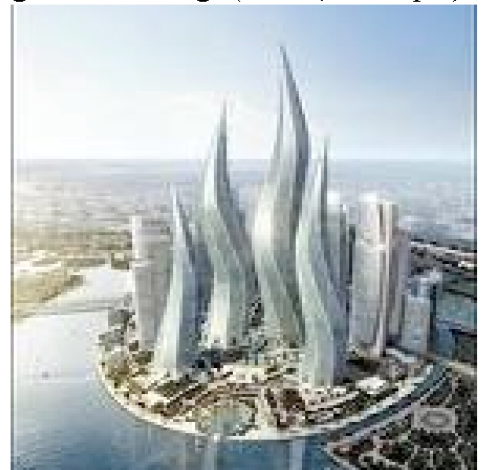


Fig.14: Left: Examples of high-rise buildings in Dubai (<http://www.culturaenmovimientobolivia.org>) and right: the over-head image of Raffles Dubai in Wafi city, Dubai, UAE (<http://unusual-architecture.com>)

The locations of tall buildings and the distances between them are very important. Such buildings should be utilized visually to gain the most benefit from the surrounding views, prospects, panoramas, important local views, significant views of skyline and the overall townscape to enhance the legibility of the city image (figure 15).

The creation of a High Buildings Map for the whole city which would control where tall buildings would be permitted is an effective tool to achieve the protection of skyline and the important views. This map should consider the effect of tall buildings on the view of general skyline and on a pre-determined listed buildings and views (figure 16).

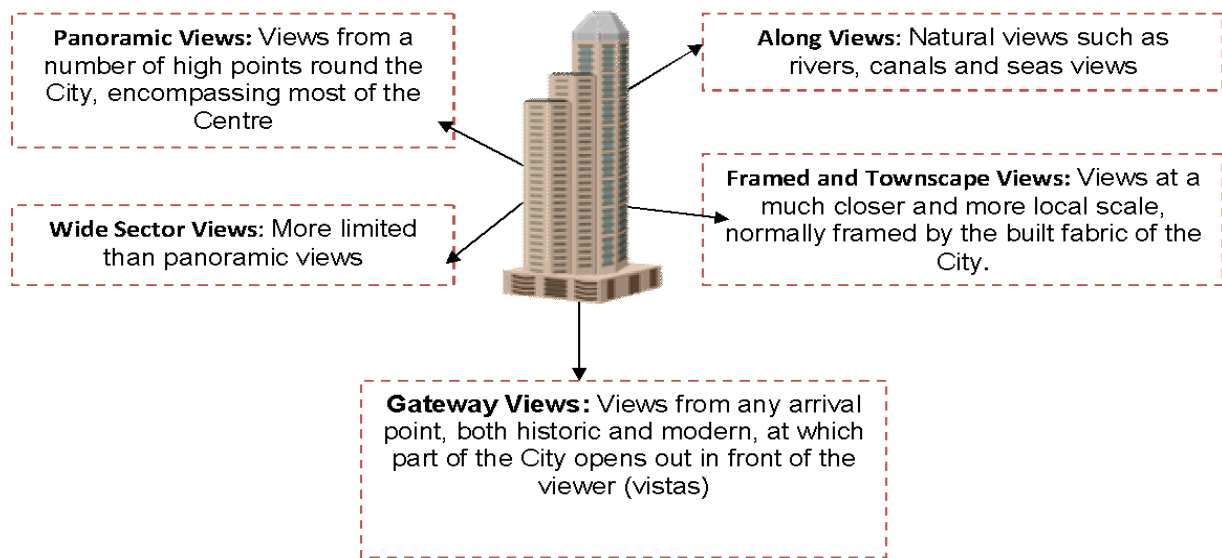


Fig.15: The importance of analysing the effect of tall buildings on the different types of views; over, in and around the city (Author based on Hartley & Taylor, 2009)



Fig.16: Left: a map of London which clarifies four clusters of tall buildings and right: the over-head view of Canary Wahrf cluster, the major centre of London's financial services (Strelitz, 2005 – p.14, 15)

Designation of important views to create a list of strategic views or conservative views that would be similar to the way of identifying the listed buildings and conservation areas are strongly needed. Moreover, construction of tall buildings which threat these views by blocking them partly or completely should not be permitted.

For instance, London Planning Authorities in 1991 established a list of 10 strategic views across London. This list focused on the most valued landmarks that give the city its identity such as St. Paul's Cathedral and the palace of Westminster (Marcus and Dietrich, 2008).

Any satisfactory heights policy should consider the maintenance of perception and views across the wide profile of the city as primary consideration. The historic skyline should be recognizable and rescueable because the unique quality of the cityscape built up over many centuries is too precious to be destroyed for the sake of commercial purposes (Hartley and Taylor, 2009).



The active enclosed public spaces which can be created by grouping tall buildings in clusters can improve the liveability and vitality of the overhead images (figure 17). The extension and integration of the different activities from indoor to outdoor depend mainly on the urban design of the immediate area surrounding the tower (see figure 18). The height of tall building provides the surrounding area with a strong sense of enclosure and a great amount of shade which encourage human activities to take place. Moreover, appropriate uses of ground floors enable tall buildings to interact with users at street level.



Fig.17: A comparison between two types of tall buildings; the tower which surrounded by open spaces (left and middle) and another tower which was built very close to the surrounding low buildings. Left: the Namba parks surrounding a shopping mall and office compound, Osaka, Japan (<http://www.flickr.com>), middle: the over-head view of the from the upper floors of the mall ([www.colorcoat-online.com](http://www.colorcoat-online.com)) and right: The tower destroys the privacy of the adjacent buildings and lacks to the interaction between first floors and the street life, MLC Centre, Sydney, Australia (<http://www.aviewoncities.com>)



Fig.18: The concept of grouping tall buildings in clusters forms readable and usable open plazas which can improve the public realm. Images of the proposed development of Central Business District of Beijing, China (<http://www.e-architect.co.uk/images>)

Regarding the visual attributes of high-rise buildings as shown in figures 19 and 20, the best tall buildings attend to the human scale at the bottom and locate the most distinctive visible composition at the top (UDC 1, 2007).

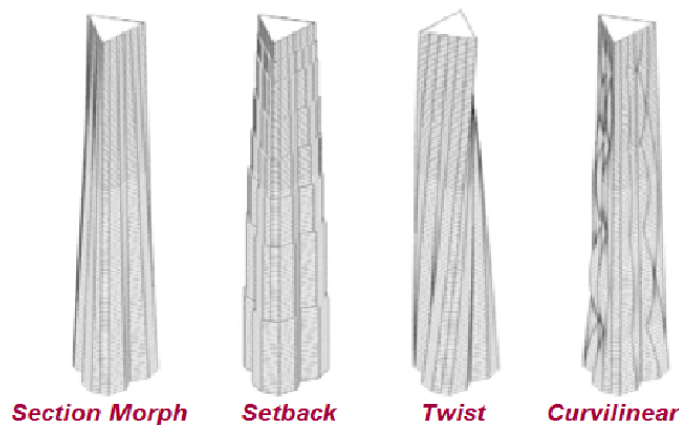
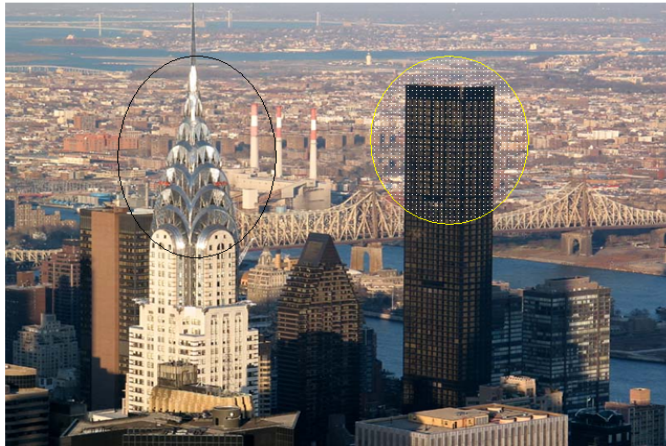


Fig.19: Freestanding boxy masses should be avoided (Park et al, 2004) & (<http://www.victoria.ca>)



Fig.20: The difference between the view of Chrysler Building (left) and Trump World Tower (right) New York, USA (<http://wirednewyork.com>)



## 6-2 Visual Comfort and visibility:

However the visual delight is completely a subjective quality, the development of computer applications in the field of visibility makes the visual evaluation of the locations of important spatial elements has become more objective. Space syntax for example helps to determine the visible fields and to represent the integration level between the different visibility cores (Hillier, 1996).

The contemporary city faces a various problems regarding the visual comfort and visibility which are related to the amount of daylight, pollution and blocking views. The night image of the city also suffers from some problems related to the design of city lighting. The following paragraphs focus on the night overhead image of the city and the role of city lighting in improving the visual comfort.

### • The artificial lighting and the qualitative city image:

Santen considered the city as an outside interior which is greatly affected by the elements of light (Santen, 2006). Using light carefully could support the visual delight and compose a pleasant atmosphere which encourages the night life and reinforce the sense of liveability. It is very useful in the historical or conservative areas which could not change their architecture to use lighting to create a specific mood for a special occasion (Santen, 2006). This part focuses on how the design of city lighting can improve the night image of the city when it is viewed from above.



The legible night image of the streets depends greatly on the materials and colours of floors or pavements. The materials and bright colours which allow much light reflection should be used to enhance visibility as shown in figure 21 and 22.



Fig.21: The difference between using dark and bright floors as reflectors for street lighting (Santen, 2006:p.117)



Fig.22: Using low lamp posts and fountains with bright floors can improve the visibility of the space at night (Santen, 2006: p.13)

Regarding lighting the buildings, lighting the corners is recommended rather than illuminating the whole buildings because by this way, the nodes and squares become more recognizable and these illuminated corners serve as visual gates for streets and squares (figure 23 and 24). There is a preference for lighting buildings from inside instead of outside in order to improve the visual comfort. Moreover, it is recommended that not to light all the building's floors by the same way. It means that the ground levels need to be bright to contribute in lighting paths and to highlight the uses of ground levels of buildings. The upper levels of the building need to be lighted to confirm the outline of the mass when it is seen from high levels. In addition, roofs which are used for particular activities should be illuminated at night to advertise these uses in the night images (figure 25).

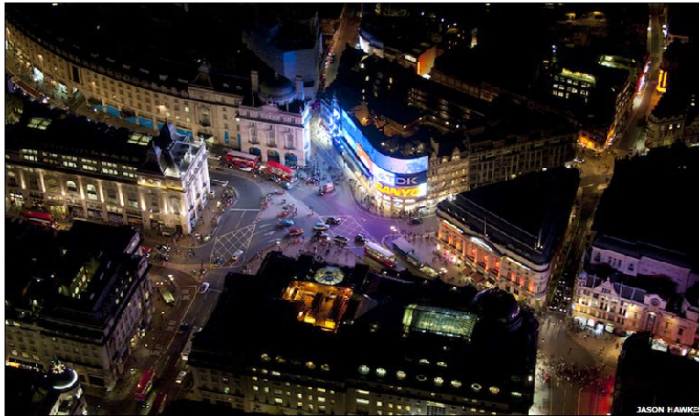


Fig.23: Lightening the corners of buildings. Piccadilly Circus, London, UK (photograph by Jason Hawkes in his book London at Night, (<http://news.bbc.co.uk>))



Fig.24: The harmony between the design of lighting objects and street furniture. The University of Huddersfield in UK

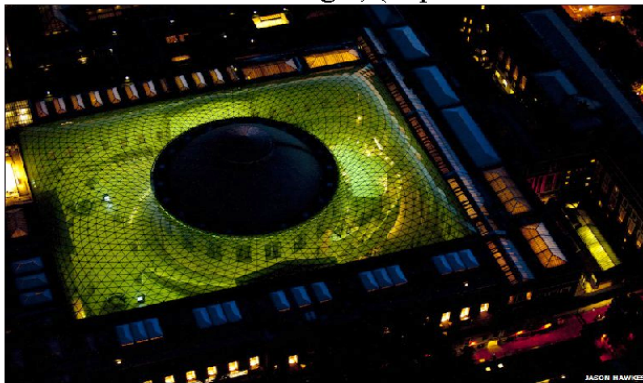


Fig.25: The illuminated roof of the British Museum, London, UK

The lighting objects such as lamp posts should be engaged with other street furniture to create a harmonious atmosphere in the streetscape (figure 26). Practically, it is difficult to put a condition for the minimum or the maximum luminance of the advertising hoarding, road lighting, buildings and displaying windows because there are many factors which control the level of lighting such as the lighting of the surrounding, the texture, height and colors of these billboards.

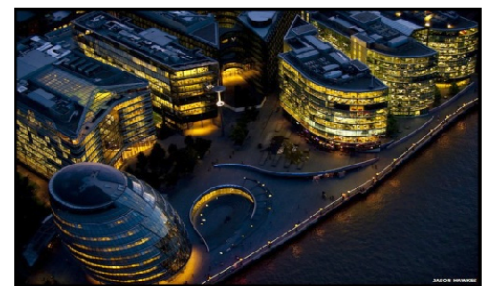


Fig. 26: The way of lighting the ground and top floors. Left: Catalunya Palace, Barcelona, Spain and right: Kurfuerstendamm, Berlin, Germany (Santen, 2006:p.23 & 27) - Bottom: the City Hall- the headquarters of the Greater London Authority, GLA (Photo: Jason Hawkes, Merrell Publishers)



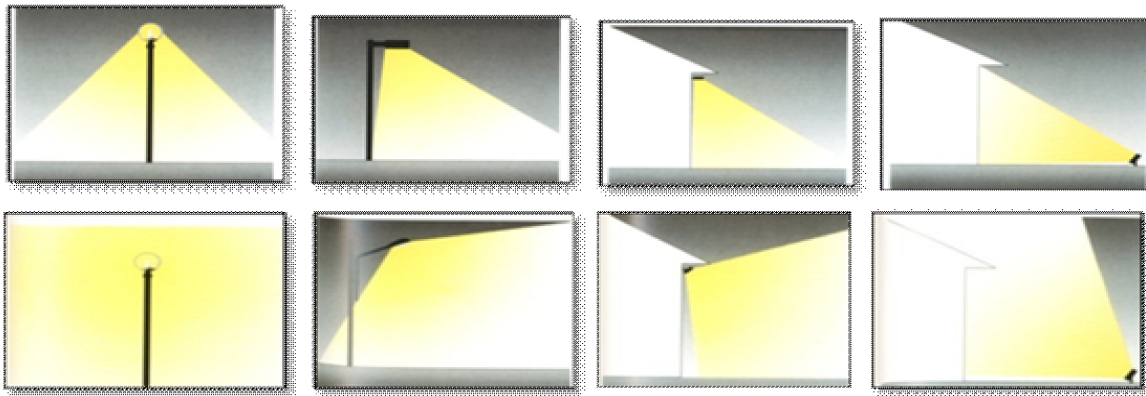


Fig.27: The correct direction and amount of light are important to avoid light pollution (Santen, 2006: p.123)

### 6-3 Legibility and imageability:

Overhead images reveal the interconnections and linkages between the different urban objects which allow them to be seen in coherent patterns so this kind of image is mostly imageable. The imageability of the city when it is viewed from high observation points can be defined as the ability to remember the total image of an urban area as a mosaic or patch work of relatively equal smaller districts, each one should be distinctive. The Design of landmarks is an important factor which affects the legibility of the city image. Engagement of new criteria for designing landmarks to improve their function when they are viewed from above can support the holistic approach of achieving qualitative image of the city.

Not only landmarks are critical for navigation but also their layouts. Therefore the design of landmark should be examined in compare to the surrounding urban context to ensure the openness of the views and the multiplicity of perspectives. The identification of the location of a landmark should be studied or examined related to the axes of nearby landmarks and should respect the grid of main streets (see figure 28). The scale of surrounding buildings and the locations of high observation points should be considered (see figure 29).

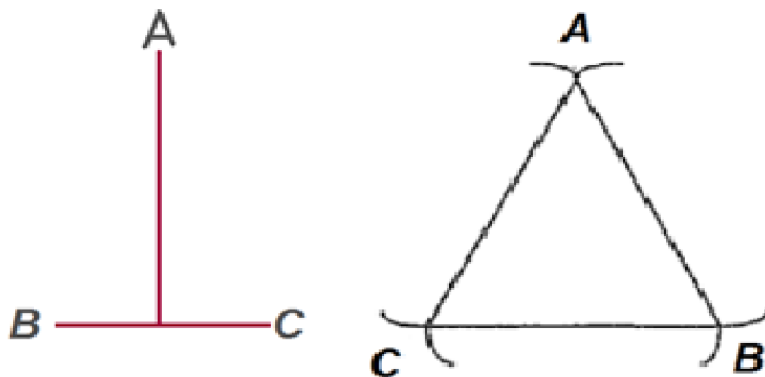


Fig.28: The placement of landmarks related to the grid of streets or the axes of the nearby landmarks



Fig.29: High building which is surrounded by low buildings act as a landmark for the city, the Gherkin Tower, London, UK (<http://www.london-attractions.info>)

To improve the functional performance of landmarks, they should occupy the most obvious layer in the overhead image. Furthermore, reinforcing the image and function of landmark by adding sensory input such as sound or smell can help to create a stronger cognitive map (Salmi, 2008).

The technological revolution provides the designers with many computer applications which enable them to examine the landmarks in the virtual environment and to evaluate their images from the different perspectives. The high vertical abstract landmarks are not preferred in modern cities because they lose their visual dominance when they are seen from high levels of vision. It is recommended that, the landmark should be deconstructed into multiple objects which construct a readable visual composition (see figure 30 & 31).



Fig.30: A View from the dome of St Paul's Cathedral, London (<http://3bp.blogspot.com>)



Fig.31: The use of readable composition as landmark, Sculpture at Potomac Park, Washington DC, USA (Hawkes, 2003: p.126)

At the large scale, the city should include one or more districts which have a distinguished character according to their historical significance or central location. These districts should be viewed from other neighborhoods and the urban objects on the edges of these distinctive districts should be carefully placed to avoid blocking the views.

#### **6-4 Viability and Liveability:**

Gardens and green space are important in keeping the city looking not only beautiful but viable as well (see figure 32).





Fig.32: Japanese Architecture uses green facades which support the sense of nature and reduce the sense of rigidity of the image of contemporary cities, ACROS Fukuoka in Fukuoka City  
(<http://www.metaefficient.com>)

As more buildings sprout the landscape of cities and towns, green space becomes a valuable commodity (Osmundson, 1997). Urban roof gardens are created to make the best use of the spaces on roofs and to incorporate more livable space to cityscapes. The roof garden is not just a green slice on a concrete sandwich however such garden can improve the function and the liveability of the overhead image of the city.

Locating roof gardens on the top of low buildings which are surrounded by tall buildings is more efficient in terms of the visual function, safety and accessibility than the uses of tall buildings roofs (see figure 33). Shading the roof partially or completely is recommended to improve the sense of thermal comfort. The design of artificial lighting for these roofs is crucial to improve the visibility and safety at night and to encourage various human activities to take place.

Creating smooth links between the ground and the top roof improves the visual and physical accessibility from the street level, connects the roofscape with the urban context and softens the edges of buildings as shown in figure 34.

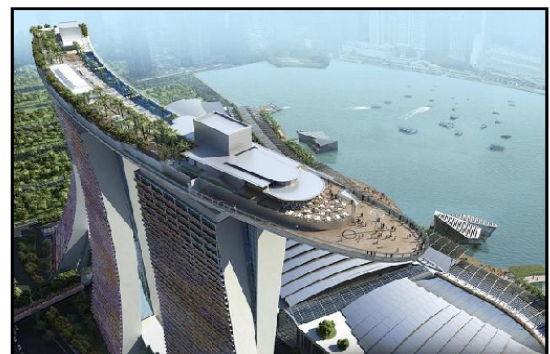


Fig.33: However the wonderful views which can be seen from this sky park, the public use of 200 height roof seems to be unsafe, uncomfortable and very expensive in comparison to using roofs of lower buildings, Singapore (<http://just4dosti.com>)



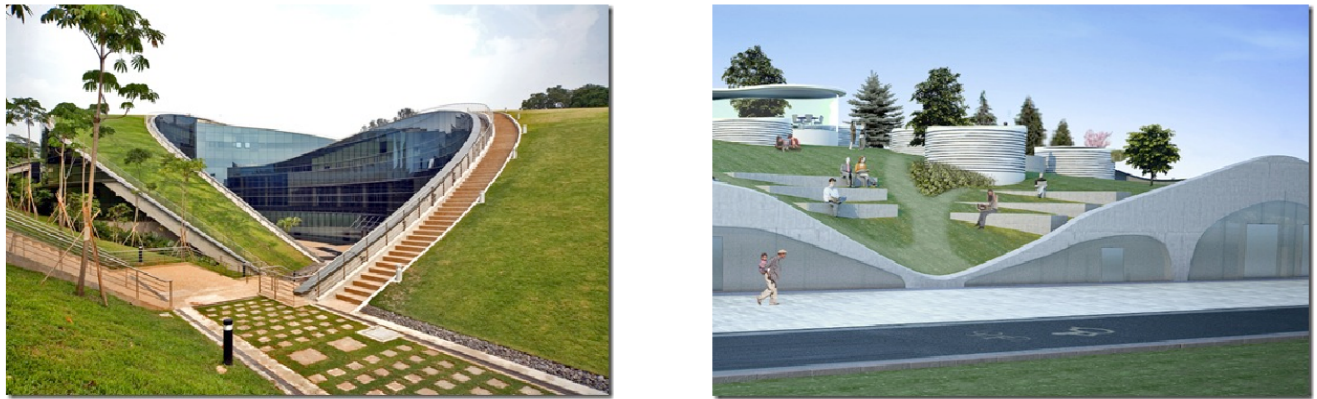


Fig 34. Left: the stunning green roofs that curve round and connect with the surrounding park area, Nanyang Technology University in Singapore and right: Kyoai Gukuen University in Japan (<http://www.colourcoat.online>)

## Conclusion:

Understanding the changes in the relationship between the observers and their city and the changes in the techniques of imaging the city through the time is very important. The vast changes of the city form during the 21th century have influenced the way of observing the city. The development of aerial photography, the spread of different high observation points such as tall buildings and the use of roofs for different purposes have increased the potential of viewing the city from overhead. The over-head images have become available through different means of media and can be seen in different occasions. Therefore such images play an important role in advertising cities and branding them for tourism and investment.

The concept of overhead imaging could not be ignored during designing or regenerating the urban environments. This paper demonstrates that, the overhead image of the modern city\_ as an area of investigation\_ has certain properties and applications. Such images can be used as conceptual tools, perceptual tools and as physical tools. This way of city perception should be considered as an efficient factor in order to produce a holistic integrative approach of city image regeneration.

The visual stress of the images of most contemporary hyper-visual cities should be reduced by applying a conceptual framework of objective strategies. The upper visual appearance of the city has not been taken in account in most urban regeneration initiatives.

This paper outlines the most effective criteria for improving the overhead image of the city and how these criteria can be applied practically. The location and design of tall buildings and landmarks, city lighting and uses of roofs are some tools which can be utilized to apply the proposed criteria. This paper includes some guidelines for improving the visual appearance of the city from different perspectives. It could be beneficial for urban designers and decision makers about urban regeneration of the city. Achieving a qualitative image of the contemporary city from different observation points to be legible, imageable, liveable and viable can affect the public life and help the observers to experience their city easily.

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