



Concept of Night City: A New Dimension to a City's Economy

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Abstract

As an outcome of a comprehensive study on an area of 385.401 acres, a township in Alor Gajah, Malacca, was redesigned based on an innovative idea, 'concept of night city'. The concept is believed to be economically viable. By using space syntax, an analysis of movement as well as the amount of activity likely to result from the movement is performed on the layout to determine if the redesign functions successfully. Results of the spatial analyses showed improvements in connectivity, integration, intelligibility and synergy levels. Based on the findings, the future town of Alor Gajah looks viable spatially.

Keywords: redesign, visibility tools, spaces, movement

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1.0 Introduction

Malacca is a historical state of Malaysia and its state capital, Melaka, has been listed as an outstanding UNESCO World Heritage Site in July 2008. With this recognition, it was reported that in the same year, 7.2 million tourists arrived in Malacca. However, Alor Gajah, a township located north of Melaka did not appear to be as one of the places tourists visited. Even local visitors from the surrounding areas did not seem to spend money there. If this situation remains, it is of concern that Alor Gajah would soon fail its function as a Major Growth Centre. The question was how best the township can be redeveloped and designed to attract local and foreign visitors. In attempting to answer the question an innovative concept known as 'Night City' was proposed (Fig. 1.) (Riduan Ngesan, 2009).



Figure 1. Conceptual diagram of night city.
(Source: Ngesan, 2009)

This concept was based on the agglomeration of night activities that creates momentum as stated in the Al-Quran, and Physics that showed light is energy. We argued that if energy is able to generate in the dark, then Alor Gajah town can use the idea to increase its economic value. Agglomeration of night activities creates different attractions to attract the people. Nocturnal life will improve the quality of city environment at night time. In return this also will increase the level of Carbon City Cycles process to reduce the environmental problem i.e. heat island and dust dome that contributes to the global warming. As planners we believed that generating energy in the dark can be economically viable for the township. It is of interest

to note that this proposal seems to be in agreeable with Hillier's (1996) observation that planners design cities based on their concerns with analysis and control of the social and economic processes. While urban designers he said, are more concerned on physical and spatial synthesis. Hillier suggested that these differing ways in designing cities showed both do not seem to understand the city as a "spatial and functional whole." He further distinguished the division as between understanding and design, as well as between thought and action. Thus, implicating our proposal on the future town (the night city concept) falling short of understanding it's spatial and function as a whole. If this is true, would Alor Gajah's future town proposal be successful? The papers further questions how could the proposal be measured to determine its success. In attempt to answer this question, this paper illustrates the use of space syntax as a tool to analyse the effectiveness of the redesign of Alor Gajah Township. This paper is presented in to two parts: first, a brief proposal of the township redesign. Second, the outcomes of the spatial analysis using Space Syntax on the likely movement pattern of the layout.

Redesign Of The Township

The aim of the redesign of Alor Gajah Township was based on an untapped economic potential to create a progressive and sustainable urban centre. The proposed concept (Night City concept) is to offer an alternative to spend money and investment in a different way. It is to bring a new dimension to the economy of a city from another perspective with different environment, namely night. It is argued that the advantage of night city concept is to promote the local nature and culture during night time, create new job opportunities to reduce poverty in rural and urban areas, accelerates the local economy, provide a place for people who come from different background to live, work and play in the city, and open a new window to the exploration of knowledge of night economy for many fields. It is also expected to bring in life into the city both during the day and night. Besides, the idea should also be able to revitalise problems of old city, ghost city, and Brownfield areas and to help the city achieve liveable, sustainable, and international city standard by creating a value added activity to the central area and the surrounding and maximizes the economy of city.

Although, the proposal in the redesign of the township seemed to be very socially and economically based, when looking at a micro scale, the proposal of the Night City also illustrates the importance of arrangement of the urban spaces. We suggested arrangement of urban spaces that would lead to the exposure of spaces that would create a continuous visibility in the township. This is done by creating various visibility tools namely: road network; water body; pedestrian mall; continuous plinth area; open central parking; and a square (Fig. 2). The road network visibility tool would create a view connection to allow the generation of a continuous urban image. Besides being a connector and providing visibility to the area, the river can also create a new phenomenal in the township when integrated with other modern development. The third visibility is created through spaces between buildings and pedestrianised shopping area connected to agglomeration of activities. Finally, visibility can also be created through open central parking, squares and open spaces that can further

increased visibility of the surroundings. As such, the proposal is not restricted to social and economic processes alone but it goes beyond to include spatial in ensuring the township functions.

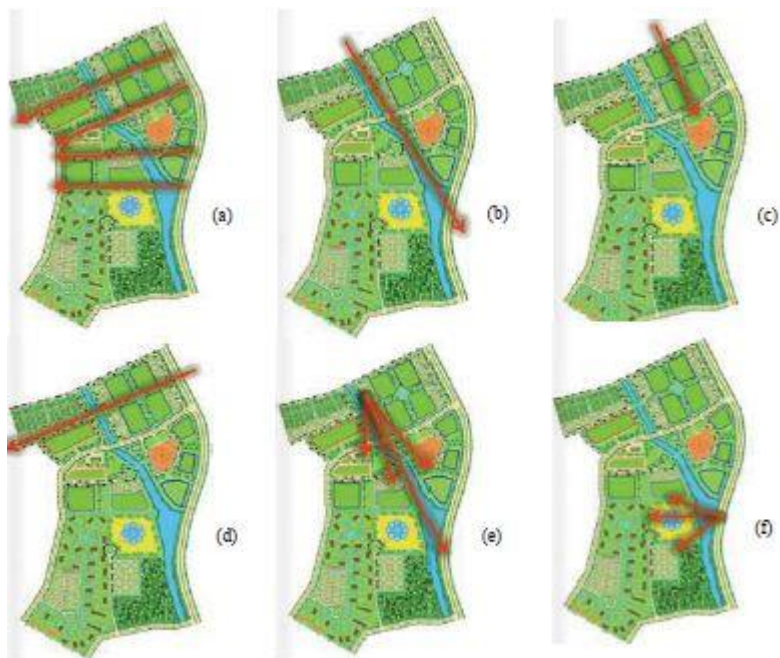


Figure 2. Visibility tools: (a) road network; (b) water body; (c) pedestrian mall; (d) continuous plinth area; (e) open central parking; and (f) square.
(Source: Mohd Riduan Ngesan, 2009)

Understanding the Space-Movement Relationship

Hillier (1996) argued that “...the most powerful single determinant of urban movement, both pedestrian and vehicular...is the structure of the urban grid” (pp. 43). Having shown in findings of his research, Hillier further added “...that socio economic forces shape the city primarily through the relations between movement and the structure of the urban grid” (pp. 43). Thus, for cities to function successful, Hillier introduced the term he called “movement economies”. A term, which he described how space and movement affected each other and multiplier effects arising from land uses which are influenced by space-movement relation. To understand how this works, Hillier suggested we should first understand how humans operate in space. He pointed that there is a natural geometry in whatever humans do in space. This was illustrated when he showed an example (Fig. 3.) from the simplest line through to the more complex irregular shape. The simplest linear line, which is said to be the most elementary level, indicated how people move in lines (linear). But, when people stop to talk, it is said they

collectively defined a space (convex space). While the more complex shape as illustrated in the third figure, it is called 'convex isovist', an irregular shaped space, which he explained is formed when all the people can see each other.

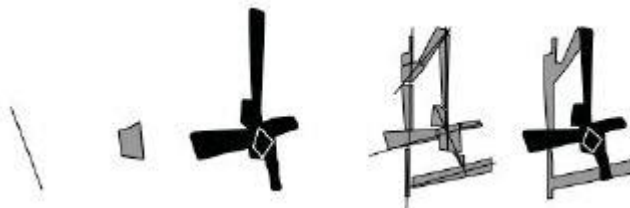


Figure 3. Natural geometry of human beings operating in space
(Source: Hillier, 2007)

This type of space is said to vary in the city as we move and it is this space that he believed defined our spatial experience. Thus, in a city the geometries collectively form layers of spatial structure as depicted in urban spatial layouts. The various types of spaces in a city in the forms of spatial layout, is said to provide different functional potentials (linear lines for movement of people, convex spaces where people grouped together or convex isovist, in which people see other people in it). Hillier further suggested that in a map these spaces can be represented as the fewest and longest lines (Fig. 4).

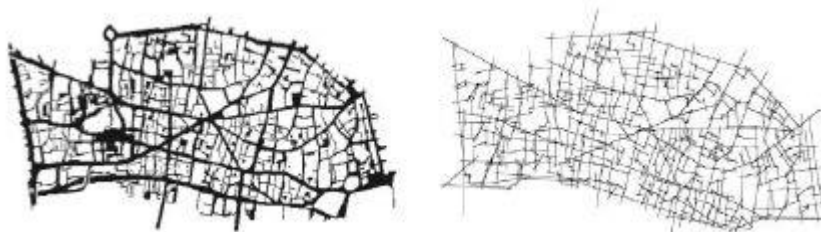


Figure 4 Figure ground map of City of London, spaces shaded black (right) is seen first. A presentation of spaces in the form of lines is shown in axial map (left).
(Source: Hillier, 2007)

Effectiveness of the Redesign

If the redesign of the township has considered the spatial aspect, would it be able to function successfully? This paper attempted to illustrate and analyse the design of the township using Space Syntax developed by Hillier and his colleagues at the University College of London, United Kingdom. It is a form of computer software that can be used as a tool to measure and analyse urban spaces quantitatively.

To analyse the design of the township, an axial representation of a large part of areas in Alor Gajah was drawn. It was then processed in Space Syntax software (Axman is used to

analyse urban spaces). The processed map (Fig. 5.) shows coloured lines from warmer (reds) through cooler (blue) colours. The warmer coloured lines indicating more integrated spaces and higher movement levels; and the cooler line, less integrated spaces and lower movement levels. A series of analyses, integration at different radii, intelligibility, synergy and connectivity, of the existing and the redesigned area were produced for comparison as shown in Table 1.

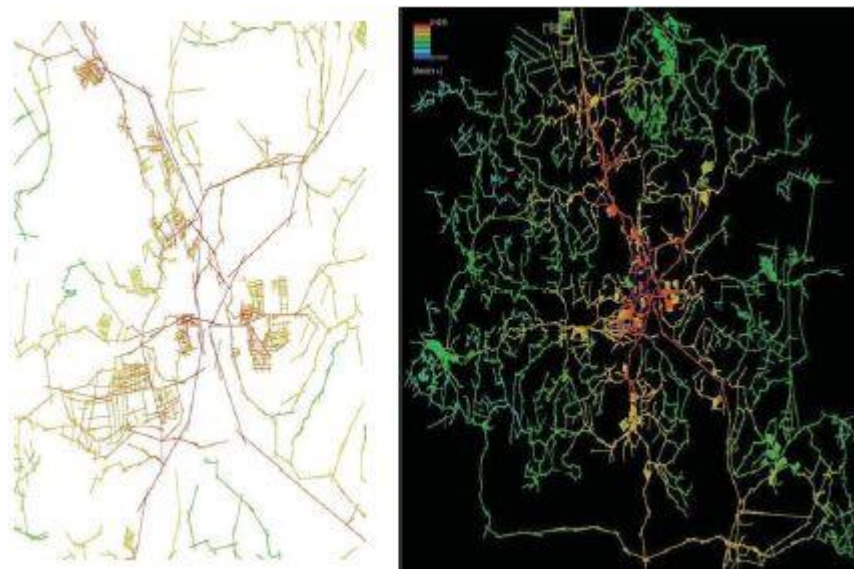


Figure 5. Axial map (space syntax map) existing area (left) after redesigned (right)

Syntactical results showed that spatially the redesigned area has generally higher syntactic values compared to existing area. When redesigned, the spaces in the urban layout are more connected than the existing area both for pedestrian and vehicular movements. This encourages higher co-presence between residents and non-residents to the area. This configuration is essential if the area needs more visitors and tourist. With an improved intelligibility (3.35 for pedestrians and 2.46 for vehicles), the area is better understood spatially. It appears that the redesigned township has an improved space-movement relationship. However, there seems less multiplier effects on the urban movement economy. This is reflective on the integration values which are generally low. According to Hillier (2007), the urban movement economy depends on certain conditions, which include: size, density, distribution of land uses, and specific type of grid that maintains the interface between local and global (pp. 56). Nonetheless, these conditions are beyond the scope of the authors and as such have not been considered in here.

Table 1. Comparison of syntactical measures of township before and after redesigned

Alor Gajah Township	Gajah Connectivity	Global integration (Radius n)	Local integration (Radius 3)	Intelligibility	Synergy
Existing	3.77	0.44	2.07	2.07	0.27
Redesigned (Pedestrian spaces)	7.50	0.48	3.35	3.35	0.40
Redesigned (Vehicular spaces)	4.37	0.46	2.46	2.46	0.37

5.0 Conclusion

The study has initially attempted to address the issue of the area not being able to attract tourists. It was found in the previous study that the issue was contributed to the following factors: lack of supportive facilities e.g. hotels and transportation, lacked products and historical value, no tourism promotion, and high maintenance cost on the preservation of historical buildings and landscaping. Although, in general there was an increased in foreign and domestic tourists arrival between the years 2006 and 2008 to Malacca, it was suggested that attempts to attract or draw tourist to Alor Gajah has to be proposed. Thus, an innovative idea of 'the night city concept' was suggested, which is believed could solve the problem of an area like Alor Gajah that lack potentials. Of course for a city to work, the urban spaces must be used space. Hillier interjected most urban space use is movement, which is mostly through movement. As such the redesign of the township has to determine its level of space use through movements. This is possible through the use of space syntax, a tool that can analyse the urban spaces. Various analyses was performed that included integration measures, connectivity, intelligibility and synergy. Generally, the redesign showed a remarkable improvement in connectivity and synergy levels from the existing area. Suffice to say that these results implicate that the redesign of the township is able to function successfully.

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