THE DEATH OF URBAN STREET:
A COMPARISON BETWEEN TWO RESIDENTIAL NEIGHBORHOOD STREETS IN
KHULNA, BANGLADESH

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ABSTRACT
The Urban Street, beyond its mere functional and objective qualities, is expected to impart subjective
qualities to ensure a healthy and livable community. Increasingly, both urban planners and policymakers
are emphasized on the significance of the physical elements (objective qualities) and activities in
creating livability of street life; however, the role of subjective qualities as component that also gives
lively street life has not been adequately explored in traditional building construction laws. Traditional
building planning laws only focused on a short-term master planning of single sites, which seldom give
a sustainable street life for community. Consequently, many streets particularly in developing nations,
is being death and faced tremendous inadequacy. This research therefore, akin to that of urbanist Jane
Jacobs in order to explore the livability of urban street to perceive the behavioral responses of people
across three dimensions of streets namely spatio-physical, socio-economic and socio-environmental. In
doing so, it develops a conceptual framework is comprised by objective and subjective qualities is
followed by measuring the livability of street life. This qualitative research adopts deductive approach
and two selected streets under case study method. Sonadanga and Hazi Mohsin road in ex-colonial city
Khulna, Bangladesh have been evaluates under the urban and building planning policies and practices
paradigm. Multi methodological approaches, including questionnaire survey, interviews with academics
and professionals, observation and document policies of urban planning, building construction laws have
been accompanied. In terms of findings, it became obvious that the livability of the Urban Street in
Sonadanga residential area have been compromised under the absence of Urban planning laws, building
codes and reluctance of Urban planning authorities (KDA refers Khulna Development Authority), the
role of architect’s in the course of designing buildings and constructions and ‘profit-oriented’
development by developers and land owners. This empirical findings hence can be useful for a global-
level understating of the loss of street life under free market conditions. Locally, for example in the
context of Bangladesh, it can help concerned authorities (like KDA) to formulate the land use policies
and building codes for a more sustainable and contextually appropriate urban future.

Keywords: Urban Street, publicness, security and surveillance, livability, Khulna

INTRODUCTION
Urban Street, is nothing but the reflection of social places and play a robust role in how cities are built
and function. Todays, scholars in various fields mainly related to urban studies contend that streets have
the ability for promoting and supporting functional, social, and leisure activities; for travel, shopping,
play, meeting, and communication with folks; and even for relaxation (Jacobs 1961; Appleyard,1981).For Jacobs, “sidewalk ballet” is considered as key chatters to ensure a vital urban
life(Jacobs, 1961). Jacobs and Brower also believed that building density and mixed land use pattern
would offer heterogeneity to ensure safety and livability of people in core area (Jacobs, 1961; Brower
1996). On the other hand, many scientists like Oscar Newman, William Whyte and Jan Gehl emphasis
on the behavioral observation of participant in real-life situations to determine how the built environment
including street life effects social-wellbeing (Newman, 1973; Gehl, 1987; Whyte, 1980) for ensuring
livable community.

Livability focuses on place making ability in everyday physical movement in relation with immediate
neighborhood. Within the livability arena, street can be a public space for ensuring the three components
of sustainability namely: people, money and nature for supporting movement systems, public realm and
mixed building design. While such belief and contentions hit the urban design policies and practices to
promote sustainable and healthy street life for entire city community (Whyte, 1980; Gehl 1989), much
geresssesssess less attention has been paid to that type of neighborhood street life by building construction authorities.

Building planning guidelines in the rapidly unplanned urbanized developing nations mostly promote the use of automobiles without paying concentration on green filled pedestrian movement, mixed land use and agglomeration of old and new structures. Hence, congestion on roads, less vibrant and mono-structures in city or neighborhoods make more isolated and unlivable community, which negatively impacts their physical and mental health. Compared to the traditional neighborhoods, where sidewalks along with building front would normally accommodate diverse informal economic activities founding the heart of public place. Since, new ‘functional and grid pattern’ spatio-physical land use plan for city and neighborhood devotedly snatch the heart of ‘social’ and ‘emotional’ life by evolving neo-liberal market economy.

Khulna¹, is an empirical example with this event. Its spatio-physical environment has been undergoing rapid transformation, and unauthorized urbanization especially following its first Master Plan in 1967. Khulna’s planned residential neighborhood by both public and private sectors is developed by less diversified land use plan is inclined to more objectivities through single functional multi-storied houses along typical grid pattern street layout, is naked by less green and pedestrian connectivity. Very few face to face connection and less public space is generated in the planned residential neighborhood. Even if the building renovated or constructed new one, the ground level now only houses the cars, the electrical substation, the guard room and drivers waiting is reduce the social space at lower level of residence. Which intend to recall Jacobs, the ‘more functional’ or the ‘objective’ thus replaces the ‘subjective’ – the ‘social’ and the ‘emotional’ – thus fundamentally contributing to the loss of livable street life and disparaging the sense of place. Thus the urban street is becoming ‘death’ is justified by title of this paper.

This paper therefore aim to explore the livability of urban street to perceive the behavioral responses of people across three dimensions: spatio-physical, socio-economic and socio-environmental qualities of neighborhood streets. In doing so, two objectives has been setup:

- To develop a conceptual framework in three dimensions of street; spatio-physical, socio-economic, and socio-environmental.
- To assess the livability of urban street to identify the causes and dimensions of street life which contribute to liveliness of street

Eleven variables under five indicators namely land use pattern, life and vitality, security and surveillance, publicness and economic infrastructures under three earlier mentioned subjective and objective dimensions have been accompanied to satisfy the objectives.

Findings, however, manifested as complex interaction between a number of issues behind the loss of these subjective attributes from the Urban Street, prominent among them being: successive modern orthodox (land-use based) planning regimes which have not been place-sensitive and contextually responsive; predominance of ‘zoning’ concept in these plans a ‘car-prioritized’ development thinking, the absence of Urban planning codes, laws and reluctance of Urban planning authorities, landowner’s demand for a ‘profit-centric’ development under free-market concept and the less critical architects and often their ‘justification with context ’ in building design. The following section will delineates the tools and methods to conduct the course of exploration of livability of street life. It will start with a brief of specific tools and methods is followed by case study description.

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¹ Khulna, an ex-colonial third largest industrial city in Bangladesh, was developed under the Colonial British in the 19th C along the Bhairab -Rupsha Rivers. The largest mangrove forest (sundarban), a seaport, and a central location with respect to Bangladesh attract visitors and traders to set it as as important trading city. KDA in Khulna is the planning regulatory body. Sonadanga, Nirala, Myuori, Mirreddanga residential areas are based on gridiron developments by KDA, while Moulavi para , Dautolpur, Hazi Mohsin road are the based on autonomous practices and policies.
METHODOLOGY

An exploratory approach (hence qualitative), generally has been taken for this work. In line with objectives, a critical review of both scholarly and empirical studies of street life under urban planning and building construction laws paradigm has been carried out initially. Although not theoretical per se, a conceptual framework comprised of four ‘thematically similar’ indicators that reflect mostly Jane Jacobs’ and other scholar thoughts have been identified to assess the livability of street life in Khulna. Both data collection and analysis has been carried out in line with these five indicators. For data collection, key informant interview (semi-structured), focused group discussion, participant observation, photography, satellite plotting, architectural illustrations, four point Likert scale (highly dissatisfaction to highly satisfaction) have been taken, while content analysis has been used to analysis the data.

Two different types of residential streets in Khulna - one planned and another traditional (according to time of life of the road) have been selected. Former one is the largest among all the roads of the 2nd phase of Sonadanga residential settlement (located at 17 no ward) (Fig. 1c), developed by KDA (Khulna Development Authority) since 1948 for accommodating 14000 (Miah, 2002) middle and upper-middle economic class with land price was fixed by KDA (4 lacs per katha²). But in practice it almost reach at 25 lacs with much population. Contrarily, Hazi Mohsin Road (29 no ward), a major connecting road between the oldest road in Khulna (upper Jessore Road) and the more recent but now the major arterial road (Khan Jahan Ali Road). A 25’ wide road with 6’ pedestrian in both side of it was named according to a famous local generous person, Hazi Mohsin. This 630 m in Length Street is connected with Toot Para Graveyard in one side and the Circuit House on the other. Total 35,000 people lives per sq. km² in that area. Land prices in this area fluctuated between 32-40 lacs³ for social demand like diversified activities manifested in all trough of the neighborhood.

As these two streets are absolutely different in topology, economic and planning structure is needed to be measured and explored there livability. The following section is an empirical depiction of measurements and findings.

ASSESSING LIVABILITY OF URBAN STREET THROUGH OBJECTIVE AND SUBJECTIVE QUALITIES:

The livability of street vision expands the sustainability mix to include the people, nature and economy. According to these three characters, street tie up the relationship between human behavior and spatial characters to introduce the subjective attributes through objective infrastructure of street. For this study,

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2. Katha is used as Bengali term for quantify space is equivalent as 720 Sqft.
3. Lac is used as Bengali term is equivalent one hundred thousand taka
however, both subjective and objective qualities of the street remain the main focus which are assessed by five indicators (publicness, life and vitality, security and surveillance land use pattern and economic infrastructure) to measure whether or how the street is alive or dead. In relation with this, conceptual framework (Table: 1) has been developed to correlate these indicators with variables.

Table 1 Conceptual framework for measuring livability of Urban Street

<table>
<thead>
<tr>
<th>Issue</th>
<th>Dimension</th>
<th>Indicator</th>
<th>Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Livability of neighborhood street life</td>
<td>Spatio-physical</td>
<td>Land use pattern</td>
<td>Diversified built form</td>
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<td>Pedestrianization</td>
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<td>Life and vitality</td>
<td>Permeability</td>
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<td>Urban green( vegetation)</td>
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<td>Flexibility of street</td>
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<td></td>
<td>Security and surveillance</td>
<td>Links(street-street)</td>
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<td>Street-nodes</td>
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<td>Accessibility</td>
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<td>Participation</td>
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<td></td>
<td>Publicness</td>
<td>Physical amenities(street furniture; bench, sitting, shade)</td>
<td></td>
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<tr>
<td>Livability of neighborhood street life</td>
<td>Socio-environmental</td>
<td>Economic Infrastructure</td>
<td>Different form of economy (shops, Bank etc.)</td>
</tr>
</tbody>
</table>

Source: Authors solely constructed based on (De Magalhães, 2010), (Jacobs, 1961) other many authors thoughts and assumptions

Spatio-Physical Dimension

At this dimension, Hazi Mohsin Road seems more livable than its counterpart.

Mixed land use plan and activities make Hazi Mohsin road a healthy and resilient community, While Sonadanga, developed in principally grid-iron plotting system shows limited pedestalization for allowing people to interact and socialize at ground level. Every building is enclosed by a high boundary wall contributing negatively to the lack of sociability in general (Fig. 3e) healthy living for community.

Fig. 2: Different color showing the different types land use of Hazi Mohsin Road (a); the land use plan of Sonadanga 2nd phase (b). Source: Author adapted based on unpublished work by Salma Akter, Sheikh Serajul Hakim and Md. Raihan Khan (2016).

In Hazi Mohshin Road, lower plinth level and informal activities in front of building and nodes helps users to encourage pedestrian movement. Pedestrian movement also helps control behavior of the pedestrian and play a role of mediator between streets (public) and building (private) to make more livable street life.
**Socio–environmental Dimension**

Socio-environmental dimension For Hazi Mohsin road is more positive than Sonadanga Road. Life and vitality is highly evaluated by Permeability of street fronts, which expose the interior to the exterior of people on the street are able to sense what is going on and understand the activities inside the buildings (Mehta & Bosson, 2010). Hazi Mohsin road is ensured by permeability by lower plinth levels, visual and physical permeability to street-side facilities, absence of boundary walls, and diverse functions encompasses the uses of space as public realm and ensure sense of transparency between buildings and its surroundings. Nonetheless, for the newer buildings at Sonadanga, these remain generally missing. Front walls and guard put from at ground level negatives affect permeability. People get out from house and hire a transport to reach their destiny without aiming to spending time by gathering in front of buildings or tea stalls.

**Security and Surveillance** can be measured links (street-street), accessibility and participation. Links (street-street) means the variety of networks serving the inhabitants and neighborhoods with the other destinations including but not limited to facilities such as shopping areas and schools (Mohamad & Said, 2014) and interactive lineage among street – node –street induce variety of networks, frequent accessibility and enormous participation of street’s users. These multi networks cater inhabitants with many destinations and rapid interaction which ensure security and surveillance. Hazi Mohsin road is the great example of these qualities. Three tertiary streets intersect Hazi Mohsin Road, where important nodes with socio-spatial activities have been created (Fig.3 a, b, c and d), also repeated visual and physical accessibility allows inhabitants to watch phenomena and gives opportunity to connect with the activities. The short block size and frequent contacts with counterparts through mixed functional nodes of street a high motivational for social, physical and economical gathering.

On the contrary, even more than six internal roads are interconnected in Sonadanga 2nd phase, lack of permeability, absence of pedestrian movement and less interactive nodes between the main and other streets make its residents to dump waste and sometime informal short time street vendors on the node (Fig 5e). Even the front gate and high boundary wall (Fig 5f) merely invite and make more social space in street. Which nevertheless ensure security for inhabitants even late afternoon.

**Publicness** in Hazi Mohsin road is more promenading rather than Sonadanga. By personalizing a space, people change the environment and gather their needs, which refers Lefebvre’s thought that gathering of people also gives the impression of an interactive space to help produce social space, where space becomes a social product(Lefebvre, 1991; Lefebvre & Nicholson-Smith, 1991) Such practices of personalization are found in Hazi Mohshin Road. Older building-fronts with businesses at ground level

Fig. 3: Satellite view for visualizing the road intersection. (a) a Mosque (red marked) is connected with sidewalk through stair is a symbol of personalization (b, c and d); all roads node are very interesting and participatory and easy accessible due to mixed land use pattern (shops, residence etc.); (e, f) At Sonadanga nodes of streets are not connected with others through functions, consequently, people cross the road without making public real or social gathering. Source: Authors edited based on www.google
encourages people to access and use it for different amenities (shops, shade, benches, road side stair connecting buildings to its sidewalks, Mosque, Library, Councilor Office, hospitals and clinics serve local inhabitants and visitors for different purposes, etc.). Mixed uses in ground floor interlinked with footpaths and streets to welcome the public into private space. For Sonadanga, predominantly grid-iron plotting scheme merely interact with public space through ground floor functions, where only guard room and boundary wall are the main elements of buildings. Even some of the buildings on this street are now being rented for other than residential purposes, they are mostly private in nature (such as international NGO, MNC and branches of Central Government offices). Instead of contributing to impart diversity, these offices often bring private guard or security post on its ground level entry and demand for an even more secured environment in general.

**Socio-economic dimension**
Socio-economic livability of Hazi Mohsin road is more lucrative than Sonadanga residential area.

Economic vibrancy through the presence of informal economic infrastructure like street vendors, mixed communal activities and mixed structures highly inspire people to participate actively in generating a vibrant setting in Hazi Mohsin Road. Density, heterogeneity in economic facilities remain the key catalysts for promoting economic or social vitality of this site. While, such practices boom the economic vitality of street life in the traditional neighborhood’s by improving behavioral responses and attitudes of people, no such provision has been considered by KDA while designing plot sizes of 3, 4 and 5 Katha for Sonadanga residential block. Single land use (residential plot) and planning methods with respect to street requirements I negatively discourse in KDA plan policies.

To summarize, the livability rate of Hazi Mohsin road is far improved in all dimensions rather than its counterpart. In this sense it can be said that the street in Hazi Mohsin road is live (fig.5), while at Sonadanga, street refers death due to absence of less pedestrian movement, single land use pattern, street permeability and non-heterogeneous structures, interesting linkage as whole.

Permeable commercial amenities at ground level of residence make more publicness, vibrant, vital and secure street life.

![Fig 5: Livability of Street life at Hazi Mohsin Road. Source: Author, 2017](image)

However, to visualize the scenario, the satisfaction index has been portrayed in table 2 as mentioned bellow,
Table 2, summary of satisfaction index by people’s perceptions

<table>
<thead>
<tr>
<th>Issue</th>
<th>Indicator</th>
<th>Variables</th>
<th>Sonadanga</th>
<th>Hazi Mohsin Road</th>
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<tr>
<td>Land use pattern</td>
<td>Satisfaction with diversified function</td>
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<td></td>
<td>Satisfaction with Pedestrian movement</td>
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<tr>
<td>Life and vitality</td>
<td>Satisfaction with green</td>
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<td></td>
<td>Satisfaction with permeability</td>
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<td></td>
<td>Satisfaction with flexible use of street</td>
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<tr>
<td>Security and surveillance</td>
<td>Satisfaction with easy and interesting Links</td>
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<td></td>
<td>Satisfaction with easy accessibility and participation</td>
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<tr>
<td>Publicness</td>
<td>Satisfaction with personal use of street and front side of buildings</td>
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<td>Satisfaction with street furniture; bench, sitting, shade</td>
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<td>Economic Infrastructure</td>
<td>Satisfaction with different form of economy (shops, Bank etc.)</td>
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Source: Author, 2017

DEATH OF URBAN STREET: AN EXPLICATION

The causes of such practices and planning procedures indicate three potential causes to contribute the death of urban street. The following sections, although often interconnected and interdependent are here discoursed distinctly, summarize these findings.

Urban and housing Planning, policies and building codes

Neighborhood planning procedures mainly guide the way to design and accommodate the structures, functions within it in respect with its immediate street. This planning policies is operationalized by its planning and regulatory agencies. For Khulna, KDA remains the governmental and semi-autonomous strategic and detailed planning and authorization body established in 1961 under East Pakistan (which later liberated to become Bangladesh) aiming to modernize Khulna. The major goal of this authority is limited to Master Plan preparation, infrastructure development, improvement and

![Fig. 6: (a) Grid-iron plans for Sondanga residential area (Second phase); (b) Nirala residential area designed and established by KDA and (c) residential building designed by architect according KDA rules but violate the setback line](image)
provisioning of housing, and overall development control. For planned housing areas, “Neighborhood
unit” is adopted as modern concept is proposed to general people is considered is the key ‘contextual
housing policy gap’ in city planning. The idea of a self-sustained community with residential and other
amenities within a single boundary is the catalyst to segregate the public from private. Such policies
and practices in Sonadanga residential areas is manifested as less livable community. Street in KDA
Master Plan is considered as only two dimensional axis to permit only vehicular movement. Street
furniture’s, permeability with built environment to street side is never discoursed there. Though some
initiatives like street widening, tree plantation and retention of a low-height low-density fabric were as
well recommended (KDA, 1961), in practice these are limited to street widening only. No creative
discourse and mandatory rules have been declare in KDA Master Plan to livable a community through
livable street life as the scholars suggest (Jacobs, 1961, Gale, 1988). Consequently, planned
neighborhood environment has inclined to less vibrant living environment without respecting
traditional contextual ‘Para’ concept.

In the later Master Plan document for Khulna (KDA, 2002) on the other hand, declares that “in most
cases, (traditional) housing areas are mixed in nature” (KDA 2002: 31), most of their considerations
have been limited to in quantitative and inadequate delivery and shortage of infrastructure, population
density etc. The ‘car-friendly’ grid-iron layout of the modern planned residential neighborhood unit is
manifested in (Figure 10) demonstrates KDA’s intension to maximize road width and street frontage –
both of which helped sell plots at a much higher price. But whether and how street could be made livable
with a combination of nature, people and economy is really been obscured.
Furthermore, the new typology in building plan- guardroom with high boundary wall and protected
entrance is another (Fig. 6c) promoted by the prevailing building regulations and codes (KDA1961: p
26) rather create a social space adjacent to the sidewalk leading to the creation of a monotonous road
side elevation.

**Profit-oriented developing housing market**
Besides KDA’s planning policies ‘gap’, developers in housing market paly on of the actors to make die
of urban street in neighborhood. Due to their attitudes to develop the residential plot with higher price,
both professionals and land owners fall in trap to make modern neighborhood by killing subjective
qualities of street. Where they consider the street as two dimensional artery only. Building owners and
developers – both ignore the green areas in front and inside the plot, left very few (not more than 12 inch
to 18 inch in setback area), mixed land use pattern as well and only guard room based housing plan
along the street. Escalated Land price by both land owners and developers also tend to violating codes
and regulations by utilizing the maximum space within the agreed plot, for profit making (Fig.6c).
Without government control, market thus plays a key role in between client and policy and make profit
huge money from both. Similar has been evident in Sonadanga residential area where 50% property
owners among the 20 surveyed houses are already in contact with private developers to develop their
houses with less qualitative aspects of in front street qualities.

**The Architects typology and strategies of planning**
With the encouragement of profit centric market economy, the practicing architects in Khulna can be
criticized for not too involved in creating social place in planning housing layout. They also inspire
clients to design safe and prototype structures, in which the ground floor is containing the same types of
functions, (Fig.6c) (parking, services, and guardroom). Neither practitioners nor investors, nobody do
not pay the attention and adequate time in the course of project development due to fear of losing client
with small amount of fees. Nonetheless, uncritical thinking and discounting the social needs with respect
to street and building helps to make a common typology of architects.

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4 Para, is a Bengali term refers geographic and psychological sense of territory of a traditional settlement as
perceived by its inhabitants. In English it is called neighborhood is an assemblage of residential, commercial,
health, institutional, cultures and religious amenities and others.
CONCLUSION
To recapitulate, the study intended to find out the causes behind the loss of subjective qualities of urban streets in Khulna relating to the alteration of the abovementioned ‘traditional’ housing typology, as they prevail in both old and planned residential areas of Khulna. Findings reveal predominance of ‘zoning’ concept in these plans a ‘car-prioritized’ development thinking, the absence of urban planning codes, and ‘grid-pattern’ concept of urban street make the whole city as an image of ‘modern orthodox city plan’. However, city should be a social setting where subjective qualities of life ought to be enriched by promoting the acknowledgement of user friendly urban street.

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