Collage Cities: A Contemporary Reading

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Abstract

Cities since their inception are continuously being accrued by design, reconfigured by designers ,stripped of their riches by the insensitive plunderers, enriched by the builders and churned by transformative agents looking for new beginnings in old remnants and as a result have evolved as vastly different agglomerations from their predecessors. At present, various contextual changes involving functional realignment, aesthetic redefinition and emerging social, political and cultural remodifications and heterogeneity in composition and enactment have turned these cities into collages which functions as a whole through discrete patches networked by various urban connectors. Additionally, these cities are also expected to embrace the incessant demands of the new times in shining edifices but at the same time cannot forgo the lessons of past which have proved themselves invaluable for preserving their identity time and again. Under these circumstances, contemporary cities require a renewed definition which acknowledges the addition, alteration, differences and chaos they harbour and validates them as places where the old and new mingle. Motivated by this renewed insight on contemporary cities, this paper investigates the progression of cities from 'totalitarian entities' to 'agglomeration of collage fragments' where the 'strands of memory' embraces the 'ideals of prophecy'. The treatise 'Collage City' authored by 'Colin Rowe' and 'Fred Koetter' and published by MIT Press in 1978 is zeroed on as the most worthy advocate of collage city principles after literature study and various urban constructs particularly those pertaining to the dimensions of morphology, enactment and time are derived from its reading. The paper then takes up Park Street, a street in Kolkata soaked in multiple layers of history and representing the working collage of the metropolis it is situated in. The research proceeds by grading the different segments of Park Street using urban form coding, elevation coding and interview coding to discern how in spite of differential contexts and heterogeneous agencies, the said street is unified through different modes of reconciliation scripting an existence of coherence .
Keywords: agglomeration; collage city; urban construct; Park Street; Kolkata

Introduction

Contemporary cities are dynamic entities, with constant addition, alteration and transformation of constituent heterogeneous layers, which qualifies them as 'collage of conglomerations' where diverse components interact with each other to ensure its continuance and growth. The debate between whether contemporary cities should aim to be the 'Champions of time- honored places and principles' or 'Agents of modernization' (Saunders, 2009) has become a ubiquitous concern across the urban design discipline. Urban transformation is an inevitable process in today's metropolises but unlike past only begat unfairness and instability. The reason for this is twofold; firstly majority of modern cities today are 'living collages' of 'heterogeneous patches' and are shaped by unpredictable addition, alterations and transformations along with planned interventions but modes of reconciliations between these differentials are few .Secondly these cities are melting pots of differences, where by virtue of proximity, citizens are forced to confront, and adapt with their differences. So, in view of changing composition of cities and the nature of urban mechanisms, a new approach to urbanity which prioritizes the heterogeneity of agglomerations and engenders renewed urban constructs to enable

dialogue among differential paradigms and reconcile the spatial and temporal contest in future collage cities must be established .This paper strives to chart the aforesaid course.

Research Objectives

This paper first explores the emergent characteristics and discourses on contemporary cities in search of meaningful insights which validate the 'Collage' inherent in them. Urban design treatise' Collage City' authored by Colin Rowe and Fred Koetter in 1978,published by MIT Press is then taken up to derive the urban constructs suitable for reading these collage ensembles which exist as a bunch of disparate elements but functions as a single urban entity .Park street, Kolkata is next analyzed on the basis of derived urban constructs to comprehend the processes which enable the co-existence of its many heterogeneous urban stretches by   mediating the differences and dissimilarities between them.
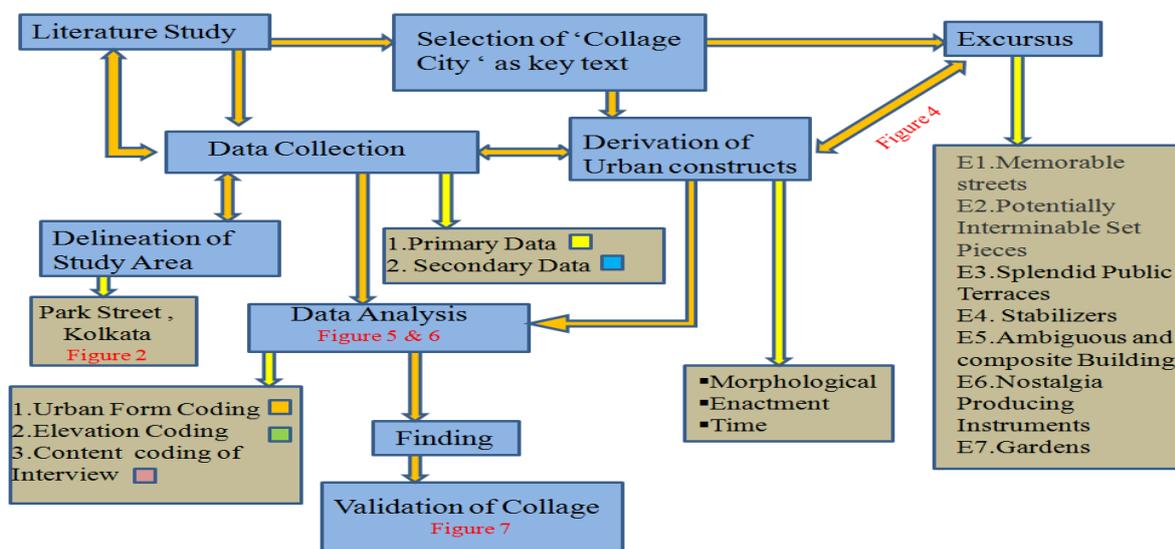
Research Outline

Figure 1: Research Outline

The research commences with literature study (
Table **1**) and selects the book 'Collage City' authored by 'Colin Rowe' and 'Fred Koetter' published by 'MIT Press' in 1978 as the guiding text. The selected text is studied in-depth to derive certain urban constructs which by designed interventions can bring in maximum impact and thus maximum desirable changes in physical and psychological environment which is the main actor in framing the urban experience. Enactment policy and processes have a very dominant say in the shaping of morphology and time constructs direct the interpretations and imagery of urbanscape which become the mainstay of our emotional attachment to place. 10 numbers of morphological constructs, 4 numbers of Enactment constructs and 4 numbers of temporal (time) constructs are thus derived which act as the theoretical mainstay of collage urbanism (Table 2).
Second important contribution of Rowe and Koetter is the ' list of excursus' presented at the concluding pages of the book 'Collage City' which are nothing but a sort of appendix comprising of examples of urban elements and images that need to inform the design paradigms of city they advocate as they say ,"We append an abridged list of stimulants, a-temporal and necessarily transcultural, as possible objets trouvés in the urbanistic collage" (Rowe & Koetter, 1978, pp. 150-176).
The research then proceeds in following stages:
(i) The correspondence between the above mentioned excursus (7 numbers referred to as Ex1 to Ex7 in the text) and the derived urban constructs is worked out as a prerequisite for deducing measurable

parameters and indicators (Table 2)**Error! Reference source not found.**. This extends the theoretical framework for the research and takes it towards operational domain.

(ii) The various measurable parameters and indicators corresponding to urban constructs which can be objectively graded based on either secondary sources or field inputs are listed characteristics which forms the primary tool of analysis. Table 5 lists down the measurable parameters (WP1 to WP6) which define 'walkability' construct. Under each parameter a list of indicators is given which is either measured through field survey or through secondary sources and is finally used to grade the urban constructs. This paper only presents parameter-indicator table for walkability construct as a representative sample of the research method as to include all 18 numbers of derived constructs in this paper will prove to be prohibitively voluminous. This stage of assigning parameters and indicators to all derived urban constructs completes the theoretical framework of this research.

(ii) Next, Part Street is chosen as the study area (the analysis leading to its selection is not presented in this paper due to paucity of space) and is divided into six stretches (S1 to S6) based on certain common characteristics as enumerated by secondary literature and field survey (Table 6). The major traffic intersections form the boundary of the stretches this logic of stretch delineation also ensures more or less equal length for all the stretches. The logic behind division of stretches is listed under section titled 'Park Street, Kolkata: Bringing Collage Urbanism into context'.

(iv) Data concerning the identified indicators is then collected and through the processes of urban form coding, elevation coding and content coding of interviews analyzed to read the degree of differences in urban constructs between these stretches. The construct are graded in four categories namely **high, moderate, low** and **non-confirmatory** (where any two grades are awarded simultaneously due to equal prevalence of contrasting attributes) according to the grading criteria developed and differential ratios of the occurrence of different urban constructs with reference to constituent stretches of Park Street are established to validate the urban collage inherent in the said urban space(Table 7,Table 8,Table 9,Table 10). Findings interpret the broad reasons behind the grades received by each urban construct thereby guiding works aimed at shaping and continuance of future collage cities.

Research Scope

It becomes necessary to clearly state the scope of this paper as at certain times it may seem that important details are skipped e.g. this paper does not go into details of site selection, data collection and analysis methods though these are as important here as in any other research. Firstly, the reason for doing so lies in the fact that the aim of this paper is to explain the broad step by step methodology of how a urban reading of a contemporary urban collage represented by Park Street, Kolkata is established based on the key text 'Collage City' (Rowe & Koetter, 1978) and rather than dwelling on every step of research design it concentrates on the progression of research stages to achieve the aim.

Secondly, this paper limits itself to drawing inferences by data analysis through urban form coding only; Elevation coding and Interview coding is out of scope of this paper.

Thirdly, many tables are presented here as a shortened version of the full with only fields related to a single or few urban constructs depicted for representation as showing full tables in all instances would lengthen the paper to a great extent.

Collage: the concept

According to online Cambridge dictionary, Collage is (the art of making) a picture in which various materials or objects, for example paper, cloth, or photographs, are stuck onto a larger surface (Cambridge Acdemic content Dictionary, n.d.) and refers to something that has been made by combining a number of very different things in incongruous relationship for their symbolic or suggestive effect (Collins English Dictionary, n.d.). All these definitions posits 'collage' either as an object or a process where disparate materials are combined together to generate a definitive whole for conveying a different meaning and thus very well relates to the contemporary urban conditions of multiciplicity, heterogeneity and continuous flux. Though 'collage' first made its formal appearance in the work of artists Braque and Picasso in the beginning

of the 20th century as an art of representation and illusion it soon transcended its limits and spread to other fields including architecture and urban design as it provided a medium to address the dissimilarities ,collisions and chaos of the real urban world through meaningful juxtapositions characterized by its capacity for change, speed, immediacy and ephemerality (Waldman, 2008).

Collage' and 'built environment': the reciprocacity

Contemporary cities today present themselves as agglomeration of rapidly transforming amorphous spaces linked together by various transportation and communication networks, merit representation as an interconnected mass of dispersed and heterogeneous components and in the process functions just like a collage made of disparate materials and mediums. Also, rapid transformation processes, involvement of multiple stakeholders in urban design and presence of multiple 'temporal' and 'impermanent' zones etc. have freed today's cities from the hold of 'totalitarian design intent' which dominated the world of urban design from the last three centuries i.e. from classical orders to modernism era and have reinstated the incremental and spontaneous interventions as the mechanism of urban growth and readjustment thereby establishing a process similar to creation of a collage. Though traces of urbanistic collage has been visible in the arena of city design since long ; stalwarts like Le Corbusier, Mies van der Rohe, Daniel Libeskind, Rem Koolhas, Archigram , Superstudio have experimented with spatial and material juxtapositions of dissimilar constructs on many occasions owing to its conceptual novelty and representational prospects but it was established as a complete concept only after Colin Rowe and Fred Koetter set out their theory of 'Collage City' in 1978 (Rowe & Koetter, 1978).In this treatise they presented the city as an aggregate of discontinuous fragments, created from a highly contested realm of disparate elements, contexts ,symbols and meanings (Shields, 2014) . By positing the built environment as a rich layering of meaning and complexity constituted through wide differences , 'Collage City' formalized the process of percolation of many attributes of 'collage' into the discipline of architecture and urbanism and thus spearheaded an urban revolution .

Out of these translations, three are of particular relevance to the discourse of 'collage urbanism' ;firstly, collage synthesizes unrelated fragments through simultaneous manipulation of spatial, material, and intellectual content and when translated to three dimensions it appears as mediated assemblage of differential morphological characteristic present in an urbanscape; secondly, collage emphasizes process over product as it emphasizes material selection, rational behind their arrangement and envisioning the results of juxtaposition which an urban scenario amounts to the process of visualizing the structure of composition and enacting it through policy and real world strategies and thirdly , A collage exists as an assembly of various materials all fragmented in haphazard way and combined to generate a composition which has a meaning entirely different from the individual fragments (Shields, 2014, p. 2) which helps in reconciling urban heterogeneities in contemporary cities.

To summarize, the art and technique of 'collage' is particularly important for architecture as it provides a container for human activities ,which are ever-changing in terms of nature, intentions, included means and since the built environment needs to accommodate this dynamism, it must alter their beings sometimes through changed functions and at other times as material entities (Shields, 2014). From this perspective, the art of collage becomes particularly useful tool for shaping the contemporary urban territories composed of differential geometric, spatial and material configurations laced by temporal layering curated through multiple visions of enactors for creating an urban realm of unique identity and presence.

Literature validating the urbanism of collage

Urban design started endorsing the idea of plurality as a reaction to totalitarian excesses of modernism since the beginning of 20th century and after the Second World War, these voices grew stronger. Various movements aimed at finding out an alternative to modernism's autocratic dictates and social dystopia started to appear many of which consolidated into major urban design discourses in their own right. Following is the summary of some important literature which played an important role in reinventing modernism and validated collage urbanism by emphasizing pluralistic thoughts and

dialectics (nature vs. automobile, political vs. social aspirations, formal vs. informal styles totalitarian vs. participatory etc) in the city design paradigm.

Table 1: Literature validating urban collage

Year	Author	Title	Concepts
1960	Lynch,K	Image of the City	Perception and organization of spatial information; mental maps; accommodating multiciplicity of images in cities and their reconciliation through construction of new meanings by the individual (Lynch, 1961).
1961	Jacobs, J	The Death and Life of American Cities	Inclusion of social binaries in urban realm, acceptance of chaos and complexity (Jacobs, 1992).
1978	Rowe, C & Koetter, F	Collage City	Pluralism as opposed to totalitarian Planning (Rowe & Koetter, 1978).
1984	Faucault, M	Of Other Spaces: Utopias and Heterotopias	Heterotopia: offers within itself multiple compartments that can hold contradictory and complementary spaces (Foucault, 1984).
1987	Delueze and Guattari	A Thousand Plateaus: Capitalism and Schizophrenia	Concept of plateau as assemblage that organizes various processes, rhizome as non-hierarchical lateral connections which are an image of multiciplicity (Deleuze & Guattari, 1987).
1991	Lefebvre, H	The Production of Space	City not a homogenous entity: play of reassembly, and creative encounters: contrasts, opposition, superposition, and juxtapositions (Lefebvre, 1974).
1992	Neutling,W	Patchwork city	City as an agglomeration of diverse patches (Neutling.J.W., 1992).
1999	Paola Vigano	La Citta Elementare	Layered bricolage and 'space body design' definer of cities (Vigano, 2013).
2001	GrahamS; Marvin	Splintering urbanism	Essence of cities is urban spheres of heterogeneous interaction and continued mixing (Graham & Marvin, 2001) .
2002	Sadler,S	Non-Plan: Essays on Freedom, Participation and Change in Modern	Implication of non-planning on urban environment. More to' Let people build the town' (Hughes & Sadler, 2013) .

		Architecture and Urbanism	
2005	Shane, D	Recombinant Urbanism: Conceptual Modelling in Architecture and Urban Design	Urban actors combine urban elements in networked cities. Concept of Enclave, Armature, and Network (Shane, 2005).
2006	Delanda, M	A New Philosophy of Society: Assemblage Theory and Social Complexity	Assemblage: two primary axes/dimensions: a material-expressive axis, and a territorializing-deterritorializing axis defined by relations of exteriority (Delanda, 2006).
2008	Lukez , P	Suburban Transformations	Place making through organic transformation of communities Hybrid Structures (Lukez, 2007).
2013	Jencks,C; Silver, N	Adhocism: The case for Improvisation	Ad hoc processes, using materials at hand to solve real-world problems, Indicative of Bricolage (Jencks & Silver, 2013).

When looked into all these impressions about modern cities and their constituent urban processes it is evident that, the cities of today are heterogeneous entities striving to be the champions of new age while at the same time looking back to tradition for anchorage , in physical as well as cognitive arena. The literature study, though presented here in brief due to paucity of space also makes it clear that the urban world of today is enacted by prurality, bricolage and incremental interventions rather than autocratic design. So, coming to the next stage of this inquiry, the treatise 'Collage City' authored by Colin Rowe and Fred Koetter which had actually traced the history of collage urbanism and predicted it as the future of cities way back in 1970'is taken up for deriving the urban design constructs which would facilitate the reading of such collage -scapes.

'Collage City': The Treatise

Collage City' authored with an agenda to provide an alternative to overcome the ills of total design promulgated by modernism suggests amalgamation of memory(tradition) and prophecy(future innovations) and a balance between unplanned and overtly planned endeavours for delivering a meaningful city (Rowe & Koetter, Collage City, 1978, p. 83). Combined methods of science and bricolage must be brought in as enactment and contextual utopias as inspiration. Architects must adopt hedgehog mentality and encourage aesthetics of discontinuity and multiple strings of thoughts (Rowe & Koetter, Collage City, 1978, p. 49) to produce solutions which can be contemporary, efficient, and flexible enough to adapt to changing times. City must be treated as a museum open to disparate stimuli and differential contexts so as to derive its form and function from borrowed fragments. Finally Collage City delivers a list of "excursus" ranging from the scale of urban streets to individual buildings which if utilized correctly and in moderation, can help effective application of the 'Collage City' proposal (Table 2). These ideas and prescriptions are the most relevant ones, when adopted, would facilitate urban cohesiveness and stability in modern conglomerations like Kolkata of course with logical contextual adjustments.

Research Design

Urban constructs derived from 'Collage City'

As described earlier in the section 'Research Outline' following urban constructs befitting the collage urbanism are derived from the reading of the book 'Collage City' (Rowe & Koetter, 1978).Urban excursuses as mentioned is the text is presented in collusion with the urban concerns they represent.

Table 2: List of Urban Constructs (derived from Collage City) and Excursus (Rowe & Koetter, 1978, pp. 150-176)

Morphological Constructs: Defining the physical Fabric(M1-M10)	Enactment Constructs :Policy making and implementation(E1-E4)	Time Constructs: Image through interpretation by breaking temporal linearity(T1-T4)	Urban Excursus and associated urban concerns
M1. Walkability	E1.Enactmnet Vision	M1.Memory as meanings	Ex1)Memorable Streets(streets)
M2.Field definition and connection	E2.Enactmnet approach	M2.Museum City	Ex2)Stabilizers(Buildings)
M3. Public/private realms	E3.Enactmnet Agency	M3.Structure and Content	Ex3)Potentially Interminable Set Pieces(Landmarks)
M4.Contextual presence	E4.Enactmnet Technique	M4.Collage	Ex4)Splendid Public Terraces(Public Spaces)
M5.Relationship between solid and void			Ex5)Ambiguous and Composite Buildings(Public-private realm)
M6.Typology			Ex6)Nostalgia Producing Instruments(Typology)
M7.Object –texture dialectic			Ex7)Gardens(Area –City Interface)
M8.Built –un-built relationship			
M9.Contribution of poche			
M10.Urban rooms			

Inquiry into urban constructs; methods of data collection and analysis

Next, determinants of each urban constructs, particular 'Collage City' excursuses through which these constructs can be measured and corresponding data collection and data analysis sources are listed.

The determinants with respect to urban constructs which aid in its understanding are derived from the study of secondary literature .Primary as well as secondary data has been collected for this research for which the following instruments were used:

Table 3: Instruments of data collection

Type of data	Instrument
1 Primary Data	Field Notes, Memos, Interviews , Observation, Photography, video recording, Audio Recording
2 Secondary date	Documentation in form of illustrations and drawings , maps, photographic documentation, ownership lists, archival data

Once the data was collected, following data analysis methods were use to measure different parameters and indicators corresponding to urban constructs;

(i) Urban form coding: Here various aspects of urban form corresponding to plots and individual buildings on both sides of Park Street in all stretches were coded in the form of 2-D maps, 3-D views, various charts and comparative tables as per the parameters identified so that corresponding indicators can be graded as high, moderate or low depending upon the grading criteria developed.

(ii) Elevation coding: Here various aspects of elevation and massing of buildings on both side of Park Street on all stretches are   analysed for the same purpose as in urban form coding.

(iii) Content coding of interviews: Interview transcripts were coded in order to interpret participants' views and experiences related to the urban constructs so as to triangulate the finding obtained from the above two data analyses methods and confirm or contradict the grading each urban construct received through above two data analyses method.

Table 4: Urban constructs and their determinants: Data collection and analysis design (Note: Only first five morphological constructs presented here for demonstration purpose)

Morphological urban constructs	Determinants(Derived from literature study)	'Collage City' Excursus (Refer Table 2)	Data Collection		Data analysis		
			1	2	3	4	5
M1.Walkability	Imageability , Enclosure, Human scale, Transparency, Complexity, Legibility, Linkage (Ewing, Handy, Brownson, Clemente, & Winston, 2006)	Ex1,Ex2	✓	✓	✓	✓	✓
M2.Field definition and connections	Enclosure quality, continuity of building edge, typology of building façade and entry, landmarks and public spaces, activity spill over pattern (Krakover, 1980; Mozuraityte, 2013; Zhang & Jacob, 2013)	Ex1,Ex2, Ex4,Ex6	✓	✗	✓	✗	✓
M3.Public - private Realms	Physical Accesibilty(spatial /visual/Social/Legal),Nature of Ownership,Degree of permeability,Topological Depth,Degree of constitutedness, Threshold Characteristics, Transparency of building facade ,Activity	Ex3,Ex4, Ex5,Ex7	✓	✓	✓	✗	✓

	Mix, Congregation points, safety, comfort, conviviality (Nes, 2008)						
M4.Contextual presence	Degree of typology mix, Presence of distinctive elements (Çizgen, 2012)	Ex2,Ex5	✓	✗	✓	✓	✓
M5. Solid -void relationship	Built Mass Ratio(Plot level/Block Level),Building typology(Solids-Public Monuments and Institution/ Predominant field of Urban Block/Edge defining Buildings; Voids-Entry Foyer-passageway between private and public/Inner block voids-semiprivate transition zones/Network of streets/squares/Parks and Gardens/Linear open Space systems) (Trancik, 1986)	Ex5,Ex7	✓	✓	✓	✓	✓

Legend-1: Primary data collection methods; 2. Secondary data collection methods; 3: Urban form coding; 4: Elevation coding; 5: Interview coding

### *Derivation of Measurable parameters and indicators for urban constructs*

In the next step, keeping the determinants in mind parameters and measurable indicators related to them were identified through secondary study. The table below lists the parameter and indicator with respect to 'walkability 'construct which serve as a representative sample. All the urban constructs were similarly ascribed suitable parameter and indicator which would enable their grading.

Table 5: Derivation of parameters and gradable indicators for each construct (Only walkability construct is presented here for demonstration purpose)

M1.Walkability					
Parameters(WP1to WP6)					
Indicators					
Plot(WP1)	Building(WP2)	Activity(WP3)	Frontage(WP4)	Accessibility :Visual/Spatial(WP5)	Convenience (WP6)
wp1) Premises with front setbacks (%)	wb1) Different Building Typologies (nos.)	wa1)Different use typology (nos.)	wf1) Premises having boundary wall (%)	wac1) Secondary through roads (%)	Wc1) Shaded footpath (%)
wp2) Premises side setbacks (%)	wb2) Historic Buildings (nos.)	wa2)People concentration spots (nos.)	wf2) Premises having opaque Boundary wall (%)	wac2) Tertiary roads through premises(nos)	wc2) Continuous footpath (%)
wp3) Premises with courtyards, signage etc to convey specific use (%)	wb3) Recognizable landmarks (nos.)	wa3)Outdoor activity points(nos.)	wa3) Transparent facades (%)	wac3) Buildings with threshold and entry on main street (%)	

wp4) Buildings with Ground and 1st floor directly abutting footpath (%)	wb4) Buildings recognizable through signboards or long standing functions(nos.)	wa4) Visually permeable premises (%)	wf4) Building with transparent full facade(nos.)	wac4)Entries from main street to the plots beyond(nos.)
wp5)Public destinations(no)		wa5) Buildings which remain populated 24 hours (%)	wf5) Part façade of the building transparent (%)	
wp6)Premises prioritizing vehicles (Garage, Petrol pumps etc)(nos.)	wb5)Nearby walkable destination (nos.)	wa6) Buildings operating till late evening hours (%)	wf6) Facades obscured by unauthorized constructions (%)	
		wa7)Spots/buildings designated for Public amenities (nos.)	wf7) Facades directly engaging passer-by (%)	

Park Street, Kolkata: Bringing Collage Urbanism into context
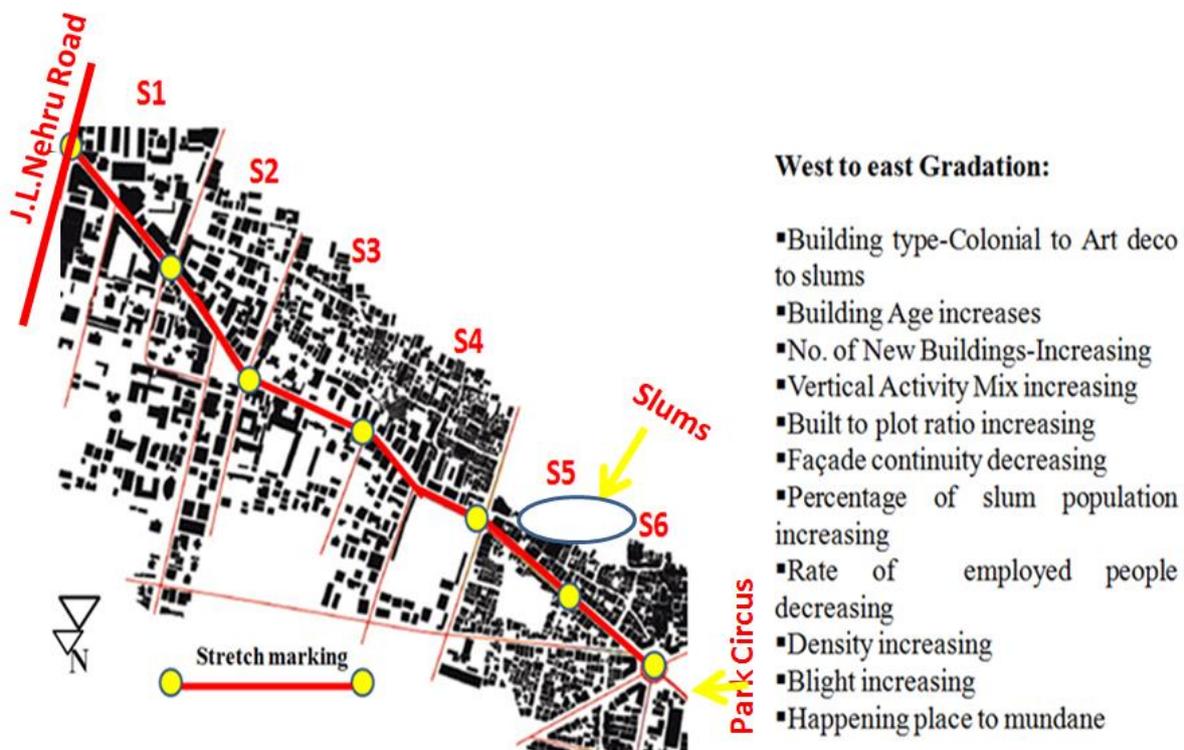
Figure 2: Park Street: The six stretches as urban collage constituents

Park Street in Kolkata is a legend in itself, the connection between two Kolkata's –'grand colonial capital' and 'the Kolkata of deprivation'. On walking down from west to east end, the prime 'good life' destination, depicting 250 years old colonial legacy slowly merges into a mundane street with decrepit structures hiding unsightly slums behind ,the remnants of refugee migration and economic low down after 1940's. The street is a mix of heterogeneity, morphological multiciplicity, different enactment paradigms and imagery and resonates with the Collage City's description of 'Collage' as' a technique for using things and simultaneously disbelieving in them, a method of dealing with in fragments complemented by different interpretations without expecting uniformity, further suggesting that collage might also support the utopian illusion of changelessness and finality(tradition)and might even fuel a reality of change, motion, action and historical transformation" (Rowe & Koetter, Collage City, 1978, p. 149). Gradation of different urban constructs is evident in the collage of different urban conditions Park Street harbours but the cognitive unity it holds inspite of multilayer constitution is astonishing which make it a suitable candidate for demonstrating the principles of collage urbanism.

Analysis of urban construct to validate the inherent collage

As mentioned earlier, Park Street is divided into six stretches (S1 to S6) for the purpose of this study. Following table explains in brief the extent of these six stretches as well as their chief characteristics related to the urban constructs being probed:

Table 6: Stretch differentiation

	Stretch 1(S1)	Stretch 2 (S2)	Stretch 3 (S3)	Stretch 4 (S4)	Stretch 5 (S5)	Stretch 6 (S6)
Boundaries	J.L.N to Rani Rashmoni road	Rani Rasmoni to Rafi Ahmed Kidwai Road	Rafi Ahmed Kidwai road to Loudon street	Loudon to AJC Bose Road	AJC Bose road to Mrigendralal Mitter road	Mrigendralal Mitter road to park Circus
Major Landmarks with historical associations	Asiatic society, Park hotel, Oxford book store, ,Queens Mansion, Apeejay house	Flury' s ,Stephen court, Park mansion, Allen park	Survey of India, St.Xavier's college, Murshidabad Nawab's house, post office, Bishop's house, church	Assembly of god Church, police station, cemetery	Shiraz Golden restaurant, Park show house	
	Colonial context	Tampered colonial context	Hybrid context with few colonial landmarks	Hybrid context with increasing modern day infills	1950's contextual reminder, Art Deco buildings; many dilapidated. Spillover of slum activities due to proximity to Park Circus	1950's contextual reminder, Art Deco buildings replaced by modern day glass

edifices

Primary typology: Colonial and Indo-Saracenic architecture	Primary typology: Colonial and Indo-Saracenic architecture tempered with modern renovations	Increased concentration of high rise modern steel and glass transparent building typology	Prevalence of high rise buildings .Only cemetery) cling on to history.	Co-existence of art deco buildings in different stages of dilapidation with modern infills; squatters, slums and shanties	Multistory modem buildings speedily replacing the old fabric
Perimeter blocks defining street edge, space definer	Number of perimeter blocks decreases and small number of buildings with setbacks introduced.	Large individual premises with institutional use	Reduction in Plot sizes and increasing building heights	Further reduction in plot sizes. Mostly G+3 buildings with retail in ground and residences above	Stand alone high rise buildings with front and side setback, space occupier
common spaces largely private with exception of permeable courtyards defined by perimeter blocks which act as urban rooms	Permeable courtyards reduced and more private common spaces introduced	Prevalence of Institutional common spaces with right of entry and forma organization, only large park of the stretch acting as a public urban room	Prevalence of Institutional common spaces with right of entry and formal organization	Streets and other pocket common spaces with free access are abundant though informally organized, intimate urban rooms	Public informal pocket common spaces are increasingly making way to privately enclosed one, urban rooms are disappearing
Low typology mixing	Low typology mixing	Moderate typology mixing	Moderate typology mixing	High typology mixing	High typology mixing

Enactment Constructs	singular enactment approach and vision ,total planning	singular enactment approach and vision intermediately interjected by infills	Singularity of enactment approach and vision reduces	Entry of pluralistic design thoughts in small scale	Prevalence of pluralistic design thoughts	Prevalence of pluralistic design thoughts
	Majority of building use: Entertainment/retail/christian religious	Majority of building use: Entertainment/retail/Christian religious	Majority of building use: Public institution and retail	Majority of building use: offices and stand alone retail/Christian religious	Majority of building use: low-end retail. dilapidated residences,slums/mosques	Majority of buildings are newly built stand alone buildings with retail in ground and offices above./mosques
Temporal Constructs	Historical association is high due to presence of a large number of heritage buildings	Historical association reduced as global cues have crept in infills	Historical association moderate	Historical association moderate	Diminished historical association and inclusion of futuristic urbanscape	futuristic infills dominate
Key Differentiators	Entertainment zone, high historical connect	Entertainment zone, high historical connect but somewhat diluted	Institutional zone, moderate historical connect	Institutional zone, moderate historical connect	Low end retail and residences, missing historical connect	Low end retail and residences , very low historical connect

These six stretches are then analyzed through urban form coding maps in four stages.

Stage-I

In this stage, stretch wise grading of different indicators corresponding to parameters which define the urban constructs are carried out (high, moderate and low) signifying different conditions of urban fabric through the gradation criteria developed.

Table 7: Grading of individual parameters based on urban form coding (Only one parameter i.e. plot –WP1) corresponding to walkability construct is presented here for demonstration purpose)

Indicators for Plot (WP1)Parameter	S1	S2	S 3	S4	S5	S6	Gradation Criteria(Based on Boundary condition)		
							Low (L)	Moderate (M)	High (H)
wp1. Premises with front setbacks (%)	17	8	44	61	25	9	>66	66-33	<33
	H	H	M	M	H	H			
wp2. Premises with side setbacks (%)	50	42	100	83	88	78	>66	66-33	<33
	M	M	L	L	L	L			
wp3. Premises with courtyards, signage to convey specific use	83	92	56	6	25	86	<33	33-66	>66
	H	H	M	L	L	H			
wp4. Buildings whose Ground and 1st floor directly abut footpath (%)	92	68	42	29	95	96	<33	33-66	>66
	H	H	M	L	H	H			
wp5.Public destination(nos.)	5	6	6	2	1	0	0-2	3-4	5-6
	H	H	H	L	L	L			
wp6.Premises prioritizing vehicles (nos.)	0	1	4	2	0	0	3-4	1-2	< 0
	H	M	L	M	H	H			

Stage –II

In this stage, the final grade of individual parameter is worked out based on number of indicators achieving the particular grade according to the gradation criteria developed followed by the intra parameter comparison where final assimilted grade of related urban construct is worked out through stretchwise compilaton.

Table 8: Derivation of final grade of parameters (Only one parameter i.e. plot corresponding to walkability construct is presented here for demonstration purpose)

M1.Walkability Construct Final Grade						
Parameters	S1	S2	S3	S4	S5	S6
Plot(WP1)	H	H	M-L(NC)	L	NC	H
Building(WP2)	H	H	H	H-L(NC)	L	H
Activity(WP3)	H	H	M	M	L	H
Frontage(WP4)	H	H	L	M-L(NC)	L	L
Access(WP5)	H	M	M	H	H	H
Convenience(WP6)	H	H	M	M	L	L
Assimilated grade of Walkability construct	H	H	M	M-L(NC)	L	H

Legend: H-High, M-Moderate, L-Low, NC-Non-confirmatory

Stage-III

In this stage all assimilited constructs of a particular stretch is listed . Below table presents all urban constructs of Stretch 1(S1) are presented.

Table 9: Grading Received by Urban Constructs of Stretch 1(S1)

Urban Constructs	Stretch 1(S1)

Walkabilty	H
Field definition/ connection	H
Public-Private Realm	H
Contextual presence	H
Solid-Void relationship	H:Space Definer
Typological merging	L:Distinct
Object-Texture Interaction	H:Texture oriented
Built-Unbuilt relationship	H:complementary/merged
Poche integration	H
Urban room	H

Legend: H-High, M-Moderate, L-Low

Stage-IV

In the fourth level, the intra stretch construct comparison is undertaken in order to estblish the different urban conditions that prevail in different stretches.The gradation here are interpreted in terms derived from Collage city treatise.

Table 10: Intra stretch construct Comparison: The collage objectified

Morphological constructs :Final Gradation						
Urban Constructs	**S1**	**S2**	**S3**	**S4**	**S5**	**S6**
Walkabilty	H	H	M	M to L	L	H
Field definition/ connection	H	H	M	M	L	L
Public-Private Realm	H	H	M	M to L(NC)	H to L(NC)	L
Contextual presence	H	H	M	M	H	H
Solid-Void relationship	H:Space Definer	H-L(NC)	M	M	M-L(NC)	L:Space Occupier
Typological merging	L:Distinct	M	M	M	M-L(NC)	H:Non-distinct
Object-Texture Interaction	H:Texture oriented	H:Texture oriented	H to L(NC)	H to L(NC)	L: object oriented	L:Object oriented
Built-Unbuilt relationship	H:complementary/merged	M: Increased disconnect	M: Increased disconnect	M to L (NC)	L:High disconnect	L:High disconnect
Poche integration	H	H-L(NC)	M	M	M-l(NC)	L
Urban room	H	H	L	M	H	H

Legend: H-High, M-Moderate, L-Low, NC-Non-confirmatory

Findings

The ten constructs show marked gradation from S1 to S2 and in certain cases their grading becomes non-confirmatory due to contradictory interpretations of grade received.

M1.Walkability decreases as we go from S1 to S5 but once again increases on reaching S6.Walkability is high in S1and S2 due to presence of large perimeter blocks which are permeable as well as provide a lot of street front interaction through direct openings on street. Imageability of S1 to S4 is high due to presence of a large number of heritage premises and buildings which aids walkability. In S5 due to spill-over of slum population and their activity which exist in the vicinity is detrimental to walkability .In S6 the trend is reversed and walkability is rated as 'high' again due to a large number of ground floor premises opening on street directly enhancing public-private interaction, numerous activity spots like small eating joints, tea stalls etc. on street and drastic increase in public connectivity.

M2.Field definition and connection reduces as one travels from S1 to S6 as single use large premises reduce and small shops without any identity takes over the street front creating unrecognizable and unmarked spaces.

M3. Quality of Public-private realm similarly reduces from S1 To S6 as buildings providing public access reduce, front setback increases and edge interaction with premises decreases progressively. Also the percentage of public functions like retail, eateries and institutions reduces as we approach S6 with the last stretch being majorly residential.S4 and S5 in fact depicts non-confirmatory results as inspite of increase in private premises streets display a lot of public activities thereby bringing in an undecidable factor in grading it.

M4.Contextual presence of S1 and S2 is high due to the presence of a large number of heritage and historical premises whereas S5 and S6 are increasingly aligned to contemporary building styles which again strengthens the contextual references in these stretches, albeit a little differently.S3 and S4's context is mixed up due to constant conflict between historical affiliations and contemporary developmental pressures and thus have very low contextual identity.

M5.Solid-Void relationship changes from space definer to space occupier as one progress from S1 to S6 as the perimeter blocks occupying large plots give away to individual buildings with setbacks. So, the premises and buildings which defined spaces in the form of courtyards ar linear activity zones are increasingly being replaced by gated premises and individual buildings as the stretches advance. In S2 and S5 both trends are equally visible giving them a non-confirmatory status.

M6.Typological merging happens when different typology co-exist together such that their distinctiveness is merged through function, aesthetics or any other means.S1 has low level of merging due to presence of a few distinct premises and buildings but distinctiveness reduces as one approaches S6.The number of plots increases, their sizes decrease as well as they all turn towards similar massing, elevational treatment and functions there by resulting in high typological merging in S6.Equal number of distinct and merged premise in S6 Is the reason for its a non-confirmatory status with reference to this construct.

M7.An inquiry into object-texture interaction leads to the finding that S1, S2 are highly texture oriented due to presence of many old buildings and premises but S5 and S6 are predominantly object oriented as new constructions do not respect the textural integrity and have totally neglected the textural determinants.

M8.Similarly built and un-built spaces complement each other to a large degree in S1 and S2 but get completely disconnected from each other as one progress towards S6.

M9.Poche integration is high in S1 due to permeable and connected premises but reduces towards S6 as number of gated buildings increase.S2 has non-confirmatory results as it has undergone maximum instances of poche disfiguration owing to renovations of old buildings in recent times.

M10.Quality and number of urban rooms is high in S1,S2,S5 and S6 as these stretches have predominance of retail and eatery ,maximum ground floors opening to street edge, active frontage, spill over activities though the basic nature of these stretches differ from each other. S1, S2 hosts middle to high class urban citizens who frequent the relatively costly shops, eateries etc and hence has formal urban rooms which act as formal meeting places whereas S5 and S6 has highly informal urban rooms frequented by lower classes of people who reside in its immediate vicinity.S4 and S5 has lower number of urban rooms as most are institutions with limited public access separated from road through large setbacks.

Conclusions

The paper illustrates the differential urban constructs in six different stretches of Park street in the form of combination of systematic and arbitrary gradation as we one from J. L. N. Road from the west to Park Circus in the eastern part of the city .It conclusively proves that inspite of heterogeneous composition of contiguous patches, fragmentary typologies , plural imageries and different enactment capacities Park Street commands respect and position as a combined whole in the city of Kolkata.

This paper makes a beginning in deciphering cities which exist as a mosaic of fractured elements but still provides linked urban imagery through a renewed reading and appropriates the result of fragmentary condition as an urban design tool to be enacted with a bricoleur mentality. 'Collage Urbanism' must be embraced in design circles as it has unparallel capacity to a facilitate mediation in urban environments where everyday heterogeneity and flux is routinely forwarded and enhanced through multiciplicity of spatial use and vigorous erosion and addition of time residues so that architecture can graduate from a mere spatial abstraction to a lived situation actualizing the desired ambience and metaphor.

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