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Contextualism : An Approach To Achieve Architectural Identity And Continuity

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Abstract: ***Contextualism is an important paradigm in architectural education and practice based research. Context in architecture refers to the surroundings or setting in which the building is placed. In doing so, architectural cues derived from the context play an important role in creating architectural vocabulary. The changing dynamics of society is forcing designers to think beyond the locals. In the process, new development is fulfilling the demands of the society, but at the same time it is generating the sense of placelessness. Traditional built forms as physical context and social anchorage are remaining only as a backdrop for urban development. In such situation, lack of sense of place, identity and continuity are the major challenges in proposing architectural language. Various theories and approaches have been suggested to address the issue. This paper is an attempt to provide an approach of contextualism to maintain architectural identity and continuity of a place. The paper also verifies different strategies to the conserve historic context of a place and methodologies for responding to it logically in the present context. Here contextualism is seen as an approach to conserve our indigenous way of life by continuing the identity of the traditional urban landscape.***

Keywords: Contextualism, Traditional Built forms, identity and continuity, traditional urban landscape, conservation.

I. INTRODUCTION

Tradition is defined as a legacy of customs and beliefs that passed from one generation to another. In architecture, it is defined as the character that evolved through generations over the period of time with local parameters. The architecture that is suited to local conditions in terms of local skill, materials and technologies in response to the local socio-cultural fabric is referred as traditional architecture. The physical environment along with people, art, customs, rituals, beliefs, tradition and topography contribute in creating the traditional landscape.

Civilizations are formed with this basic understanding of the environment and is growing as per changing demands of the society. Hence every city has its traditional landscape amidst of modern development. The traditional urban landscapes are under great pressure due to the globalization and the cities are witnessing the loss of identity and continuity. The 'sense of place' once associated with these is losing its significance and environment is facing the problem of lack of *genius loci* . Various attempts were made and are under consideration to 'think global and act local' but designers are still under the dilemma as no set procedure or a framework is established that would aid in responding to the surrounding logically.

The context is referred as the surrounding in which the building is placed. Traditional context depicts the traditional 'identity giving' surroundings and acts as anchorage for the society. Insensible approach would result in the architecture of volumes and masses. This would pose a major challenge in creating 'holistic' living environment. In India, every city has rich traditional landscape and is under tremendous pressure of development. Respecting the past and responding to the future appropriately by creating meaningful environment is like conserving identity and continuity. It is important to understand the sensitivity required to deal with this issue along with the factors associated in giving the feeling of 'sense of place' and 'identity'. For this one needs to understand the spirit of the place and context so as to achieve coherence in terms of it's surrounding.

II. GENIUS LOCI

The man can orient and identify himself while dwelling when he experiences a meaningful environment which constitute 'a place' A place is a space which has distinct character. The sense of the place is a feeling of belongingness and familiarity towards the living environment. The environment which promotes this feeling consists of the natural and physical environment along with its tangible and intangible attributes. In Indian context, *Mayamatam*, (Mayamuni, 1994) elaborates on the 'place' and its character to dwell. In other countries also there are various concepts regarding this. The *Genius Loci* (Roman concept) or spirit of the place has been recognized as a concrete reality man has to face and come to terms with in his daily life. (Schulz, 1980) It is this spirit that gives life to the manmade environment. The relationship of man with his environment depends upon the experiences that identify the place. Kevin Lynch describes the concept of the image of a place through orientation using 'edges', 'path', 'node', 'landmarks' and 'districts'. A good environmental image gives its possessor an important sense of emotional security. (Lynch, 1960) The spatial organization supports in formation of this environmental image. The spatial organization and spatial character in terms of its enclosure provides distinctive quality to the place. An environmental image should have such quality in which one should 'feel at home' without the feeling of 'getting lost'. Only meaningful environment can evoke such feeling. Such quality is built over the period of time and every element of environment contributes in that.

A. IDENTITY AND CONTINUITY

Every settlement has its own evolution pattern. The structures built during various stages of evolution of the society are the physical manifestation of the aspirations of the people. It gives 'identity' to the place. Identity, is a process and not a found object (Correa C.1983). In this sense, identity is dynamic in nature and it is continuously evolving. The traces which are left by the civilizations in the form of culture, societal aspects, behavioural pattern, knowing ourselves and our environment gets developed into an identity. An identity is always context specific. Thinking away from context ends at unfamiliarity.

The identity of a place is determined by its location, the general spatial organization and characterizing articulation. (Schulz, 1980) These are the objects of man's orientation and identification. Sometimes, any one of these factors dominates other two in giving the identity to a place. If the *genius loci* of such places is understood, the identity can be strengthen and continued. The identity is evolved through generations, it cannot be fabricated in a short time and hence it is dynamic in nature. To respond to such identity, one needs to examine its true spirit so as to achieve continuity. Continuity of identity is an important aspect while addressing the issue of contextualism.

B. CONTEXT AND CONTEXTUALISM

Human beings are contextual by nature and hence architecture should refer to the context of his existence. In architecture, contexts are seen as tangible and intangible attributes of the surrounding. Geographical location, climate, material and technology form the tangible attributes whereas the social, cultural and religious setup of society form intangible attributes. Together they affect built forms. Resultant physical surrounding with the evolved architectural character forms the architectural context for the new development. In theory, contextualism is defined as an approach of design wherein modern building types are harmonised with urban forms usual to a traditional city. In its true sense, it is not just the co-existence of new development in traditional surrounding, but it is about maintaining congruence and continuity. It is referred as a method of incorporating new build forms tended to respect the architectural heritage by understanding its true essence. Apart from the visual perception; the spatial configuration and meaning of building elements also reflect the true spirit of the structure and place. A design approach based on contextualism refers to architecture of conformity.

Contextualism is an important paradigm in architectural education and practice based research. Context in architecture refers to the setting with all its aspects in which the building is placed. In doing so, architectural cues derived from the context play an important role in creating architectural vocabulary. Merging architecture with the surroundings to respond to the identity as oppose to individualism needs sensitivity and conservative approach. In this economy driven society, architecture is often considered as a status symbol. At times the structures are designed to stand out in the surrounding purposefully to pamper the elite. Such structures then become the context to the adjacent development and in this process loses its placeness which is a major architectural concern. Lack of identity and lack of continuity separate out the traditional core from new development in terms of its peculiarities. Old towns and settlements (historic and traditional built forms)provide the framework from which one can discover the right way or process. Through this; a link can be established between social and physical aspects of the environment. (Alexande C. 1979)

India has varied vernacular architecture which is related to environmental contexts and available resources. They are customarily owner or community built, utilizing traditional technologies. According to Oliver, all forms of vernacular architecture are built to meet specific needs, accommodating values, economies and ways of life of the cultures that produce them.(Oliver, 2006) There are various approaches, concepts and theories that define man's relationship with his surroundings and advocates contextual architecture.

III. TRADITIONAL URBAN LANDSCAPE AND THE PRESENT SCENARIO

The issue of contextualism is well discussed and debated upon for traditional context. The varied responses are seen to address the issue. In most of the cases, modern interpretation

IJIRAS

of traditional architecture is evident to maintain identity and continuity, but there is no explicit theory or design procedures proposed for building new. The present scenario put forward the issue of individualism versus traditionalism and more stress is given to self- identity rather than community identity. In this era of universal appeal, traditional urban landscapes are losing their significance because of lack of know-how of its role in evolution of society. It is very important to understand its relevance in further development to maintain the 'living' environment

Every city has its own historical background with its history of evolution and the built structures that show this transition from one stage to another. The structures which speak about the layers of history, layers of change, layers of aspirations become historic structures and are referred as historic context. These historical built structures form the physical environment for further development. The physical environment which depicts local skills, local materials and local technologies become traditional landscape. Every city has such traditional landscape in the form of the traditional core which is the evidence of the legacy that leaves behind by gone generations. It gives identity to a place, which is very important for human existence. India is having more than 5000 years of historical background and is considered as a major centre of the knowledge base, values and time tested traditions. In such situation, it is of prime importance to conserve our tradition so as to maintain our identity.

A. IMPACT OF CHANGE AND SENSE OF PLACELESSNESS

Indian cities are witnessing the impact of change and it is getting reflected into architecture produced which is of universal appeal. In understanding the issue of identity and continuity of the traditional urban landscape, the main challenge is to preserve the identity of a place amidst pressure of practical, social and cultural changes. Preservation of *genius loci* of a place in this changing functional demands require deep understanding of the constituent factors.

The traditional settlements are characterised by a spatial organization and character derived from local parameters. The quality of the environment provides life to these spaces. With the globalization and technological advancement, these settlements have undergone tremendous change in terms of their quality of enclosure and spatial relationships. This disrupts the identity and coherence of the place. If the response to change is not in accordance with the *genius loci* of a place, then it loses its identity resulting into the sense of placelessness or loss of place. The loss of meaning and character results into the loss of identity and continuity of traditional urban landscape.

Respecting the spirit of a place does not mean copying the traditional elements but to determine the identity of a place and interpret it in a new way so as to make change meaningful. Local typicalities once understood can be interpreted keeping the essence of it as it is.

IV. ARCHITECTURE OF CONGRUENCE

John Warren (Warren, 1998) poses the question, *Who owns the past?* Over time, guardians of quality and tradition have moved from individual landowner to the community. In this modern society, it is the responsibility of designers to be sensitive to the wider ownership of the traditional and historic landscape to maintain the sense of place. Robert Adam said that traditions are often invented or improved to protect changes or make them respectable. (Adam, 1998) In safeguarding the traditional urban landscape, it is necessary to respect it and at the same time, the surrounding development should be in continuation with the existing.

The traditional urban landscape approach moves beyond the preservation of the physical environment and focuses on the entire human environment with all of its tangible and intangible qualities. It seeks to increase the sustainability of planning and design interventions by taking into account the existing built environment, intangible heritage, cultural diversity, socio-economic and environmental factors along with local community values (Recommendation on the Historic Urban Landscape, including a glossary of definitions, 10 November 2011). Recent development shows a lot of concern for designing in the historic and traditional context and there are varied approaches of response.

- ✓ No cognizance of existing built form: This egoistic approach often adopts the popular trend of architecture without respecting existing surrounding built fabric. This results in isolation of structure and sudden departure from the existing architectural language.
- ✓ Deep understanding of a place: Without being methodological, this approach suggests intuitive architecture, deep understanding of individual and response with experience. This approach may end up into individualism and may remain subjective.
- ✓ Study of context methodologically (contextualism) and search for an appropriate architecture: The approach suggest the methodological study of context in detail to identify its true essence and further designing with its appropriate interpretation to achieve identity and continuity.
- ✓ Participatory approach: The main emphasis is given to users' participation to respond to their surroundings. The users' perception in identifying familiarity becomes essential and sometimes may lead nowhere.

A. EXISTING STRATEGIES

Different strategies are adopted to preserve the traditional urban landscape. For new development, it is in purview of designers to respond to the situation and is subjective in nature. Hence, varied strategies are seen and no particular procedure is followed, but there are some common methods adopted to ensure the preservation of traditional urban landscape.

CONSERVATION: Conservation is one such approach adopted to protect traditional urban landscape from losing its identity. It ensures the conservation of the character of the place in terms of scale & proportion, spatial organization and

IJIRAS

articulation. It talks about existing architectural language and its conservation.

CONTROL POLICY: Authorities have framed various rules, regulations, and design guidelines for new development in traditional areas to achieve coherence. The strategy is to control the quality of the environment which is being developed newly to retain the significance of the place.

Existing strategies are mainly to conserve the environmental quality of the traditional landscape and to guide for new development. The design guidelines do not ensure the feeling of 'sense of place' as the factors associated with it are interpreted differently by different designers.

B. NEED OF METHODOLOGICAL APPROACH

Reflecting character of a place has always been a major concern for designers while responding to a context. The structure of a place is analysed by means of the categories, 'space' and ' character', whereas 'space' denotes the three dimensional organization of the elements which make up a place,' character' denotes the general 'atmosphere' which is the most comprehensive property of any place. (Norberg-Schulz C.1980). Character of a built form is defined in terms of its structure, its material, its proportionating system, its visual appearance, its spatial organization and its relationship with neighbouring structures. Fundamentally, the fitting of a new building in an existing setup is not only communicated through the external appearance of the structure but also its language. The language here becomes the cue for new development. One needs to understand the language first to respond to existing build context to achieve congruence.

There is no set procedure or a framework which would aid the designer in generating the physical environment that would address the issue of identity and continuity. Hence, there is a need for a logical methodology that would act as a tool to ensure the contextual design approach.

V. METHODOLOGY

Architectural character is defined as the peculiar qualities of composition which conveys the meaning and purpose for which the building is intended. The existing built form character needs to be analysed first to derive cues for achieving architectural continuity. Here the architectural continuity is defined as uninterrupted or unchanged character. There are varied methods to analyse existing architectural style. Cliff Moughtin in book, 'Urban Design: Methods and Techniques', (1999), suggested three aspects of analysis of urban environment; legibility, permeability and visual study. Visual analysis according to him can be carried out in three ways, the study of 3 dimension, the study of 2 dimensions and study of architectural details which give special character to the area.

The methodological approach consists of identification of attributes for visual character, spatial character and building elements based on the researcher's observation. Identified attributes for visual and spatial characters are based on the theoretical underpinning and through the survey, building elements employed for character articulation are identified. Visual attributes identified are symmetry, similarity, repetition, scale& proportion, materials, color, texture and symbols and the spatial attributes are proximity, the degree of enclosure, configuration, built to unbuilt ratio, spatial character, linkages and orientation.

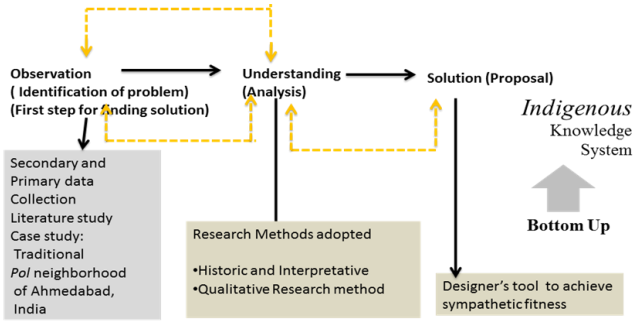

Figure 1: Research Methodology

The understanding of the architectural style is gained through analysis using historic interpretative and qualitative research methods.(Ref. Fig. 1)

The measurement instrument adopted to quantify observation and its interpretation, is Semantic Differential. This technique to measure meaning is developed by Osgood, Suci and Tannenbaum(1957) It consists of polar adjectives such as ' simple- complex' and it is 7 - point scale. Middle value 4 is considered to be the neutral, values lower than 4 are on lesser side while values more than 4 are on higher side. Analysis is carried out in a methodological way which would aid in taking design decisions for new development. This paper suggests a comparative approach of traditional reference as 'identity giving entity' to the architectural language of new development. The findings would suggest the degree of coherence of new development to existing as well as the proposed built form.

VI. CASE STUDY: TRADITIONAL POL NEIGHBOURHOOD, AHMEDABAD, INDIA

Situated in a hot and dry climatic zone, on Latitude 23 deg.00' Longitude 72deg. 35' Ahmedabad; one of the largest city in the state of Gujarat, India was founded by Sultan Ahmed Shah in 1411. It is situated on the banks of the river Sabarmati. The old city is located on the eastern bank of the river and characterised by more than 300 traditional *pols*. A *pol* (pronounced as pole) is a dense housing cluster of a traditional core of an old city (known as the walled city) which comprises many families of a particular group formed by religion, occupation or caste.(Ubbelohde & Loisos, n.d.) (Ref. Fig. 2,3,4) The word '*pol*' is derived from a Sanskrit word' *pratoli*' meaning 'gate' or 'entrance' to an enclosed area. The area is characterised by peculiar architectural language in terms of house form and elements used.(Ref. Fig. 5,6,7)

IJIRAS

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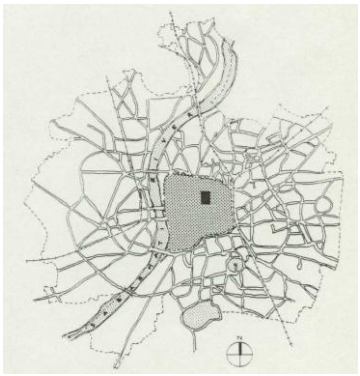

Figure 2: Ahmedabad map showing walled city
(Source: Ubbelohde & Loisos, n.d.)

Figure 3: The dense pol neighborhood
(Source: Pandya Y. 1997)

Figure 4: Dense pol neighborhood
(Source: Pandya Y. 1997)

Figure 5:Pol facade
(Source: Author)

Figure 6: Brackets in pol house façade
(Source: Author)

Figure 7: The typical otla space of pol house
(Source: Author)

The walled city is undergoing through tremendous economic pressure because of its central location and high land value. As a result, many traditional houses are under threat. Every day, few structures are getting demolished and new constructions are coming up in the form of modern flat schemes. Because of increases in commercial activities, many residential structures are converting to commercial use. Commercialization and rapid change make the area vulnerable to encroachment, traffic congestion, insufficient infrastructure and migration of people from traditional settlement to other parts of the city.

With the increasing speed of development, the *pol* area is facing the major threat in the form of loss of identity and continuity. Traditional house form and settlement pattern have been demolished and replaced by new construction. This resulted into loss of value of traditional fabric. Erosion of sense of community leads to disintegration of sense of place and loss of identity. Urban insertion in the form of 'modern' structure leads to the imbalance of architectural harmony of the place. (Ref. Fig. 8 & 9) This imbalance is evident through the change in traditional visual character, spatial organization, change in characteristic elements and change in scale and proportions. Conserving and preserving the identity of the traditional urban landscape and framing control rules for new development is normally adopted strategy. The issues of new development, in-fill development and its fitness in the existing traditional landscape is still a major concern.

The paper presents the study of traditional pol houses as an integral element of traditional settlement. The analysis of architectural character is carried out as per identified attributes

IJIRAS

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to propose the approach for maintaining architectural identity and continuity.

A. SURVEY

Primary survey of the traditional *pol* neighborhood is carried out to analyze the existing architectural character. The researcher's own observations based on literature findings are recorded on the semantic scale. Here the scaling represents the characteristic which are

Figure 8: New development in pol area (Source: Author)

Figure 9: New development in pol area (Source: Author)

peculiar to *pol* neighborhood; it does not represents any specific house plan. Survey is conducted in the area to scale the predominantly observed architectural character. (Ref. Table 1, 2& 3) Three *pol* areas were surveyed with three to five house types in each *pol* cluster.

Symmetry

1	2	3	4	5	6	7
asymmetrical	Quite low symmetrical	Slightly low axial symmetry	Axial symmetry	Slightly more Axial symmetry	Bi axial symmetry	Multi axial symmetry

Similarity

1	2	3	4	5	6	7
Dissimilarity	Quite low similarity	Slightly low similarity	Similarity	Slightly more similarity	Quite high similarity	replication

Repetition

1	2	3	4	5	6	7
Uniqueness	Quite low repetition	Slightly low repetition	repetition	Slightly more repetition	Quite more repetition	Copied as it is

Scale and proportion

1	2	3	4	5	6	7
miniature	Quite low diminished	Slightly low diminished	Human scale	Slightly more exaggerated	Quite more exaggerated	monumental

Material

1	2	3	4	5	6	7
Totally natural	Quite less man made than natural	Slightly less man made than natural	Uniform material	Slightly more manmade than natural	Quite more manmade than natural	Totally man made

Colour

1	2	3	4	5	6	7
Merged with surrounding	Quite more merged	Slightly more merged	Neither Merged nor contrasting	Slightly more contrasting	Quite more contrasting	contrasting

Texture

1	2	3	4	5	6	7
Natural	Quite more natural	Slightly more natural	Neither natural nor artificial	Slightly more artificial	Quite more artificial	artificial

Symbols

1	2	3	4	5	6	7
Total absence of symbols	Quite less visible	Slight meaning is taken	Symbols taken as it is	Slight re interpretation	Quite visible reinterpretation	Total reinterpretation of symbols

Table 1: Scaling of visual attributes of typical houses in pol neighbourhood

Proximity

1	2	3	4	5	6	7
Totally merged	Quite more merged	Slightly more merged	Neither scattered nor merged	Slightly more scattered	Quite more scattered	Totally scattered

Degree of enclosure

1	2	3	4	5	6	7
Low degree of enclosure	Quite low degree of enclosure	Slightly low degree of enclosure	Neither high nor low degree of enclosure	Slightly high degree of enclosure	Quite high degree of enclosure	High degree of enclosure

Symmetry and axial configuration

1	2	3	4	5	6
asymmetrical	Quite low symmetrical	Slightly low symmetrical	Neither symmetrical nor asymmetrical	Slightly high symmetrical	Quite high symmetri

Built to unbuilt ratio

1	2	3	4	5	6	7
20: 80	30 :70	40 :60	50 :50	60 :40	70 :30	80 :20

Spatial character

1	2	3	4	5	6	7
Totally organic	Quite more organic	Slightly more organic	Neither organic nor planned	Slightly more planned	Quite more planned	Totally planned

IJIRAS

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Linkages

1	2	3	4	5	6	7
Totally linked	Quite more linked	Slightly more linked	Neither totally linked nor totally segregated	Slightly more segregated	Quite more segregated	Totally segregated

Orientation

1	2	3	4	5	6	7
Parallel to approach road	Quite more towards parallel	Slightly more towards parall el	Neither perpendicular nor parallel to approach road	Slightly more towards perpendicular	Quite more towards perpendicular	Perpendicular to approach road

Table 2: Scaling of spatial attributes of typical house plans in the pol neighbourhood

Floors

1	2	3	4	5	6	7
Totally natural	Quite more natural	Slightly more natural	Neither modulated nor natural	Slightly more man made	Quite more man made	Totally man made

Roof

1	2	3	4	5	6	7
Open to sky	Semi covered roofs	Inclined roofs	Flat roofs	Combination of flat and inclined	Totally curved	Long span roofs

Wall

1	2	3	4	5	6	7
Low height walls	perforated walls	Perforated and solid walls	Conventional masonry walls	Curved/inclined masonry walls	Partition walls	Transparent walls

Column

1	2	3	4	5	6	7
Purely structural	Quite more structural	Slightly more structural	Purely structural as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Arches

1	2	3	4	5	6	7
Purely functional	Quite more functional	Slightly more functional	Purely functional as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Brackets

1	2	3	4	5	6	7
Purely functional	Quite more functional	Slightly more functional	Purely functional as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Buttresses

1	2	3	4	5	6	7
Purely functional	Quite more functional	Slightly more functional	Purely functional as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Projected balconies

1	2	3	4	5	6	7
Purely functional	Quite more functional	Slightly more functional	Purely functional as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Courtyard

1	2	3	4	5	6	7
Width : Height 1: 4	Width : Height 1: 3	Width : Height 1: 2	Width : Height 1: 1	Width : Height 2: 1	Width : Height 3: 1	Width : Height 4: 1

Staircase

1	2	3	4	5	6	7
Purely functional	Quite more functional	Slightly more functional	Purely functional as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Fenestrations

1	2	3	4	5	6	7
Purely functional	Quite more functional	Slightly more functional	Purely functional as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Screens/Jali

1	2	3	4	5	6	7
Purely functional	Quite more functional	Slightly more functional	Purely functional as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Jharokhas

1	2	3	4	5	6	7
Purely functional	Quite more functional	Slightly more functional	Purely functional as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Chajjas

1	2	3	4	5	6	7
Purely functional	Quite more functional	Slightly more functional	Purely functional as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Fins

1	2	3	4	5	6	7
Purely functional	Quite more functional	Slightly more functional	Purely functional as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Railing

1	2	3	4	5	6	7
Purely functional	Quite more functional	Slightly more functional	Purely functional as well as aesthetic	Slightly more aesthetic	Quite more aesthetic	Purely aesthetic

Table 3: Scaling of building elements employed in typical house according to their attributes in pol neighbourhood

Similar scaling is carried out for an in-fill 'modern' house which is constructed after demolition of the traditional house.

B. ANALYSIS

Analysis of the observed character is carried out by arranging the scales for all attributes in such a way that *pol* neighbourhood characters are grouped together. The architectural character of the *pol* neighbourhood can be easily mapped as reference. The reference character shows the

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existing visual and spatial characters along with the attributes of building elements used. (Ref. Table 4, 5 & 6)

Symmetry					1 asymmetrical	2 Quite low symmetrical	3 Slightly low axial symmetry	4 Axial symmetry	5 Slightly more Axial symmetry	6 Bia axial symmetry	7 Multi axial symmetry			
Similarity	1 Dissimilarity	2 Quite low similarity	3 Slightly low similarity	4 Similarity	5 Slightly more similarity	6 Quite high similarity	7 replication							
Repetition		1 Uniqueness	2 Quite low repetition	3 Slightly low repetition	4 repetition	5 Slightly more repetition	6 Quite more repetition	7 Copied as it is						
Scale & proportion			1 miniature	2 Quite low diminished	3 Slightly low diminished	4 Human scale	5 Slightly more exaggerated	6 Quite more exaggerated	7 monumental					
Material			1 Totally natural	2 Quite less man made than natural	3 Slightly less man made than natural	4 Uniform material	5 Slightly more manmade than natural	6 Quite more manmade than natural	7 Totally man made					
Color				1 Merged with surrounding	2 Quite more merged	3 Slightly more merged	4 Neither Merged nor contrasting	5 Slightly more contrasting	6 Quite more contrasting	7 contrasting				
Texture					1 Natural	2 Quite more natural	3 Slightly more natural	4 Neither natural nor artificial	5 Slightly more artificial	6 Quite more artificial	7 artificial			
Symbols		1 Total absence of symbols	2 Quite less visible	3 Slight meaningic taken	4 Symbols taken as it is	5 Slight re interpretation	6 Quite visible reinterpretation	7 Total reinterpretation of symbols						

Table 4: Visual Character mapping as the reference for pol neighbourhood

Proximity					1 Totally merged	2 Quite more merged	3 Slightly more merged	4 Neither scattered nor merged	5 Slightly more scattered	6 Quite more scattered	7 Totally scattered			
Degree of enclosure	1 Low degree of enclosure	2 Quite low degree of enclosure	3 Slightly low degree of enclosure	4 Neither high nor low degree of enclosure	5 Slightly high degree of enclosure	6 Quite high degree of enclosure	7 High degree of enclosure							
Configuration				1 asymmetrical	2 Quite low symmetrical	3 Slightly low symmetrical	4 Neither symmetrical nor asymmetrical	5 Slightly high symmetrical	6 Quite high symmetrical	7 Multi axial symmetry				
Built: Unbuilt	1 20: 80	2 30:70	3 40:60	4 50:50	5 60:40	6 70:30	7 80:20							
Spatial			1 Totally organic	2 Quite more organic	3 Slightly more organic	4 Neither organic nor planned	5 Slightly more planned	6 Quite more planned	7 Totally planned					
Linkages						1 Totally linked	2 Quite more linked	3 Slightly more linked	4 Neither totally linked nor totally segregated	5 Slightly more segregated	6 Quite more segregated	7 Totally segregated		
orientation			1 Parallel to approach road	2 Quite more towards parallel	3 Slightly more towards parallel	4 Neither perpendicular nor parallel to approach road	5 Slightly more towards perpendicular	6 Quite more towards perpendicular	7 Perpendicular to approach road					

Table 5: Spatial character mapping as the reference for pol neighbourhood

Floor			1 Totally natural	2 Quite more natural	3 Slightly more natural	4 Neither modulated nor natural	5 Slightly more man made	6 Quite more man made	7 Totally man made					
Roof		1 Open to sky	2 Semi covered roofs	3 Inclined roofs	4 Flat roofs	5 Combination of flat and inclined	6 Totally curved	7 Long span roofs						
Wall	1 Low height walls	2 perforated walls	3 Perforated and solid walls	4 Conventional masonry walls	5 Curved inclined masonry walls	6 Partition walls	7 Transparent walls							
Column			1 Purely structural	2 Quite more structural	3 Slightly more structural	4 Purely structural as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic					
Arches		1 Purely functional	2 Quite more functional	3 Slightly more functional	4 Purely functional as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic						
Brackets			1 Purely functional	2 Quite more functional	3 Slightly more functional	4 Purely functional as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic					
Buttresses			1 Purely functional	2 Quite more functional	3 Slightly more functional	4 Purely functional as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic					
Projections			1 Purely functional	2 Quite more functional	3 Slightly more functional	4 Purely functional as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic					
Courtyards				1 Width : Height 1: 4	2 Width : Height 1: 3	3 Width : Height 1: 2	4 Width : Height 1: 1	5 Width : Height 2: 1	6 Width : Height 3: 1	7 Width : Height 4: 1				
Staircase				1 Purely functional	2 Quite more functional	3 Slightly more functional	4 Purely functional as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic				
Fenestrations			1 Purely functional	2 Quite more functional	3 Slightly more functional	4 Purely functional as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic					
Screens/*jali*			1 Purely functional	2 Quite more functional	3 Slightly more functional	4 Purely functional as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic					
Jharokha		1 Purely functional	2 Quite more functional	3 Slightly more functional	4 Purely functional as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic						
Chhajja			1 Purely functional	2 Quite more functional	3 Slightly more functional	4 Purely functional as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic					
Fins					1 Purely functional	2 Quite more functional	3 Slightly more functional	4 Purely functional as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic			
Railing						1 Purely functional	2 Quite more functional	3 Slightly more functional	4 Purely functional as well as aesthetic	5 Slightly more aesthetic	6 Quite more aesthetic	7 Purely aesthetic		

Table 6: Building elements attributes as the reference for pol neighbourhood

The attributes of the *pol* house character as the language of traditional built form are grouped together. Similar methodology is followed in in-fill new development for analysing deviation in traditional character.

VII. SYMPATHETIC FITNESS DEVIATION GRAPH (SFDG) : A PROPOSED TOOL

In this paper, to achieve architectural congruence with the traditional urban landscape, a new approach based on the contextual design approach; Sympathetic Fitness Deviation Graph (SFDG) to evaluate the fitness of new development in existing surrounding is suggested.

Sympathetic Fitness Deviation Graph (SFDG) is based on the concept of achieving architectural congruence through sympathetic fitness. 'Sympathetic' fitness is one in which a building is in harmony with it's surrounding in terms of spatial organization, visual character and character articulation. The proposed approach suggests the analysis of the architectural character of a built form; visually, spatially and articulation wise to examine existing language. By taking the traditional built form, *pol* houses as a reference, deviation in scaled attributes is calculated for visual, spatial and building element attributes.(Ref. Table 7,8, 9, 10)

Visual Attributes	Typical pol houses	In-fill in *pol* area	Deviation
Symmetry	3	2	-1
Similarity	6	7	+1
Repetition	5	7	+2
Scale & Proportion	4	4	0
Material	4	7	+3
Color	3	7	-4
Texture	1	7	+6
Symbols	5	1	-4

Table 7: Deviation in visual attributes

Spatial Attributes	Typical pol houses	In-fill in *pol* area	Deviation
Proximity	2	4	+2
Degree of enclosure	6	3	-3
Configuration	3	5	+2
Built to unbuilt ratio	7	5	-2
Spatial character	4	7	+3
Linkages	1	1	0
Orientation	4	2	-2

Table 8: Deviation in spatial attributes

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Building elements	Typical pol houses	In-fill in *pol* area	Deviation
Floor	5	7	+2
Roof	5	4	-1
Wall	6	4	-2
Column	4	1	-3
Arches	-	6	+6
Brackets	4	6	-
Buttresses	-	-	-3
Projected balcony	4	1	-1
Courtyard	3	2	-2
Staircase	3	1	+1
Fenestrations	4	5	+3
Screen/*jali*	4	7	+1
Jharokha	5	6	+1
Chhajja	5	6	+1
Fins	3	6	+3
Railings	1	6	+5

Table 9: Deviation in attributes of building elements

The character *of the traditional build form (*in this case, pol houses) can be mapped on the graph as reference indicating t*he X-axis as shown in figure 10*.

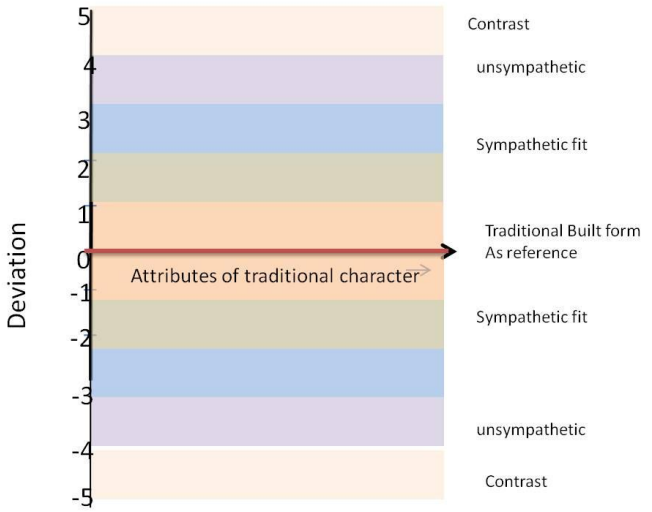

Figure 10: Sympathetic fitness deviation graph

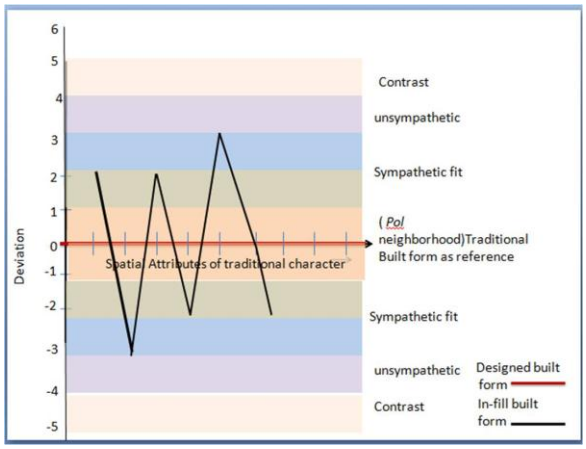

Figure 11: Sympathetic fitness deviation graph showing visual deviation

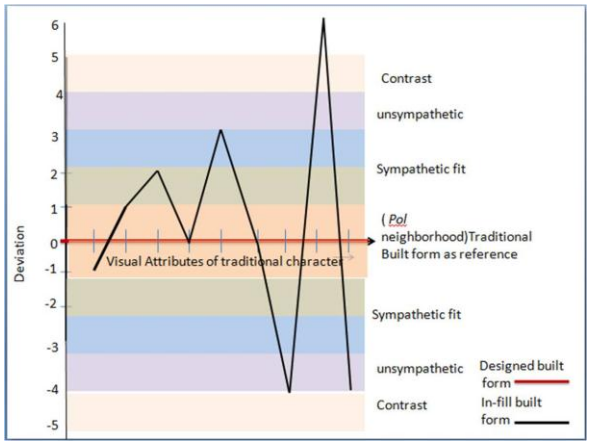

Figure 12: Sympathetic fitness deviation graph showing spatial deviation

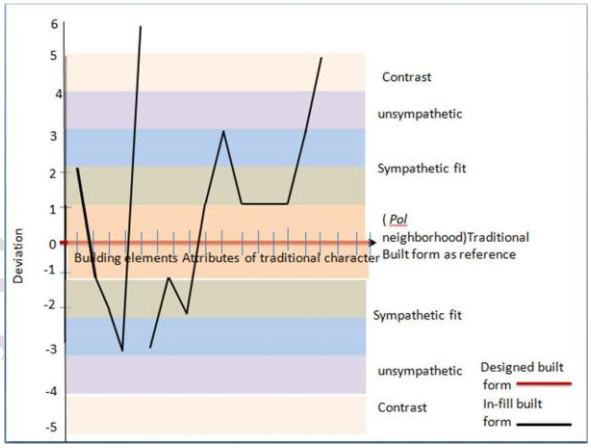

Figure 13: Sympathetic fitness deviation graph showing deviation in building elements attributes

The language of in-fill development as new development is mapped on the same graph. Considering the values of reference built form depicting the character as central; deviations in the in-fill can be plotted. (Ref. Fig. 11, 12, 13) The language of proposed new development can also be mapped by adopting similar attributes. The graph would analyse the existing traditional architectural style and would denote the deviation in it by comparing it with modern in- fill structure.

The study is encompassing the researcher's perception in the process of evaluation. Deviation markers of the graph may be highlighted with specific events / reasons if any. This method would project the degree of fitness; 0 deviation shall indicate replication, a further range may suggest sympathetic fitness and an extreme assessment may suggest contrast approach. Further research with the user's perception as case-wise shall direct towards defining the sympathetic range. Polar adjectives would help in examining the preferred option.

VIII. CONCLUSIONS

Conserving the traditional urban landscape in order to maintain the identity and spirit of the place is a generally adopted strategy. Various guidelines are proposed for

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conservation in India, but the issue of new development and its fitness in the existing traditional landscape is less researched on. By achieving the sympathetic fitness with the surrounding, the traditional landscape would be respected and conserved as an integral part of the society. This would not only enrich our past but would also help in conserving our treasure of historic and traditional built forms.

The contextualism based approach using Sympathetic Fitness Deviation Graph (SFDG) would certainly help in respectful integration of historic and traditional built forms in new development and would support the movement of safeguarding our traditional urban landscapes. By achieving architectural congruence by maintaining identity and continuity with the physical context, traditional character would be respected and conserved as an integral part of the urban landscape. This would aid the designer in taking design decisions while designing in the context with peculiar architectural character. Apart from conservation and control policies, this approach would help in maintaining the 'sense of place' and at the same time, it would assist the conservation strategy.

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