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Form Based Coding Regulation: A New Approach to Urban Conservation

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Abstract

Unlike conservation of heritage monuments, urban conservation invites large criticism because of its multiple stakeholder nature. Implementation of urban conservation projects through development guidelines is not effective. Its lack of clarity leads to dilution of the purpose, and its meaningful implementation necessitates specialized technical expertise, which is often expensive. Form based coding, because of its inherent participatory nature, and its clarity and unambiguous representation of the rules, is a promising candidate for an effective mechanism to code and implement an urban conservation plan.

1. INTRODUCTION

Cities, beyond the brick and mortar have a long story to tell. Their heritage is generally portrayed by monuments and urbanscape, which retains its heritage value. India is well known for her heritage. Although India has been successful in conserving its monuments, conservation efforts for the urban spaces often attract criticism. This is mainly because such projects involve a larger number of stakeholders who make a living out of the activity of the place. Often intervention in the form of conservation in old decaying urban core runs into prohibiting its natural efforts to cope up with the modern life and ends up with forcefully imposing a function, which will soon become unsustainable. Contrary to the case of historical monuments, urban conservation may include large number of stakeholders, and for many of them, the place may be the means of survival. Urban spaces are dynamic entities, and these should be left to find their meaning by themselves in the changing times. Conservationists will agree

Fig. 1 : Varanasi



Fig.2 : Fort Kochi



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that the character and life of the place are the most important factors to be conserved in case of urban conservation.

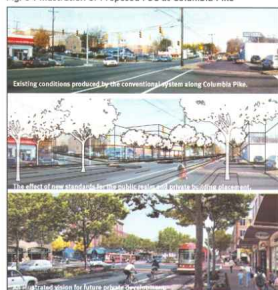
2. URBAN CONSERVATION AND IMPLEMENTATION

Urban design projects generally involve a study to understand the scenario, and then a proposal for the study is prepared by the concerned agency. Implementation of the proposal is usually done by means of development guidelines. As there are multiple stakeholders, and large geographical area in concern, enforcing of these guidelines faces practical problems. Individuals who own properties in the area may not be always able to hire a designer to modify his building in conformity with the proposed guidelines. This requires an agency to prepare, fund and redesign projects. Considering the fact that modifications, and repairs will be required frequently to keep the area alive in the changing times, such a central agency will not be practical. However, in its absence there will be encroachments in the area, damaging the heritage character. Form based code, which is novel model for urban project planning and implementation, could be helpful for urban heritage conservation.

3. FORM BASED CODES AND CONTRIBUTION TO URBAN CONSERVATION

Form based code (FBC) is a new form of enforcement of urban planning and urban design to guide the development to a predictable urban form in a multiple stakeholder environment. They differ from current existing urban design guidelines in two respects. Firstly, form-based codes foster predictable built results and a high-quality public realm by using physical form (rather than separation of uses) as the organizing principle for the code. Second, they are regulations, not mere guidelines, adopted through a city or county law (Daniel, Karen and Paul, 2008). Form based code can be used to define the built form based on the street, micro and macro transect. It is located, and the proposed vision plan. Form-

Fig. 3 : Illustration of Proposed FBC at Columbia Pike



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Fig. 4 : Regulating Plan, Downtown Ventura, CA


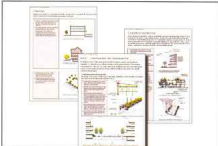


Fig. 5 : FBC Illustration



based codes address the relationship between building facades and the public realm, the form and mass of buildings in relation to one another, and the scale and types of streets and blocks. They are drafted to implement a community vision plan. They try to achieve a community vision based on timetested forms of urbanism (www.formbasedcodes.org not dated).


It is a collection of regulatory codes concerning the built form, streets, architectural features, landscaping, etc. Each of these is expressed as simple diagrams and explanatory sketches, which would facilitate easy and unequivocal understanding of the rules. All these regulations are indexed with a regulation plan. It gives a clear idea to the developer, architect and contractor on how to develop or renovate a given property as the case may be.

Form-based codes are a new response to the modern challenges of urban sprawl, deterioration of historic neighbourhoods, and neglect of pedestrian safety in new development. Form-based codes are a tool to address these deficiencies, and to provide local governments the regulatory means to achieve development objectives with greater certainty (Wikipedia). The major advantage of FBC over existing urban design guidelines is its regulatory nature. As they are built into the local development legislation, they ensure a higher degree of certainty in its implementation. Another advantage of FBC is its clarity, which helps in easy following of the rules by various stakeholders without the help of a high technical assistance. This will help to reduce the financial burden on the stakeholders to follow the regulations. Moreover it ensures a consistent urban form irrespective of the people involved or the time in which it is constructed. Because they can regulate development at the scale of an individual building or lot, FBCs encourage independent development by multiple property owners. This eliminates the need for large land assembles and the mega projects that are frequently proposed for such parcels (Katz, 2004).

Its participatory nature will encourage stakeholders to take an active part in the implementation, and this will create an ownership feeling. Local expertise

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In the design and implementation will help in bringing most appropriate solutions and this will each place unique, while retaining the harmony. The new approach builds on the idea that physical form is a community's most intrinsic and enduring characteristic. It seeks to codify that form in a straightforward way so that planners, citizens, developers, and other stakeholders can move easily from a shared physical vision of a place to its built reality. FBCs work well in established communities because they effectively define and codify a neighborhood's existing DNA. Vernacular building types can be easily replicated by promoting infill that is compatible with surrounding structures. They also require less oversight by discretionary review bodies leading to a less politicized planning process that can deliver huge savings in time and money and reduce the risk of takings challenges (Katz, 2004).

3. STRUCTURE OF THE FORM BASED CODES

Form based codes are prepared to implement a community vision plan. This defines the goal of the FBC. The vision plan describes the future state of the space as envisioned by the community of stakeholders. It is further elaborated and split into a set of regulatory codes each concerning various stages or disciplines of development. Form-based codes commonly include the following elements:

- **Regulating Plan:** A plan or map of the regulated area designating locations where different building form standards apply based on clear community intentions regarding the physical character of the area being coded.
- **Public Space Standards:** Specifications for the elements within the public realm (e.g. sidewalks, travel lanes, on-street parking, street trees, street furniture, etc.).
- **Building Form Standards:** Regulations controlling the configuration, features, and functions of buildings that define and shape the public realm.
- **Administration:** A clearly defined application and project review process.
- **Definitions:** A glossary to ensure the precise use of technical terms.
- **Architectural Standards:** Regulations controlling external architectural materials and quality.
- **Landscaping Standards:** Regulations controlling landscape design and plant materials on private property as they impact public spaces (e.g. regulations about parking lot screening and shading, maintaining sight lines, ensuring unobstructed pedestrian movement, etc.).
- **Signage Standards:** Regulations controlling allowable signage sizes, materials, illumination, and placement.
- **Environmental Resource Standards:** Regulations controlling issues such as storm water drainage and infiltration, development on slopes, tree protection, solar access, etc.
- **Annotation:** Text and illustrations explaining the intentions of specific code provisions (www.formbasedcodes.org not dated).

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4. PROCESS FOR THE CREATION OF A FORM-BASED CODE

Generally, the creation of a form-based code is interwoven with a community visioning process. The process typically includes a public design workshop lasting several days. The community's 'consensus vision' is conveyed through a range of visuals including perspective drawings, site analysis diagrams, and an illustrative plan. That plan, which resembles an aerial photo includes proposed buildings (shown as rooftops), key natural features, and existing and planned public spaces (Katz, 2004). At the vision making stage the community should be supported with the required technical skills of urban planners, urban designers, conservationists and other utility experts, etc.

Once the vision is prepared, the conversion of vision to a draft form based code can be done by a group of pooled experts from each relevant discipline. The produced draft code may be presented to the community, and enforcing authorities for their feedback.

The final draft may be prepared by incorporating the relevant feedbacks, and may be submitted to the local planning agency to get it incorporated in the planning legislation.

5. CONCLUSIONS

Conservation of urban spaces is often criticized for its rigidity to adopt for the change. Urban design implementation through guidelines has been ineffective. Form based coding, which is novel concept in urban design, and its implementation seems to be promising in urban conservation as well. Its strength lies in the participatory approach in the design and implementation and its role as a regulation rather than guideline. It also helps to execute the design in a multi stakeholder environment because of its unequivocal method of representation of the regulations.

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