

The Wall

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Abstract:

Is architecture an art of wall design? Why the Man had created the wall? Do we need all walls that we built? What are the urban consequences of building walls? Is safety one of major reasons for creating the walls? How mass communication can contribute to safe living environments with fewer and better walls?

Since early human history, the Man has invented the wall to contain the human life and to achieve different sorts of domains such as safety, privacy, community. In many cases the walls have developed to have symbolic roles and meanings such as dominance and power rather. The different application types have transformed the cities to a forest of walls. Therefore, the wall is an important component that creates forms and characters, contains activities, needs, and realizes strategies such as safety and sustainability. Each particular society has developed a particular wall culture which decides how to apply the wall in the different conditions of the built environment. This method has strong relationship with the local conditions, heritage, and the nation's cultural, economic and social structure. Therefore, wall has an important role in creating the local architectural character in any particular society.

This paper is discussing these issues by studying how the demand for safety creates demands for applying and forming the walls in our built environment. The paper will use the fence wall as a case study and how it had been applied in old cities to achieve safety? which kind of decision making and communication model had been applied in these cities to form and build the wall as safety structure? How these issues are applied in the present? The paper is using cases from cities in Middle East.

The paper concludes that in order to make architecture and urban design responsive to safety issues, it is necessary to establish better understandings about the wall as an important design component for our buildings and cities where we form and built less, better and smarter walls. Architectural media can be an important to support the wall safety functions by creating a contiguous arena for communication between the community, decision makers, and professionals which can raise their awareness and involvement in built environment safety as an alternative for building more walls

Keywords: Wall, Design, Urban Design, Safety, Rules, Media, Architectural Education.

1. Introduction:

The indoor safety considerations are the visible and invisible conditions of any living environment which decide the urban life quality and reflect the users' local understandings, demands, and identifications of safety. The safety is a

need, a function, a value and a symbol. The wall creates these issues by creating spaces as defensible containers or identifies our places and domains and gives the domain its identity. Therefore, improper design and urban design can harm all these functions and meaning and make the urban space a burden for society, economy and environment.

Since safety is an integrated in a large number of disciplines and issues, such as architecture, urban design, sociology, psychology, economy, and planning. Therefore, applying the wall as a component to achieve safety will influence these issues in any urban built environment.

Any wall identifies a boarder where it creates defensible spaces and establishes a domain for safety. Safety itself has wide applications in any city. It can be applied to protect properties, create private indoor life, prevent threats from such as accidents, fatalities, fears, and crimes or even attacks. Dealing with wall's design, material, relationships identify safety level that is required to achieve.

Present architecture and urban design are facing increasing safety challenges and gives the wall broader functional and symbolic issues to achieve. The present living environment demands large resources in order to achieve or deal with safety. It also creates a serious challenge about the how our cities are formed, organized, and experienced. In order to identify these problems and their consequences, we need to understand the safety as an integrated and changing factor in city's components and process.

City's safety is a challenge in any society that can be influenced by issues not related to the applied architecture such as education, social welfare, population density, law and order, location, political life and so forth. Yet, even under such circumstances architecture can be applied in a way to support safety.

To deal with issue it is important to know what is a safe city? How the wall can contribute to creating a safe city? Dose the present architecture is a burden on safety? How architectural education and practice can contribute to create safer cities? How developing a new model for architectural mass communication can support this goal?

2. The Walled Safe haven

Invention of writing in Sumer was the first communication technology. Invention the medium for the writing by using clay tablets was the important achievement to make the writing accessible tool between people. These two achievements provided people with possibility to record their life. In the present we can identify several ancient samples of clay tablets, stone tablets, papyrus, parchments that had recorded important events and played as communication within a particular nation and between nations.

One of issues that can be identified in these writings is how safety was an important concern for the old cultures. Studying these documents can show that safety in history was one of the basic issues that contributed into emerging and continuity of the old cities. The city as a human had provided the Man with a possibility to gather and be able to defend life, properties, and feel safe. In order to achieve this, old cities had developed different structures, forms,

law systems and social traditions where all worked as interrelated components to achieve the safety. All these safety requirements and their architectural solutions and applications had contributed to develop safety architecture that continued and developed till the present.

One of the oldest known elements of the safety architecture that is mentioned in the old documents is the wall. The wall had been applied to identify the edges where spaces as defensible safe containers could be identified. Different cultures had applied the wall in different forms according to the demanded safety and the threats nature both from enemies outside and within city. Catal Huyuk which is one of the early human settlements is a total clustered walls.

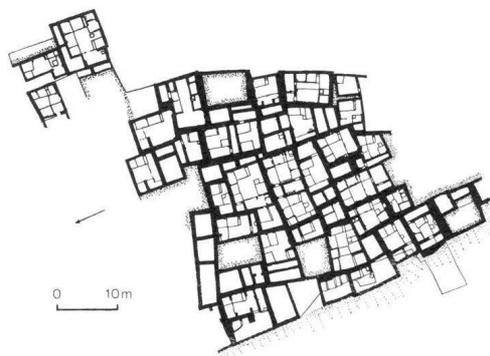


Figure 1: Catal Huyuk, Turkey

Ancient cities like Babylon had used the wall as its basic safety component which played an important role in the city's everyday life and its continuity by providing an important defensive structure against enemies' attacks. Along with the outer city wall, the individual buildings had also walls to achieve their safety.

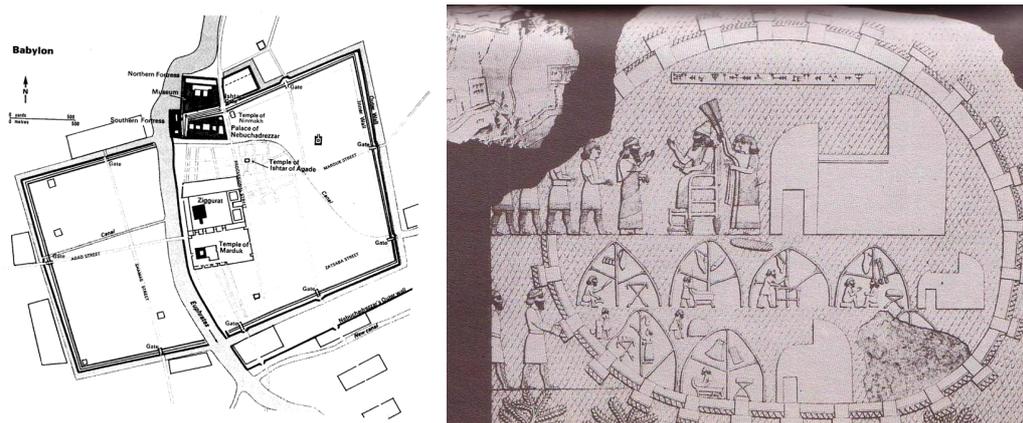


Figure 2: Babylon Plan and an image from Babylon age showing building the wall by Hammurabi¹

¹ Mumford, Lewis, *The City in History*, A Harvest Book Harcourt Inc, New York, 1989. P84



Figure 3: Code of Hammurabi²

Along with building physical structures, Babylon had also adopted a law system to regulate human behavior in the city in order to achieve the required safety. Many rules included in Hammurabi code are actually related to create and protect safety in Babylon by protecting rights and guiding behaviors.

The wall identified the city's physical and defensible edge that expressed the enclosure of the life in the city and expression of the city's identity. In many cultures the word city is actually a direct reflection of wall meaning³. Therefore, the wall was the component that identified the safe haven where people could gather and live in an defensible territory. In English the word town means enclosure, in Chinese the word ch'eng expresses both the city and the wall. Great Wall of China is one of the examples which identified a territory while the walls of the Forbidden City in Beijing identified a holey living cluster.

The city wall had also applied in different patterns according to needs and cultures to create the defensible city. It is important to mention her that some cities hadn't walls at their edges for many reasons such as locating on a defensible site, but still had clustered the houses and buildings at the edge in a way that they formed a wall.

² source: http://en.wikipedia.org/wiki/Code_of_Hammurabi²

³ Kostof, Spiro, *The City Assembled, The City Assembled*, Thames & Hudson, 2004, p.11



Figure 4: Erbil Citadel, Kurdistan, Iraq.

The wall also had been used as a tool to segregate between different clusters within same city. This was a known tradition where each cluster had its own gate. Clustering was often based on clan relationship, religious and ethnical groups. In such condition the wall was applied a physical wall structure or combined by clustering the houses in a way that had created a wall at its edges. Old cities of Cairo, Baghdad, Aleppo, Istanbul are samples of such clustering tradition. An important factor behind such clustering was safety. Clustering has created areas that had considered as private defensible domains.

Applying the wall as an architectural safety component had also played an important role into creating and supporting different kinds of social and economic traditions which had required different design patterns forming the wall for the a whole, quarters and the individual buildings.



Figure 5: Cairo 1840, by David Roberts & Old St Pauls London

in all safety issues within their quarters and the city. This method had created both safety architectural patterns and safety regulations through an open communication process which made the safety desired, applicable, updated and affordable solutions.

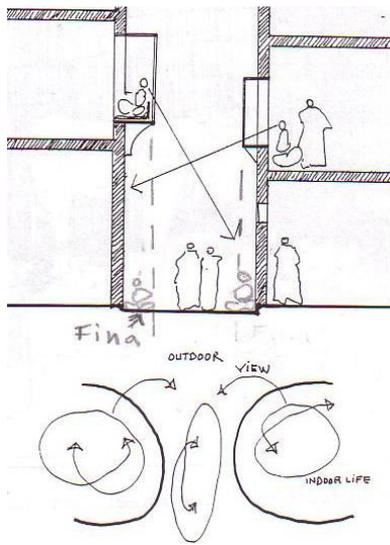


Figure 7: The Fina space in the street along the dwelling's wall⁶ residential street.

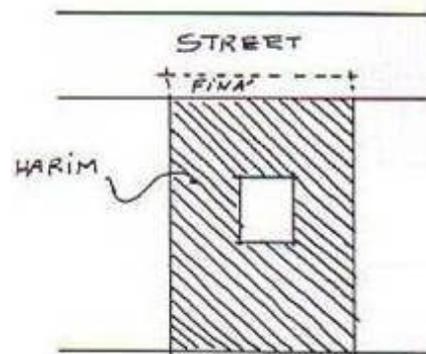


Figure 8: Al Fina space the social controlled

⁶ Nooraddin, Hoshiar, Al Fina, A Study of Inbetween Spaces along Streets as an Urban Design Concept in Islamic Cities of the Middle East with a Case Study in Cairo, NTNU, Trondheim, Norway, 1996, p. 81

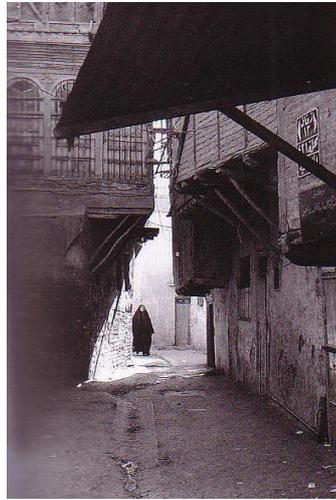
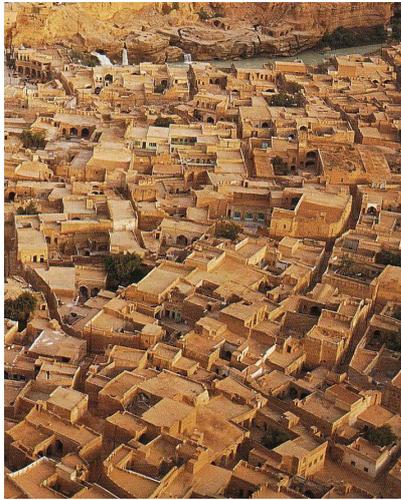


Figure 9: Traditional city structure in Shushtar-Iran & Traditional streets in Baghdad, Iraq and Dubai, UAE⁷

On the other hand, the wall along the street was considered as the private edge of the house that should be protected and respected. It was an isolation between the public outdoor and the private indoor. Yet the houses had windows directly opened into the streets (figure7 & 8) which played as a direct visual contact and control of the street space by the residents. The streets were also an arena for social gathering. It was common that houses and shops had sitting benches built stone or brick in front of the houses and shops. All these settings had created very strong social control of the street space and indoor spaces alike.

4. The Present Walls

⁷ Spiro, Kostof, *The City Shaped*, Blufinch Press, New York. P. 63
Dubai Photo by Stephane Chabas, CUD, Dubai, UAE

The present technologies have provided the architecture with options to develop totally new wall forms. As a consequence the present city has reshaped its old structure, components, contents and the users life. The transformation has contributed into large urban growth and creating cities populated by multimillions of people. The new changes have created new realities for the urban societies that have required developing new methods to deal with, including the safety in the city. In the present we can identify different architectural movements where each movement calls for particular types of forms and plan solutions for particular buildings architecture, community or a whole city. But in reality all movements are using the walls in different ways .



Figure 10: Dubai, United Arab Emirates, photo Stephane Chabas, CUD, Dubai, UAE

The new city realities which have supported individualism, created isolated living conditions, creating safety or keeping safety became an individual responsibility and not a community where each owner is responsible for his own property by applying all methods including security technologies. The street is largely dependent on police. The buildings are secured by security staff and different security technologies. All costs the society financially and creates totally new living environment. The second area that is also influenced by the new safety needs is building codes and regulations by the authorities and sometimes demanded by the users themselves to create a particular level of safety. As a result the built environment is totally organized and controlled by walls, technology, and safety regulations.

The new trends in design are strongly influenced by the developments in building construction and engineering which have successfully facilitated building new buildings with styles and dimensions that could never be achieved

before by the old technologies. This development has provide architects and urban designer with options to create new extremes. But these achievements have its consequences on safety since they create complicated spaces and use relationships which require large and sophisticated safety arrangements around the day. It is almost the result of the presents common trend where brand comes before content only to show uniqueness and progress by using the shell as a design tool. This issue is common in tall buildings and in so called the compounds where the users are pushed in envelops. Some of the bigger costs associated with the complicated safety arrangements in the new areas are the long term consequences on the local economy and social life. Such architecture and urban design require additional research and analysis to show how contemporary architecture are burden for safety.

In the present, changing the traditional plan concepts to new concepts where the house is isolated from the street by a garden and a fence wall made the wall as a continuous barrier outside the house itself. Therefore the indoor space is isolated from the street space by an additional in between space in form of a front garden or a front yard that ends with a high wall due to the social demand for privacy. This condition creates a street space which is less controlled by the residents and less safe for social activities such as children.

In some countries the resulted sidewalk can be planted by the owners of the dwellings since the sidewalk is almost empty so they get more green space such as the case in Dubai.

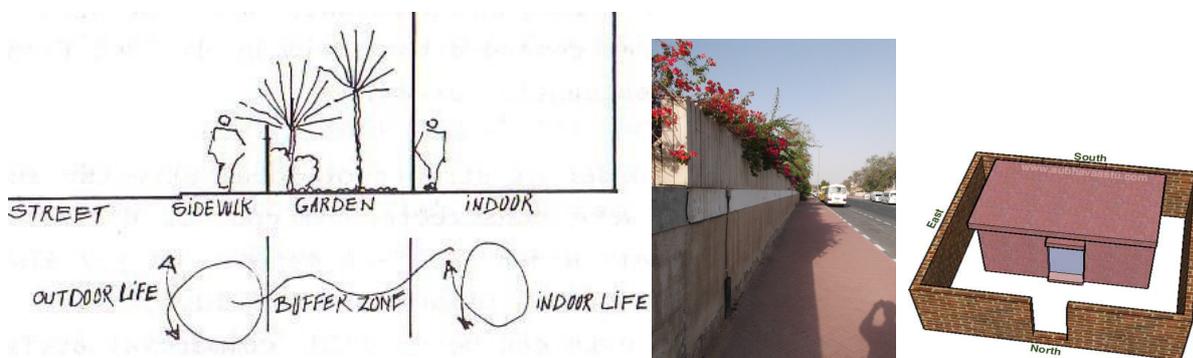


Figure 11: A conceptual drawing of one type of new villa residential street surrounded by a fence wall

Other cases such Makkah, the men may put benches in the sidewalk as social gathering area. The action creates a private dominance and a safe street space yet it is limited to the areas where there are benches and mostly during evenings.

5. Media and Safety Walls

Among the important methods of the present culture that can influence safety between walls in any city is the media. The case study of the wall as a structure of safety shows the demand for better public architectural media to

support safety in our walled built environments. Such architectural media has to create a multidisciplinary arena to involve users, designers, professional of the related disciplines, and decision makers to exchange knowledge and experiences of applying and using architectural structures and spaces in the built environment where we can have less walls, and smarter safe walls. Such achievement will have large social and economic consequences in any city.

In the present, our life is largely influenced by modern mass communication. The modern technology has provided Mass-communication with strong and various communication sources including television, radio, cinema, internet, magazines, and newspapers to bring information to the public and bring new realities into focus. The mass communication has provided the citizens with new strong knowledge and information flow which radically changed life concepts and dimensions. Yet mass communication has been accused for encouraging several problems in our cities including violence as a natural consequence of dominating the commercial profit in the field and following the motto “if it bleeds it leads”.

In architecture, mass communication has played an important role into globalizing architectural styles and movements. But architects couldn't utilize the resources of mass communication towards the community. Therefore, media involvements in the city's architectural events are occasional and related to selective, periodical and large events. The reason behind this is that architectural education produces designers with no media literacy skill. Such skill is important to understand the meaning of communication and mass communication, how it function, what to consider in order be effective and serve the community. Harold Lasswell's (1948)⁸ had identified communication by answering five questions: Who? Says what? Through which channel? To whom? With what effect. When the answers are targeting the community then it is mass communication. Architects have used media by adopting architectural language to communicate mainly with architects and less with the community. We can identify her safety as one of the important common concerns in any city but little covered by architects in the media. The city has large everyday safety events which have direct relation to architecture. Yet these are almost unknown in the architectural practice and education.

Internet websites such as YouTube and FaceBook are now common means to produce reports, documentary films and architectural discussions that are accessible by anyone in the society. World Architecture Community (<https://worldarchitecture.org>) and Archnet (<https://archnet.org>) located in MIT are two examples of active web-based international architectural mass communication that have applied important resources in this field, yet they are targeting basically architects. Lack of media literacy skill among architects reduces architectural communication possibility to reach the public community. This issue reduces the dimension and effectiveness of architectural communications, how we get feedbacks, how we develop our knowledge, and how we influence

⁸ Lasswell H. D. 1948, The structure and function of communication in society, In L. Bryson (Ed), The communication of Ideas, New York, Harper.

everyday life and the society's development process. This architectural model of communication has lost the basic principle of mass communication⁹.

The architectural debates do send messages that the common users may not understand as we do. Even when the debate is about simple and known topics such as role of design in supporting safe street¹⁰, the architectural debate is often too complicated or boring that common people will not be interested in reading them or following the debate in the media. Although architecture has been used as a tool by authorities all around the world to create changes in the built environment, yet, the numbers of public architectural discussions is small and often is ignoring important topics of built environment. The best way to correct this phenomenon is by educating a new generation of journalist architects who can use architectural mass communication model in a new way to communicate with the local and international community about a vast number of topics related to architecture including urbanism, development, environment, and economy¹¹. Different important efforts have been done since the last century in order to bring architectural criticism to larger public sectors. This includes TV, Radio, newspapers, magazines, internet, Architecture Schools, individual architects and activists. An Example is John Betjeman from UK who was one of the successful figures who had worked actively towards creating shared architectural meanings using BBC as a mean in addition to publishing several books and articles that were practicing architectural journalism.

6. Architectural Education and Architectural Media Literacy

The previous discussion shows the necessity of opening new ways in architectural education by building up architectural media literacy during the education process. This can give architecture a strong role to motivate growth of society's different sectors including safety in our cities. Architectural education needs further development and changes as theory and practice¹². This means that knowledge of architectural education should not be directed only towards academic knowledge but should also be derived from concrete life events¹³. The present life events give us several signs that architectural knowledge derived from the applied projects are very useful to motivate other disciplines. Therefore, terms such as socially motivated architecture or economic motivated architecture can also be discussed as how architecture can motivate growth and change.

⁹ Markus, Thomas A. & Cameron, Deborah, 2002, *The Words Between the Spaces: Buildings and Language*, Routledge, London

¹⁰ Jacobs, Allan B. *Great Streets*. Boston: MIT, 1993.

Rapoport, Amos. *History and Precedent in Environmental Design*. New York: Plenum, 1990.

¹¹ A.B. Reddy & Mithila Deshpande, Foray Through: Architectural Journalism, July 2010, ARCHITECTURE - Time Space & People, http://www.coa.gov.in/mag/Lowres%20pdf-July%202010/26-32_Archi-July%202010.pdf

¹² Ashraf Salama and Kaj Noschis in *Architectural Education Today* edited by Ashraf Salama, Kaj Noschis William O Reily, Comproments and Authors, Lausanne, 2002. Pp. 9-10

¹³ Dunin-Woyseth, Halina, *Making-Based Knowledge: Between Identity and Change*, in *Architectural Education Today* edited by Ashraf Salama, Kaj Noschis William O Reily, Comproments and Authors, Lausanne, 2002. Pp. 17-24

Since, architecture is a wide discipline and deeply rooted in other disciplines, therefore it can contribute into achieving safety. The major design component to achieve that is the wall. During history, architecture had contained safety needs and arranged relationships with what the unsafe issues and environments. This was done both through people themselves and architects or builders who inherited this heritage from generation to another. Therefore, there architects were part of a continuous public communication about the safety needs and how to achieve that by building different types of walls and how arrange the human use and behavior.

In the present Architectural education is mainly focusing on design and all other courses are in reality feed the design topic. The issue of public communication is left to other disciplines. Therefore, Architectural Journalism is mainly by and for architects. This issue rises the need to improve architectural education by applying contemporary mass communication into Architectural education.

Some universities in the world offers architectural journalism and some few universities have also Master programs in architectural journalism, these efforts can only be small steps because what is needed is a real reform in the present architectural education and practice to achieve the required change in relation with mass communication. The reform should include establishing a complete and comprehensive architectural mass communication model and not only limited professional architectural journalism. Architectural mass communication can be a very important education field because it can create new architectural players in the society. Times are changing and mass communication is becoming a dominating field in our present life and architectural education should benefit and learn from the resources of this field to make architecture an interactive and continuous player in the society's life and needs. Many issues such as safety can be very actual media topic that architects can use in order have smart walls and less walls by stimulating participation of different actors in the process.

In 2010, I did a course for architecture students about Architectural Mass Communication. The discussions showed that about 90% of the participants students didn't know how to use architectural language with common readers. They also got exercise to write short articles and developed architectural documentary films that targeted professional architects and common public users in UAE. Therefore, the course started with building up the students' capability to write, speak, think, see architecture in a way that it can communicate with common people and bring their interest. Each group of students had applied several technological achievements of mass communications and multi-disciplines analysis and learning from the common publics' feedback in order to create continuous process of generating shared meanings that can promote sustainable growth.

7. Conclusion

The Man had invented the wall as physical structure to contain the indoor life. Since its early shape till the present, the wall has been applied in different ways and for different reasons. One of the major roles of the wall is Safety. Applying the wall as basic component of any architectural solution has created different architectural and urban design solutions. Therefore, the wall had been applied to create a safe haven for a house, a neighborhood, a city

and a nation. The case study of the wall in old cities shows that building walls had been done through a strong public communication that involved users, judges and architects (or the builders). The guidelines had based on reasoning method that had included several issues such as safety, health, privacy, ownership, community need and individual needs. The forms and functions of the wall had been largely influenced by these two forces, the needs and the tradition. Therefore the process of applying the wall had an established common language. The fence wall that have been applied in the present buildings as a safety component is strongly reflecting social, culture and individual behaviors of the users. In countries that depends on isolating private indoor from common outdoor spaces, the fence wall has been applied as a domain indicator to achieve this safety need.

In these societies, users are either building high fence walls or modify the existing walls when they are low or have openings. This can also be done parallel with planting trees and plants along the sidewalk in front the wall as an additional green wall. This trend in building the fence wall along the street has isolated the indoor space from outdoor space where the residents have not connection with the street life. Therefore, the street is transformed to a space with isolated houses or buildings and the street space itself is transformed to an independent urban space which needs real safety control by the authorities.

Design of walls has to consider three important design strategies:

1. Life Oriented Wall (LOW) that can improve housing supply, size, Social Infrastructure, outdoor area, create Meaningful content, bringing the generations together. support diversity and social network where the urban social life gets stable relations.
2. Health Oriented Wall (HOW), that can support users physical, social, cultural activities
3. Sustainable Oriented Wall (SOW), that can support intensive and mixed used public spaces and reduces all forms of urban barriers to create unified healthy urban patterns

These strategies tell us that if we plan our city's with more walls we get a forest of walls but if we plan city's walls for people we get a livable city

On the other hand, in order to achieve common meanings about these issue with the the users and other involved professionals, we need develop an architectural media to achieve a public communication. Mass communication is a very important area to support human culture on this planet. Despite of using mass media in architecture, yet it couldn't manage to create a real architectural mass communication model. An important way to correct this situation is by establishing a particular model for mass communication that can extend the dimensions, contents and methods of the existing architectural researches and practices. The model should be comprehensive, and coordinate with other disciplines, that will enable active public architectural debates using open, multidisciplinary, and liberal means and learn from the users' feedbacks continuously.

To achieve this goal, we need to develop our present architectural education that can develop new topics focusing on mass media and mass communication. This should be done through a common international effort rather than individual efforts by few universities or schools. Educating architectural mass communication should not be limited to a single course but should be offered in form of several interrelated topics including newspaper, tv, radio, and internet. Such shift will be able to create a new generation of architects who can deal with challenges of this field in relation to the changes in the society. These courses should be updated continuously in order to reflect the need of the change and avoid stagnation. The relationship between architecture and growth can be a key issue that can turn the built up areas to be successful safe spaces for thriving and sustainable communities. A successful relationship can deliver better safe public buildings which contribute to improved service delivery and be good value for money. Such relationship can also tackle the barriers to good quality development, through education, skills and advocacy. All these issues cannot be realized without bringing different institutions together in order to make the process successful including universities, authorities, and organizations both at local and international level.

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