

PRINCIPLES AND CONDITIONS OF USE OF NEW MATERIALS IN URBAN VIEWS (CASE STUDY ABUZAR STREET, DISTRICT 17 OF TEHRAN)

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ABSTRACT

By looking at the Tehran's urban view we can understand that diversity and heterogeneity of urban facades in a variety of architectural style approaches has created a kind of culture and social identity in architecture and related concepts such lack of integrity and continuity in architecture in urban views (readability, visibility, subjective perception, visual and aesthetic continuity). Since paying attention to the structure of contemporary architecture to refresh the urban identity, needs "critical thinking" on influencing factors in the formation of concepts and architectural elements, especially urban views, so it seems necessary by knowing the hidden aspects of architecture, also in particular approach, to prepare possibility to re-read visual identity in urban facades of Tehran in compliance with the architectural elements of identity. On the other hand architecture and contemporary urban architecture, especially different grammar review that are full of internal factors and external affecting interaction and contradictions, require prior to entering the realm of criticism or analysis and critical assessment,critical, manner and attitude of the monument be determined, however, this speech only check regardless of the style of contemporary views contained in Tehran. On the basis of this research,descriptive-analytic approach and research methods analytical and physical content through data collection tool (library, documental and field research) we try, with recognizing, assessing the current situation of Tehran city views, to provide possible solutions and implementing strategies and programs of action. In this way that with using visual preference technique VPT images of urban street view and glazed selected and placed in the questionnaires have been designed.

Key words: *New materials, urban views, perspective views of the city, city views ofAbuzar street-Tehran*

İLKELER VE KENTSEL GÖRÜŞLERİ YENİ MALZEME KULLANIM KOŞULLARI (ÖRNEK ÇALIŞMA ABUZAR SOKAK, TAHRAN'DA 17. SEMT)

ÖZ

Tahran kentsel görünümüne bakarak biz mimaride kültür ve sosyal kimliğin bir tür yarattı ve (kentsel görünümde mimaride böyle olmaması bütünlüğü ve sürekliliği kavramlarını ilgili olan mimari stil yaklaşımların çeşitli bu çeşitliliği ve kentsel cephelerin heterojeniteyi anlayabiliyorum okunabilirlik, görünürlük, subjektif algı, görsel ve estetik süreklilik). kent kimliğini yenilemek için çağdaş mimari yapısına dikkat beri, kavramlar ve mimari elemanlar, özellikle kentsel görüşlerin oluşumunda etkileyen faktörler üzerinde "eleştirel düşünme" ihtiyacı, bu yüzden de, mimarlık gizli yönlerini bilerek gerekli görünüyor özellikle yaklaşım, olasılık hazırlamak için kimlik mimari unsurları ile uyumlu Tahran kentsel cephelerde görsel kimliğini yeniden okumak için. gerektiren diğer yandan mimarisi ve çağdaş kent mimarisi, iç faktörlerin tam ve etkileyen etkileşim ve çelişkiler dış özellikle

farklı gramer, olmak anıtın eleştiri ya da analiz ve kritik değerlendirme, eleştirel, şekli ve tutum bölge girmeden önce belirlenen, ancak bu konuşma sadece ne olursa olsun Tahran'da bulunan çağdaş görüşlerin tarzı kontrol edin. Bu araştırmanın temelinde, veri toplama aracı (kütüphane, documental ve saha araştırması) mümkün çözümler sunmak için, Tahran şehir manzarası mevcut durumu değerlendirmek, tanımak ile, denemek yoluyla açıklayıcı-analitik yaklaşım ve araştırma yöntemleri, analitik ve fiziksel içeriği ve stratejileri ve eylem programlarının uygulanmasında. kentsel sokak görünümü ve anketlerde seçilmiş ve yerleştirilmiş sırlı görsel tercihi tekniği VPT görüntüleri kullanarak dizayn edilmiştir bu sayede.

Anahtar kelimeler: *Yeni malzemeler, kentsel görünümleri, şehrin perspektif görünümleri, şehir manzarası of Abuzar, Sokak-Tahran*

PREFACE

Any building or urban is alive until it is committed to the timeless way. A timeless way that shows itself to the range of culture and social that with the repetition be special patterns of events in a particular place in the identity element of space and time. There is no question about it that Iranian architecture and urban planning is on based values that after many years can still be that the can be the balm for human spirit and in addition to responding to the functional aspects it can make your spirit more beautiful. Traditional architecture and urban space in Iran is required some values that have root in Iranian rich culture and we have to think about the range of several thousand years that with what tolerance it lost this timeless building way, according to Alexander's order came from our own timeless way and if we let permit it, it will happen. Cultural discontinuity, cultural suspicion, cultural alienation are words that are intuitive in cultural structure and can be seen in architecture a lot. This strategic vision, should try to provide a way to identify weaknesses and strengths perception that convert today's threats into opportunities in the value of architecture and urban structure that we polish worthy of the facade and urban space planning for the future. Accordingly, it is necessary to take steps in line with Tehran's city views to present the evaluation process and review proposed that this research has emphasized. This article includes four parts the first part is devoted to the introduction (General) The second part deals with methodology. The third part is devoted to setting goals, perspectives, analysis and determining strategies, policies and programs, and ultimately ends together and provide principles and guidelines.

DEFINITION AND CONCEPTS

CITY VIEW

We gathered information through our senses. If this information is false or ambiguous, we cannot effectively pursue its purposes. Environment is a tool for social communications. In this way, shape, smell and sound have a share in the social building and fabric. It is clear that shape of our environment has a critical role in our experience in understanding the beauty. Edmund Bacon believes that building cities is one of the biggest human accomplishment that the shape of it was always the Index brutal recognition of human civilization and will be. He knows the city determines its shape by decisions of the people living there and in his idea in some conditions, the result of these decisions is a power which leads to the birth of the original city. Likewise, it can be said that in view as an indicator of the degree and quality of civilization and symbol of each nation and particular ethnic community spirit decisions and imagination of the people of that city and urban Landscape achieved act and not random product or outside the rules of the human concept. Due to the nature of human's existence organism, the effect of them is different objective manifestations. Considering some tips that are compliance with wide range of people's characteristics and mentality, is urban design issues and it is not only related to the facade and appearance of our cities. Taste and needs of a group can be easily placed in the standard of beauty.

THE ROLE OF MATERIALS IN URBAN FACADE

Our cities are independent and in addition to events and relationships formed in the areas of political, economic, cultural and physical criteria that are in citizens' behavior, although these behaviors are serving dishes to appear, but many studies have proved that they are impressionable behavior from its container. The dishes are physical formats in the form of vertical and horizontal surfaces - and the

first-grade - provide conditions for the realization of citizenship behaviors and in their more exalted way of identifying elements affecting the perception of the city and citizens. The physical forms are made up of elements that are called building materials. Looking at alternatives which are perceived by the citizens of the city at first sight cumulative volume of construction materials in the form of packets were called together buildings. This signifies the importance of the issue of building materials in the construction of cities. A review of past Iranian Architectural History, will make it clear to the fact that the cities of interaction between social relations and climatic requirements can be supplied with materials that have shaped the climate that this also suggests the importance of structural materials is in the form of Iranian cities.

Experiences of projects in our cities, alerts us to the fact that now a days knowledge is our executive body of insufficient of building materials and consequently damaging. This refers primarily to the weakness of our educational system on the other hand the absence of necessary and sufficient attention to this issue in the executive's project, causing the body of our experts - consultants and contractors – to not having the necessary and sufficient understanding and not committed themselves to promote an adequate level of technical knowledge to know. Unfortunately, the current face of our cities and living witness to this claim. So it seems more than ever is essential to pay attention to building materials and place them in the category of Architecture and Urbanism country and this needs the short-term, medium-term and long-term measures.

THEORETICAL RESEARCH

Since in the modern era the process of creating new architectural spaces, the displacement volume of the combined volume is used to reach the proportions and design criteria, we can understand consequently that design of buildings view and attention to materials are not intended and only mixing and composition of pure volumes have been considered in the design process form the building. On the other hand, is known for the beauty of modern architecture facade structure and it is on this basis that decorate the facade or any payment in abandoned building. On the basis of the modern era and pay for it at the beginning of the modern era's architecture, not a little examples of urban structure seen on the facade lighting with innovative materials. At the same time innovative use of materials on the building sparked during this period and based on new scientific developments in the industry and in the field of architecture. But with creation of postmodern in the west and bringing concepts such as cultural pluralism and dissent, such a diverse and multifaceted architecture arose which eventually led to eclecticism. In addition to topic majority of our future topics are things such as the concern for the environment, public health, worth the money, and way of life. In addition to industrialize, flexibility in building, use of urban environment, expanding the quality, producing and building fast, causes the money to be more valuable and the way of house holding, reproducing and existence of flexible home will cause effect in our future life

THE IMPORTANCE AND NECESSITY OF RESEARCH

Major developments in Iran contemporary urban designing is about the current solar century, is coinciding with the change of the rule of the Qajar to the Pahlavi that has Specific representations in Iranian architecture. It causes the upheavals of this era in architectural forms and styles along with diversity in building materials that will create buildings with a range of divergent views. In this case technology developments has effect on production of building materials with advertising firms building, it must be acknowledged using of materials in buildings is started without adapting to climate, culture and even the identity of the materials. According to this we can consider an special separation for applying the building materials in urban design that faced a state of confusion in the architectural language and view a variety of effects that are sometimes not compatible with climatic conditions and geographic of Iran. The material topic can be discussed in Interdisciplinary space, because the topic of materials can be discussed in Architecture, Urban Planning and Construction of Urban Landscape, stability, materials, aesthetics and urban arts. But the important thing in this research is that according to new technical developments and the modern world, synthetic materials and new applications and advantages must be known and then make decision that how is the climate and its impact on our towns and villages and at least it can be a model for harvesting. The writer doesn't want to be providing and a fixed pattern and limit it in time and place. Also defining a pattern

is just only in the form of a molding process review and must be in defined and realized in the progress to be comparison able with space, time and place. (EbaftYeganeh, 1382:28)

A lot of problems like environment, paying attention to general health, the ways of improving life, saving energy and cost, safety and cleaning of environment and a lot more reasons can have a very important effect on achieving the new ways of building and encourage us to make new products. Generally one of the most important reason about using new materials for their role in a variety of architectural beauty. But the other reason is due to the growing trend given that the estimated cost of construction materials and composite cost much less for building.

THE MAIN RESEARCH QUESTION

The questions that we are searching for the answers:

What is the position for our vernacular materials in upgrading climate and social aspects and identity of our cities?

What are the common things in our new materials and vernacular materials in the field of construction?

What is the position for the attention to building new urban construction in materials market?

After these questions we will search for the answer of this question:

Which one of new materials and manufacturing technologies can be used in today the country's construction sector according to the applicable underlying conditions?

THEORIES

In line with the questions posed above, it seems that vernacular materials in our country according to climatic conditions and geography of each city play the key role in towns social identity in such a way that a lot of cities in terms of cultural identity, is identified with its region-specific materials. Undoubtedly a lot of new materials which are used in relating to energy sustainability and new technologies, can have very good performance in front of his canvas materials and be used instead of them and since they solved the needs of people easier, they have been noticed by building markets. So new materials are required to be identified and in terms of performance, stability, durability and aesthetics using local materials be in comparison. The reason of misusing of new materials must be known in the lack of proper understanding. After general understanding of the new materials, their position as one of the main branches must be understood besides the urban design process. But this is the only effective aspect and we must study the other reason in this process including the role of demand and supply of materials, access designers and manufacturers of building materials, building materials industry survey and per capita use of new materials big cities (Based on work samples, Tehran).

RESEARCHMENT METHODOLOGY

In this researchment it is used from descriptive _analytical approach in researchment methodology to evaluate street views of Abozar street in Tehran. In this research evaluation is based on field, comparison and analysis. In this research the study based on field and observations is necessary in order to comprehend the present situation of streets, frontage, materials and also investigating the effective reasons of street views. This information which is taken by observing, comprehending of field and other mentioned ways is going to be analyzed and evaluated by opinions and other instances of around the world. In another aspect documenting round which is related to researchment would be used in order to utilize the scientific opinions so all of the information must be based on facts such as economy, society, culture and frameworks of Abozar street. Because this research will investigate the division and materials of buildings and will present the heterogeneous in frontage among them. In addition the action plan would be provided to find principles and solutions of 17 area of Tehran. However this research will not be considered as comprehensive one.

PRINCIPLES OF QUALITY OF CITIES

THERE are considered 3 principles as the most important ones in order to determine the principles of the quality of cities.

DATA ANALYZE METHOD

In this research we paid attention to the framework of cities. In this way, the visual preference techniques (VPT) is used to take the photos of framework of streets and cities which are presented in questionnaires. This questionnaire includes Iranian instances which are presented to people in order to survey. We have survey in order to ask people's ideas about design process and put it before the experts' opinions. We have done this in 2 ways.

1. Investigating presented framework in sites and putting them among the others in order to conclude by the obtained categorized features.

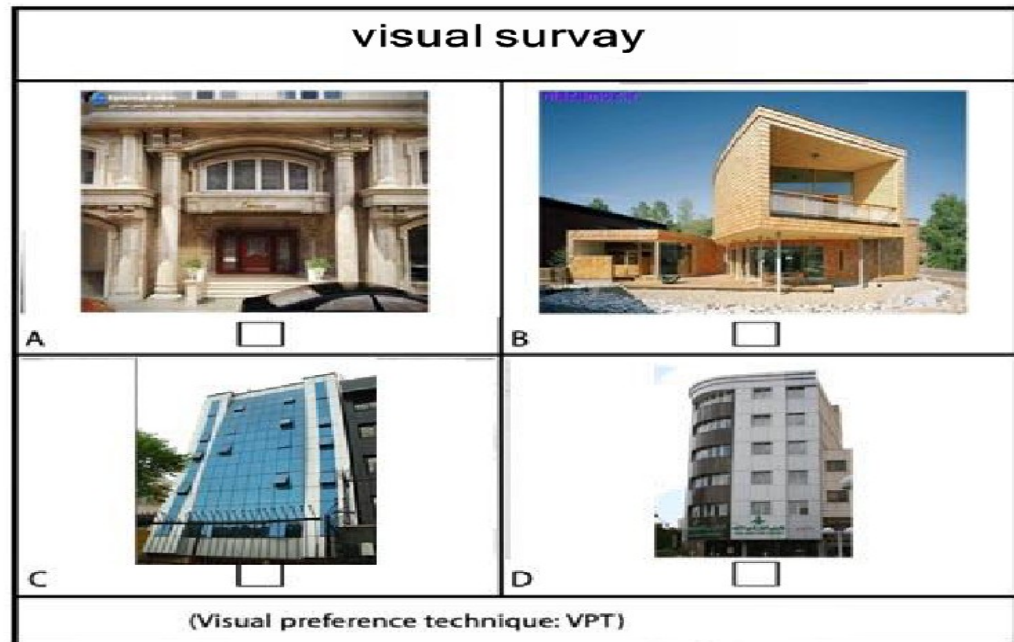
2. Providing the questionnaire from selected choice in first step and surveying a new questionnaire and concluding about it.

Measurement of frontage and materials on identity of cities.

Using the coordinated lines on frontage, front synchronization and attempting to control the coverings of buildings can manage the general view of Tehran city. Creation of balance in buildings front and materials are other 2 reasons that can return the quality and identity to neighbors of city.




First step: selecting material



Designed surveys with VPT method



According to people responses about selecting the material for the building front view in the survey, stone, Aluminum composition, and the combination of stone and glass were chosen. Other views such as glass, the combination of stone- brick and the brick were chosen as the least preferred.

Second Step: selecting the kind of material

visual survey number one. stone view	
<div>A</div> <div></div> <div><input type="checkbox"/></div>	<div>B</div> <div></div> <div><input type="checkbox"/></div>
<div>C</div> <div></div> <div><input type="checkbox"/></div>	
(Visual preference technique: VPT)	

visual survey number two. brick view	
<div>A</div> <div></div> <div><input type="checkbox"/></div>	<div>B</div> <div></div> <div><input type="checkbox"/></div>
(Visual preference technique: VPT)	

Brick view		
Numbre	A	B
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Stone view			
Number	A	B	C
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
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15			
16			
17			
18			
19			
20			

visual survey number three.glass view



A

☐


B

☐


C

☐


D

☐

(Visual preference technique: VPT)

visual survey number four. alumenium composit view



A

☐


B





☐

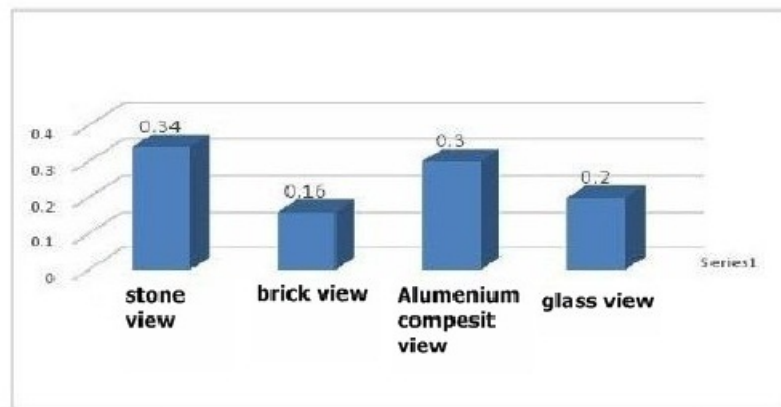
(Visual preference technique: VPT)

Aluminium composit view		
Number	A	B
1		
2		
3		
4		
5		
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7		
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13		
14		
15		
16		
17		
18		
19		
20		

Glass view				
Number	A	B	C	D
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Most of peoples selected choice in 1st questionnaire was "a", which the building is covered by Roman stone. In 2nd questionnaire people would prefer "b" which had red brikes combined with stone. Also some chose yellow brick front too. Because that would cost less. In the 3rd questionnaire the preferred front includes combination of stone and glass, however it was better to have more glass. In 4th questionnaire 2 fronts of "c" and "d" had most selection. Because people considered them more new and modern ones, accordingly another questionnaire has been provided for people to choose their best materials. In this questionnaire "a" attracted people's attention because the structure and new framework in Tehran shows people would like this front more and majority of answerers presented this as new front which is under the attention.

people selected visual survey	
<div data-bbox="306 315 644 533"></div> <div data-bbox="236 539 268 568">A</div> <div data-bbox="448 539 496 568"><input type="checkbox"/></div>	<div data-bbox="743 304 1187 533"></div> <div data-bbox="715 539 746 568">B</div> <div data-bbox="935 539 983 568"><input type="checkbox"/></div>
<div data-bbox="247 584 692 757"></div> <div data-bbox="240 770 272 799">C</div> <div data-bbox="448 770 496 799"><input type="checkbox"/></div>	<div data-bbox="847 573 1082 770"></div> <div data-bbox="715 770 746 799">D</div> <div data-bbox="935 770 983 799"><input type="checkbox"/></div>
(Visual preference technique: VPT)	



people selected				
number	A	B	C	D
1				
2				
3				
4				
5				
6				
7				
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CONCLUDING AND PRESENTING PATTERNS

Considering mentioned items, city view of Abozar street has a lot of problems such as economic and social ones which are made by importing materials from other countries, in another aspect the advertisement over heterogeneous materials with climate, culture and nature of Iran and specifically Tehran, has given unidentity and lack of visual aesthetic to the city and we need special constitution to step forward to have better landscape of cities. In addition this is necessary to make architects aware of effective principles in constructing and make them understood that materials should be assimilated with climate, geographical, and natural conditions of the city. Accordingly this is not expected to see the materials which are being used in other countries be as same as those in our own country. In addition improvement of awareness of people and private employers and understanding of citizens about contemporary architecture is essential in order to make operators involving industries of constructing houses understood that they should pay attention to heterogeneous materials with climate, culture and nature of Iran and specifically the metropolises like Tehran. This needs

cooperation of architects and other experts in constructing houses in cities with other organizations and departments involved with this matter to regulate a landscape for city views of metropolises and then use the evaluations made by experts. Accordingly achieving this framework with fully respect to modernism of new generation should be on the agenda of municipal and involved organizations. It is hoped to take it in agenda by pundit's ideas to improve the quality and visual look of city.

1. Editing long term plan, comprehensive landscape of general view of Tehran city in documents of future prospectives of metropolis of Tehran / editing long_term landscape of designing the general view of Tehran.

2. Providing mid_term and subjective plans

1. Providing short and mid term plans involved with editing the document of future prospectives.

LONG TERM PLAN

.Determining the budget framework and allocating financial sources.

ntifying related organizations and creating the organizations involved with city views of Tehran.

.necessity the attention of architects through designing and implementing building projects based on principles and criterions of original architecture of Iran.

.creating the opportunities of intellectual reflection in architects in a form of real implementation projects.

. Holding seminars related to research's subject for architects and city's responsables

. Determining reliable principles about Iranian contemporary architecture.

MIDTERM PLAN (ACTION PLAN)

. Using the participation approach in structuring and implementing city views

. Sharing the strategic landscape and comprehensive city views of metropolis of Iran with citizens.

. Asking the opinions and cooperation of people in city views.

. Involving people as stakeholders in architecture projects.

. Respecting the roles of people and users in social architecture.

. Participating approach and considering people as partners in designing and performing the city views constructing the urban space.

. Holding series of seminars of architects and people in order to design public buildings in city and urban space belonged to people.

. Increasing the awareness of people and their understanding about building facades and principles of knowing them in size of metropolises of Tehran.

. Editing courses related to understanding the principles of facades in institutions and collage.

. Presenting intellectual and philosophical concepts related to current conditions in world architecture and favor of college students of necessity of matching the Iran architecture with world's one.

- . Necessity of attention of college students to architecture and observing the cultural assimilation and ignoring the imitate world's contemporary architecture.
- . Editing the essays and books related to this subject and making college students able to determine the great goals of documents of future prospectives in Iran.
- . Adding workshop lessons about city views in practical projects and making contract between employers and schools of architecture and urbanism.

SHORT _TERM PLANS.(THE SCOPE OF ENFORCEMENT STRATEGIES ACTION PLAN)

- . Architecture and urbanism training.
- . Trainings are based on the methodology of master _apprentice
- . Regulations and standards of architecture and urbanism
- . Executive regulations on viewing and symbolizing the building
- . Executive commitment in favor of building facades of architectural projects.
- . Necessity of facade approval through municipal permission
- . Public education.
- . Improving public perception and understanding of the architectural parameters and values by public meetings of mass media and people over the discussion of the day.
- . The introduction of fine monuments of architecture and dependent views with high content quality and aesthetic in architecture.
- . Architecture space and executive workshop.
- . Using professional forces in related organizations for designing workshops and future conditions (municipality, city council,...)
- . The necessity of holding and meetings with experts in architecture and urbanism identification and resourceful forces.

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