Addressing the Urban Contextual Envelope: An Analytical Study in Architectural Design Studio

Dr. Eman S. Abowardah
Associate professor, Architecture department, College of Engineering, Tanta University, Egypt.
Orcid Id: 0000-0003-3067-7592

Dr. Hebatallah A. Elsayed
Researcher, Civil Engineering department, Engineering division, National Research Center Egypt NRC.
Orcid Id: 0000-0002-0248-9511

Abstract
Any Architectural work is a complex process of urban and cultural morphological output derived from the user's need, and as a result of many contextual directors. The urban contextual envelope is considered as an effective factor in the formation of architectural and urban planning products, consequently raised to be an important approach in the architecture educational process. Architectural education process thrives on critical reflection, discussion and debate about its products. The architectural product analysis reflects how a building relates to its urban or rural sitting, its climate and the society it serves. The context determines the architectural style, building material and site layout, which is very important in creating an effective design. All these promote continuity between the building and its surroundings. Nowadays, most of the architectural educational output in the Arabian region suffers and encountered problem, the total separation from the surrounding contextual envelope including urban, cultural, social and environmental factors. Architectural design education as a whole, and particularly the architectural design studio, should be considered as sort of an initiation process where students are introduced to architectural knowledge. The activities of the studio should emphasize the context at a local, regional and global level. Since the primary concern of architects is to produce three dimensional space and form, which is necessary to accommodate the users' needs, the teaching process should focus on two concerns: first, is the balance between formal and socio-cultural aspects and second, is the balance between students’ searching and thinking capabilities and their other mental activities. As it is obvious from these definitions that cultural diversity, architectural design education and accordingly teaching strategies essentially have connections. This paper mainly discusses the impact of the existing surrounding context's features and characteristics on the architecture educational design process. Therefore, the research methodology is directed toward evaluating the outcomes within the educational process in design studios, and measuring the reflected knowledge of the contextual envelope. Consequently, the findings of the analytical part will conclude the percentage of students who are able to design projects that are compatible with the surrounding environment and reflect the nature of the Arabian contextual fitting. Finally, a conclusion will be drawn up, in order to help in enriching the students’ knowledge and awareness of the contextual envelope and its applications in the architectural design process, which formulates the morphological language reflecting the Arabian architectural identity.

Keywords: Contextual envelope, Architecture design studio, Topography Shaping, Urban Fabric Fitting, Identity, Environmental directors, Socio/culture aspects

INTRODUCTION
The Arabian region is undergoing transition from traditional societies to one of modern development which hasn’t found any real stability. This is most clear and most evident in the field of urban design and planning, for it is the largest and most visible of a community’s built forms. (Kiet, Anthony, 2011) In general, creating coordination between modern architecture with a modern context is always easier than creating coordination between modern architecture with non-modern contexts. The lack of trained town planners and architects can be considered a contributing cause of the basic mistakes committed in the planning and expansion of most Arab metropolises (Berger, 1974; Shiber, 1974). The foreign consultant, though perhaps well trained, is not well versed in local characteristics, habits and conditions to effectively produce sound policies and planning solutions. Looking at the urban contextual envelope as an effective factor in the field of the formation of architectural and urban planning outputs is not a new phenomenon or approach but an inherited one that over time have been neglected and gradually forgotten. Young architects sometimes think how to design buildings that stand out from their environment and context so that their work would be recognized as signature buildings. This issue became their goal and concept of creativity in the present age.
RESEARCH PROBLEM
Nowadays, most of the architectural educational output suffers an encountered problem, especially in the Arabian region, the total separation from the surrounding contextual envelope including urban, cultural, social and environmental factors. As a result, new unconscious designs representing the contemporary trends in architecture have appeared, although they don't reflect the Arabian architectural identity. Generally, Arabian cities are facing a fast urbanization associated to an architectural style that is completely opposed to the one in the traditional city. The proliferation of a Western model of urbanization has deeply affected the original context and rejects the local urban and architecture. This modern architecture and urbanism are faced with complex of interferences between rapidly changing factors especially economic and technological, as response to new users' needs. This research tries to emphasize the social and cultural dimensions in urban planning on the way to reach contextual merge in architecture.

METHODOLOGY
This paper mainly discusses the significance of the relationship between the educational design process and the existing surrounding context's features and characteristics. The aim is to emphasize the educational approach which focuses on the urban and environmental impact on the architectural design. The research methodology is derived from two main frameworks; first, measuring the reflected knowledge of the contextual envelope through conducting questionnaires distributed among students from different design studio levels. Second, evaluating the outcomes within the educational process in design studios. Based on the outcomes of the two methodological frameworks a conclusion will be drawn up, in order to help in enriching the students' knowledge and awareness of the contextual envelope and its applications in the architectural design process, which formulates the morphological language reflecting the Arabian architectural identity. The study will measure the output of design process in students’ works through three main stages; first, Pre-design stage (research brainstorming), second, design processing (solving process) and third, post design (evaluation).

Contextual envelope directors
The relationship between architecture and urban context in the Arabian region shows the local architecture identity. Old cities are not designed by a town planner; it is rather a collective work of the community. Thus it is reflecting concerns for the environmental, socio-cultural and economic aspects that interact altogether and characterize the local output, the space organization and the urban structure. The most important stage in the pre-design phase is to study and analyze the context, so the designer can follow a group of design directors, which consider logical justifications for his design decisions and help him to take the right actions in the design process. These directors help in producing compositions and masses which are compatible with the context and integrating with surrounding environment. The research discusses three main directors; Functional, identity and environmental (fig.1).

All these directors promote continuity between the building and its contextual envelope

![Figure 1: The Contextual envelope directors](image)

Functional directors
The functional directors affects the initial design process phase and setting the project programming. It includes three main factors; Economic, user’s need and Development plan priorities.

Economic Factors
Economical context relates to the condition or situation of a country’s economy. Nowadays, recession gives a big impact to slow down the buildings construction and development. It also gives the psychological impact to all practitioners in construction industry. This difference makes the practice of contemporary architecture is different from place to another.

Users’ Needs
The users' needs results from all social phenomena and their personalities, their experience of the built environment, and the relationship of society and manmade environment (Chenaf, N. 2004). Social interactions and socialization play an important role in determining the shape and the design features of buildings. Research in Social Factors is research into the human experience of the built environment. Social Factors continues to ask questions about how people use space and what meaning that space holds. (Lindsay, Georgia, 2015) The lens of valuing the user's needs helps in understanding the built environment.

Development plan priorities
The decision makers prepare annually the development priorities plan through the major sectors; planning, building, engineering and environment. City Council establishes priorities for the planning and development of future growth areas through setting the rate and timing of the development in the city. The development plan of the city is a tool to assist the architects to integrate the financial planning with land use, project development priorities and architectural typology.


Identity directors
Responsive identity is a quality of relation between the internal spaces of a building, and between the building and its context (for example a building and its contexts of street, region, climate, society). Identity directors include 3 main factors; Socio/Cultural Aspects, Urban Fabric Fitting and Visual Compatibility.

Socio/Cultural Aspects
The cultural and social considerations are the secret and the spirit of the neighborhood and the city stem from the human touch” (Ali, Osman Nejem, 2006). The Continuity with existing physical environment and its history is considered as a local memory image of the place. Cultural factors play a major role in shaping the form and context in the development of any city. The cultural factor is considered one of the most important factors influencing the formation of urban context, to investigate the extent of its effects on the texture and composition of architectural form (Benhamouchi. M, 2003). Culture is a way of life; it is the best way to accept the constraints of a place and is followed from generation to generation. Every building can engage in a dialog with the history, beliefs and needs of a particular place and time (Lichaei, Afshin.2014).

Urban Fabric Fitting
Urban fabric fitting is the adaptation of form with context, different types of natural, historical, socio-cultural and man-made contexts (Nacib,Y. 1986). The relation between a building and the environment can be formed in three ways including congruence, contradiction and confrontation. A congruence relation is in a way that what is constructed will accept the environment from the standpoints of form, technique and the type of “language” (Gruter, Y. 1996). Urban fabric fitting is a bond between architecture and urban planning in a certain context and context is a place that can connect architecture with urban planning. Construction in the present context means to interweave the new and the old in a way that it would be able to create a lively desired whole (Abedi, Sanaz, 2015). Architecture projects need to be perceived as part of implementing an urban design project which entails gathering insights into urban fabric and how people use urban spaces.

Visual Compatibility
Visual compatibility expresses the continuity with the existing context, linking the building with the physical environmental features. In the urban design context, morphology refers to the underlying factors of urban form that draw upon society’s attitudes towards and in relation to physical elements and spaces (Franck, Karen. 1994).

Environmental directors
Environmental considerations' respect is always an important part of the design approach. It plays an important role to reduce the pollution by making innovative changes in design, utilization of environmental friendly materials, and implementation of renewable energy approaches are a few strategies to solve the problems. These innovative changes would logically change the style and form of contemporary architecture to the new paradigm, which at least this new approach will be the main idea for the new architects in their design in coming years.

Climatic Shaping
The climatic context plays the important role in design. Ken Yeang explained climate context as “understanding the site ecological history gives further clues as to what design strategies should be adopted” (Philip, J., 1997). Designers need to design buildings that meet the criteria of local climate such as; building orientation, types of material used, and also size and type of openings (Delaval, B. 1974). The understanding of the local’s climatic context is the most important strategy in architecture otherwise the building would be less comfort.

Topography Shaping
Topography affects architecture and can add great interest and value to a site and to a building. In this way, we can infer relationships between the building and the context topography. Analysis of buildings in term of responsive topography emphasizes connections rather than object (Masoud, M.2012). We can see the buildings that exhibit high degrees of responsive topography are not marked by uniformity, because they should always add value to their context and this requires much more than fitting in (Yarahmadi, M.A. 2002).

Orientation/Direction Shaping
Orientation is simply what controls directions of the buildings' faces. Along with massing, orientation can be the most important step in providing a building with passive thermal and visual comfort. Orientation should be decided together with massing early in the design process, as neither can be truly optimized without the other (Pakzad, J. 2007). Aside for reducing energy use and enabling passive design strategies, successful massing and orientation can take advantage of site conditions (Shiber, Saba G. 1969).

Reflection of the contextual envelope identity in the design studio
This part of the study aims to measure and examine the impact of the existing surrounding context's features and characteristics on the architecture educational design process. This will be through evaluating the outcomes within the educational process in design studios, and measuring the reflected knowledge of the contextual envelope. Consequently, this part will highlight the ability of the students to design projects that are compatible with the surrounding environment and reflect the nature of the Arabian contextual fitting.

Measuring students’ knowledge of the contextual envelope
The reflections upon developing the knowledge of the contextual studies are evaluated through questionnaire distributed among 45 students from junior and senior design
studios levels. The questions in the questionnaire were designed to evaluate students’ deep knowledge and its application towards the integration between architecture and the contextual envelope, through two main stages: first, Pre-design stage (research brainstorming) and second, design processing (solving process).

Questions about pre-design stage were structured to emphasize the participant students’ learning abilities to gather the contextual knowledge as follows:

1. Do you cover in your study the economic situation?
2. Do you test the users’ needs through surveys?
3. Does your project programming follow the development plan for country/city/sector?
4. Do you search for social and cultural traditions in your research phase?
5. Do you scan the land use and surrounding buildings style?
6. Do you apply actual complete study for climatic and site analysis?

Questions about design processing stage will help to find out if the students are inspired consciously from the context. The questions are structured to emphasize the participant students’ application abilities and its linkage the existing physical environment and the contextual fitting as follows:

7. Does the pre-design phase help you to solve the design problem and start the design process smoothly?
8. Do you respect the surrounding urban fabric through the masses’ spatial organization?
9. Do you respect the land’s topography in your design?
10. Do you apply masses Orientation/Direction according to environmental analysis?
11. What type of constrains that motivate you in the conceptual design stage?
12. What kind of school do you prefer to follow in your design (inspiration reference)?
13. Which part of the pre-design stage do you find it difficult to apply in your design?

Questionnaire results and analysis

First: Pre design Process Phase

The highest percentage for agreement appeared in Q6 students’ answers; applying complete study for climatic and site analysis, while the highest percentage for disagreement appeared in Q1 students’ answers; covering the economic situation (Fig.2).

Second: Design Processing Phase

The highest percentage for agreement appeared in Q9 & Q10 students’ answers; respecting the land’s topography & applying masses Orientation/Direction according to environmental analysis, while the highest percentage for disagreement appeared in Q7 & Q8 students’ answers; pre design phase helped them to solve the design problem and start the design & respecting the surrounding urban fabric through the masses’ spatial organization (Fig.3).

Evaluating the design studios outcomes within the educational process

A descriptive reading and findings through the experiences in the architectural design studio is presented and the outcomes within the educational process are evaluated.

Design decisions

Each contextual envelope director affects a group of design decisions during the design processing phase. The study proposes the following schedule (table1) to measure and evaluate the design decisions of the students for each contextual director.
Table 1: Contextual envelope directors affecting design decisions.

<table>
<thead>
<tr>
<th>Contextual envelope directors</th>
<th>Design Decisions</th>
<th>Satisfaction/ Availability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Users' Needs</td>
<td>Accessibility and Approaches</td>
<td>YES</td>
</tr>
<tr>
<td>Circulation &amp; user experience</td>
<td>Spatial Organization</td>
<td>YES</td>
</tr>
<tr>
<td>Development plan priorities</td>
<td>Architectural programming</td>
<td>YES</td>
</tr>
<tr>
<td>Hierarchy of spaces</td>
<td>Metaphor</td>
<td>YES</td>
</tr>
<tr>
<td>Economic Factors</td>
<td>Structural/technical System</td>
<td>YES</td>
</tr>
<tr>
<td>Technological developments</td>
<td>Form &amp; Materiality</td>
<td>YES</td>
</tr>
<tr>
<td>Socio/Cultural Aspects</td>
<td>Enclosure &amp; boundaries</td>
<td>YES</td>
</tr>
<tr>
<td>Local vocabularies</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Urban Fabric Fitting</td>
<td>Module Reflection</td>
<td>YES</td>
</tr>
<tr>
<td>Geometric language/Morphology</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Urban Public Realm</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Visual Compatibility</td>
<td>Skyline and heights</td>
<td>YES</td>
</tr>
<tr>
<td>Solid / Void</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Architectural Styles</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Climatic Shaping</td>
<td>Thermal Comfort/ventilation</td>
<td>YES</td>
</tr>
<tr>
<td>Façade Treatment</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Topography Shaping</td>
<td>Sustainability</td>
<td>YES</td>
</tr>
<tr>
<td>Land contour</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Landscape Elements</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>3D Form</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Orientation/Direction</td>
<td>Scenery &amp; views</td>
<td>YES</td>
</tr>
<tr>
<td>Shaping</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Lighting</td>
<td>YES</td>
<td>NO</td>
</tr>
<tr>
<td>Consideration</td>
<td>YES</td>
<td>NO</td>
</tr>
</tbody>
</table>

Students work evaluation samples

The students' evaluation sample consists of thirty projects from three different Architectural junior and senior studios.

Sample no.1: Palestinian handicraft and art center (fig6)

Figure 6: Palestinian handicraft and art center

The project locates in Palestine- Nablus with Total Area: 50,000 m2. It aims to shed a light over the variety of Palestinian historical arts and crafts and how to exploit them in a way that will enrich the minds of the Palestinian citizens, focusing on training talented people the crafts and arts to develop intellectual, creative and artistic abilities.

First: Functional Contextual envelope directors

1. Users' needs

Project targeting the youth, by regenerate awareness of the Palestinian tradition and its deep-rooted history. Also elderly people who want to keep the traditional trades alive by teaching and training the youth for traditional handicrafts.

Design Decisions

A- Accessibility and Approaches

The chosen site is located in Nablus- Palestine behind Al-Najah National University and easy accessible from the main known street and 3 secondary street. Surrounded by a huge number of villages from all sides so it will be accessible for a large number of youth.

B- Circulation & users’ experience

Design encourage users to walk in main route or spine passing through the center of the project connecting all masses and enhance social life, providing the users with the experience of walking through old Nablus districts using stairs and ramps.

C- Spatial Organization

The overall plan offers a combination of forms that are aggregated around a central spine route in spiried from old city alleys. This spine is the most important public space and other forms act as a pivotal point for the project.

2. Development plan priorities

Bring attention to the real Palestinian identity that has been stolen and marginalized over the years. And benefiting their society by raising money for their community, Trying to solve the High percentage of Unemployment. After the interview with the users and studying the community requirements and priorities, accordingly, the decision was taken

Design Decisions

A- Architectural programming:

dividing The project into a group of main required zones (educational- recreational- arts &handicraft workshop - religious- social – residential- indoor &outdoor exhibitions). The most public functions are placed closet to traffic. The design takes the stance that learning takes place not only in workshops but also in other social gathering places.
B- Hierarchy of spaces

As a visitor walks up or down stairs and ramps through the main spine, the accesses to the main spaces are gradually revealed, passing through different handicrafts workshop until reaching the highest point, which is the exhibition to express the interaction with community services.

C-Metaphor:
The form concept inspired from Palestinian famous stitches and old Palestinian neighborhood urban design.

3. Economic Factors

The Palestinian tourism, economy and trading sectors are highly affected by the Israel occupation. Traditional arts and crafts are affected as well, Israel has been always trying to erase the Palestinian heritage. limited numbers of lands are available

Design Decisions

A-Structural/technical System:
Decreasing the construction cost by minimizing building height and number of floors. Using dust removal system as an important feature for the safe operations of power equipment. However, using concrete columns, flat slabs and space frame is not suitable for the economic situation.

B-Technological developments:
Using GRC cladding, Thin, lightweight panels, Highly durable and safe, very low maintenance, Strong and lightweight, cost effective, Weather and fire resistant. But other technological treatments are not used.

C-Form & Materiality:
The design reflects combination of the fundamental local building materials of stone and recycled natural materials like wood from olive trees for site furniture and flooring.

Second: Identify Contextual envelope directors

1- Socio/Cultural Aspects

Nablus was guided by the culture and social order of Islam, so it was developed in a more organic manner characterized by private communities. Embroidery has been a key feature of traditional Palestinian costumes for hundreds of years. Also Palestinian culture is reached with many handicrafts work such as: Pottery-making, Soap-making, Ceramics Glass making, Olive wood, Pearl carvings The city of Nablus has been known for thousands of years as a main commercial and cultural center in Palestine.

A-Privacy Level:

Offices and multi-purpose area; auditorium and exhibit space are located near the main entrance to provide the total privacy for the handicrafts work areas. The dorms located in separate zone with special orientation for complete privacy. The project’s forms express through their hierarchy various degrees of space privacy from the primary level that is the public space, passing by crafts workshop (semi-private), to the most private areas that are the dorms. The transition between public and private spaces is gradual through the use of slopes and planters.

B-Enclosure & boundaries:

All forms act as an enclosure element and protective shields through the inner court, also for outdoor spaces including in the middle main plaza and central spine which act as gathering spaces for all users and visitors.

C-Local vocabularies:

Get inspired by the traditional narrow alleyways inside the residential district. In addition, courtyards used in the project as traditional vocabularies. Using
Palestinian famous traditional stitches in elevation design.

2- Urban Fabric Fitting
Nablus urban fabric is subdivided into districts, that are distinct from each other and have compact organic forms. They are crossed by a network of narrow alleys of different dimensions that express through their hierarchy various degrees of space privacy. Streets form a “tree-like” pattern.

**A-Module Reflection:**

The internal project module reflects the urban fabric module. The project's grid mimics Nablus urban grid system and underlines the design composition. Design elements, including the movement routes, are arranged on this underlying grid.

**B-Geometric language (morphology):**

The buildings are grouped together in an organic organization of interlocking forms developing the complex form. The design is based on squares and other simple geometric forms; this design language is adapted for the requirements of the proposed program and the surrounding urban fabric.

**C-Urban public realm:**

The flow of movement from the central spine and elevated forms allows the people to observe one another in action turning the buildings and its surroundings into an urban theatre. The open layout of the main level allows for multiple social activities.

3- Visual Compatibility
All the buildings in Nablus have mostly solid elevations with dynamic geometry, creating a symphonic rhythm with the surrounding visual image of city.

**A-Skyline and heights:**

The building's elevations represent gradual skyline in respond to the contextual skyline. The building's heights following the regulations of the city and general theme of the context.

**B-Solid / Void:**

The compact spatial configuration of the spaces allows the forms to shape the void around them through masses and positioning. Using the internal courtyards in most of the forms create a balance between solid and void.

**C-Architectural Styles:**

Proposal was built on the paradox between modernity and tradition. Design diverse precedents from traditional Arabic architecture, such as interiority and the manipulation of light. The mashrabiya design was not translated successfully in regards to new technology, materials and structure.

**Third : Environmental Contextual envelope directors**

1- Climatic Shaping

The relatively temperate Mediterranean climate brings hot, dry summers and cool, rainy winters to Nablus. Spring arrives around March–April and the hottest months in Nablus are July and August with the average high being 29.6 °C (85.3 °F). The coldest month is January with temperatures usually at 6.2 °C (43.2 °F). Rain generally falls between October and March.

**Design Decisions**

**A- Thermal Comfort/ventilation:**

As a response to climate factor, most spaces are internal with a small courtyard using Stack ventilation strategy, using the sheer weight of an exterior wall from natural stone as a shield against the heat. Using the mashrabiya for opening to allow natural ventilation and light into spaces.
**B-Facade Treatment:**
The absence of shade and shadow of the exterior façade reflects unsuccessful climatic treatment.

**C-Sustainability:**
Using water element in the part that exposed to hot wind to decrease its effect. High building in the south side to cast shadow on main plaza. Using recycled water for lakes and fountains, natural stone and recycled wood for sites elements.

**2- Topography Shaping:**
The mountains nature and rich water resources forced the Romans to develop the city from east to west at the valley between Gerizim and Ebal mountains. The city was built at the lower part of Mount Gerizim and expanded gradually against its slopes. The rough terrain affected the shapes and styles of the city’s architecture and built environment.

**Design Decisions**

**A-. Land contour:**
The project was designed on different levels starting from 0 level to 13.5m above sea level which followed the contour lines for the site.

**B-Landscape Elements:**
Using stairs and ramps to connect different levels. Flowing Water in the form of waterfalls. Roof gardens in different levels to match the slopping site theme.

**C-3d form:**
Different masses in split level follow the land slope and levels.

**3- Orientation/ Direction Shaping**
The project extend longitudinal from south to north, the surrounding external scene is olive trees farm and mountains.

**Design Decisions**

**A-Scenes & views:**
The only form that has views on the external surrounding scenes is the dorm, but all the project as general has internal views and inward orientation, so the project isn’t connected with the surrounding scenes, although the surrounding scenes is green steps and olive trees farm.

**B-Lighting Consideration:**
The exhibition spaces and library are located on the higher level to allow in natural light. All workshops forms have internal courtyards to allow the natural light in. In spite of the successful direction shaping, the library’s reading hall orientation was not solved correctly.

**Evaluation Results & Analysis**
The highest percentage of successfulness in the student’s design decision appears in; (user’s needs), (Country’s Development plan), (climatic shaping) and (orientation shaping) contextual directors. Whereas, the highest percentage of unsuccessfulness in the student’s design decision appears in; (economic factors), (urban fabric fitting), and (topography shaping) contextual directors (fig7).

**CONCLUSION**
- Most of students’ were able to complete their pre design phase and research studies successfully, but they couldn’t translate and apply the research outcomes into the design processing phase such as; urban fabric fitting, module, public realm.
- The post design evaluation phase analysis showed coherence with students’ response for the applied questionnaire in the following:
  - Most of the students couldn’t take the right design decision concerning; structural/ technical System,
technological development, and form/materiality, according to the economic contextual director.

- Most of the students couldn't take the right design decision concerning; module reflection, geometric language/morphology, and urban Public Realm, according to the Urban Fabric Fitting contextual director.

- The post design evaluation phase analysis showed contradiction with students’ response for the applied questionnaire in the following:
  - Most of the students couldn’t take the right design decision concerning (Land Contour, Landscape Elements, and 3D Form) according to the Topography Shaping contextual director.

- Regarding the socio-cultural contextual directors; the students succeeded in taking the right design decisions for the privacy level, enclosure and boundaries, but they couldn’t reflect the local vocabularies in their design consciously. Although, they count the social and cultural constrains as the highest motivation in the design processing phase.

- 73% of the students answered that they are inspired with the International Style, which appeared in their designs as they couldn’t merge their designs with the local surrounding context through the project’s Architectural Style.

- Contemporary architecture is influenced by many factors. These factors are the main context for the architects in designing a building. Thus, the context of climatic, cultural, economical, political, computational and environmental cannot be denied, but is very important in determining the contemporary architectural design.

**Recommendations**

- contextual envelope in architectural design studio must be influenced by many factors:
  - The design process should not only fulfill the designer’s desires but must take into account the surrounding contexts locally and globally.
  - Response to the surrounding contexts is very important because it determines the success of a buildings’ design.
  - Response to these contexts will create communication channels between buildings and people around.
  - Sometimes people will appreciate the architecture, if designers appreciate their cultural and aesthetic values.

- The contextual directors; climatic, cultural, economic, topography shaping, and environmental cannot be denied in determining the right architectural design decisions through the design studios educational process.

**REFERENCES**


