

The product of architectural and construction problems and their role in stimulating creativity of the designer

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Introduction:

Interior designing is a creative process which has a multi plans and different forming or reforming plans. All of this is to solve more architectural problems, try to cover user aesthetics and functional needs.

The interior design process should consider the architectural studies and the included items like columns, roofs and floors, all of this needs collaboration with the owner, civil engineer and architect to avoid more executive perceptions problems.

If we ignore this collaboration, we will have problems which need additional effort and cost.

Key words:

Architect – Constructor – Creativity- Interior Designer.

Research problem: The research problem is in the following questions:

1- How can we define the main indicators for the relation among the design pillars including (owner- architect- civil engineer-interior designer)?

2-How does the absence of the interior designer's role affect the design plan since its inception?

Research aim: This study tries to achieve some aims:

1- Find some standards to define the interior designer abilities during applicable study which present some designs suggestions for construction obstacles.

2-Find some suggestions about how to organize the relationship between pillars of architectural design which leads to find unity, integration and balance.

3- Find aesthetical surroundings that make persons feel comfort and incorporate with the inner space.

4- The necessity to make integration between the architectural design and interior design to save the aesthetic and functional needs in the inner space in the future.


Research hypotheses: The research assumes that the architectural problems would simulate the creative side of the designer.

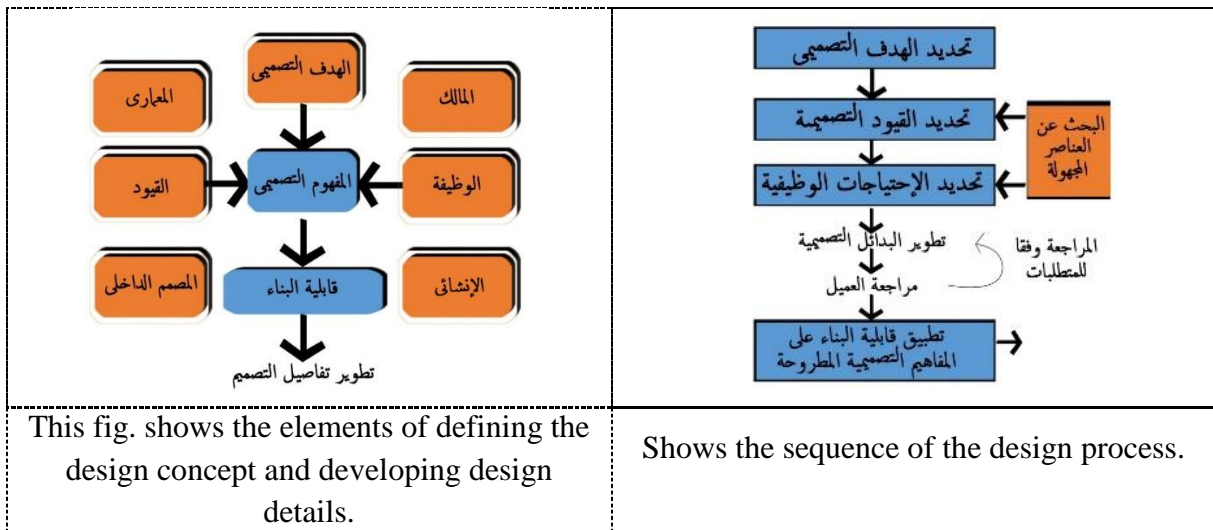
Research methodology: This study is divided into three axes:

First axis: the relationship between civil and architecture (real pictures)

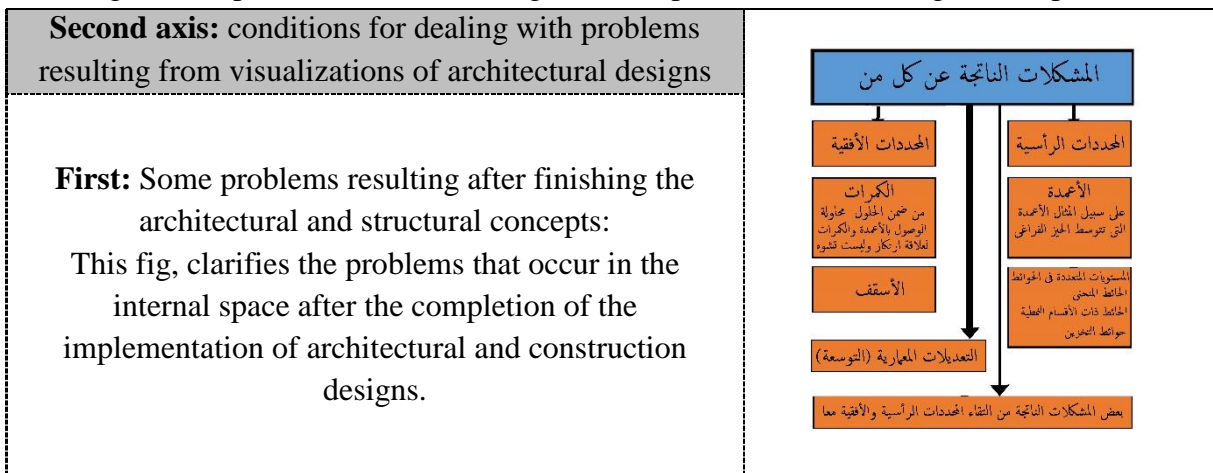
Second axis: conditions for dealing with problems resulting from visualizations of architectural designs.





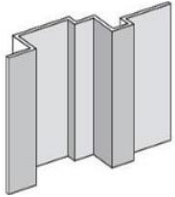

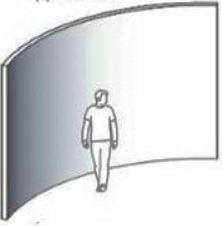

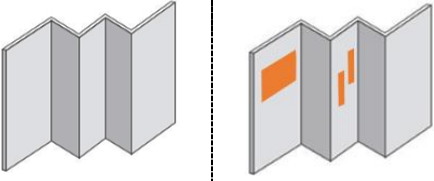

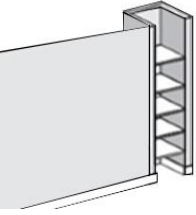

Third axis: application


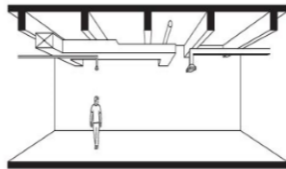


First axis: The dialectic of the relationship between civil and architecture (Pictures from reality):	
<p>The architect often starts designing the building, and the construction in turn to make it stable, and the role of the interior designer in that system disappeared, as his work was limited to the post implementation and construction stages , and thus resulted in many architectural problems faced by the interior designer, and the costs of which were incurred by the owner – this could be avoided if everyone in the system worked collectively, each presenting his idea through his specialty, and acquainting himself with the problems, limitations and potentials of others, after agreeing on priorities, as the ideal solution required is not achieved by the architect’s alone or the civil control in the overall design process, and this requires both skills and knowledge, it is beyond the capacity of one person.</p>	<p>المعماري الإنشائي</p>  <p>نظام رياضي دقيق التفكير الفني والإبداعي</p> <p>The different type of thinking between civil and architecture engineers.</p>



Questionnaire results about determining the extent of cooperation and coordination between the parties concerned with that research paper and we show some graphs about: Civil engineer responses- architecture engineer's responses- interior designer's responses.



1-Vertical determinants:			
• Columns:			
			
Column at different spots at the wall which make disorders at furniture distribution.	Column intersects with two walls.	Column that make protrusion at the wall.	Column in the middle of the space.
• Modulated walls:			
Modulated walls can be used to define spaces but it also has an effect at the other side so, it needs great effort and untraditional solutions to make it suitable for furniture and different activities.			
		Illustration and pictures from reality to form the multiple levels in the wall..	
• Curved walls:			
Unlike the straight walls the curved walls need special designs, also this curved walls more expensive to build and seems to be more difficult to hang artworks. It needs special furniture's and hanging's size.			
		Illustration and pictures from reality to form the curved walls.	
• Angled walls:			
This angled wall seems to make the space more dynamic but it leads to lose more space at furniture distribution. We can use these walls as frame for some artworks.			
		Illustration and pictures from reality to form the angled walls.	
• Storage walls:			
This type of walls does double duty it may be used as a space dividers and space storage. These dividers can be angled in regular or unregularly way. Also, it can merge with built in furniture to save more spaces.			
		Illustration and pictures from reality to form the storage walls.	



2- Horizontal determinants:	
• Beams:	
	
Beams transitions between each others and different beams.	
• Ceilings:	
<p>Ceiling is considered the most important design it also performs a variety of functions, such as controlling, supporting and containing lighting, etc...</p>	 
An illustration of exposed and suspended ceilings.	
3- Some problems resulting from the meeting of the horizontal and vertical determinants together:	
• Transition between column and ceiling:	Convergence of the beams and columns.





4- Some problems resulted from expansions:	
Real pictures about expansions	



Second: The standards which define the ability of the interior designer to deal with the problems which resulting from the executive perceptions from the architectural designs:

The success of the deal in plans with the executive perceptions problems can be defined at the next points:

- 1- Safety and security standards.
- 2- New design visions:
 - Visual communications.
 - Optical manipulation.
 - Isolating and fading.
 - Confirmation.
- 3-Commitment to the user needs and motives.
- 4- Principles and continuity.
- 5- Commitment to the practical and technical sense of the design.

The third axis: the application designs solution:	
Design problem number (1):	
<p>The shown problem is because of the beam which make a traditional form with plastic columns supporters which convert the space into being narrower than the actual space and its effect on the furniture distribution.</p> <p>The solution deals with the visual continuity with extended decorative items at the beam extend to the fake decorative column.</p>	
Real picture with traditional beam and wall transition with plastic column supporters.	
Design Solution:	
<p>We use a monochromic palette for the furniture and walls, also we use a cold color and another warm one at the interior design supplements to create more vitality in the design, also two separate colors at the hangings are used to make more visual continuity.</p> <p>Also we can use this solution at the problems which resulted from beam and columns transition. We can use these lighting cutouts which are suitable for the place privacy.</p>	
This new design makes the space more spacious to distribute the furniture.	

Design problem number (2):			
<p>The problem here resulted from the intersection between the column and two walls which make an unused space. The solution here depends on the mix between the furniture and hangings and their presence together in an integrated way.</p> <p>The first picture shows the problem.</p>			<p>Design inspired from Arabic letters.</p>
First design solution.			
<p>The solution here is built in furniture, same piece can be used as a hanging artwork and table with some colored acrylic sheets and translucent glass.</p>			<p>Perspective shots (1)+(2)</p>

Second solutions for the same space:	
<p>The solution is to convert this useless space to reading corner. we make a wooden shelves for the books covered with acrylic translucent piece.</p> <p>The wall decorated with Arabic lightened word. The base at the work is to merge between furniture and mural art.</p>	
	

We use straight Arabic calligraphy aesthetics and make a visual continuity with the wooden wood lines at the background. The pictures show the decorative unit and perspective shots.

Design problem number (3):

First design solution:

We make wall covering by wood and hide the columns and deal with the wall as a flat surface without any prominences, the design idea depends on the merge between mosaic aesthetics and wooden cutouts and the lights are a fixed part from the furniture.



Perspective shot.

Second design solution:

The second solution design depends on the industrial altitude which confirms the existence of the column with the finishing materials and use furniture sets from the two sides of the column, also the bed with a shelf to close the behind space and extends visually with some wooden shelves at the wall . so the column here is not a problem it becomes an aesthetic solution



Perspective shot.

Design problem number (4):

The problem here resulted because of modulated walls so we have an unused space. As a solution we decided to use it as a storage space covered with decorative mirror with slider



Perspective shot while opening and closing

Design problem number (5):

The curved wall: because of the furniture's distributing problems and hangings problems we need to use a special artwork for all this space which confirms the aesthetic side only without function for this space.

Design Solution:

At this design we merged between the aesthetic side as a hangings and the functional side as a furniture piece, and we made a wooden shelf as a book storage included stained glass design with light to complete the aesthetic side for the place.



The picture shows the real picture.

Perspective shot for the design

Results:

- 1- Structural elements like (beams – columns) seem to be a difficulty for the interior designer because we can't remove them and we need to find an aesthetic functional solution.
- 2- Architectural defects which resulting from controversy between the architectural engineer and civil engineer has a great role to motivate the creative side for the interior designer from finding aesthetic, functional solutions.
- 3- This research paper finds some rules and regulations to define the interior designer's ability to deal with the problems which resulting from executive perceptions for the architectural designs.

Recommendations:

This paper recommends the next points:

- 1- It's very necessary to have collaboration among the design corners (owner, architect, civil engineer, interior designer) to get best results to make the user more satisfied and save time, cost and effort.
- 2- The necessity that each one performs his work and responsibility without exceeding the others' roles and make integrations among them.
- 3- It's very important to use the new techniques at buildings, which help to reduce the architectural defects, and make more studies about their effects on the interior designer.
- 4- The interior designer should commit to the standards which are shown above.

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