

Unification of building facades color between rejection and acceptance

Case study: "Assiut" city – Egypt

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Abstract:

In the last few years, many of Egyptian cities tried to uniform the color of its building. One of these cities is "Assiut" city. The trial was made as an initiative by Assiut ex-governor. This initiative has been rejected by some people and supported by the other. Every team has its reasons and its points of view. This paper aims at analyzing the case of coloring building facades of city Assiut and answering an important question that ask about the degree of rejection or support or unifying colors of building facades from the perspective of academic architects versus individuals. The paper will present the main features of the architecture of city "Assiut" before and after unifying its facades colors. Then, the paper presents the results of a questionnaire on the academic architects in Assiut. Finally, the paper presents the most important results of the study and discussion for the results.

1. Introduction:

Color can play a lot of rules in the built environment. It can improve and beautify the existing residential neighborhoods, confirm and highlight the identity of residential neighborhoods, achieve visual homogeneity between the old and new residential areas, increasing belonging of citizens to the neighborhood, increasing aesthetic taste, refine the behavior of individuals (Abdelmagid, 2007), and improve the visual appearance of cities (Abdelmagid, 2005).

1.1 Research problem and questions:

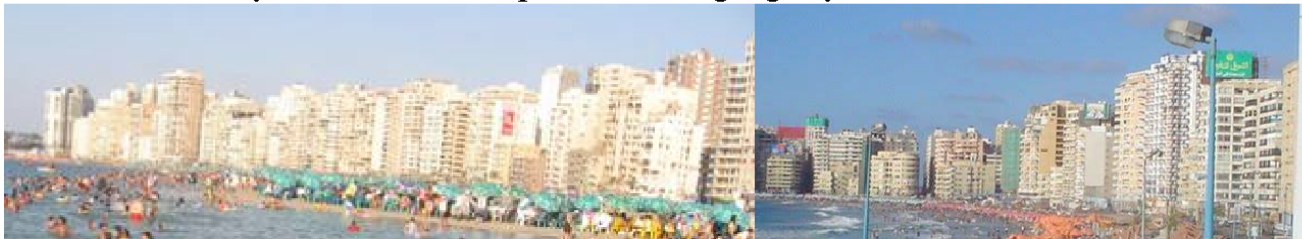
One of the visual problems of the Egyptian cities is the random selection of colors of building facades by the architect, building owners, contractors and others that involve in the color decision making. Although the Egyptian union building law (The Union Building Law No. 119 / 2008) stressed on taking into account the harmony between colors of new facades and colors of the facades that surround it in order to give a sense of beauty and realizing a special character for the area, but

in the real life, the municipal didn't ask the architects to present color schemes for the new facades and its surrounding colors. As a result, random selection of colors and no color scheme through whole the city, districts or neighborhoods.

In the last few years, many of Egyptian cities tried to uniform the color of its buildings (such as Alexandria, Quena, Luxor ... etc – fig.1)



a. Luxor city facades which painted using light yellow color.



b. Alexandria city facades which painted using white color.

Fig.1: Unifying color of many Egyptian cities in the last decade.

All of these trials were mad as an administrative decision or an initiative by the governors of these cities. One of these cities is city “Assiut”. The trial was made as an initiative by Assiut ex-governor between years 2005 – 2011¹. This initiative has been rejected by some academic architects and supported by the other. Every team has its reasons and its points of view.

This paper search for answering the central question that is:

**What is the degree of rejection or acceptance of unifying
colors of building facades?**

In order to get answer to this question, the paper should find answers to these secondary questions:

¹ The governor of city Assiut between 2005 – 2011 the General “Nabil El-Ezaby”

- What are the reasons of unifying colors of building facades?
- What is the process or the mechanism used in unifying colors of building facades?
- Is the specialized academics accepts this decision?

1.2 Research aim:

This paper aims at finding answer for the central question and finding the degree of acceptance or rejection from the academics point of view.

1.3 Tools and limitations:

The research depends on a questionnaire designed by the researcher to get opinions of the academic architects that lives in Assiut city before and after the initiative and their degree of acceptance or rejection of unification of facades color.

1.3.1. Tool:

A questionnaire designed by the researcher depends on selected direct and indirect questions that ask the respondents about the unification of colors of building facades in Assiut city. The questionnaire includes introduction that presents the aim of the survey and an optional part that asks about the personal data of the respondent. The first part of the questionnaire asks about the acceptance of process and mechanism of selecting colors and painting facades. It includes the following questions:

- *Do you live in one of these areas were municipal unified colors of its buildings?*
- *If you are a resident of an area which were unified its facade colors, what was the impact of this change on your character?*
- *Did the Municipal poll your opinion before selecting colors of the city?*
- *Do the municipal should involve citizens in making the color decision of their city?*
- *Do you believe that the governor have the authority to select color of building facades in his Governorate's cities?*
- *Is the mechanism, which used to take the decision to unify the colors of building facades in Assiut suitable to you?*
- *How was the process of painting facades?*

The second part of the questionnaire concentrate on acceptance or refuse unifying facades colors, its advantages and disadvantages, suggestions of the academic architects. Questions in this part include:

- *Whichever you prefer as a choice for coloring building facades of the city?*
- *Do you agree that the unification of colors of building facades improves the visual image of the city?*
- *How far the unifying of facades colors has succeeded to improve the visual image of the city?*
- *What do you feel about the selected colors?*
- *Is your perception to the city influenced by the unification of facades colors?*
- *Do you think that the color distribution has been studied before painting facades?*
- *Do you think that the municipal should unify colors of other districts that not yet colored in Assiut city?*
- *What is the suitable way of thinking in coloring facades of a city?*
- *What are the most important advantages and disadvantages achieved by unification of colors of facades?*
- *Is it good to repeat Assiut trial in the other Egyptian cities?*

1.3.2. Limitations:

For the purpose of this research, city Assiut was selected as a case study for many reasons:

- Assiut character, urban pattern and visual image look like almost of Egyptian cities. In addition, it is located in the middle of Egypt and has links with all governorates in the country.
- The existences of big number of academic architects (72 academic c Assiut University². This is beside more than 150 students that enrolled postgraduate programs (Diploma, M.Sc. and Ph.D. programs). All of them live the experience of changing colors of building facades of Assiut city.
- Experience of the researcher about the study area and the availability of direct observation for the transformations.

² Assiut University has a faculty of engineering established in 1957. It includes a department for architectural engineering. This department has 40 academic staff member (assistant professors, associate professors or professors) and 32 of academic assistants.

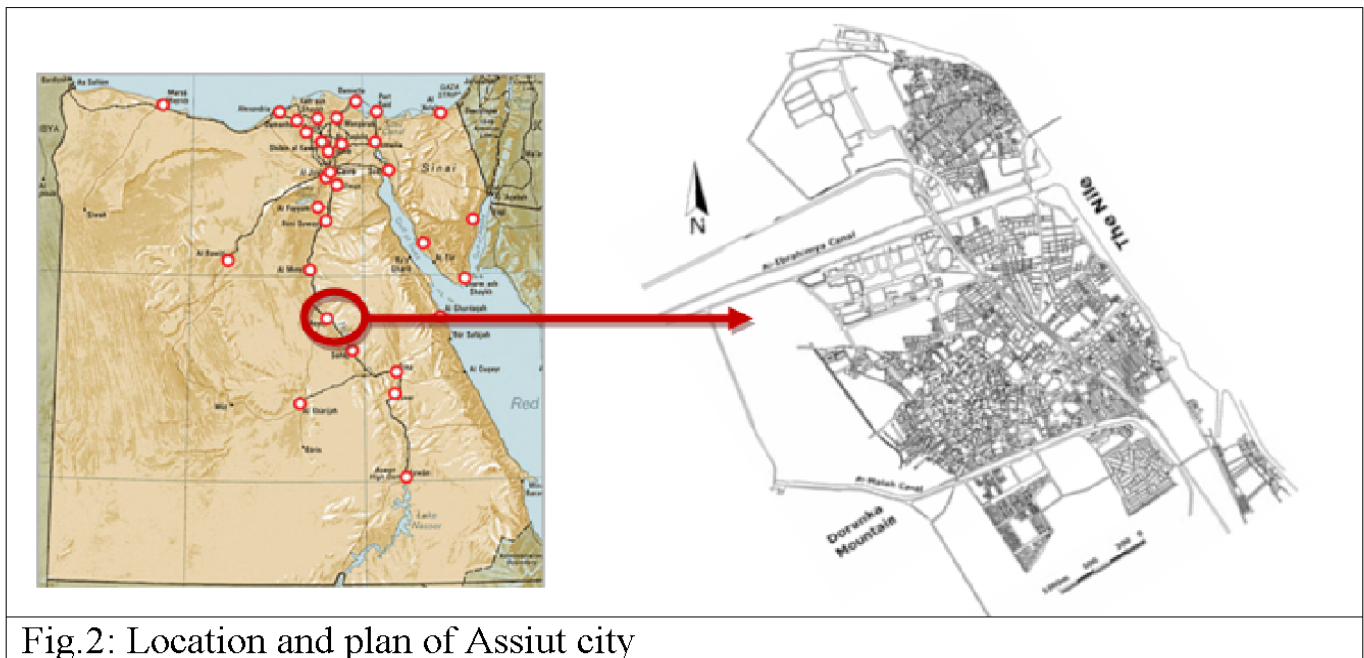
Academic architects which lives in Assiut city is the limit of this paper.

2. Assiut City, before and after unifying facades colors:

As the paper mentioned in the research problem, many of Egyptian cities tried to uniform the color of its facades. All of these trials were mad as an administrative decision or an initiative by the governors. One of these cities is city “Assiut”.

2.1. Assiut City:

City “Assiut” is the capital of Assiut governorate. It is one of the medium Egyptian cities in the Upper Egypt region. Assiut city is located at $27^{\circ}11'00''\text{N}$ $31^{\circ}10'00''\text{E}$. Today, the city of Assiut has almost 400,000 inhabitants (fig. 2). Assiut city is an ancient city. It is one of the oldest cities in Egypt. It was 1500 B.C. that man in Assiut started building up his civilization. Some of the oldest monuments discovered, dating back to the dawn of history, bear the name of sites where the remnants of the "Tassa" and "Al Badari" civilizations were found. Since old, Assiut had had an important role to play in the history of Egypt. It was also an export and import centre, particularly of ebony and ivory imported from Sudan.



2.2. Assiut City before unifying its colors:

Laws and building regulations were not required from local administration and control bodies to organize colors of buildings facades. This fact led to several random practices in selection of facade colors. The choice is individually and

separately for each facade without taking into account the general image of the street as a whole or the color of each facade in relationship with its neighboring colors. Beside this practices, some citizens leave facades without finishing or painting. There are a lot of reasons for these practices such as the economical, cultural factors, Awareness and understanding of the impact of the visual image of the street on the behavior of the population (fig.3).



a. Ezbet Elsegn area



b. Mahmoud Rashwan Street



c. El Gaish street.



d. Al-Azhar street

Fig.3: Visual image of some areas and streets shows color character of it before the initiative of unifying color of building facades . Images shows the random selection of colors or non painted areas.

2.3. Assiut City After unifying its colors:

Although the impressions of citizens are very welcome to the new appearance of their areas, they refused the mechanism of painting their building facades because the municipal mandate people to paint facades without any governorate participation on painting cost. The researcher (as a specialist in selecting colors of building facades) found that the municipal made some mistakes began by the unknown reasons of selecting the used two colors, neglecting factors affect the

color selection process such as building value and use, climate, physiological and psychological factors of the citizens³, then the mechanism of executing this decision and painting facades (figures 4,5,6,7).



Fig.4: Yousry Ragheb street: right part of the image is a water tank tower – middle part is a residential building – left part is an office building. All had been painted by the same colors (dark red and white yellow).



Fig.5: El-Gamaa street: the frontal part of the image is a partial station - the higher buildings are residential buildings.



Fig.6: Sity Street : the right part is a mosque – the left part is residential buildings.

³ reference



a. Cheicoril square.



b. Old residential house in Mohamed Ali Makarem st.

Fig.7: Neglecting the historical factor and building value by painting old buildings using the same colors

3. Results:

Using an online questionnaire designed by the researcher and applied on the senior and junior academic staff (assistants), and architects who are postgraduate students at dept. of architectural engineering as a selected field of survey. The target no. of respondents is 100 academic architects from all categories (Professors, Associates and assistant professors, assistants and postgraduates students). No. of respondents of the questionnaire is 42 respondent (42%). Results calculated depending on the number of respondents.

Results divided into two parts: Points from “A.1” to “A.5” show the results of part **A** of the questionnaire, points from “B.1” to “B.8” show the results of part **B** of the questionnaire as follows:

3.1.1. Results of part A:

A.1. Living in a unified color sector and its effect:

29.27% of respondents are living in one of these areas where municipal unified colors of its buildings. 50 % of them found that the effect of unified colors is positive effect. 33.3% of them found that the effect of unified colors is negative.

A.2. The importance of citizens participation in selecting colors of their city:

100% of the respondents confirm that the Municipal didn't poll your opinion before selecting color of the city. **78%** of the respondents found

that the municipal **should involve citizens** in making the color decision of their city. 14.6% of respondents found that it is not necessary to involve citizens in this process.

A.3. The authority of the governor to select color of building facades in his governorate's cities:

29.3 of the respondents believes that the governor have the authority to select color of building facades in his governorate's cities. Otherwise, 70.7% believes that it is not his job.

A.4. Mechanism of selecting city colors:

78% of the respondents confirm that the mechanism, which used to take the decision to unify the colors of building facades in Assiut, is not suitable mechanism. 7.3% of the respondents found it suitable. Most of the other response didn't know what the used mechanism is.

A.5. Studying color distribution before painting facades:

85.4% of the respondents confirm that there aren't any studies for color distribution before painting facades and distribution was Spur of the moment.

3.1.2. Results of part B:

B.1. Degree of preferring unifying color of building facades in the city:

31.7% of respondents prefer unifying color of building facades in the city, and 31.7 prefer colors diversity in building facades. 36.6% have free answers. Most of them prefer unifying facades colors in a district or sector of the city.

B.2. Role of color unification in improving the visual image of the city:

Although 70% of respondents agree or totally agree that unifying facades colors improves the visual image of the city in general, 54% respondents found that unifying of facades colors has succeeded to improve the visual image of Assiut city. 36% of respondents fond that unifying facades colors has failed to improve the visual image of Assiut city.

B.3. Influence of unifying facades colors on the perception of the city:

22% of respondents found that the perception of the city strongly influenced. Although 78% confirm that the perception of the city slightly influenced or not affected (22%).

B.4. Advantages and disadvantages of unifying colors of city building facades:

Respondents set a lot of advantages and disadvantages points for unifying colors of city building facades as abstracted in table 1.

Table1: Advantages and disadvantages points for unifying colors:

level	Advantages	Disadvantages
At the level of One building facade	<ul style="list-style-type: none"> • Senses of order, beauty, unity, cleanness, distinguish character and visual comfort; • Disposing dust made the appearance of buildings as new; • Highlighting the vocabulary and style of facades; • Finishing buildings facades neglected for a long time; • Elimination of random practices of inhabitants to color some parts of the facades; • Avoiding the existence of facades paints by striking or uncomfortable colors. • Facades became fully finished and consistent with its neighboring. 	<ul style="list-style-type: none"> • Selecting the same colors for different building types and functions; • Similarity and the disappearance of the details because of the common color; • Distortion of architectural heritage and religious buildings; • Light colors began not clean and fill with dust in absence of cleaning and maintenance system; • Incompatibility of selected colors with some of affecting factors such as climate and surrounding environment; • Losing the expressive and suggestive capacity of the building; • Some facades appear as cut and paste paper; • Difficulty to be a landmark ; • Disappear of distinguish building facades; • Mismatch between the original design and color of the building, and executed color in terms of areas and places; • Restricting and denying the architect from one of the important architectural formation tool; • Blurring the identity of historical buildings and its archaeological value as a result of change its original color.
At the level of a district	<ul style="list-style-type: none"> • The existence of a general character that combines elements of the area and distinguishes it. • A sense of comfort when passing through neighborhoods or city areas. • Senses of order, beauty, unity, cleanness, distinguish character and visual comfort. • Disappearance of many disharmony • The visual appearance of the city became better. 	<ul style="list-style-type: none"> • Area paints by red color is very large in light of the hot climate of Assiut; • Similarity between streets; • No study for the distribution of colors on the facades at street level; • Individual implementation of coloring without supervision led to a non-uniform color tone; • Lack of individual identity of the streets and the presence of a monotonous character; • Loss of discrimination between districts and each other; • The high cost; • Focusing on specific streets and rich areas and neglecting other neighborhoods.

level	Advantages	Disadvantages
At the level of whole city	<ul style="list-style-type: none"> Senses of order, beauty, unity, cleanness, distinguish character and visual comfort. Raising the public taste that has been deteriorated over the last decades; Reducing the random selection of colors; The city became have a color identity and character; Increasing citizen awareness about the need to address the random and chaos of facades coloring. 	<ul style="list-style-type: none"> Not taking into account the specificity of the city or its history and heritage. Paying attention to the city appearance as a whole look and setting plan for it and applying it to everyone. Lack of a uniform color in all areas of the city affects the appearance of the city.

B.5. Feelings towards the selected colors:

35.7% of respondents feeling monotony towards the selected colors. 31% of respondents have a sense of order. Table no.2 shows results of feelings towards the selected colors

Table2: Results of feelings towards the selected colors:

Feelings towards the selected colors	%	
A sense of boredom	28.6	
A sense of monotony	35.7	
A sense of order	31.0	
A sense of delight and vitality	2.4	
A sense of light and purity	2.4	
I feel nothing	0.0	
Total	100.0	

B.6. Unifying colors of other districts that not yet colored in Assiut city using the same colors used before:

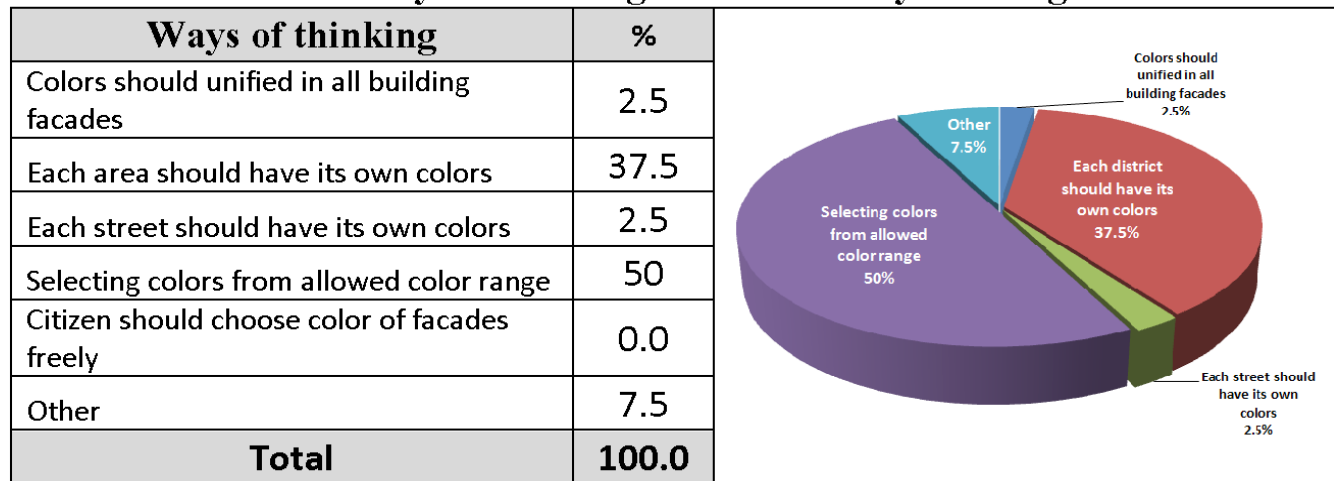
Results clarified that 7.3% fully agree in order to unify the appearance of the city. But, 26.8% not convinced, but they agree to prevent the random appearance and keep the visual image of the city. 41.5% of respondents do not agree and see that each neighborhood or district should have its own colors.

B.7. The suitable ways of thinking in colors of city building facades:

50% of respondents choose selecting colors from allowed color range. 37.5% prefer that every district have its own color scheme. 2.5% see that every street should have its color scheme 2.5% see that color should unify

in all building facade. No one agree that citizens choose colors of his building facades freely (table.3).

Table3: The suitable ways of thinking in colors of city building facades:



B.8. Repeating Assiut trial in other Egyptian cities:

34.1% of respondents don't agree to repeat Assiut trial in the other Egyptian cities. 58.5% agree to repeat Assiut trial in the other Egyptian cities taking into consideration some comments. The free opinions of respondents explain that every city has its circumstance, economic realities and climate and other factors. It is important to study each city separately and setting the suitable color scheme for it.

3. Discussion and conclusion:

Although citizens like and welcome the trial of unifying colors of some areas in Assiut city, academics found that the trial has a lot of mistakes. The first mistake is the idea of unifying colors of a city itself. Buildings, streets, squares and neighborhoods are similar. It affects the urban design of the city and citizens loss perception property. The second mistake is that governor thinks that it is an administrative decision not architectural and urban decision that should architects study and take it. The third mistake is selecting the color scheme without any academic study or popular participation. The fourth mistake is forcing citizens to paint their building facades without any respect to the laws. The fifth mistake is leaving execution process to the individuals without technical supervision, which led to bad finishing in almost of building facades.

Referring to questionnaire results, academic architects also disagreed with each other. The majority found that unifying color of facades in a city have some

advantages in front of a lot of disadvantages. The majority of these disadvantages are because of the improvisation and non-studied decisions.

Conclusion:

Most academic architects refused the unification of façades colors in the level of a city, but they support selecting a color scheme for every area. Also they support selecting flexible color scheme that give an architect flexibility to select the suitable colors for each building depending on variables of the building and its circumstance. Most academic architects refused repeating Assiut trial in the other cities in Egypt as it is, but they support reviewing the process and studying the effect of unifying colors of the city on visual image of the city at first.

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