The Impact of the Optimal Spatial Impression on the Fifth Dimension of Interactive Mural Design

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Summary:
Human being is always seeking for achieving self-sufficiency from either psychological or physical needs. He is in constant pursuit for achieving welfare, happiness and psychological stability that has a positive shade on his role in the society. He faces various problems inside the constantly changing environment and tries to find solutions achieving comfort for him. We find him rushing from one solution to another affecting the environment where he lives in that resulted only environmental and psychological pressure. He has a main role in creating those environmental pressures. The huge environmental pollution outcoming from increase of factories' gases, cars, and ships that affect consequently human health causing serious problems in breathing. The excessive increase of these gases turn them to be toxic gases and some of them turn to be acid rains that has a serious damage for the environment and normally this damage reaches the human at the end.

In the shade of these facts we find that the quality of life is our responsibility , keeping a clean environment is both individual and group responsibility at the same time, thus individuals' environmental behavior should be a daily habit, so can the designer have a role in modifying individuals' environmental behavior inside the society?

This research discusses the ability of finding a place print or an aesthetical pattern that may affect individuals' environmental behavior through focusing the factors that affect and form human behavior and how to improve the extended visual texture either vertically or horizontally.

From researcher's point of view ; the pre mentioned factors can form a place memory and it is the main factor in forming modern human behavior, thus comes designer's role to create and form that memory that can modify individual's environmental behavior that has a positive reflection on national economic level.

Here comes aims of the research:

•   Modifying behavior through reaching a perfect place print fulfilling human needs. This trial has succeeded in Japanese capital where Museum Mori Digital was inaugurated in 2018. Those artists used colorful lights and interactive technology to create an interactive experiment simulating nature and helping human to improve using environment's factors around them. (Pic. 1)

Pic. 1   MORI DIGITAL ART MUSEM

Through this colorful interactive experiment, digital arts designers inside the museum could affect persons' perception through various colorful effects. The result was an improved behavior towards the environment by persons and their readiness to act more positively towards nature's factors. The design here is based on persons' previous experiments and their actions with the environment.

• The fifth dimension inside wall design was achieved in a way coping with receiver's physical and psychological needs that give him the ability to continue living in a healthy way suitable for creativity in different life fields. .

Designer's journey in forming human's place memory faces a lot of complications that should be studied before starting design or executing any art work that should have a role in changing human behavior. Human perception for any artistic effects has some stages that most of them depend on actions and reactions so a lot of theories explaining perception came to the surface such as Egon Brunswik theory and Gestalt theory. All of them summed up that perception stages are based on three variables that are (human, environment, behavior).

When a human being understands the visual texture around him he concludes his functional needs and starts to make changes and modifications to be suitable for these needs. These needs are the main motivation for movement and development and stand strongly behind human's environmental behavior inside his society. These human needs come from interactions inside the society as each group of humans interact inside the society affected with some factors such as: culture, habits, traditions and individual experiments so needs priorities and their fulfillment are different.

Visual texture perception for the environment depends on physical needs related to members functions especially the ones related to physical organs, thus interactive wall designs control receiver's perception as interactive design is connected with visual elements, the shapes inside visual texture and receiver's reactions. These reactions come from his own visual image so he understands the environment through his mind so he can judge it through its agreement with his own values and experiments.

Inorder to have a successful artwork and place print that can affect Egyptian citizen's mind, this work should stimulate his belonging element. It should make him more liable to acquire various positive behavior forms so there will be always belonging feeling towards surrounding items. Each human has Internal latent instinct that some people are born with and others acquire from surrounding environment and society.
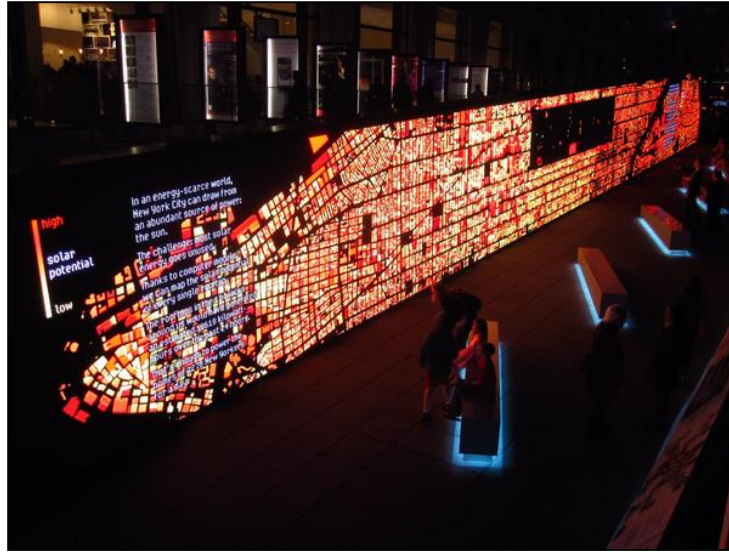
Peter W. Kimmel says that each human can be affected with a lot of outside forces continuously but they decrease or increase in different times and these forces either positive or negative. Positive forms improve feeling of comfort, health, success and joy otherwise negative forces forms destructive feelings such as weakness, worry and fear.

Here comes designer's role in increasing positive forces that provide health and comfort for human. According to social Egyptian report (Health and environment conditions) that is done by National Institute for social and criminal researches , at 2013.

There is a strong relationship between environment and individuals' health . Air and water pollution affect Egyptian society's health condition. Air condition is a main reason for respiratory system diseases such as Asthma, tuberculosis and lung cancer. Annual reports for the period from 2004 to 2008 for smoke in Egyptian environment show that pollution was higher than the normal in Kaliubeia , Baniswef, and Sohag and decreases in capital cities, till 2010 it was still high in Kaliubeia and Sohag but decreased in Baniswef; the main reason was that burning agricultural wastes especially rice hay. It is expected that respiratory system diseases will increase due to the increase of smoke rates in the air. Also they mentioned that Informal housing is called sick housing where polluted air percentage is very high especially air full of carbon dioxide .
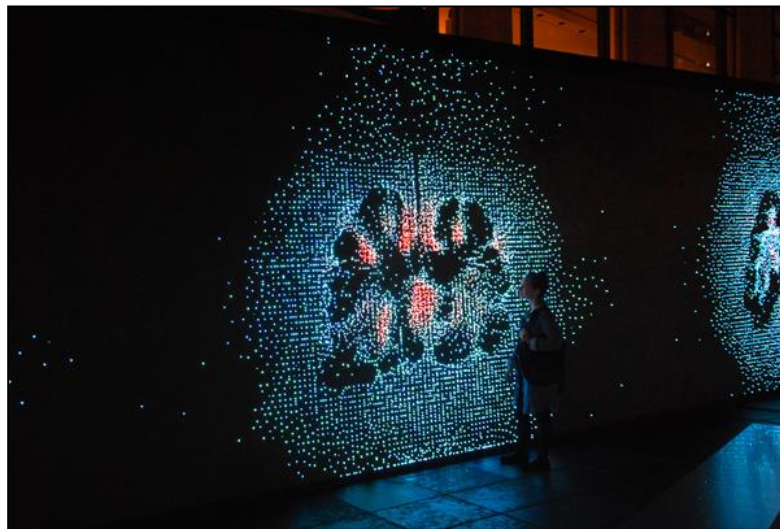
The importance of place print inside the society lies in its psychological effect on human being. If it is applied and used perfectly as much as possible, it will have a direct effect on human behavior and this is clear in some European countries and USA. We can see a huge artistic movement supporting that trend and after applying it the positive results are very clear. This what happened in Lincoln Expo. In New York that is owned by IBM company, the expo is a huge interactive wall aiming at educating the spectators in five minutes by giving them important information regarding their city such as air pollution, water waste level, energy consumption, following crime rate inside the city and traffic congestion.

The designer uses these information and facts as an environmental simulator for the receiver, thus those simulators have ecological truth because they are reflected on individuals. They have enough stock to be used then their reactions towards the environment becomes more sensitive. This huge interactive work is designed by Casey Reas – David Wicks – Jonathan Cecil and Rhazes Spell . Pic. 6-7

Picture 6, an interactive wall in Expo's entrance showing some environmental facts and energy consumption in the city. That video takes 10 minutes showing environmental facts then half an hour of interactive design that lets the receiver reacts with the design then another design comes continuously.

Picture 6 shows air purity level as interactive points are collected to form lungs shape that it directs to receiver's mind to make him think of air pollution dangerous effect on lungs.

And the matter that must be noted and praised is the current trend for the government and its interest in modernizing squares in Egypt and its effects . in addition to demolishing slums that was a real grave for millions of children's hopes and a future and a real source for health and psychological diseases. The most important example is modernizing Al-Tahrir square that is a considered archaeological and civilizational interface, it is also related mentally with a lot of events that changed Egypt's history. Modernizing archaeological print leaves a psychological effect inside people and there is no doubt that those modernizing works have a lot of positive reactions and raise citizens' morals and increase the feeling of belonging widely.

Research results:

- The researcher could find the importance of finding place print to achieve coherence between environment and human. The accumulated neglect for the surrounding environment is very dangerous and affects the opportunity of developing the society. We find that the spread of Disruptive tendency is a familiar matter for the citizen due to the lack of missing the feeling of enjoying beauty, that led to a problem in behavioral and moral raise. This finding depends on some reports and statistics done by National Institute for social and criminal researches as the Egyptian social report found that about %59.3 of Egyptians see that one cause of illness is the bad environmental conditions and visual [pollution.

The researcher could find that reactions are connected to the environmental pressure that affects human's physical and psychological health as its intensity differs according to individual's character, beliefs, experiences that are full of changes and stimulations that affect his reactions either they are positive or negative. That research seeks reaching positive reactions towards the environment through integral environmental print to achieve aesthetic preference. So the integral environmental print achieves aesthetic preference and enhances belonging.[1]

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peter.w.kemel , wold fi 1958 fi lenz, al nemsa wbaa' mseratah al mhneya kamoder lmrkz benaa' al gsm hayso taa'lam kayfeyat estekhdam mwaten kowatoh w kodratoh bekfaa'ah otlek alayhe safer al nagah lmosaa'dath al kaberaa , amal lda al unisco w taagaht game; mashare'o w abbhaso ll athfal allazen yae'eshon fi fakr w zorof mohena.

megahed , huda – Abdullah,samah- abbdlmaksod ,emad , al takrer al egtmae' al masry ,al mogld al thalth " al masryon w ahwal al bea'a " , markz al bohos al egtma'ya w al gena'ya , mashroo' al takrer al egtma'I , al kahera 2013,pg 200.