Abstract—Many people would describe architectural design as one of the most creative of human pursuits. However, when students of architecture strive to create a site design or a layout of a specific project, they face the problem of how relevant is the mass they envisage to the quality of place. This paper aims to present the potentials of the contribution of the phenomenology of place in the architectural experience. It also invites for establishing the phenomenological approach to teaching site design and layout as a fundamental concept in architectural education, and explores some strategies that can strengthen the architectural design process.

Index Terms— phenomenology of place, site design, architectural education, teaching strategy,

I. INTRODUCTION

Current applications of teaching architecture tend to overlook the value and importance of the choice of the site in students’ projects. Architectural education emphasizes the demands of professional standards and the improvement of the techniques of the architectural design. These techniques embody the most important values and concepts inherited from the modernism era and contemporary western approaches. The shortcomings of applying these concepts in architectural education are the limitation of individual views of the real world, the reduction of philosophical thinking approaches, and the decline of creative abilities among students.

This paper argues that a phenomenological approach of thinking about teaching architectural design enhances our understanding to gain a deeper view of site design. In a third year Architecture Design studio the author was able to show how the significance of the chosen site and the meaningfulness of place could be revealed through the layouts as a creative process. Thus the method is primarily one of interpretation, based on multiple visits to the selected site and data collection by simply “being there”. Throughout the project the students designed what they have felt related to the site according to their own experiences. Therefore the students work must be understood as a product of their interaction in the everyday life form in order to express lasting moments, which may become part of the significant cultural heritage of the place. Their work simultaneously would embody the social values of one place, a particular culture, and universal human concerns.

II. PHENOMENOLOGY AND ARCHITECTURE

Architecture is the art of building human environments; as such it is one of the most essential human activities that signify the human existence in this world. Throughout history, the art of architecture was the representation of human existence in a specific site. Conceptualizing architecture accordingly should consider all human experiences taking place in a lived space. In my search for a philosophical framework of thinking that may underpin this concept, I have found that a phenomenological philosophy will enhance our understanding of architecture as well as of teaching architecture. A basic question about teaching architecture is: how do we, as educators, encourage our students to think philosophically about their designs and produce layouts that represent their explorations of the selected site? Yet, this has often been ignored for the more pragmatic and ordinary demands of professional accreditation standards.

Phenomenological philosophy developed largely in opposition to the anthropocentric view of the world enhanced by the Cartesian objective way of thinking. This view is the western heritage of the scientific revolution, when western people learned to detach themselves from the lived-world and see it as having a value-free existence. Modern architecture inherited this view and reinterpreted the world as an abstracted empty geometric space in which a modern built environment should emerge.

The problem of modern built environment is that it reduces the representation of the lived space into a universal, open space. This kind of space might have succeeded in liberating layouts from heavy architectonic masses and site design from considerations of cultural landscape. But, it demolishes people’s sense of being in the world. The individual is situated in the abstract vacuum of Euclidean space, which is devoid of
positive tactile qualities. The modernist aim was to connect the individual to the universal, without the help of the pre-established order, of culture and belief [1]. Geometric space is an elimination of social and cultural meaning; it creates instead a mere communicative language.

A communicative theory of design does not evolve from creativity, as it is already expresses transmitted, established architectural meanings. Although the current architectural education retreat into a private architectural language of computer simulation may serve to shield the profession behind an aura of mystery, it will not serve the architectural students in terms of designing a livable everyday environment. To achieve meaningful totality in site design, we need to revive the concept of existential space. An existential space fulfills a double action: identifying the individual’s spatial relations which form an essential part of his or her existence, and allowing describable spatial aspects of everyday life to form communal identity [2].

An account of notions of traditional phenomenology may help understanding built environment as a phenomenon. A phenomenon is more meanings of less lived experience significance. In his book Poetry, Language, Thought Martin Heidegger’s essay “Building, Dwelling, Thinking” suggests that the manifestation of our “being” is revealed in the notion of “dwelling”. Yet for this dwelling to occur, a concrete “space” is needed. Heidegger argues that the phenomenological essence of the significance of a site, a space/place, is revealed by its concrete, clearly defined natural boundary. This “boundary”, he explains, “is not that at which something stops, but, as the Greeks recognized, the boundary is that from which something begins its presencing. That is why the concept is that of horismos, that is, the horizon, the boundary” [3].

There are many architectural theories concerning the way we relate to the world through conceptions of our houses. But in reality, our basic way of being in the world, our dwelling in our houses, and our attachment to our built environments are pre-theoretical. Phenomenology seeks to reveal these pre-theoretical perceptions as manifested in our experience of dwelling either on the conscious or the unconscious level. Gaston Bachelard reflects a common, though often unconscious, understanding that the experience of the house affects the way in which we understand the rest of our world. In order to understand a house however, we must go beyond mere description and beyond the limited constraints of a realist “Cartesian” conception. We need to resort to the world of the daydream [4], because “Our house is our corner of the world. As has often been said, it is our first universe, a real cosmos in every sense of the word... [The house] is the human being’s first world before he is ‘cast into the world’... Man is laid in the cradle of the house... Life begins well, it begins enclosed, protected, all warm in the bosom of the house” [5].

Clear parallels can be drawn between Bachelard’s and Heidegger’s notion of dwelling, although the former sees the meaning of built environment as “enclosed” and the latter sees it as “openness”. It is our perception of the spatiality of space that integrates the enclosed, private space of the house to the opening, natural space of the world. Heidegger recognizes that what makes any change positive is basically our understanding of the nature of our “Being”. Heidegger’s approach seeks to reduce people’s sense of anthropomorphism by recognizing that they are all participants in a universe of meaning, which is grounded in care, saving, and openness. Heidegger’s main contribution to traditional phenomenology lies in what he calls “dwelling”. It is the process through which an integration of people, earth, and spirituality arises from people’s reflexive awareness as mortals, and manifests itself in the way they make their place-in-the-world a “home”.

Heidegger’s ontology provides a way of thinking by exploring the world and existence through the experiences of everyday life and the manifestation of things as they show themselves. It is the essence of his phenomenological method, “to let that which shows itself be seen from itself in the very way in which it shows itself from itself” [6]. To think, for Heidegger, is to ask questions of things and to allow those things to answer and respond as they are. This is the essence of the phenomenological process.

The influence of phenomenology on contemporary architecture has appeared in the work of few architects. Louis Kahn, for example, believes that “silence” is the realm on which the artist draws in his creative expression. He suggests that architecture exists at a threshold between “silence” and “light”. He calls that which does not exist “silence” and that which exists “light”. Kahn says, silence is “the unmeasurable, the desire to be, the desire to express, the source of new need”, and light is “the measurable, the giver of all presence, by will, by law, the measure of things already made” [7]. Kahn explains that through architecture silence meets light, and yet manifests itself; and the role of an architect is to work in the realm of silence to grasp an order from it and bring it into light. “The only way you can build, the only way you can get the building into being is through the measurable... But in the end, when the building becomes part of living, it evokes unmeasurable qualities, and the spirit of its existence takes over” [8].

This phenomenological conceptualization of architecture and built environment is influenced by the philosophical notion of “silence”, which in particular is the contribution of Merleau-Ponty to philosophy [9]. Built environment, I believe, manifests the interrelationship of people and nature through layers of meaning, which operate in space/place. These layers of meaning- inhabit space as an invisible side of the visible built environment. It is in this sense that “layouts” means to visualize place as “natural space”. It is in how we perceive space with its two sides that we can inhabit nature and achieve
dwellings. A further explanation of the notion of space as the invisible silence of the visible being could be drawn from Merleau-Ponty’s explanation of how things manifest their being, to be visible, through the notion of “Being as horizon”.

Merleau-Ponty believes that the view of the “being of the thing as massive plenitude, absolute positivity, self-identity, objectivity” [10] is the result of the objective thinking of the Cartesian conscious subject or what is called the “philosophy of negativity” [11]. This states that the only addition of the viewer is to provide the void “in which the thing can be posited and opposed to the seer…in its own positivity and objectivity” [12]. Architects and town planners, who manipulate built environment from above through layouts and maps, have adopted this view. Yet, it has misled them because it reduces everything to a shallow being: things as they really appear. But when we attend to a “lived” experience, we cannot visualize built environment as a positive-negative object in space. We recognize that things always and only appear in a horizon-structure. Merleau-Ponty asserts that “the immediate, is at the horizon, and must be thought as such; it is only by remaining at distance that it remains itself” [13]. Yet, for a thing to be visible, it has to enter my attention while other things recede into the periphery and become inactive. This active-inactive situation, through which things manifest themselves, occurs because there are two kinds of horizon: exterior and interior.

Merleau-Ponty sees that “exterior horizon” is what guarantees the identity of the object in its visible situation. An object includes numerous attributes such as line, light, color, relief, mass, and so on [14]. None of these attributes is ever an isolated fragment of being offered to an isolated look; rather, they manifest themselves through participation in a universe of being. Merleau-Ponty calls this universal being the “interior horizon”. It is within this inner horizon that the various aspects of an object become articulated and assume meaning. What Merleau-Ponty’s notion of “Being as horizon” brings to light is the fact that in order for being to be present a certain “absence” is needed. The horizon-structure, in this respect, shows that what makes an object visible and meaningful is not the object itself but a universe of being, a hidden being from which it is differentiated and by which it is articulated. Thus, the essence of visibility is to have a layer of invisibility, which makes it present as a certain absence. For Merleau-Ponty, to see is to enter a universe of beings, which manifest themselves in a manner that never reveals completely [15].

The notion of being as horizon conveys an important insight into the critique of the modernist idea that what is visible is positive and present, and makes unintelligible what is non-present. This objectivism misleads us and makes us believe that things exist self-sufficiently in self-present objectivity, which implies a dichotomous view. On the other hand, being as horizon can also shed light on how we understand the nature of meaning in the site design: meaning is a matter of differentiation. We perceive environmental significance of a site by reference to differentiation, but do not perceive differentiation itself. Hence, differentiation is the invisible ground of all perception, the unseen phenomenon against which we see built environment [16].

For my theoretical framework to teach a third year architecture design studio, I have relied on a phenomenological account to enhance understanding of site design. I have found that the phenomenology of built environment is to be grounded in an understanding of its “meaning”; the fundamental nature of meaning lies in creativity. Authentic expression is a creative act, that is, the act of manifesting meaning. Thus it lies in the view of architectural meaning as produced and evolved from the intertwining of the presence of the chosen site and the absence of the proposed layout, and yet manifests the inner and outer horizons of things as meaningful.

III. THE STUDIO

The work of a third year students in the Architecture Design studio course was used as an experimental endeavor in which future architects could begin their own inquiry into the phenomenological ways of design. The course duration extended through an academic semester, for about 14 weeks, four hours two times a week. On the first week of the semester students were handed out the brief for the requirements of the project. There was a possibility of choice between two selected projects: a “Cultural Center” or an “Institute for Environmental Studies”. The selected site was the area around the lake of Ain el Sira, in the old part of Cairo City; physically defined by a slightly bowl-like topography and two adjacent roads.

![Fig. 1 Ain el Sira lake, Cairo, Egypt [Image source: Google Earth]](image)

The students were able to make their own choice of the actual site that they feel more appropriate for the design they will undertake. With this, students began to explore the landscape
around the lake, criticize their own attitudes towards the landscape, and respond to the qualities of the site.

Throughout the first five weeks students were attending a weekly lecture, which covered the theoretical part of their research for the course. They also attended a weekly studio in which they moved into representing their response to the site visually. Experience was introduced to the students as one way to delve into design mood. By design mood I mean: the state of being emotionally and intellectually able to think and to express one’s ideas creatively. Experience was achieved by being in the selected site, collecting data through verbal and written information about the site, using students’ own body to measure and respond to the site, and reading the site meaningfully.

Although experience of place is multi-dimensional and may be most effectively represented in a synthesis drawing, it does not follow that an environment constructed from it will automatically achieve the experience that the layout communicates. The problem is that the students’ concern to capture the intangibility of place experience in their drawings may eliminate the necessary reliable connection between the drawings and the experience the students wish to represent, for example (Fig. 9). Site design and layout drawings are means to an effective conversion of the physical environment.

There are more additional skills which students must learn in order to become good designers. Nonetheless, many of these skills would be learnt in previous courses and studios: such as those pertaining to environmental design, urban design, cultural studies, and digital and computation design. All students were familiar with ways of representing their work in terms of plans and layouts through architectural design studios. Yet, their major problem was how to produce designs that are related to the selected site. The following is a description of design processes used along with the strategies proposed in the course in order to integrate the site and the layout.

IV. THE DESIGN PROCESS

If the phenomenology of architecture is to be found anywhere, I believe it must be found in its ability to infuse with the site, and to be perceived and experienced, as a layout, by people in the everyday life world. This quality of place is not a new phenomenon for architectural design, since the identity of place has been the product and result of connections and interactions between people and place. Viewed from this perspective, it is impossible to perceive either the significance of the selected site without its background of different unseen phenomena of local identity and cultural realities, or the meaning of these different unseen phenomena without their representation in the layout, just as it is impossible to perceive either the visible being without the invisible “silence” or the invisible “silence” without the visible being [17].

In an attempt to apply this approach in architectural education, we need to view an authentic designer as subjective, permanently bound up with the world in a lived experience and fundamentally creative in nature. This view is impossible to achieve within the already established way of objectivity and rational systems of thinking of some current architectural curriculum. A key point to call such an authentic designer to action is to allow students’ inner horizon to be manifested. Such manifestation can suspend the frame of reference, of objectivity and rational systems, allowing and activating their creative nature. The process of design development takes a three-stage sequence.

Firstly, a self-passiveness stage, in which students absorb as much information as they can about the specific needs of the project, but without formulating ideas within a preconceived theoretical structure. Field trip experiences and design for the sake of a real site are invaluable inspirations for students at this stage.

Secondly, in a self-reflectiveness stage, students reflect what is identified as significant in the collected information and recall their subjectivity to the task of relevant interpretation according to a collective background of knowledge and expertise. Students can perceive and relate themselves to different phenomena more readily when they reflect on their own lived experiences. They can also understand the experiences of other people, creatures, cultures, environments and places. It is essential for them at this stage to learn how to bring forth “silence”, which can be interpreted as an interaction with a white sheet of paper to draw out a meaningful differentiation between signs so as to let meaning appears.

Thirdly, in a self-activeness stage, a revealing of the unique phenomenal qualities of place evokes students’ creativity to produce a meaningful design. The project requires them to translate their physical and emotional responses to the site into the design process.

![Fig. 2 A Phenomenological approach to design process](image-url)
relation to the built environment of a project. The problem may be framed in terms of inadequate space for required activities and the lack of certain formal or symbolic qualities in an existing place. Thus, the larger the scale of the project, the greater the gap between current and future lived-experiences would be, and the greater the students’ problem of simulation. Therefore a framework for responsive design approach in a teaching program may also be enhanced by appropriate strategies of adjustment.

V. INTEGRATING THE SITE AND THE LAYOUT

I propose four strategies that could enhance the quality of architectural design by strengthening the interrelationship between the site and the layout. The first strategy incorporates more student interaction with the selected site and less professional specialization especially in data collection. The second strategy focuses on the nature and qualities of place that signify the site to ensure that the fullest and most accurate simulation of the proposed environment is achieved. The third strategy seeks to generate architectural design that has the capacity to enhance people’s experience and sense of place. The final strategy emphasizes the techniques of design communication that is able to give meaning to quality of place. In this endeavor each stage took about three weeks.

The first strategy represents the self-passiveness stage. Therefore, the students were asked to physically engage themselves with the site and to explore methods of communicating their responses visually, spatially, and narratively. They started with a report covering the visual and environmental qualities of the selected site, through maps and photographs as well as sketches. Then each student focused upon specific area, studied its significant aspects and its relevance to the project, and investigated the appropriate architectural vocabulary within the local area. Using this information, they were aiming to construct a layout that communicates and evokes the qualities of the site.

The second strategy focuses on exploring the natural qualities of place and record the significance of the site to ensure that the fullest and most accurate response to the proposed environment is achieved. The students were asked to respond to the site, to gather in its sensory and sensual qualities and record them as a set of drawing lines that reflect the emotional and intellectual perception of the students. This allowed the students to explore methods of communicating their responses visually, spatially, and narratively. Their interpretations of the site manifested in many aspects of the site design. These aspects were explored in the layout design and produced design concepts including: a single axis that worked as the layout’s backbone in Fig. 5, a set of curved lines that reflected the waves of the water in the lake in Fig. 8, and narratives about the lake and the site through a group of masses forming the layout in Fig. 3.

Fig. 3: Student’s site design for an Environmental Studies Center. An environmental narrative about Lake Ain el Sira

The third strategy seeks to encourage the students to generate architectural design that has the capacity to engage with the social life and to enhance people’s experience and sense of place. In this stage the students were advised to recall the theoretical part of their course research and to envisage the social group they were targeted to design for. The students aimed at creating a place that is engaging and welcoming to the local community. Therefore, they chose a social group that represents an extended family of four generations, with its specifications of age and gender. Therefore they had to struggle with the complicated needs and demands of each individual using or visiting the project to allow for a lively experience of this place.

Fig. 4: Student’s site design for a Cultural Center. The inner and outer horizons of culture

To achieve this quality of place, students developed a construction of open space that allows people to stay and come again (Fig. 5). Thus, they had created a public space within the open spaces of the project (Fig. 4). Their strategy for public space integrates meeting places into the fabric of the open areas. That was perceived as bringing local identity to those locales through the events and celebrations that would occur in
the place. They also enhanced meeting places in shaded settings beside the lake; ensuring a balance between the noisy, busy places near the main buildings and the silent, quiet places in the surrounding landscape.

Fig.5: Student’s site design for a Cultural Center.  
The interrelationship of earth and water

Fig.6: Student’s site design for a Cultural Center.  
The narrative expression of historical structure of culture

Fig.7: Student’s site design for a Cultural Center.  
The evolution of culture

Fig.8: Student’s site design for an Environmental Studies Center.  
The intertwining of earth and lake

Fig.9: Student’s site design for a Cultural Center.  
Absence and being

Fig.10: Student’s site design for a Cultural Center.  
A celebration of the north-western wind

The fourth strategy aims at teaching the students to analyze and criticize their own projects and to reinterpret the meanings evoked out of them. I found most projects had begun to successfully create layout for the site design, but not necessarily site design that was meaningfully integrating with
the layout. The result of this project was mixed. Perhaps the best designs were the ones in which students used a metaphorical concept as the overall structural framework for their site design. These designs were generously proportioned and more engaging than those designs that put an axial or symmetrical order to the site.

VI. LESSONS LEARNED

Architectural education absorbs enormous amount of money and effort, and once students of architecture graduated, they would become a great influence upon the future change of the physical environment. According to the current situation of built environment, there is an urgent need to ensure the establishment of an appropriate approach to architectural education. The lessons of phenomenology can guide us in this quest.

This studio has both strengths and weaknesses. As it was the first time the students have to use all the previous courses they had taken to move on in the design studio curriculum. They required, for instance, a greater amount of historical architectural vocabulary in the specific area of the project. They also needed a strong knowledge of analyzing and conceptualizing spaces in environmental design; and although this was partly covered by the course research, it was an area requiring more explicit development in the context of the projects. There are dangers, however, regarding the use of computers. The dull and mechanical productions of computers are always lacking the art of designer’s drawings. Another area the students were weak in was open space design and other forms of landscape architectural design. The most difficult aspect of this approach was getting students to think non-literally. Although their interpretations often directed toward realistic representation, I continued to push them into thinking abstractly and metaphorically. Thus, learning to think metaphorically and evocatively was a challenge for them.

Conversations with students declared that they do not consider emotional aspects of the designer to be important in their design education. Their priorities are design ideas, metaphor and symbolic meaning, concept development, and visual representation and graphics. However, the students admitted that through the studio process they were forced to think differently about the layout. For example, by engaging the students directly with the site they were able to respond intimately to the sensory qualities of the landscape around the Ain el Sira Lake, something they would never thought of before. The required projects positioned students to think metaphorically, and helped them to create new language for representing ideas and landscape. The ability to evoke emotional and intellectual meanings through design is a necessary skill that a student of architecture must be taught.

Students of Architecture as future place-makers are in a unique position to revive people’s faith in their culture. If they learn how to find and use the significant local forms of the region in their designs they will be stimulated to use them in their actual practice of architecture. Future built environment would encourage the people to reconsider their own identity with pride as long as it will express their cultural heritage through meaningful designs that is full of emotional and intellectual significance. Teaching students of architecture the concept of subjective and phenomenological thinking can contribute to their understanding and broaden their approach to the multi-layered integration of site design.

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[12] Ibid., p.xlii. (Merleau-Ponty uses the term “horizon” with connotations to history-cultural and ontological senses).
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