

Traditional Aegean Architecture. The settlement of Lindos through Art and Geometry

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Abstract

The goal of this study is to investigate the connective role of Art Education between Traditional Aegean Architecture and Cultural Heritage. For this purpose 160 students of the Department of Primary Education, University of the Aegean, during the winter semester of 2013 were involved in a project entitled: “Discover the traditional settlement of Lindos through Art and Geometry”, for the course, Art Education and Visual Creations forms. The research shows that students came into contact with the traditional Architecture and in direct contact with the natural environment of Lindos. The project and the artistic exercises, gave them the opportunity to build an infrastructure of aesthetics and culture which can be passed to their future students whatever the geographical location of the place

Keywords: traditional settlement, Lindos, Architecture & Geometry in Art

1. Introduction

The Dodecanese is a place interwoven with tourism and perhaps this is the reason that many of the residents overlook the aesthetic beauty which is deformed many times by the economic-tourism development. Watching therefore multidimensional life in the Dodecanese, find that the economic-travel gallop is not always accompanied by a corresponding cultural

development to provide the desired quality of both residents and visitors. Lindos is one of the most characteristic examples of Greek city with traditional settlement based on geometry and simultaneously to morphology of the ground (Moutsopolou, 1984). The harmonious relationship of the traditional settlement of Lindos with its natural environment is related to the urban route of an ancient settlement which follows the order of the basic principles of ancient cities that developed around the Acropolis, which is the highest point, visible from everywhere and is the core of the settlement (Wycherley, 1962).

2. Aims of the Project

As a background of the cultural promotion of Lindos settlement we consider that we should establish a comprehensive educational system with an emphasis on artistic aesthetic treatment, which will contribute to the ability of students to recognize and respect an aesthetic artistic effect. Also, to seek the productive forces completed in a creative effect; and art is the way to conquer new cultural achievements. The goal of the project was for the students to:

- Investigate the role of connective Aegean Architecture in the traditional village of Lindos through Art and Geometry.
- Discover the History of the place through geometric shapes and come in contact with them wandering around the traditional village of Lindos.
- Cultivate their aesthetic criteria and develop attitudes towards artistic cultural Heritage.
- Realize the Cultural Architecture and understand the value of the conservation of the traditional settlement of Lindos.
- Seek and build aesthetic culture.
- Develop creative thinking in all forms of expression (Art, Architecture, etc.), to produce new artistic products inspired by the Cultural Heritage.

3. The Method

The project started by visiting Lindos twice and a sightseeing took place through the whole traditional settlement and also visiting the internal of several traditional houses of the village. Aiming to raise the awareness and the realization of the students about the importance of conservation and renewal of Cultural Heritage in relation to traditional Architecture, they were asked to carry out a series of cross-artistic activities. In particular:

They observed the shapes of the traditional houses, decorative Architectural elements and archaeological sites. They had to choose one of the buildings that really impressed them, study it, observe it and describe its shape and its integration across the village and mean while as a part of the whole natural environment (Filipidis, 2003).

They analyzed all the details of the geometric shapes of lines and colors making comparisons to shapes, lines, and tumors of buildings, sizes and considerations relative to the influences they might distinguish from other cultures.

They studied the colors, combinations, shades, effects created up the buildings, the shadows

and the light and how they rely on three-dimensional environment.

They also considered and described why the citizens of this place had to build their houses and the whole settlement in this way.

They studied decorative details of buildings which used geometric shapes in lintels, windows and pebble in external and internal spaces (Stix, 1994).

They transformed the building they had already chosen into a new creation using new colors and shapes, making desirable changes with their own geometric patterns. To accomplish their try, they were encouraged to remove from their minds all criticism or fears, to visualize the hidden geometry of the elements of the building and to change them using metaphorical thinking, other symbols and meanings. They were free to derive ideas and geometric shapes from several paintings of famous painters such as, Paul Klee, Pablo Picasso and Mondrian (Kampouroupoulou, 2002).

Students discovered Mathematical concepts in Art and Architecture and in particular proportions In Art, geometric symbols such as the circle, triangle, pentagon, hexagon, etc., geometrical constructions such as squaring a circle, using polygon intersection and construction, patterns in Art and specific issues , anything geometric connected with Art and Architecture (Calter, 2008).

3. Method

The project included the visiting of the Exhibition twice and the presentation of the Paintings by the Artist herself. Students observed the Paintings and tried to discover all the characteristics of creative, such as flexibility of thinking, originality, organization of space and forms, style performance, variety of colors, ideas etc. Then they were given card postal especially created for them and for a number of artworks, which at the back was a description of an action according to the painting. The card postal were displayed with a series of step by step so for them to be initiated in the artistic process and creativity. Even more in those way students were able to understand the timeless and value of the Paintings within time and space. One of the activities assigned to them was to combine one of the Paintings with a literary work (poem or prose), comment their selection and try to give the symbols or find contrasts between them, (Brommer & Kinne, 1988). Also to describe their emotions about the specific artwork and create themselves an activity that could assign to their future students as teachers in relation with Art and Literature (Bowkett, 1997).

4. The Results of the Project

4.1 The Physical Environment of the Settlement

Lindos belongs to the island of Rhodes, one of the windswept Aegean islands rising from the sea, with the steep descent that suddenly “dives into the sea”, surrounded by the turquoise sea water and eternally lit by the Sun. There they “create endless games” with small, wonderful, sandy or pebbly beaches. The village of Lindos resembles embossed and hardly anyone could understand the diversity and contrast between an area where human presence and structure of an environment is inextricably linked with terrain and the close relationship between the

locals and the sea (Manousou-Della, 2008).

4.2 Traditional Geometrical Architecture in Lindos

The settlement belongs to the Aegean popular island architecture that differs from the Greek mainland architecture in constructions of housing roofs using “clay land” and bare tiles without domes. The way of covering buildings shaped floor plans and facades of buildings, which in combination with natural materials and sloping ground, created different types of houses. Houses bedded or more complex, ground floor houses or two floors, which in their fronts have an open balcony with outdoor stone staircase, forming a little terrace (Vassiliadis, 1955).

4.3 The Images of the Buildings

The images are displayed with heavy central tumors bearing a few small openings. The monolithic tumor acquires both lightness and movement of different heights levels of auxiliary buildings, which surround the central tumor, and secondly by coating with limestone the face of the vanishing tumor. The beauty of the facades of the houses, which stems from the genuine geometrical form with the highest expression, contains in harmony the spontaneity and charm of strange symmetry that characterizes the folk Art workmanlike construction. The main architectural types encountered in Lindos are “an adaption of the primary type of broad Dodecanese folk residence ancient model” (Moutsopoulou-Della, 2008).

4.4 The Images of the Houses and the Shapes

The whitewashed village is the first impression somebody gets approaching by the sea, white surfaces, without details and stacked one above the other. Through all this the town emerges, the capital of the village, and small houses are built next to one another, forming a protective “wall” while above stands the castle. The houses’ expansion lies in the natural environment coincidentally and with no prediction. The variety of geometric shapes and colors create impressive dividing zones, giving in the Greek nature ingenuity, tasteful and craftily of the Greek spirit (Filipidis, 1955).

4.5 The Specific Type of Architecture in the Settlement

Between the traditional settlements and their natural environment, there is a harmonious relationship extremely admirable by the current citizens of urban areas. The choice of the specific type of traditional architecture is a product more as necessity rather than a simple choice. The main reason in one hand is that the natural environment and its conservation in a good condition combined to the traditional agricultural production. In the other hand the conversion or even radical alteration of the natural environment, no matter how desirable was, would demand mechanical and economic instruments, two factors that did not exist at that time (Makris, 2012).

4.6 Traditional Settlement of Lindos and Geometry

Lindos is a village with narrow streets a characteristic of fortified settlements because of the

limited space, so the plan of the settlement should be adapted to the existed basic layout. Buildings with sharp corners, geometrical shapes ended on blanking where also imposed because of the geometrical streets. The citizens simply tried to extend the tumors of their houses in an effort to extent their space; the result was the quadrature of the floor plan and the extension of the houses and generally buildings often over the road (passage) (Fokiali & Kampouropoulou, 2002).

5. Traditional-Historical Settlement of Lindos, Past and Future

According to the conclusions of the students and special scientists, a particular attention should be paid for the protection and enhancement of the historic and traditional buildings of Lindos, as the place is a major tourist attraction. Citizens' interventions in buildings for their needs should be minimized and the specially designed regulation should be served containing the conditions under which the area of Lindos should be constructed from now on and the limits in buildings' innervations. It is actually a study and analysis of architectural types encountered in Lindos for the preservation of the settlement and generally the natural environment in which ii is incorporated (Manousou-Della, 2003).

6. Conclusions

Creative Arts Education helps students to learn how to draw data from daily images, buildings, and works of Art, which are elements for studying, elaboration and reconstruction. The goal of the study was for Academic students and future teachers to investigate the connective role of Art Education between Traditional Aegean Architecture and Cultural Heritage (Fox & Gardner, 1997). They discover themselves the Architecture of the traditional houses of Lindos, studied the whole settlement and the characteristic Aegean Architecture. They realized the purpose of the continuous system building, discovered the history of the place through geometrical shapes, decorative architectural motifs and how all these blend in with the rest of the natural environment, creating a balance and harmony. They learned to visualize and recreate the geometric data using their fantasy and they composed their own architectural complexes of buildings (Dewey, 1964). The experiential project gave them the opportunity as future teachers to realize that Art teaches children to pose concerns for exploration and discovery of origin data, trains them on observation, and gives experiences and sensations, in a way that all the impressions incubate leading to personal creations. They also realized that Mathematics and Art in general are two separate different field of human activities, but, meanwhile can be in combination in order to recreate impressive complexity and beauty in buildings.

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