



## Gazebos and Other Worlds

Curriculum Unit 84.01.02

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### I. History

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According to Alistair Rowan from his book, garden buildings in history have assumed many guises. Styles include Renaissance, Baroque, Palladian, Chinese, Gothic, Indian, American, etc. The art of designing such a building is more closely related to fantasy rather than reality. These buildings were erected for the purpose of pleasure and were meant to be attractive. Since these buildings were often modest in size and comparatively inexpensive, the design could often produce much novelty. Architects were free to explore new ideas and on a small scale. Garden buildings of this type were popular in England during the 16th, 17th, and 18th centuries and were placed in large parks and private estates. During some periods however, the designs were of small scale and were related to the house. Some viewed and others were used to view from. Progress into the 19th century found more of these garden buildings erected with usefulness becoming more important. These then became cottages and conservatories, which led to the development of a new language of garden buildings, and marked the rise of the new middle class owner as well as the art of ferro-glass construction. Little building in garden architecture (other than greenhouses) continued in the hands of private individuals beyond the Victorian era, after which that body of work was more frequently undertaken by committees as parks became public.

The garden house in Western culture is seen as a place of refuge within the garden, remote and unconnected to the dwelling, and probably has its origin in the early English bower, a seat shaded by trees. Teahouses and garden pavilions have a long history in China, but this was not an influence until the 18th century on Western architectural thought.

I shall refer to these garden buildings by the term Gazebo which is a noun meaning a structure designed to command a view. The term Belvedere is sometimes used also to refer to a summerhouse.

## II. Logic

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I have chosen the Gazebo as the subject of my unit because it can be used in a number of ways to familiarize the student with the complex design area known as architecture. If we can see architecture as a reflection of culture and teenagers as a reflection of our culture then we can see why it is worthwhile for the student to be able to gain some control and understanding of this element of environment.

It is the purpose of this unit to demonstrate how the student can do this through the analysis and design of a simple structure such as the gazebo. The first year drafting student in an eight week marking period should also be able to:

1. Measure and scale
2. Develop Orthographic Drawings
3. Develop Pictorial Drawings
4. Build a Model
5. Develop Avocational and Vocational Aspects of Drafting

Many of the values, expectations and fears of today's citizen and student can be said to emanate directly out of the physical environment of the community of which architecture is one element. Therefore, if the student can learn to control and design three dimensional space in the classroom, the student can control and understand the use of space in the community and use those classroom skills to exercise change in and around the home.

Today's student in general has little conscious experience in three dimensional design either from school or play. Television has to a great extent taken the place of hands as a medium for game playing and fantasy. Where young people once sat building things out of play dough building blocks or erector sets now they sit and watch. Two dimensional images. The same can be said of time once spent reading but now spent watching. This is an important factor in trying to educate today's student, for in order to build effective teaching units one must analyze carefully the strengths and weakness of the student. The student will use the gazebo as a focal point around which to integrate imagination reality and drafting skills.

## III Strategies

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### *EXPERIENCE*

In order for the student to experience three dimensional space from a pattern drawn out on a two dimensional surface. I recommend a predetermined pattern on a hand out sheet. I would suggest the cube shape as a beginning pattern since it is easy to relate to in terms of common experience. The pattern should be scaled or drawn out to correct size. Using a scale of  $1/4" = 1'$  is most convenient since the entire pattern can be laid out on the average  $8\frac{1}{2}" \times 11"$  paper. The pattern could be cut out and glued together directly or the pattern

could be laminated to a thin cardboard with rubber cement and then cut out and put together. The skills required to do this involve being able to cut and paste, but the result can be interesting, particularly if the cube is designed or decorated further with color by the student. The finished product, a 2" cube is easily controlled and understood by the student. The cube can be held up to eye level and gazed into it's openings to comprehend the space inside, and can turned and manipulated to view what is beyond the openings, thus fulfilling two functions of the gazebo i.e. as a structure to look at and as a structure to look out from. Both of these functions can lead to fantasy and reality which again is what a gazebo is all about.

### *IDENTIFICATION*

The next step is essential since we must be able to name what it is we are talking about. The student finds this object in the hand a bit curious, or a mystery, and must call it something. That is the time to introduce the gazebo by name. The word itself is interesting when taken apart and it's origins known since in doing this we introduce its function, and possibly a bit of history. For instance the gazebo in th garden of the Sun King in France has certain elements of social, economic, and political as well as architectural components which can be discussed and focused upon. A more current application would involve the student with a particular gazebo made for a film such as *THE SOUND OF MUSIC* . We could also discuss how the people in Hollywood—went about designing and building this movie set to incorporate a gazebo. By doing this we can move the student into the present or into one's own imagination for a time and place to locate the gazebo.

## ***Lesson Plan***

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### *Topic:*

Pattern Development

### *Objectives:*

Student should be able to:

1. Identify the six faces of a cube pattern
2. Name other uses of patterns in industry
3. Draft, Cut Out, and Assemble a cube pattern

### *Motivation:*

To involve the student with direct hands on experience of three dimensional space and arouse a sense of play and curiosity.

### *Introduction:*

Teacher to show examples of objects designed in the shape of cubes. The student can also do this as a homework assignment. Gazebo, terminology, and models to be introduced.

*Presentation:*

Teacher to demonstrate by drawing to scale, cutting out and assembling a cube pattern.

*Assignment:*

1. Student should assemble gazebo model from ditto.
2. Student should draw out and assemble two more models at different scales.

*Evaluation:*

Comparison of various models for accuracy and technique.

(figure available for print format)

*Defining The Problem*

Once the problem is defined in the students mind one can proceed with the design. For instance the following may be taken into consideration:.

1. SITE (Location of the Gazebo)
  - A. Position of North
  - B. Most favorable view
  - C. Land, Water, Mountain, Garden
2. Size of the Gazebo in relation to;
  - A. People
  - B. Trees
  - C. Paths
  - D. Boundaries
3. The geometric shapes from which the gazebo is formed;
  - A. Square, Octagon, Circle, Hexagon ect.
4. Functions;
  - A. How many people?
  - B. What does one do in the space?
5. Floor Plan
  - A. Quiet and active space
  - B. Furniture

Some students will be able to proceed with a design from their own imagination, while others will need a more structured approach with a given site plan and list of requirements, as would be necessary in dealing with an actual client.

### *The Site*

Location gives the student a chance to place this structure anywhere at all in fantasy or in the backyard. The question of its location can give rise to real questioning about motivation for choosing a particular place and insight into what that might mean to the students understanding of the environment. What the student chooses to view in fantasy or reality can become a real goal. The student could express this in a verbal or a written form.

The position of north is important in terms of some exposure to the elements. The student may be able to visualize a place but needs a vocabulary to express this beyond the written or verbal form.

(figure available in print form.)

This is the purpose of the site plan and its language of symbols relating to grade elevation, direction of north, location of the best view, natural growth and important formations. In discussion we can now introduce the landscape architect and his relationship to the architect, their careers and functions and come to know that skills being learned can lead to an interesting and rewarding job or hobby. It is often difficult for the student to realize the connection between school and the world of work, and therefore important to make this clear. The concepts of vocation and avocation can be further reinforced by showing how some people make models for a living and how modelmaking is important to the development of new products in industry and science. Thus in a relatively short period of time by means of a simple activity the student has a chance to see what is all about, if it is fun to do, and whether modelmaking would be worthwhile pursuing as a career.

The model and site plan can be directly connected by providing sample site plans either drawn to the same scale or by means of a model.

Up to this point in time the material can be provided in ditto form for the students direct use. Now it is necessary to examine the means by which the student can proceed further with the gazebo as a problem in design.

## **IV. Integration of Drafting Objectives and Gazebo Design**

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As part of the course objectives it is necessary for the student to be able to measure at various scales. Measuring can be introduced easily with the model and site plan. Since most site plans are drawn at a very small scale it is necessary to understand what scale is all about. This could be done at any point once the model is made. Having a model to measure can facilitate the learning process because of its reinforcing effect. It is also easy for the student to see first hand the effects of proportion and size while measuring with various scales. To those not familiar with an architect's scale it becomes not a threat but a useful tool in games of imagination relating to such terms as height, length, and width as the gazebo takes on another quality known as dimension. These concepts of dimension and measurement are essential to drafting and the gazebo is a novel and fun way to introduce them.

The student is further required to develop knowledge and skill in the use of drafting tools. Here the student could draw out the cube pattern in various scales, cutting and putting them together for immediate visual comparison. This also gives the student opportunity to identify and use the T square which is used to draw horizontal lines and the 30-60-90 and 45 degree triangles which are used in conjunction with the T square to draw vertical lines.

Another basic drafting goal is for the student to be able to draw and visualize various geometric shapes such as the cube, cone, cylinder, sphere, octagon, hexagon, five pointed and six pointed stars and other types of polygons.

The concept of geometric shapes is of course basic to everyday living, but much overlooked, unlabeled, and little understood by most students. Once identified, however the student is able to see how these shapes are used in objects familiar to the student.

Using these basic geometric shapes the student can further analyze and be able to utilize them in the solution of the problem, applying them to floor plan and elevation design.

Other objectives can be met by having the solution presented in various forms such as orthographic, isometric, and pictorial or perspective drawings. All of these forms of presentation are necessary skills to artist, draftsman, architect, engineer, interior designer, etc. The gazebo therefore has provided a focus around which the major objectives of an introductory drafting course are aimed.

The gazebo can in fact become a building block when it is manipulated, multiplied, stacked, pierced, cantilevered, or split open, because this eight foot square building unit can be assigned many functions and can be assigned many functions and be put together from as many points of view as there are architectural theories. The idea of putting this shape into a particular role as room, home, or community is no longer as threatening because it is easier to understand and achieve at a smaller scale. That very same small scale can lead to innovative design as many architects discovered in their attempts to design the garden buildings of great estates.

## V. Summary

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Using the gazebo as a focus has helped the student to develop skill in drafting language and techniques as well as direction toward possible goals in terms of personal space management and career interests. In realistic terms it is not possible for the average student to actually build a gazebo, but by working the problem through the student becomes aware that space is some which has a language and which can be manipulated and controlled by the student in miniature.

### ***Lesson-Plan***

*Topic:*

Elevation Design

*Objectives:*

Student should be able to:

1. Analyze a series of elevation drawing
2. Draw to scale a design for the elevation

*Introduction:*

As a homework assignment have students make freehand sketches of geometric shapes which they can see in and around their homes and school.

*Presentation:*

Discuss, demonstrate and analyze a prepared ditto sheet full of elevation drawings.

*Student Assignment:*

Students are to use instruments to draw as many variations as possible of an elevation design.

*Evaluation:*

Students to compare, discuss, and analyze the results for originality, neatness, accuracy, and creativity.

(figure available in print form)

### **Lesson Plan**

*Topic:*

Designing a Floor Plan

*Objectives:*

Student should be able to:

1. Analyze the use of space within the limits of the gazebo.
2. Draw a floor plan to scale showing symbols for furnishings which may be included in the gazebo.

*Introduction*

Space in the classroom can be measured off in an eight foot square. Students to sit, stand, or lay in space with and without furniture.

*Presentation:*

Teacher to demonstrate symbol language for furnishings and how to draw floor plan to various scales.

*Assignment:*

Student to draw to scale floor plan of gazebo using correct language.

*Evaluation:*

Students to compare results based on how well the space is used and if it meets the needs of the design.

## **Reading List**

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*Garden Buildings* by Rowan, Alistair Taylor Garnett Evans & Co. Ltd., Watford, Herts England 1968

*The Book of Garden Ornament* by Peter Hunt J.M. Dent & Sons Ltd., London 197

*Garden Ornament an Encyclopedia* by Kenneth Lynch Canterbury Publishing Co., Canterbury, Conn. 1974

*Gazebos and Garden Houses* by Edwin Howard American

Offset Corp. N.Y. 1935

*Versailles* by Christopher Hibbert Newsweek, N.Y. 1972

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