Presentation Model

Unit: Physical Model Building in Architectural Design

Problem Area: Physical Model Building

Lesson: Presentation Model

Student Learning Objectives.

Instruction in this lesson should result in students achieving the following objectives:

1. **Identify a presentation model.**
2. **Build a presentation model.**
3. **Present a presentation model.**

Resources.

The following resources may be useful in teaching this lesson:

"Andrew Ingham & Associates: Architectural Models, Presentation Models, Exhibition and Planning Models, Model Making Services," designbuild-network.com. Accessed Oct. 29, 2008. <http://www.designbuild-network.com/contractors/architects/andrew-ingham>.

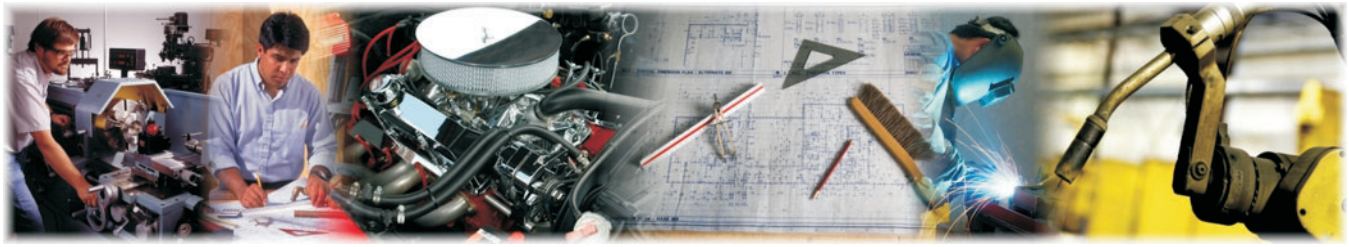
"Architectural Models," Architectural Model Studios. Accessed Sept. 30, 2008. <http://www.architectural-models.com/>.

"Ludwig Mies van der Rohe," *Howard Architectural Models*. Accessed Oct. 29, 2008. <http://www.howardmodels.com/Architectural-Scale-Models/Mies-Van-Der-Rohe-Riehl-House/index.html>.

Mills, Criss B. *Designing With Models*, 2nd ed. John Wiley & Sons, 2005.

"Realistic Architectural Models and Famous Architects and Their Models," Architectural Model. Accessed Sept. 30, 2008. <http://www.architecturalmodel.net/>.

Sutherland, Martha. *Modelmaking*, W.W. Norton, 1999.



Equipment, Tools, Supplies, and Facilities.

- ✓ Overhead or PowerPoint projector
- ✓ Visual(s) from accompanying master(s)
- ✓ Copies of sample test, lab sheet(s), and/or other items designed for duplication
- ✓ Materials listed on duplicated items
- ✓ Computers with printers and Internet access
- ✓ Classroom resource and reference materials

Key Terms.

The following terms are presented in this lesson (shown in bold italics):

- clean model
- context model
- craftsmanship
- dry fit
- key elements
- level of detail
- presentation model
- prioritize
- time management

Interest Approach.

Use an interest approach that will prepare the students for the lesson. Teachers often develop approaches for their unique class and student situation. A possible approach is included here.

> *Show students samples of presentation models from the Web sites listed in the Resources section. Ask the students what they like and dislike about the samples. Then, inform the students that they will construct presentation models for their projects.*

SUMMARY OF CONTENT AND TEACHING STRATEGIES

Objective 1: Identify a presentation model.

Anticipated Problem: When is a presentation model used?

I. A ***presentation model*** is a well-crafted, scale-model of a final design. It is used as a tool to aid in the design explanation. The presentation model should help to "sell" the

design idea. Several characteristics differentiate the presentation model from other models.

A. The ***level of detail*** is the amount of information in a drawing or model, and the presentation model has a higher level of detail. Horizontal lines on an elevation drawing represent a lower level of detailing brick building material. A higher level of detail for brick would include the brick pattern, mortar joint, and brick textures. Because the design has been developed, the presentation model is able to have a higher level of detail, such as:
   1. Windows with frames and glazing
   2. Door openings
   3. Stairs
   4. Building structure
   5. Exterior building elements (e.g., cornice, banding, and coins)

B. Building materials are represented with the use of different model-building materials, including:
   1. Balsa or basswood for wood that may be painted to represent other material
   2. Acetate for windows
   3. Moss for lawns
   4. Facing materials to represent siding, brick, or concrete

C. A presentation model typically has higher quality craftsmanship than other models.
   1. A well-crafted model appeals to the client and helps the client understand the design.
   2. A presentation model requires more time and more sophisticated materials for construction.
   3. Glue, tape, and other adhesive should not be visible.
   4. The corners should be sharp, and the lines should be straight.

Show your students pictures of presentation models from Designing With Models, 2nd ed., Chapter 7; http://www.architecturalmodel.net; and http://www.architectural-models.com. For an enriched lesson, have the students provide presentation drawings with the presentation models.

Objective 2: Build a presentation model.

Anticipated Problem: How is a presentation model constructed?

II. Build a presentation model.

A. Show students modeling materials to represent building materials, such as:
   1. Acetate for glass
   2. Balsa and basswood for wood
   3. Moss for lawns

4. Facing materials for stone and brick

B. Set a scale for the students to use with the presentation models.

C. Define a time limit for model creation, depending on the construction materials used. For example, cutting wood with a saw may take longer than cutting foam core. At the college level, students are given one week to build a presentation model from a final design.

D. The final model should be built prior to the creation of the final drawings, as building the model helps students solve design issues through the construction process.

E. Craftsmanship of a presentation model

1. Instruct students to measure twice and cut once. Explain that taking time to re-measure saves from having to re-cut pieces.
2. Tell the students that blades should be kept sharp because a dull blade tears materials instead of cutting cleanly through them.
3. Let the students know that glue should be applied lightly.
4. Explain that keeping the model-building workspace and their hands clean enhances the construction and overall model craftsmanship.

F. A presentation model requires more time and ***craftsmanship*** (the skill level involved in the construction) to build than a study model. Producing a clean model for presentations is the key to a successful client presentation. A ***clean model*** is built with minimal defects. For example, glue and tape should be invisible, and all exposed materials should have clean cuts.

G. ***Time management*** is using time efficiently to complete a task. Lists should indicate a time limit for each task. ***Prioritize*** (create an order of importance) tasks for completion. When certain tasks cannot be finished before the deadline, ensure that the key elements are completed first. ***Key elements*** are those items necessary to maintain the overall design intent.

H. Tell the students to use the following sequential steps for building a presentation model.

1. Cut out pieces for the walls, floors, and openings.
2. Dry fit pieces together to verify sizes, then glue them. ***Dry fit*** is the process of checking the sizes and shapes of cut pieces prior to fastening them together.
3. Add details to the base building.
4. Add texture to the walls and floors.
5. Build a roof.
6. Build a suitable base for the model.
7. Add site enhancements or context as needed.

Project VM–B. Have students review the tips and techniques for model building and presentation requirements. Assign Chapter 2 from Designing With Models. Then assign LS–A.

*For an enriched lesson, have students make a **context model** that shows the area surrounding the project site. The context model should leave the project site open or with a depression to set student models in the context model. Use the following professional Web site to share presentation models: http://www.howardmodels.com/Architectural-Scale-Models/Mies-Van-Der-Rohe-Riehl-House/index.html and http://www.designbuild-network.com/contractors/architects/andrew-ingham/.*

Objective 3: Present a presentation model.

Anticipated Problem: How can a design be presented?

III. Conveying a completed design to an audience is as important to architecture as the design.

A. Provide the students with guidelines. For example, set a time limit for the presentation and list items to be addressed, including:
   1. Adapting the presentation to the intended audience
   2. Describing the building's function
   3. Describing the building's elevations

B. Explain that tailoring the presentation to the intended audience is enhanced by:
   1. Listing the key design elements of the building
   2. Using references to explain abstract design ideas
   3. Explaining the benefits of material choices or elements

C. Explain the importance of an open discussion about the design.
   1. Each student should allow for a short question and answer session following his or her presentation.
   2. The students should solicit constructive criticism about their designs.

D. The presentation models should be photographed for use in a portfolio. Different lighting techniques and exposures should be used to capture the:
   1. Overall building and site or base
   2. Various building angles

Display the photographs and/or the presentation models constructed by the students. Number the photographs and have the students critique the models to gather feedback for students. It is best to provide them with a form to avoid general responses. This activity encourages students to find ways to improve the work of others and, thereby, results in improvements to their own projects.

Review/Summary. Use the student learning objectives to summarize the lesson. Have students explain the content associated with each objective. Student responses can be used in determining which objectives need to be reviewed or taught from a different angle.

Application.

Use the included visual masters and lab sheet to apply the information presented in the lesson.

Evaluation.

Evaluation should focus on student achievement of the objectives for the lesson. Various techniques can be used, such as student performance on the application activities. The presentation of the model can be used to evaluate the students understanding of design as well as model building technique. The sample written test can also be used.

Answers to Sample Test:

Part One: Matching

1. d
2. a
3. e
4. b
5. f
6. c

Part Two: Short Answer

1. Answers will vary but may include any three of the following materials and representations: acetate for glass; balsa or basswood for wood; moss for lawns; or facing materials for concrete, brick, or masonry.
2. Answers will vary but may include any three of the following tips for building presentation models: measure twice and cut once; keep blades sharp; apply glue lightly; and keep the model-building workspace and your hands clean to enhance the construction and overall craftsmanship of the model.

Part Three: Completion

1. adapted
2. lightly
3. clean model
4. references
5. Prioritize
6. portfolio

Sample Test

Name _____

Presentation Model

Part One: Matching

Instructions: **Match the term with the correct definition.**

a. time management
b. craftsmanship
c. key elements
d. presentation model
e. level of detail
f. dry fit

_____1. A well-crafted, scale-model of a final design

_____2. The efficient completion of tasks

_____3. The amount of information in a drawing or a model

_____4. The skill level involved in the construction

_____5. The process of checking the sizes and shapes of pieces prior to fastening them together with glue

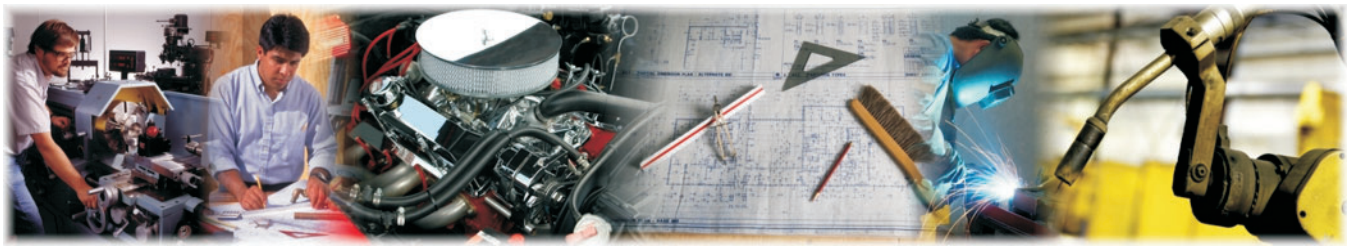
_____6. Items needed to maintain the overall design intent

Part Two: Short Answer

Instructions: **Answer the following.**

1. List three model materials and the building element each represents.

2. List three craftsmanship tips for building presentation models.



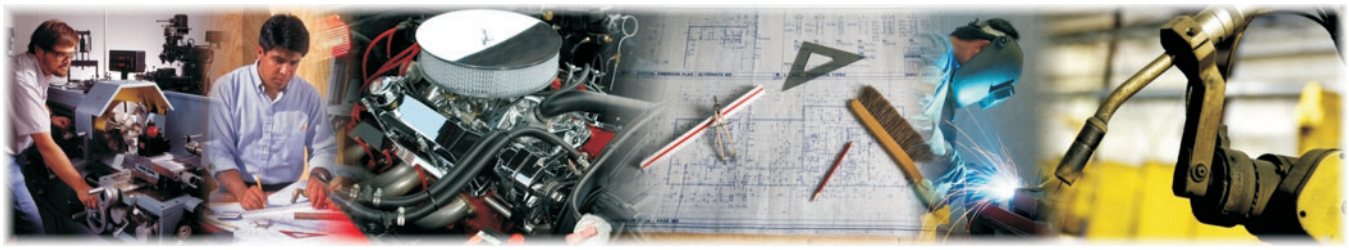
Part Three: Completion

Instructions: **Provide the word or words to complete the following statements.**

1. The final presentation should be _____ to the audience.
2. When building a presentation model, glue should be applied _____.
3. A model built with minimal defects is known as a(n) _____.
4. When trying to convey an abstract design or idea during a presentation, use _____ to enhance the relationship between the model and the idea.
5. _____ tasks to create an order of importance.
6. After each presentation, you should photograph your model for inclusion in your _____.

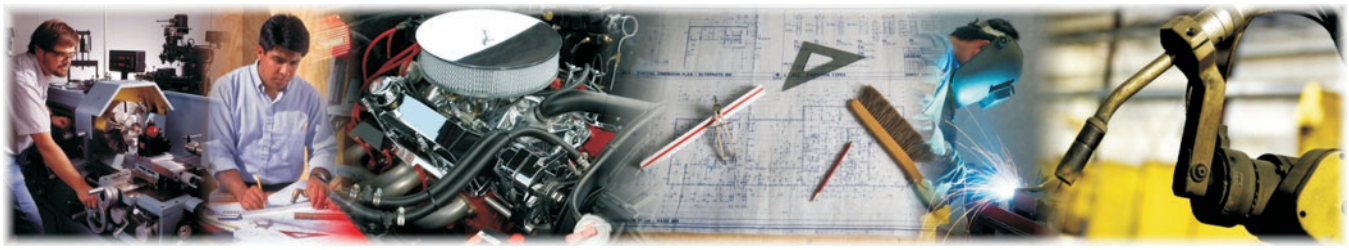
CRAFTSMANSHIP OF A PRESENTATION MODEL

1. Measure twice and cut once. Taking time to re-measure prevents you from having to re-cut pieces.
2. Keep blades sharp. A dull blade tears materials instead of cutting cleanly through the material.
3. Glue should be applied lightly.
4. Keeping the model-building workspace and your hands clean enhances the construction and overall craftsmanship of the model.



SEQUENTIAL STEPS TO BUILDING A PRESENTATION MODEL

1. Cut out pieces for the walls, floors, and openings.
2. Dry fit pieces together to verify sizes, and then glue them together.
3. Add details to the base building.
4. Add texture to the walls and floors.
5. Build a roof.
6. Build a suitable base for the model.
7. Add site enhancements or context as needed.



LS–A

Name _____

Build a Presentation Model

Purpose

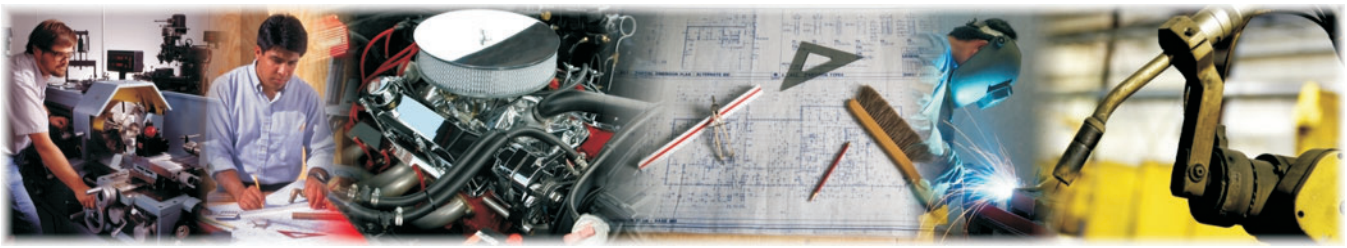
The purpose of this activity is to build a presentation model for a specified audience that emphasizes a final building design, quality, and craftsmanship.

Objectives

1. Determine a set of design considerations, and construct a model.
2. Create site enhancements as needed (e.g., trees, lawn, or streams).
3. Present your model to the selected audience for feedback.
4. Make modifications based on the feedback.
5. Photograph the final presentation development model for use in your student portfolio.

Materials

- VM–A, for review
- model material: foam core, museum board, balsa wood, basswood, cardboard, facing paper, wire, and acetate
- backdrop, camera, and lighting for taking pictures of models
- eraser
- Exacto tool
- glue
- lighting
- model building tools, including: wire cutter, mitre box and saw, box cutter, and a pipe cutter
- a presentation area for the model, presenter, and audience
- pencil



- scale
- spray adhesive
- straight edge
- tape
- trace paper or paper
- triangle

Procedure

1. Select a building for which you will build a presentation model.
2. Select an audience to whom you will present your model.
3. In conjunction with your instructor, determine the design considerations for the presentation model, such as: "The minimum size of an entry door should be 3 feet wide × 7 feet tall."
4. Construct a presentation model that emphasizes a final building design, quality, and craftsmanship. Presentation models take time and care when crafting. A few tips to remember when building your models:
   a. Measure twice and cut once. Taking time to re-measure may prevent you from having to re-cut pieces.
   b. Keep the blade sharp. A dull blade will tear materials instead of cutting cleanly through the material.
   c. Glue should be applied lightly.
   d. Keep the workspace and your hands clean when assembling the model.
   e. Steps for building a presentation model:
      (1) Cut out pieces for the walls, floors, and openings.
      (2) Dry fit pieces together to verify sizes, and then glue them together.
      (3) Add details to the base building.
      (4) Add texture to the walls and floors.
      (5) Build a roof.
      (6) Build a suitable base for the model.
      (7) Add site enhancements as needed.
5. Create site enhancements as needed (e.g., trees, lawn, or streams).
6. Outline your presentation notes, and review them with your instructor. Remember to adapt your presentation to the audience's needs. Your time limit for the presentation is 10 minutes, with 5 minutes for questions and feedback.

7. Present your model, concept, and design considerations for the building to the selected audience for review. The following items should be included in the presentation:
    a. Describe the building's function (e.g., floor plan, traffic flow, or functional areas)
    b. Describe the building's elevations.
    c. List the key design elements of the building.
    d. Use references to explain abstract design ideas.
    e. Explain the benefits of material choices or building elements.
    f. Have an open discussion about the design.
8. Conduct a short question and answer session following the presentation to solicit constructive feedback about the design.
9. Make modifications based on the feedback.
10. Photograph the final presentation development model for use in your student portfolio, using different lighting techniques and exposures.
    a. Photograph the overall building and site or base.
    b. Photograph the model from varying angles.
11. Turn in your final design model to your instructor.