



## EXERCISES TO ACCOMPANY: *Architecture* by Geoffrey Makstutis

### CHAPTER 1: THE SETTING

Challenge: To compare an architect from the ancient world with a contemporary one.

#### Strategy:

- Choose an ancient architect and a contemporary one.
- Consider the ways that he or she became an 'architect'. Explore the periods in which he/she lived/lives, his/her education, clients and professional practice.
- Write a short essay describing the differences in the 'profession' of these two architects. How does the nature of their activities differ? Are they both 'licensed' architects and what difference does this make?

Reading: pages 20-22, 32-38

#### Notes for instructor:

- Students may have a tendency to describe the work of the architects they choose. You should stress the fact that they are looking at the 'profession' of architecture for the chosen architects, and not the work that they produced.
- Encourage students to begin by exploring the questions inherent in the assignment. For example: How did they become architects? Were they trained as architects? Did they work for a client or was there a different arrangement?

Timing: 2 to 3 days (allowing for research and writing)

### CHAPTER 3: THE CLIENT AND THE BRIEF

Challenge: To prepare an initial brief describing the requirements of a client.

#### Objectives:

- To be able to explore a building in as much detail as possible.
- To imagine you are an architect.
- To prepare an initial brief that describes the requirements of a client requiring a similar building.

#### Strategy:

- Choose a well-known building in your area. It can be of any scale or type.
- Explore the building in as much detail as you can by visiting, photographing, sketching, etc.
- Imagine you are an architect working for a client who wishes to have a similar building. Prepare a brief which describes the requirements of this client as you have identified them by exploring the original building.
- Think about the following and include as much detail as possible on the brief:
  1. What are the 'key' characteristics of the building?
  2. How will the 'client' use the building? (For themselves or will they rent/lease the space?)
  3. How many people will occupy the building?
  4. Are there specific security issues that must be considered?
  5. Are there budget restrictions that the client may have?

Reading: pages 89-91

**Notes for instructor:**

- You may wish to limit the selection process to a specific scale or type of building.
- If desired, a set of sample briefs can be supplied to students to help them recognize the types of information that they may wish to include.
- Encourage students to examine their chosen building as a building-type rather than as a specific building. It is important to stress that students are aiming to define the parameters of the project, rather than describe their chosen building.
- This exercise can also work well in teams (having one team act as a client and the other as architect/design team).

Timing: 1 to 3 days (allowing for site visits, writing and group discussions following the exercise)

## CHAPTER 4: FROM BRIEF TO PROJECT

Challenge: To prepare a report explaining how you might arrange a building on a site.

**Objectives:**

- To consider the feasibility of a site.
- To visualize your ideas for a building by making some basic drawings and initial design sketches.

**Strategy:**

- Using the brief you prepared in the previous exercise (Chapter 3: The Client and The Brief) locate a site in your area where your new building could be constructed.
- Make a list of the 'constraints' that your site has. For example, are there power, water and sewerage accessible nearby? Are there existing roads to provide access? Are there tall buildings which restrict sunlight? Are there issues related to your chosen site which may increase the cost of the building?
- Prepare a report including some basic drawings of the site, initial design sketches and other materials (models, photographs, etc.), which can help explain to your client how you might arrange a building on this site.
- You may wish to use a basic modelling program like Google SketchUp (available free from <http://sketchup.google.com>) to help you visualize your ideas.

Reading: pages 105-123

**Notes for instructor:**

- The aim of this exercise is for students to begin to understand the relationship between existing site, research, design and cost.
- When asking students to list constraints, it is important to give examples; an initial presentation of a small project (exploring the way that the project is sited and why) can help to give the students clues as to how to approach the exercise. The inclusion of questions about the environment, energy supply and materials can be a good way of introducing students to the issues related to the building industry and sustainability.
- It is advisable to encourage students to draw and make physical models, before suggesting the use of digital modelling tools. The speed of drawing and rough/massing cardboard models can help the students to explore ideas quickly; without the pressure of learning a new piece of software.

Timing: 3 to 7 days (allowing for research, drawing/modelling and discussion of outcomes)

## CHAPTER 5: THE PROJECT AND THE PROCESS

Challenge: To prepare a set of construction drawings for your building design from Chapter 4: From Brief to Project.

### Objectives:

- To generate plans, sections and elevations of your proposed building.
- To include dimensions and notes on your drawings.

### Strategy:

- Use your basic drawings and initial sketches from the previous exercise (Chapter 4: From Brief to Project) to further develop measured plans, sections and elevations of your proposed building. You should aim to have:

1. 2 floor plans at a scale of 1:50 (1:¼)
2. front and rear elevations at a scale of 1:50 (1:¼)
3. 1 section at a scale of 1:50 (1:¼)

You may use a smaller scale if your chosen building is large.

- You may use SketchUp or other CAD/Modelling software to help produce these plans, etc.
- Make sure your drawings include dimensions and notes.

Reading: pages 149-158

### Notes for instructor:

- The aim of this exercise is to help students to understand the transition from design information to more detailed and precise information.
- If students have not yet had any exposure to methods of construction, it may be necessary to give them some 'rule of thumb' approaches to plan and section drawing (e.g. give them a wall thickness and floor thickness to use, provide them with some basic instances of windows and doors in section, etc.).
- Providing examples of simple construction drawings at the start of this exercise is important so that students have some idea of the types of information that are included in drawings.

Timing: 1 week

## CHAPTER 6: THE PRACTICE

Challenge: To prepare a set of diagrams to explain how an architect's practice works and how it is structured.

### Strategy:

- Imagine you are the Principal Architect of a large practice and have been asked by a potential client to provide a diagram of how your practice works.
- You need to outline who the key members of your office are and how information flows through the office to the client.
- Prepare a set of diagrams which can help to explain how your practice works and how it is structured.

Reading: pages 183-195

### Notes for instructor:

- This is a simple task which can be expanded to become more complex. You may wish to have students include additional consultants (engineers, cost consultants, specification writers, etc.) into their diagrams. This will encourage the students to think about the relationships both within the practice and between the practice and others.

- As a professional practice exercise, you can modify this exercise by having students make formal presentations to their peers. Encourage the audience to ask questions about the structure of the practice and how it may be the right approach.

Timing: 2 hours to 1 day (depending on the complexity and presentation requirements)