



Lessons from the Salvadori Classrooms
LESSON TITLE: Archcyclopedia
PREPARED BY: Janny Gédéon and Kubi Ackerman (revised by Michael Bettencourt)
TOPIC: School
SSLAM: School / Art / Pull Apart
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Archcyclopedia

Content Focus: Art

- Aesthetics
- Architectural Styles
- Elements of Art
- Principles of Design
- Techniques: Book-making
- Techniques: Drawing
- Techniques: Graphic Design







Content Focus: Built Environment

- Observing/Surveying
- Style

Performance Outcome(s)

- Create an illustrated encyclopedia of the architecture of your school.

Standards/Interdisciplinary Connections

					
S	S	L	A	M	T
Science	Social Studies	Language Arts	Art - Visual	Math	Technology

How To Read The Symbols: The symbols in **bold** indicate the subject standards that this lesson satisfies.

Lesson Outline (multiple-lesson project)

1. Motivation
2. The Challenge
3. Divide The Responsibilities
4. Document Your School Architecture
5. Research Your School Architecture
6. Design The Archcyclopedia
7. Make The Archcyclopedia
8. Present



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9. Reflect
10. Extensions And Variations

Salvadori Prerequisites

- FOUNDATION - BASIC SKILLS: Observing/Surveying (Activity #1)
- FOUNDATION - ARCHITECTURE 101: Style (Activity #2)
- LESSON(S): "My School Has A Style?" (School / Social Studies / Pull Apart)

CONCEPTS

- In graphic design, the creative arrangement of images and text on a page can enhance the communication of ideas as well as their visual appeal.
- Becoming familiar with architectural elements can foster an appreciation for how individual details contribute to an overall design.
- When students are compelled to define a term for themselves, they are much more likely to understand and retain the meaning of the term.
- Bookmaking is an art that combined design, craft skills, and technology.

RESOURCES

On-Line

- <http://www.makingbooks.com/projects.html> - Marking Books with Children
- <http://cidc.library.cornell.edu/adw/gravelly.html> - Gravelly Gorgeous (an exhibit on gargoyles)

Books

- Carley, Lam & Skibinski, *The Visual Dictionary of American Domestic Architecture*; Henry Holt and Co.: New York, NY, 1994.
- Crosbie, Rosenthal & Rosenthal, *Arches to Zigzags: An Architecture ABC*; Harry N. Abrams, Inc.: New York, NY, 2000.
- Harris, Cyril M., *American Architecture: An Illustrated Encyclopedia*; W.W. Norton & Co.: New York, NY, 1998.
- Lewis, A.W., *Basic Bookbinding*; Dover Publications: New York, NY, 1957.
- Shepherd, Rob, *Hand-made Books*; Search Press Ltd.: Turnbridge Wells, UK, 1995.



MATERIALS

Facilitator

- ●: Q&A
- ●: Teacher Tips

Students

- ●: Student Guide: The Gargoyle
- ●: Student Guide: Documenting Team
- ●: Student Guide: Research Team
- ●: Student Guide: Graphic Design Team
- ●: Student Guide: Book-Making Team
- Drawing paper or cameras, pencils, colored pencils or markers, archival paper and other book-making materials (materials will depend on what type of book your students choose to make.)

MOTIVATION

Write the word "GARGOYLE" on the board.

Now, take a piece of paper and write down what you think the word means. If you know what the word means, don't tell anyone else. And if you don't know what the words means, don't worry -- just make it up! Just be sure to make your definition sound like a dictionary definition.

●: Teacher Tips

Collect some definitions from the students, put them on the board, and review them. You may want to get some of the writers to "flesh out" their definitions through directed questions.

Take a vote to see which of the definitions "sounds right" to the class.

Show them the handout on the gargoyle. See if any of them got the right definition. Then, using the handout, have the students write definitions of the actual gargoyle and compare them with a technical definition of the term. ●: Student Guide: The Gargoyle

THE CHALLENGE

*Your challenge is to make an **Archcyclopedia** – an illustrated encyclopedia of architectural elements you find in your school. Just like in previous exercise, you will be combining images*



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and text in your design to create a book of definitions. Along the way, you will learn about architecture, graphic design, and book-making!

DIVIDE THE RESPONSIBILITIES

Divide the class into 4 groups, each of which will be responsible for one of the following aspects of the project: ●: Teacher Tip

- Documentation
- Research
- Graphic Design
- Book-making

Although information is passed on from group to group in sequence, all the groups should be working concurrently throughout the project.

DOCUMENT YOUR SCHOOL ARCHITECTURE

As documentarians, your job is to find and document as many of your school's architectural elements as you can.

- *What is an architectural element?* ●: Q&A
- *What architectural elements do you see in the classroom?*

Distribute the ●: Student Guide: Documenting Team

Help students define the parameters of what they want to include in their illustrated encyclopedia.

Documentarians meet with the graphic designers to decide how best to document the architecture of the school.

Documentarians explore the interior and exterior of the school, noting and documenting the architectural elements. As they do so, they pass their findings and illustrations (drawings or photographs) on to the researchers.

RESEARCH YOUR SCHOOL ARCHITECTURE

Distribute the ●: Student Guide: Research Team, and discuss it with the students.



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As the documenting team is out documenting the school, the researchers identify sources of information on architectural elements. These can include books or the Internet. Ideally, they will come across an example of an illustrated architectural encyclopedia (see Resources).

As the documenting team submits drawings or photos, the researchers identify each element and find out as much detailed information as possible on its classification, materials, historical precedents, etc. They may need to go examine the element itself if the illustration does not provide enough information.

Researchers submit their entries, along with the illustrations, to the graphic design team.

DESIGN THE ARCHCYCLOPEDIA

- *What are some of the decisions you will be making as you design the Archcyclopedia?*
- *Do you think it is important that there is an overall design “look” to the book? Why or why not?*
- *What are some things that might define the “look” of your book?*

Distribute the ●: Student Guide: Graphic Design Team and discuss it with the students.

The graphic design team looks at many examples of books to get ideas for the design. Ideally, they examine one or more illustrated encyclopedias to see how other designers have approached the challenge of combining text and images in an encyclopedia format.

Once the team start to receive entries and illustrations from the researchers, they begin to explore page compositions, fonts, etc.

Students work on designing the front and back covers, table of contents (if they want one) and other aspects of the book.

As they complete their designs, they pass them on in paper or digital form to the book-making team.

MAKE THE ARCHCYCLOPEDIA

Distribute the ●: Student Guide: Book-Making Team and discuss it with the students.

The team examines available books to see what they can determine about how they were made.

Students use books and the Internet to research the craft of book-making (see resources).



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Students decide on paper type, binding method, and cover material.

As students receive page designs from the graphic design team, they print the pages and make the cover. Once they have all of the pages, they bind the book.

PRESENT

The class presents their work to another class. If possible, students find a way to display the book so the entire school community has a chance to learn about the architecture of the school.

REFLECT

- *Do you have an opinion on the design of your school after having explored its architectural elements? Do you think the architect had a good eye for detail?*
- *Did you find any distinctive architectural elements in your school that makes it stand out from other buildings you are familiar with? If so, what are they?*
- *Do you think the illustrations added to the clarity of the Archcyclopedia? Would it have been difficult to understand the descriptions without them?*
- *How does your book differ from other encyclopedias you have seen before? How does the fact that it is handmade influence the way you look at it?*
- *How well did you meet your challenge? What would you do differently next time?*

EXTENSIONS AND VARIATIONS

- Students develop a way for their book to reach a wider audience than is possible with just one copy. Options for this include getting multiple copies printed and distributing them throughout the school or creating an online version of the Archcyclopedia.
- Students document and include architectural elements from buildings in the neighborhood as well as the school building for inclusion in the Archcyclopedia.
- Using the Archcyclopedia as a guide, students compare and contrast the school building with illustrations other prominent buildings throughout the world (or prominent buildings in your town/city).



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MIDDLE SCHOOL STANDARDS

Social Studies

- People, Places, and Environments

Language Arts

- Speaking, Listening, and Viewing (E3a, b, c)

Art - Visual

- Media, Techniques, and Processes
- Structures and Functions
- Connections Between Visual Arts and Other Disciplines

DOCUMENT YOUR SCHOOL ARCHITECTURE

- What is an architectural element?

Because every aspect of a building could be defined as an architectural element, it is important to help students narrow their focus by coming upon their own definition of what is architecturally significant. Generally, an architectural element is an integral part of the building whose existence was determined by the architect. Under this definition, structural elements, design and ornamentation are all architectural elements, things like rugs or wallpaper would not be (since they are removable and, in a school setting at least, probably not specified by the architect), nor would things like pipes or electrical outlets, whose position was probably determined by the electrical engineers and plumbers rather than the architect.

DIVIDE THE RESPONSIBILITIES

- Divide the class into 4 groups, each of which will be responsible for one of the following aspects of the project:

You may want to assign students based on your knowledge of their existing skills. The documentation team would benefit from students who are good at drawing or photography, students who most enjoy reading and writing might do best on the research team, students who are comfortable using computers or who may have experience with computer design or photography software would find their skills put to use on the graphic design team, and students who enjoy crafts and building would do best on the book-making team.

For larger classes, each team can be further broken up into smaller groups which collaborate on their responsibilities.

The Gargoyle

Here is a picture of three gargoyles. Underneath the picture, write a detailed definition of one of them. (The man standing on the balcony is *not* a gargoyle!)

Unidentified
 photographer, *Notre
 Dame de Paris, Tower
 Galleries*, ca. 1870-86.
Albumen print.
 15/5/3090.00628,
Andrew Dickson White
Architectural
Photographs
Collection. Division of
Rare and Manuscript
Collections, Cornell
University Library



Your Definition:

A Definition of "Gargoyle"



Gargoyle or Grotesque?



We tend to call any piece of architectural sculpture that depicts animals a gargoyle. Strictly speaking, however, gargoyles are decorative waterspouts that preserve stonework by diverting the flow of rainwater away from buildings. The word, gargoyle, derives from the French *gargouille*, or throat, from which the verb, to gargle, also originates. Although the sculptural waterspout originated in Antiquity, it grew in popularity on Romanesque structures, and proliferated during the Gothic period. Grotesques, while similar in appearance, serve a variety of other practical and ornamental functions, as corbels or capitals, for instance. The term, grotesque, can apply to any fanciful human or animal form, especially when it indulges in caricature or absurdity. These sculptural creatures appear most commonly on religious structures, but also on university buildings, town halls and even on homes.

- *What is an architectural element?*
- *What types of things do you want to include in your Archcyclopedia?*
- *Would you include things like ornaments? How about windows and doors? Would you include columns? Or electrical outlets?*

Architectural elements are usually defined as anything that is essentially part of the design of the building. Ornaments, windows, doors and columns are all architectural elements, because the architect decided where they would go and how they would look. Electrical outlets or rugs would not be architectural elements because their placement was probably decided by someone else.

- *How should you go about documenting the architectural elements of the school?*

Along with the graphic design team, decide how you will document the architectural elements of your school. Your best options are drawings or photographs.

Once you have decided on your medium, go exploring. You may want to work from the inside out. As you find your elements, make a list, document, and note as much as you can about the details and the location of each drawing or picture you make. As you document the architectural elements, give your findings to the research team.

On the interior and exterior of the building, look at these elements:

- **Surfaces** (walls, floors, ceilings and roof): what are they made of? Do they have any ornament? Any other unusual features?
- **Structural elements** (What is holding the building up?): Do you see any structural elements on the inside or the outside? The walls may be structural, but you may also be able to see columns, beams, trusses, arches, etc.

Details: Look closely at things like windows and doors. They are actually made up of many different pieces! For example, a door has a frame, hinges, a handle, a lock, and might have a closer and a wall stop (don't know what these are? Ask the research team!) Other things to examine closely are staircases, entrances, chimneys, etc.



Example of an architectural element: keystone

- How are you going to research the architectural elements of your school?

Your job is to find out as much as you can about the elements that the documentation team is documenting. Your first step is to find out what each element is called, and your second step is to define each word and find out as much information as possible about it.

For example, if the documentation team gives you a photograph of the tiles in the bathroom, you may know that they are called bathroom tiles. But do you know what they are made of? How would you find out?

Your best sources of information will be books and the Internet.

Make an alphabetical list of all of the architectural elements you research. As you work on your list, give completed entries, along with the illustrations from the documentation team, to the graphic design team.

A **keystone** is the central masonry wedge-shaped block of an arch. Until this block is in place, the arch cannot support any weight.

Example of an entry

- What should the encyclopedia of architectural elements look like?

As the graphic design team, your job is to design the look of the Archcyclopedia, from the cover to the layout of each page.

- How will the text and the illustrations be arranged on the pages?

The first decision is to decide, along with the documentation team, what form the illustrations should take. Should they be drawings or photographs? What are some advantages and disadvantages of each? Should they be in black and white or color?

Start working on the cover of the Archcyclopedia. First, come up with a title. Then decide on a font and a font size to use, as well as an illustration for the cover (optional) and any other text you want to include. Look at other books to get ideas.

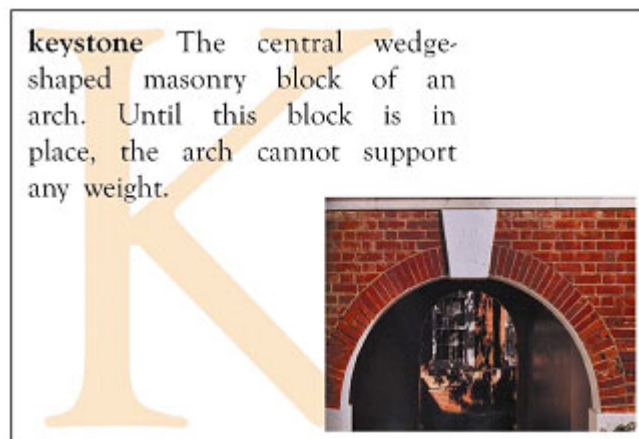
As soon as you get some definitions with illustrations from the research team, start working on a page layout that you can use consistently on all the pages. Things to consider are:

- Relationship between the illustration and text
- Text font and size
- Text wrapping (how it flows from one line to the next)
- Color scheme
- Borders and margins

A helpful technique is to cut out all of the elements you want to fit on one page and move them around to find a pleasing composition. Any knowledge of word processing, photo, and layout software will be useful in your project.

As you complete the layout for each page, pass on your designs to the book-making team.

Example of a page layout



Archcyclopedia

Book-Making Team

- How will you go about making the actual book?

Your job is to research the craft of book-making and use what you have learned to produce the Archcyclopedia.

Take a look at some of the books that are in your classroom. Examine them carefully. What are some of the things you will have to consider?

Your book probably won't look just like the books you are most familiar with since it will be made by hand instead of by a machine. This allows for more creativity to choose your materials and binding methods.

Using books or the internet, research the craft of book-making. Some of the things you will want to consider:

- What type of paper to use
- How to print the pages
- How to bind the pages
- How to make a durable cover

As the graphic design team gives you their designs, print out the pages of the Archcyclopedia. When you have printed all the pages and made the front and back covers, bind the book using the method you chose.

