

Symmetry and Symbolism: Mandalas of the Mogao Caves

Jennifer Lee, 2016 Summer Institute on China

GRADE LEVEL

High School, Introduction Level Visual Arts

ORGANIZING QUESTIONS

1. What are the Mogao Caves and why are they artistically significant?
2. What is a mandala and what is their purpose in the caves?
3. What is the symbolic meaning of the mandalas in the Mogao Caves?
4. How did the artists use bilateral and radial symmetry in the mandalas?

INTRODUCTION

Mandala designs are a part of numerous cultures. One of places that mandalas are especially prevalent are in the paintings of the Mogao Caves in Dunhuang, China. Dunhuang was the first or last stop for Silk Road travelers before they had to journey through the vast Taklamakian Dessert. The location of Dunhuang made the city very vital during the period of time the Silk Road was popular. Although the Silk Road is best known for the physical goods that passed along its routes, it was also significant for artistic, cultural, and religious exchanges.

Hopeful travelers, powerful leaders, and Buddhists would commission caves at Mogao to be carved and painted in their honor. The Mogao Caves were built up over a period of 1,000 years. The caves are considered to house the largest collection of Buddhist art because of the numerous painted sculptures and caves. Many of the caves have a truncated pyramidal ceiling, which was influenced by traditional Chinese architecture (this style of cave first appeared in the Western Wei period). The truncated pyramidal ceiling caves normally feature a mandala in the center and highest part of the cave. The mandala's designs are special and very detailed since they are featured in such a prominent location in the caves.

The term mandala is a Sanskrit word that essentially means circle. The designs almost always contain bilateral (symmetrical on a central axis) and radial (symmetrical around a central point) symmetry. Mandalas are especially prominent in Buddhism. In Buddhism mandala designs are representations of paradise and the universe. They may also be used as meditation aids.

The artists of the Mogao caves would base their cave painting designs on sketches made by master artists. These designs contain a wealth of symbolism that demonstrates the cross-cultural influences that the Silk Road had on Dunhuang. Many of the symbols are repeated in many of the cave paintings. These symbols were repeated because each had its own symbolic meaning. By understanding this symbolism, the mandala become more than just beautiful works or art. They show how art can represent the history, values, and beliefs of a culture.

OBJECTIVES

1. In this lesson, students will learn about the significance of Dunhuang and the Mogao caves.
2. Students will read about lotuses and formulate possible theories of what they symbolize.
3. Students will understand how symbolism can be used in art by analyzing mandalas in the Mogao Caves.
4. Students will identify some of the symbols used in a Mogao mandala and propose what the intended meaning of the design was based on its symbolism.
5. Students will pretend they are Buddhist artists and design a donor cave ceiling to represent their families. They will create a Buddhist inspired mandala using a template to aid with the symmetry of their design.

6. Students will then design and explain the significance of their own personal symbols and incorporate these into a personal mandala project.
7. Students will justify their use of symbolism and self-critique their mandala designs.
8. Both the Buddhist and personal mandala designs will be displayed together to create a large community mandala.

MATERIALS

- Various sized colored Post-Its for written answers (one per student)
- Mandala Template (one per student)
- Double sided tape (one roll per every 8 students)
- Drawing Pencils (one per student)
- Coloring Supplies (watercolor, colored pencil, etc.) (teacher can use what is most readily available to them) (one set per student)
- Drawing Paper (one per student)
- Printer Paper (one per student)
- Ruler (one per student)
- Circle Compass (one per student)
- Printed colored examples of Mogao mandalas (one per student)
- Optional: Circle Templates (one per every four students)

EQUIPMENT

- Teacher Computer with internet access
- Digital projector
- Examples of Mogao Mandalas (printed, scarfs, digital images)

TEACHER PREPERATION

Make one copy of mandala template and sketches per student (attached to the end of this document)

Make a class set of colored copies of various Mogao mandalas

TIME

Ten ninety-minute periods

PROCEDURES

Day 1

- Teacher will show students an image of mandala in Mogao Cave 285. Students will individually complete written answers to the following questions: What are the dominant colors of the design? How are the shapes and images in the design arranged? What could the images be in the design? Students will pair share their answers with the class. Some students will be asked to share their responses with the entire class.
- Students will watch a brief introduction video on the Silk Road, Dunhuang, and Mogao Caves to class ([Cave Temples of Dunhuang: Art, History, and Conservation](#)).

- Teacher will introduce the concept of a mandala. They will display digital images of mandala designs from different cultures. Teacher will show mandala images specifically in the Mogao caves. Students will look for repeating motifs in the mandalas.

Day 2

- Pairs of students will each be given a green Post-It that has one of the five senses written on it (see, hear, taste, touch, smell). Students will brainstorm different things that remind them of their sense and their school's city. Students will select the best idea from their brainstorm and draw it on their Post-It. Students will share their symbols with other members of the class. Students will post their answers on the classroom wall in a circular format (All written reflections and artworks will be added in concentric circles to eventually create a large community mandala)
- Students will read a brief article on lotuses (attachment at end of lesson). Students will hypothesize the possible meaning of the lotus flower by citing evidence from the article. Answers will be written on yellow Post-Its and they will draw a stylized version of a lotus. Students will place their Post-Its on the community mandala. Class will discuss what the Buddhist meaning of a lotus is.
- Students will be divided into small groups and assigned to research the meaning and background of a repeating motif they found in the mandalas. Each group will write down their findings on blue Post-Its and draw stylized versions of their motif. Students will share their findings with their classmates and add their Post-Its to the community mandala.

Day 3

- Teacher will pass out different printed examples of Mogao mandalas to each student. Teacher will give students time to closely observe their design starting from the center of the mandala. Students will identify some of the motifs discussed in class. Students will infer the intended meaning of the design based on the symbolism of their mandala. They will write down their theories on pink Post-Its, draw one motif from their mandala's design, and then add their Post-It to the community mandala.
- The teacher will discuss compositions of the Mogao mandalas (axial and radial and symmetry) and show the process the artists used to create the Mogao Caves (sketches, pounces, etc).
- Students will pretend they are Buddhist artists and design a donor cave ceiling mandala to represent their families. They will create a Buddhist inspired mandala using a template to aid with the symmetry of their design (attachment at the end of lesson). Students will be given sketches of motifs, like the artists would have had in the Mogao Caves (attachment at the end of lesson). These sketches can be traced or used as inspiration based on the artistic level of the students. Students are required to use both axial and radial symmetry in their design.
- Students will have the rest of the period to finish their mandalas. Students may add in color or value if they finish early. Finished mandalas will be added to the community mandala.

Day 4

- Students will construct a personal mind map describing important occurrences and objects related to their life.
- They will pick their six most interesting things on their mind map and create personal symbols to represent them. Teacher should encourage students to pick less cliché symbols (avoid generic hearts, butterflies, smiley faces, etc.).
- Students will create a mandala using their symbols and can also use symbols that were created or researched in the earlier parts of the lesson. Students will create three thumbnails of possible compositions for their mandalas. Each student will discuss their thumbnails with the teacher before students start their final mandalas.

Days 5-10

- Students will use compasses and rulers to aid in the creation of their mandalas. Teacher will demonstrate how to create proportional fractions of circles. The final designs will be done in color. Students will write self-critiques of

their artworks and brief explanations of their symbols on the back of their projects (attachment at the end of lesson). Personal mandalas will be added to the community mandala.

ASSESSMENT

Buddhist Mandala Rubric

	10	8	6	4
Use of Symmetry	Projects shows excellent use of radial and bilateral symmetry	Projects shows clear use of radial and bilateral symmetry	Projects shows some use of radial or bilateral symmetry	Projects shows insufficient use of symmetry
Design	Design fully thought out and carefully executed.	Design mostly thought out and carefully executed.	Design somewhat thought out and executed.	Design shows little thought and poorly executed.
Work Habits	Student consistently used class time appropriately and kept work area and supplies clean	Student often used class time appropriately and kept work area and supplies clean	Student occasionally used class time appropriately and kept work area and supplies mostly clean	Student rarely used class time appropriately and did not keep work area and supplies clean
Effort	Student put their full effort into the project and artistically challenged themselves	Student put effort into the project and artistically challenged themselves	Student put limited effort into the project	Student put insufficient effort into the project and did an easy project that required little to no effort
Craftsmanship	Project is professional looking and shows control of media	Project is generally professional looking and often shows control of media	Project is rarely professional looking and shows moderate control of media	Project is not professional looking and shows little control of media

Personal Mandala Rubric

	10	8	6	4
Symbolism	Student thoughtfully created symbolism that uniquely and artistically depicts their life. Self-critique clearly explains significance of symbols.	Student frequently created symbolism that uniquely and artistically depicts their life. Self-critique explains significance of symbols.	Student occasionally created symbolism that artistically depicts their life. Self-critique somewhat explains significance of symbols.	Student seldom created symbolism that artistically depicts their life. Self-critique poorly explains significance of symbols.
Creativity	Innovative and imaginative design	Design has mostly innovative ideas, but may have one or two cliché elements	Design has a few innovative ideas, but may have three or more cliché elements.	Design is very uninspired. May have three or more cliché elements.
Self-Critique	Student thoughtfully and thoroughly answered all questions in complete sentence format.	Student answered all questions in complete sentence format.	Student answered the majority of the questions	Student answered a few of the questions

Use of Symmetry	Projects shows excellent use of radial and bilateral symmetry	Projects shows clear use of radial and bilateral symmetry	Projects shows some use of radial or bilateral symmetry	Projects shows insufficient use of symmetry
Design	Design fully thought out and carefully executed.	Design mostly thought out and carefully executed.	Design somewhat thought out and executed.	Design shows little thought and poorly executed.
Work Habits	Student consistently used class time appropriately and kept work area and supplies clean	Student often used class time appropriately and kept work area and supplies clean	Student occasionally used class time appropriately and kept work area and supplies mostly clean	Student rarely used class time appropriately and did not keep work area and supplies clean
Effort	Student put their full effort into the project and artistically challenged themselves	Student put effort into the project and artistically challenged themselves	Student put limited effort into the project	Student put insufficient effort into the project and did an easy project that required little to no effort
Craftsmanship	Project is professional looking and shows control of media	Project is generally professional looking and often shows control of media	Project is rarely professional looking and shows moderate control of media	Project is not professional looking and shows little control of media

RESOURCES AND MATERIALS

Asian Art Museum. "Enter the Mandala Cosmic Centers and Mental Maps of Himalayan Buddhism." *Asian Art Museum*. Asian Art Museum, Mar. 2014. Web.

Buchalter, Susan I. *Mandala Symbolism and Techniques: Innovative Approaches for Professionals*. London: Jessica Kingsley, 2013. Web.

Cartelli, Mary Anne. *The Five-colored Clouds of Mount Wutai: Poems from Dunhuang*. Leiden: Brill, 2013. Web.

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Dunhuang Research Academy. "Panorama." *Dunhuang Research Academy*. Dunhuang Research Academy, n.d. Web.

Duan, Wenjie, and Kai Li. Dunhuang Zao Jing Lin Pin Xuan. *The Selections of Copied Art Works of Dun Huang Sunk Panel*. Xi'an: Shanxi Lü You Chu Ban She, 1997. Print.

Fan, Jinshi, and Yongzeng Liu. *Appreciation of Dunhuang Grottoes: A Selection of 50 Caves: From the Mogao Grottoes, Yulin Grottoes and Western-Thousand Buddha Grottoes*. Nanjing: Jiangsu Fine Arts House, 2007. Print.

Fraser, Sarah Elizabeth. *Performing the Visual: The Practice of Buddhist Wall Painting in China and Central Asia*, 618-960. Stanford, CA: Stanford UP, 2004. Web.

Freer Gallery of Art and Arthur M. Sackler Gallery. "Tibetan Healing Mandala." *Freer Gallery of Art and Arthur M. Sackler Gallery*, n.d. Web. 23 July 2016.

Getty Research Institute. "Cave Temples of Dunhuang: Art, History, and Conservation." *YouTube*. YouTube, 16 May 2016. Web. 23 July 2016.

Hom, Nancy. "Nancy Hom Artist Statement on the Japantown Mandala." *Suite J-Town: The Art of Resilience*. A First Voice Production, 13 Apr. 2015. Web. 23 July 2016.

Kieschnick, John. *The Impact of Buddhism on Chinese Material Culture*. Princeton: Princeton UP, 2003. Web.

McIntire, Jennifer N. "Mogao Caves at Dunhuang." *Khan Academy*. Khan Academy, n.d. Web. 23 July 2016.

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New South Wales Government. "Lotus: Nelumbo Nucifera." *New South Wales Government*. New South Wales Government, n.d. Web. 19 July 2016.

Rong, Xinjiang, and Imre Galambos. *Eighteen Lectures on Dunhuang*. Vol. 5. Leiden: BRILL, 2013. Print. Brill's Humanities in China Library.

Rubin Museum of Art. "Mandala - The Perfect Circle." *Mandala*. Rubin Museum of Art, Aug. 2009. Web. 23 July 2016.

UNESCO. "Mogao Caves." *World Heritage List*. UNESCO, n.d. Web.

Whitfield, Roderick, Susan Whitfield, Neville Agnew, Lois Conner, and Jian Wu. *Cave Temples of Mogao at Dunhuang: Art and History on the Silk Road*. 2nd ed. Los Angeles: Getty Conservation Institute, 2015. Print. Conservation & Cultural Heritage.

Whitfield, Susan. *Life Along the Silk Road*. 2nd ed. Oakland: University of California, 2015. Print.

STANDARDS

- COMMON CORE- English Language Arts Standards, Science and Technical Subjects, Grade 9-10
 - RST.9-10.1 Cite specific textual evidence to support analysis of science and technical texts, attending to the precise details of explanations or descriptions.
 - RST.9-10.2 Determine the central ideas or conclusions of a text; trace the text's explanation or depiction of a complex process, phenomenon, or concept; provide an accurate summary of the text.
 - RST.9-10.3 Follow precisely a complex multistep procedure when carrying out experiments, taking measurements, or performing technical tasks, attending to special cases or exceptions defined in the text.
 - RST.9-10.4 Determine the meaning of symbols, key terms, and other domain-specific words and phrases as they are used in a specific scientific or technical context relevant to grades 9-10 texts and topics
 - RST.9-10.5 Analyze the structure of the relationships among concepts in a text, including relationships among key terms
 - RST.9-10.7 Translate quantitative or technical information expressed in words in a text into visual form and translate information expressed visually or mathematically into words.
- NATIONAL ART STANDARDS- Visual Arts High School Proficient
 - Cr3.1.1a Apply relevant criteria from traditional and contemporary cultural contexts to examine, reflect on, and plan revisions for works of art and design in progress.
 - Re.7.2.1a Analyze how one's understanding of the world is affected by experiencing visual imagery.
 - Re8.1.1A Interpret an artwork or collection of works, supported by relevant and sufficient evidence found in the works and its various contexts.
 - Cn11.1.1a Describe how knowledge of culture, traditions, and history may influence personal responses to art.
- CALIFORNIA STATE STANDARDS- Visual Arts Standards High School Proficient
 - 1.1 Identify and use the principles of design to discuss, analyze, and write about visual aspects in the environment and in works of art, including their own.
 - 1.4 Analyze and describe how the composition of a work of art is affected by the use of a particular principle of design.

- 2.1 Solve a visual arts problem that involves the effective use of the elements of art and the principles of design
- 2.5 Create an expressive composition, focusing on dominance and subordination
- 3.1 Identify similarities and differences in the purposes of art created in selected cultures
- 5.2 Create a work of art that communicates a cross-cultural or universal theme taken from literature or history

Lotus Article

Nelumbo nucifera, is native to eastern Asia. This species has been cultivated since ancient times therefore its native distribution, prior to human influence, is difficult to determine though it may have extended to Australia and west to India.

The lotus grows in shallow water and mud in full sun in tropical and subtropical areas. It has large round leaves and tall flower stems with white to pink flowers followed by striking seed pods. Lotus flowers are unusual in that they are thermogenic. That is, they generate their own heat and can maintain a temperature of around 30°C even when the air temperature falls much lower. The seeds can stay viable [useable] for a very long time – there are reports of thousand-year-old lotus seeds being successfully germinated and grown!

Lotus roots form a series of long, smooth tubers in the mud. Tubers are usually 15-25 cm long, although they can grow much larger. Both the stems and the tubers have large, hollow air passages that run through them – this is how the roots can survive growing in still, muddy water. The tubers are usually harvested at the end of summer.

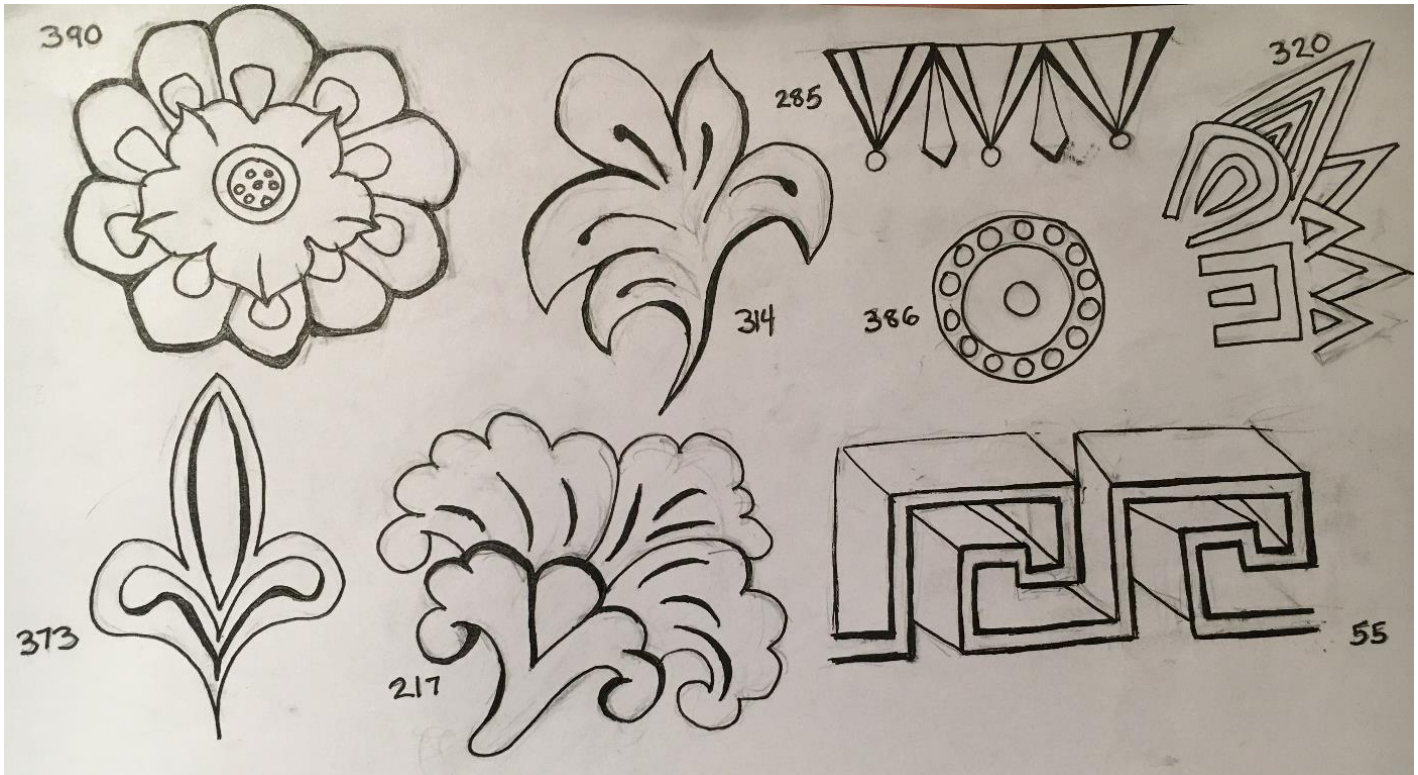
The lotus plants remove excess nutrients from water contaminated with fish waste. The water can then be recycled.

Excerpts from:

"Lotus: *Nelumbo Nucifera*." Ed. New South Wales Government. New South Wales Government, n.d. Web. 19 July 2016.

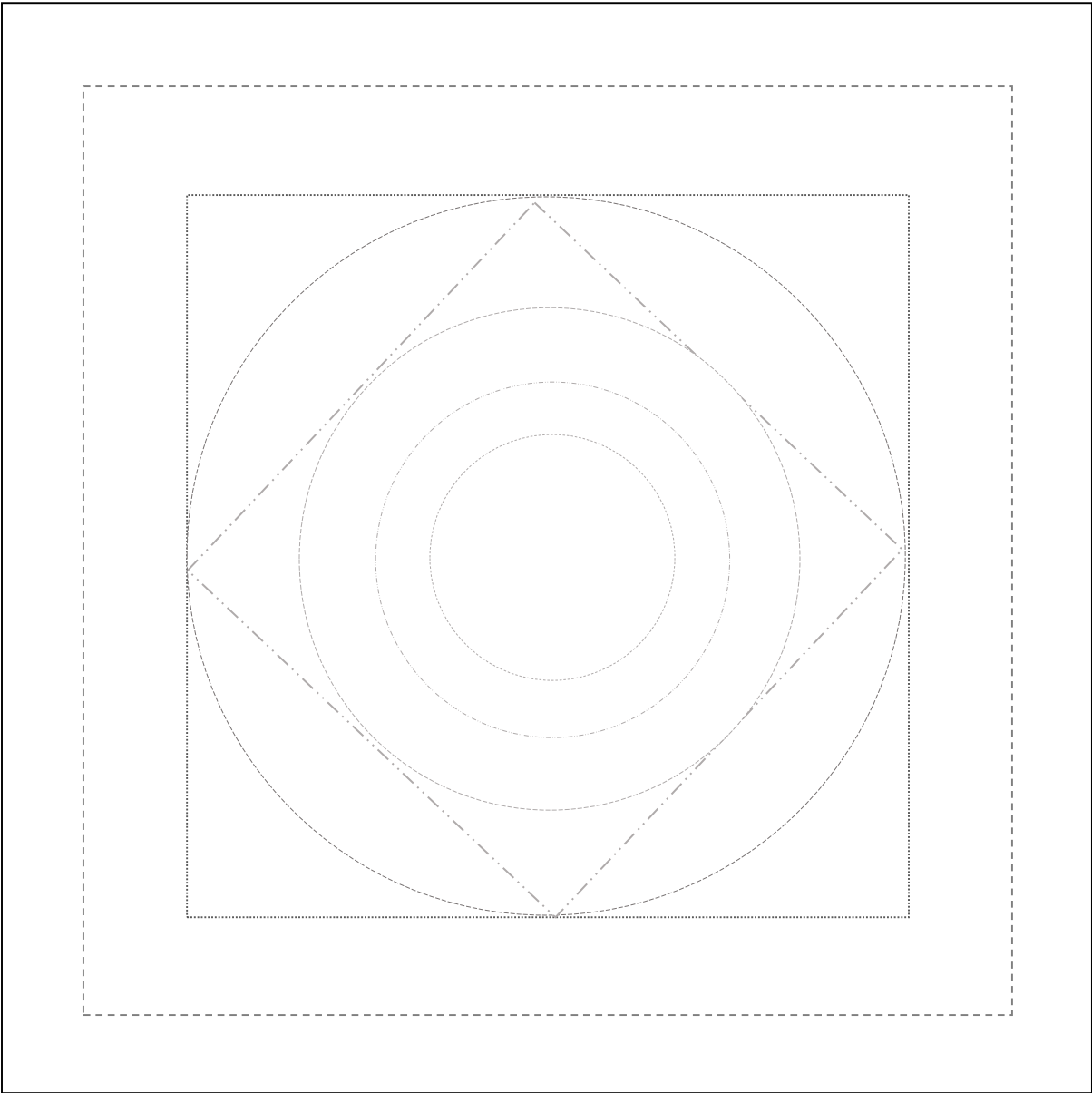
"*Nelumbo Nucifera*." Meet the Plants - National Tropical Botanical Garden Plant Database. Ed. National Tropical Botanical Garden. National Tropical Botanical Garden, n.d. Web. 19 July 2016.

Mogao Sketches and Symbolism (number refer to caves that influenced patterns)



- Lotus: Roots grow in the mud, Flower blooms above water, Symbol of purity rising above the mud of the world
- Drapery and Tassels: Curtain-like decorations based on tents/royal canopy, defines area as a sacred space
- Incense Pattern: Traded from Middle East, used to purify an area, incense seal: seal like marks stenciled or drawn with powdered incense and ignited at one end, design slowly burns as a lasting offering
- Pearl: Traded from Persia (pearl motif popular in Persian designs), representative of Mani Pearl (Mani Jewel), represents the Buddha and Buddha's wisdom

Mandala Diagram



Personal Mandala Self-Critique

1. Explain the significance and symbolic meaning of the six symbols you created.
2. Describe the process of creating your mandala.
3. Describe the composition of your mandala (explain the use of radial and bilateral symmetry in your mandala).
4. What do you think was most successful about your project? Explain
5. What do you think could be improved in your mandala? Explain
6. How did looking at the Mogao mandalas influence your design or symbols?