

as an Educational Tool about the Teaching of Islam

slamic art can effectively convey messages about Islamic culture, the peaceful teaching of Islam, and the contribution of the Islamic civilization to the world. Nasr (1987) notes that "Traditional Islamic art conveys the spirituality and quintessential message of Islam through a timeless language which, precisely because of its timelessness as well as its direct symbolism, is more effective and less problematic than most of the theological explanations of Islam" (p. 195).

The term "Islamic" refers not just to a religion, but also to a culture and a civilization. Most of the current literature in the West and the media, especially after the tragic events of September 11, 2001, has depicted Islam as a violent, irrational, and fanatical force. Islamic art speaks a universal language of aesthetics and functions that illustrates the spiritual and peaceful message of Islam. This article introduces Islamic art and discusses workshops conducted at middle schools in the San Francisco Bay Area as part of my doctoral internship.

Islam: Faith and a Way of Life

To fully understand the richness of Islamic art, an introduction to Islam as a faith and a way of life is necessary, as it under-

scores the values and the expressions found in Islamic art. The whole story starts in a cave outside the city of Mecca, in Arabia, in the year 610 C.E., where a 40-year-old man is meditating and looking for answers to questions about life and the universe. A voice comes from nowhere, telling him to "recite [read] in the name of your Lord." The voice was from the archangel Gabriel, the man was Muhammad, and the words were God's words that later became what we know as the *Our'an*.

The Arabic word "Islam" means to achieve peace—peace with God, peace within oneself, and peace with the creations of God through submission to the will of God and commitment to His guidance. Prophet Muhammad did not consider this a new religion, but a continuation and fulfillment of the same basic message that was revealed by God (Allah, in Arabic) to other prophets before him (Abraham, Moses, Noah, Jesus).

Development and Historical Information

During the life of Prophet Muhammad, the first mosque was the house of the Prophet himself, in Medina, the city where he settled after the hijra or hegira (emigration from Mecca to Medina in the year 622 C.E.). This date marked the beginning of the Muslim calendar and era. The Prophet's mosque, its elements and functions, became a model and archetype for later mosques. When the Prophet returned to Mecca taking over the holy sanctuary and declaring his devotion to Islam, he destroyed the idols that were placed in or around the sacred Kaaba (the cubic house built by Abraham and his son Ishmael), because people were worshiping these stone statues. This event marked a tradition regarding the representation of living beings and figurative images in Islam that continues to be interpreted in many different ways.

Defining Islamic Art

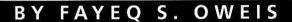
What is Islamic art? Is it the art of people who belong to Islam, or is it art that serves Islam as a religion? Is it art produced during the Islamic civilization? Grabar (1987) defines Islamic art as the art produced by "a culture or civilization in which the majority of the population, or at least the ruling element, profess the faith of Islam" (p. 2). Many scholars have also noted that the artist who actually produced a work of Islamic art may or may not be a Muslim. Islamic art

"not only describes the art created specifically in the service of Islam, but it also characterizes secular art produced in lands under Islamic rule or influence, whatever the artist's or the patron's religious affiliation" (Komaroff, 1999).

Nasr (1987) suggests that "without the two fountains and sources of the *Qur'an* and the Prophetic barakah [blessing] there would be no Islamic art" (p. 7). He defines Islamic art as "the result of the manifestation of Unity upon

the plane of multiplicity" (p. 7). Nasr has made a clear connection between Islamic art and Islamic spirituality through the Divine Revelation. For the purpose of this article, my own approach to defining Islamic art is based on the features and elements of Islamic art, rather than on its religious affiliation, its chronological development, or the land in which it is created.

Islamic art contains visual characteristics that make it "Islamic." The three main elements that unify Islamic art across a diverse and large geographical area are: Arabic calligraphy, the use of geometrical patterns, and Arabesque (floral and vegetal motifs).



Left: Geometric patterns, Arabesque, and Arabic calligraphy used in the mosque interior elements (designed by Jamal Badran). The University of Jordan Mosque, Amman, Jordan. Above: Sample of Arabic calligraphy style. Source: http://www.islamicart.org.



Love and Peace, by Fayeg Oweis.

Name	Trans.	Final (end)	Middle	Initial	Isolated (Alone)
Alef	а	L			1
Ва	b	<u></u>	÷	4	ب
Ta	t		ī	3	프
Tha	th	<u>^</u>	1	î	<u> </u>
Jeem	i	ت ج ج ج ع	÷	ج	4
На	h	ے	<u>ڊ</u> د	ب خ	2
Kha	kh	خ	خ	خ	
Dal	d	-			=
Thal	d	خ			Ė
Ra	r)			3
Zai	z	j.			j
Seen	s	м	ш	ш	ய
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Sad	s	æ	ь		ط
Dad	d	خر ط	卢	Ė	ظر
Toa	t	Ь	ь	Ь	ь
Zhoa	dh	뵨	ä	ظ	ظ
Ain	ä	& _	A.	4	ځ
Ghain	gh	ė.	À	Ė	ने त
Fa	f	ė	À	ė	ė.
Qaf	q	ٿ	草	Ë	ë
Kaf	k	<u> </u>	도	5	۲.
Lam	j.	J	1	1	J
Meem	m	p.	۰	۰	д
Nun	n	i	i	i	3
He	h	4	₩		d
Waw	w (u)	g			g
Ya	y (i)	汆	Ŧ	4	Ŕ

The Arabic alphabet and the shapes of the letters.

The Art of Writing in Islamic Art

The use of Arabic calligraphy represents one of the main unifying elements of Islamic art. The term "calligraphy" in Arabic is "handast al-khatt," which can be translated as "the geometry of writing." This association between writing and geometry is established due to the geometric proportioning of the Arabic letters (straight and curved lines). Arabic calligraphy as an art form has survived to date, as can be seen in the work of many contemporary Islamic artists all over the world. In addition to individual calligraphic art pieces, Arabic calligraphy has been used to decorate architectural sites, including sacred and secular places.

Arabic calligraphy in Islamic and Arabic cultures became a highly respected art form and a way to express one's artistic talents. Safadi (1978) writes that:

"The primacy of the word in Islam is reflected in the virtually universal application of calligraphy. Writing is given pride of place on all kinds of objects—objects of everyday use as well as entire wall surfaces, mosque furniture, the interiors and exteriors of mosques, tombs, and al-Kaaba, the most famous sanctuary of Islam." (p. 116)

Arabic calligraphy is closely connected to the *Qur'an*, and beautifying it became an art form. The first revelation of the *Qur'an* regards the pen (*Qalam*) as a tool to acquire knowledge; it is written that God has taught humans by the pen.

"Recite, and your Lord is the Most Bounteous, He has taught the use of the pen. Taught man that which he knew not." (*Qur'an* 96:1-5)

Geometric Proportion of Arabic Letters

The connection between Arabic calligraphy and geometry lies in the geometric principles that play an important role in the

proportion of the alphabet. Khatibi and Sijelmassi (1996) note that "the legibility of a text and the beauty of its line require rules of proportion" (p. 46). The rules of proportion are based upon the size of the first letter of the Arabic alphabet, the *alif*. The *alif* is a straight and vertical stroke. The Arabic dot, which is the unit of measurement in calligraphy, is the square impression formed by pressing the tip of the calligrapher's reed pen to paper. The height of the *alif* varied from three to 12 dots. The width of the *alif* was equivalent to one dot.



The Development of Arabic Calligraphy

The Arabic alphabet belongs to a group of Semitic scripts that were developed from the Nabataeans script, which was itself derived from the Aramaic script. Major developments occurred in the writing system of Arabic, including the development of different styles.

There are many styles used in Arabic calligraphy, but only six are widely used. These styles include: *Kufic*, *Thuluth*, *Nasakh*, *Ta'liq*, *Deewani*, and *Riq'a*. The Kufic style is noted for its proportional measurements, angularity, and squareness, and as one of the earliest styles to be used to record the *Qur'an*. The other five styles are noted for their cursive letters and their use as ornamental scripts. Additionally, other styles were used and developed, including the *Tughra'*, which was used by the Ottoman sultans as their signature. Zoomorphic calligraphy was also developed in which Arabic letters or words are manipulated and structured into the shape of a human figure, a bird, an animal, or an object. This is also due to the discouragement of figurative images in sacred art and architecture.

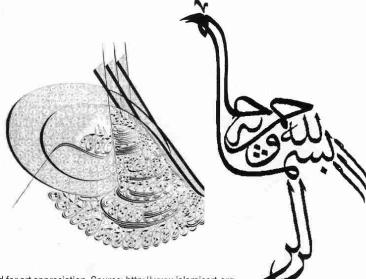
The use of Arabic calligraphy as an art form and as a major and unifying element in Islamic art and architecture has a symbolic connection to the word of God. The powerful meanings of calligraphic pieces, which contain *Qur'an*ic verses and prayers, are common in Islamic culture. These pieces are created for either daily use or decoration so that the message is always visible.

Kufic or Kufi	الطالكولي
Thuluth	المناسبة الم
Nasakh	خَ مُظُ ٱللَّهِ عَنْ اللَّهِ مَا اللَّهِ مَا اللَّهِ مَا اللَّهِ مِنْ اللَّهِ مِنْ اللَّهِ مِنْ اللَّهِ مَا اللَّهِ مِنْ اللَّهِي مِنْ اللَّهِ مِنْ
Ta'liq or Farsi	خط لتعب ليق
Deewani	(स्ट्रिल्स्)
Riq'a or Ruq'a	خط إلرقعة
Tughra'	
Zoomorphic	

Primary styles of Arabic calligraphy.



Sample Arabic letters in Kufic style.





Samples of Arabic calligraphy styles used for art appreciation. Source: http://www.islamicart.org.



Jamal Badran, decorated glass. Used for art appreciation.

Geometrical Patterns in Islamic Art

The use of geometric patterns has been another unifying factor in Islamic art and architecture. Despite the large geographic area that makes up the Islamic world, with its various ethnicities, cultures, environments, languages, and artistic traditions, Islamic art remains united in its use of geometrical patterns. A number of visual features, principles, or characteristic elements are contributing factors to the unity of Islamic art. These principles govern the elements in decorations and ornaments in Islamic art and architecture and are found especially in the use of geometrical patterns.

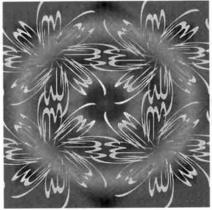
El-Said and Parman (1976) referred to the use of geometry in Islamic art and architecture as a "unifying concept of composition despite the diversity of materials, forms or styles used" (p. xi). They also traced this unifying concept to all art forms, including "decorative arts, calligraphy, architecture and the composition of music and Arabic poetry" (El-Said & Parman, 1976). Geometric patterns have several principles and features, including:

1) Symmetry: Geometric patterns have a balance and harmony of proportion between their basic structures. 2) Repetition: A repeat unit or cell is the base for geometric patterns. This repeat unit can be in the shape of a square or a hexagon. 3) Scalability: Geometric patterns can be used in any size and scale. For example, we can see a pattern on an architectural wall tens of feet high, and the same pattern can be seen on a miniature painting a few inches in size. 4) Adaptability: Islamic art elements can be employed with many artistic techniques on a variety of media. 5) Coverage: Islamic art tends to cover the entire object that

is used for the design. Whether the object is a small dish or an architectural wall, Islamic art elements, including geometric patterns, tend to cover the entire object. 6) Movement: Patterns in Islamic art and architecture are not static. The interlacing of strands of geometric patterns in complex star configurations and polygons conveys an illusion of neverending movement (Behrens-Abouseif, 1999). 7) Frames: The majority of geometric patterns are framed or placed within a pre-calculated surface or framed object.

Structure and Construction

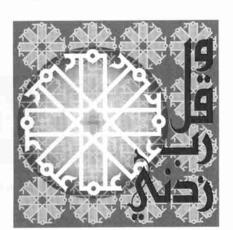
Geometric patterns vary in their complexity and design, from simple shapes to very complex polygons and stars. They are constructed from basic elements such as triangles, circles, squares, stars, and polygons. Issam El-Said (1993) offered a theory that Islamic geometrical patterns are based on the "Square and Hexagonal Repeat Unit and the Root Two and











Root Three System of Proportion." A circle can be divided into four, or multiples of four, equal parts; geometric patterns are derived from the resulting shapes. This is what El-Said refers to as "the Root Two ($\sqrt{2}$) system." The other method, which he calls "the Root Three ($\sqrt{3}$) system," is based on dividing the circle into six, or multiples of six, equal parts.

One of the traditional practices in constructing geometric patterns in Islamic art and architecture that has survived throughout the centuries is the art of "Zillij" (pronounced "ze-leej"). This technique is based on cutting recognizable shapes to make up certain geometric patterns. Since this practice is widely used in Morocco, it has been referred to as the art of "Moroccan Ceramics." The Zillij shapes are cut from glazed tile and then arranged like a jigsaw puzzle to form sophisticated patterns that can be seen covering the walls and floors of mosques, homes, and schools.

Interpretations of Geometric Patterns

One of the common misinterpretations of the use of geometry in Islamic art and architecture is that it was forced on the Muslims because of Islam's discouragement of figurative art representing living beings. Abas and Salman (1995) state that Muslims recognized in geometry "the unifying intermediary between the material and the spiritual world" (p. 9). Nasr (1987) notes that the octagon is a result of a rotated square, which represents the four elements of the universe (Water, Earth, Fire, Air).

Keith Critchlow (1976) has offered a cosmological analysis of geometrical patterns in Islamic art and architecture. He indicated that from the circle originate the three most fundamental figures in Islamic art. The first and simplest is the triangle, which originates from the expansion of one circle into three circles, and symbolizes "human consciousness and the three basic biological functions: ingestion, digestion, and excretion" (p. 16). Expanding the circle can give us the other two fundamental shapes of Islamic art, the square and the hexagon: "A square often symbolizes earth and its materiality and a hexagon represents heaven."

Salma Damluji interprets El-Said's (1993) research on the methodology of geometric proportioning of patterns in Islamic art and architecture, his designs, and paintings as a "conceptual essence of al Mizan," the "balance" mentioned in the *Qur'an*: "and the sky He exalted and established the balance" (*Qur'an* LV)" (El-Said, 1993, p. 6).

Arabesque in Islamic Art

Another distinctive feature of Islamic art is the use of floral, vegetal, and plant forms in a spiral pattern. This has been also called "arabesque," a term that refers to an ornament or style that employs flower, foliage, or fruit to produce an intricate pattern of interlaced lines. The arabesque motifs that are used

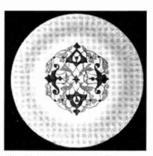
in Islamic art and architecture underwent various changes and developments from pre-Islamic cultures and civilizations to what they are today. The splitting of stems in arabesque designs produces a series of "counter-poised, leafy, secondary stems which can in turn split again or return to be reintegrated into the main stem" (Jones, 1978, p. 171).

A Divine Presence

The *Qur'an*, which has many references to plants, trees, flowers, and the beauty of nature, was also decorated with floral and plant motifs as an appreciation for God's creations. This has also been interpreted as the "Divine Presence" (Lings, 1976), and an indication to Heaven's paradise with its fruit trees, flowers, and plants. Verses from the *Qur'an* that referred to nature have also inspired the use and the development of floral and vegetal motifs.

Islamic Art Projects and Class Activities

The information provided above was used to structure a series of workshops that included art projects and class activities at the Arab Cultural Center and Aptos Middle School in San Francisco. To introduce the students to the elements and features of Islamic art, six workshops were conducted. The



Paper plate decorated with Arabesque. Student project.

first workshop was an introduction to Islamic art by presenting art samples for appreciation and to enable the students to recognize the elements of Islamic art. In the second workshop, the use of geometric patterns was introduced through art projects and exercises. Foam core boards cut in squares resembling ceramic tiles were used for the exercises. The exercises were based on

geometric shapes such as squares, circles, and polygons. This workshop allowed the students to duplicate existing geometric patterns by following step-by-step procedures. It also allowed for their own creativity by providing them with the tools to create their own patterns and colors using grid paper and repeating units.

Arabic calligraphy and an introduction to the Arabic language and its use as an art form in Islamic art was introduced in the third workshop. Examples of calligraphic art pieces were shown to the students, including manuscripts, objects for daily use, and architectural decorations. An art project was assigned to the students in which they create their names using Arabic calligraphy styles. Because all students did not know Arabic, a chart of the Arabic alphabet and the equivalent English sounds and translation was given to the students.



Students working with ceramic tiles. Right: Ceramic tiles with geometric pattern created by the students.

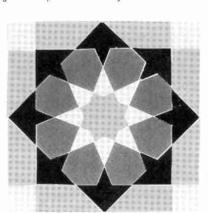
In the fourth workshop, arabesque was introduced through tracing and coloring exercises. Examples of ceramic plates with arabesque motifs were shown to the students for appreciation and recognition of floral, vegetal, and leaf scrolls. Round paper plates and samples of arabesque patterns and motifs (in outline formats) were provided for the students for tracing purposes as an introduction to drawing their own motifs and patterns. Materials, techniques and craftsmanship used in Islamic art were introduced in the fifth

workshop. Color and grid paper was used to introduce the students to the art of "Zillij." The art activities involved redesigning and cutting recognizable shapes from a Moroccan wall pattern and then re-arranging the shapes in a geometric pattern.

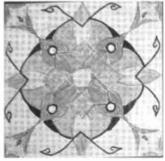
The last workshop concentrated on Islamic architecture by using the mosque as a case study. The interior and exterior elements of the mosque such as the minaret and the dome were introduced in coloring and drawing exercises. This workshop also included examples of Islamic architectural sites and the use of elements introduced in the previous workshops in the decoration and design of these sites.

Conclusion

The workshop earned positive evaluations from both the Arab Cultural Center and Aptos Middle School. I am pleased that I was able to work with children from different cultures and ethnic backgrounds and to introduce them to the Islamic culture through its art. After the presentations at Aptos Middle School, a teacher commented that the students "were especially interested in the history of this beautiful art form." The projects helped all the students in their art appreciation and also in understanding the mathematics behind the geometric patterns and other elements in Islamic Art. The art teacher noted that the students immediately "noticed the symmetry, repetition, and scaling in many of the designs."







Zillij pattern created by the students from colored paper.

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