Magnifying the Eye of Culture: Visual Cognition through a Comparative Sociocultural Progression of Christian and Islamic Image

VERONIKA TZANKOVA & THECLA SCHIPHORST

ABSTRACT This paper highlights the importance of cultural perception in the discernment and interpretation of image. Comparing Christianity and Islam, it posits socio-religious factors as a predominant source of cultural differentiation in visual cognition. Image serves as a non-verbal representation of ideological and emotional content for individuals within culture. The role of religion and religious experience[1] in the everyday lives of individuals, and its allowance, or prohibition of specific image content has consequences in the cognitive formation of an image-rich or image-poor visual culture.

Historically, cultural exposure to the presence or absence of religious art has formed the way individuals perceive, recognize, and interpret images. Religious art has not only influenced perception and cognition, but has also offered cognitive interpretation in situations where philosophical concepts fell short of transforming meaning in everyday life.[2]

This phenomenon has led to two types of epiphenomenal visual cognition—*semantic-oriented* and *semiotic-oriented*. While semantic-oriented cognition can be characterized by direct interpretation and preference of linguistic content within an image, semiotic cognition encapsulates the features of semantics along with an ease of processing abstract visual content—a predilection toward meaning-making that is direct and precognitive.

The examples in the paper are drawn from a comparative analysis between Christian and Islamic socio-religious art, contrasting and tracing its development through paintings, ceramics, photography, and new media digital interfaces. The processes of visual cognition are interpreted through the focus of an interlaced connections and view of religion as socio-cultural factor, as sacred art, and as social evolution. The paper investigates the ability of the image to articulate the refractive dimensions of the relationship between the physically perceived form and the culturally relative interpretation of reality.

INTRODUCTION This paper stresses the importance of religious history of image, specifically Christianity and Islam, to the cognitive process of visual perception. Rather than relying on the theories of the stasis and fixity of what is visually sensible, it emphasizes the noesis of cultural translation, the immediate or intuitive cognition that occurs during the procession of visual information. From this perspective, the religious beliefs, structures and rules found in the basis of Christian and Muslim societies are treated as sociocultural symbols that construct a cultural interpretation of visually perceptible reality.

Much of the analysis provided in this paper is a result of cross-cultural hermeneutics that comes from the reflection on the problems of visual orientation within a frame—either the dimensions of an art piece, a new media digital interface, or some other form of "image." Explanatory evidence and propositions have been made on the basis of first person cultural experience based in extended cultural immersion and participant observation in Islamic Turkey, and Christian Europe. Using an interpretative method that unpacks and deconstructs clues representing the social perception of reality, the differences in the aesthesis of the visible are traced back to their roots—the fundamentalism of religion, through the graphic narrative of the development of art in Christian and Islamic societies.

The cultural side of visual perception In traditional approaches to what constitutes visual perception, a stable part of the doctrine refers to the dissection of the visual apparatus and explains its functions by a chain of bio-physiological processes. Despite the embodied nature of visual cognition, it has become clear that the understanding or the processing of visual information is not always reducible to bio-physiology; embodied cultural beliefs also play a large role in perception. As Pennycuick notices, the problem of the dimensions of the visual perception cannot be disputed without accepting the validity of the dichotomy between physical or "material" objects and "sense data."[3] This philosophical separation of physical reality and perceived reality, as he calls it, "sense data," suggests the idea of subjectivism in the form of ineffable knowledge.

Contemporary philosophers such as Alva Noe extend the concept of sense perception into an ecological context in which perception is a thoughtful activity which connects the perceiver with the environment itself.[4] With the liberation of science and the integration of disciplinary knowledge, the idea of treating cognition as a part of the visual perception itself has started the process of reconsidering the elements that actually construct it. Combining the physiology of the visual apparatus and cognition

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under the collective term "visual perception" is no longer imprisoned in an oxymoronic status. From this perspective, Rudolf Arnheim treats the cognitive operations called thinking not as "the privilege of mental processes above and beyond perception but the essential ingredients of perception itself."[5] He also defines "cognitive" as a collective term for all mental processes, including memory, thinking, and learning.

In this sense, the inclusion of cognitive knowledge within the frame of visual perception serves as a ground for an insightful dialogue of what constitutes knowledge and how it is modeled by the ecology of the socio-cultural environment. Taking the role of culture into consideration when investigating the depths of visual perception affects the current understanding of perceived reality and yields a more embodied apprehension of perception as a cultural form itself. From this viewpoint, visual perception can be considered a product of historically enriched conglomeration of cultural and conceptual differentiation. It is in the same line of logic that the historical religious images play a role and 'set the state' for the precognitive ground for visual perception in an ecological frame. The historical factor that constructs the line between cultures is religious image, belief and noesis as the ground of cultural meaning-making activity and comprehension.

Not by coincidence, the definition of culture in UNESCO Universal Declaration on Cultural Diversity is regarded as "the whole complex of distinctive spiritual […] features that characterize a society or social group."[6] The role of religion in everyday lives of individuals and its allowance, or on the contrary—prohibition of use of images as a non-textual representation of devout ideologies has consequently formed an imagery rich or an imagery poor medium of visual culture. With the progress of time, the historical origins of the noetic image along with the environment it provided—the exposure to the presence or absence of religious art has influenced the way individuals perceive and interpret content within a visual frame. The presence of religious art, which later evolved into other art forms, modeled the cognitive ingredient of visual perception as it constituted visual 'knowledge' and experience itself. The tracing of the dimensions of the varieties in visual perception of individuals from different cultural groups relies on the psychoanalytical tenet that people use what they already know to filter, interpret, and construct new information. In this line of logic, the preferences of generated visual content (mostly art forms) of individuals can be considered a reflection of how they actually perceive visual content. Dieter Mersch provides a clear verbal formulation of this phenomenon: "The variety of percep-

tion is bound not into images, but through the act of giving form…"[7] For example, individuals that create abstract visual art can be considered also capable of perceiving [and thus processing] other abstract visual content.

This phenomenon assists the detection of perceptual differences of individuals from various cultural backgrounds by tracking the differences between the visual forms they create.

RELIGION AND DEVELOPMENT OF IMAGERY
CHRISTIANITY

The socio-cultural symbols of Christianity, with their emphasis on the figure of the person of the Saviour initiated the need of figurative art;[8] this demanded skills and techniques to shape an image to an extent where religious imagery became a medium of expression. The concept of deverbalization of religious systematic knowledge is important because it requires recognition and interpretation beyond the framework of the text. Religious imagery has re-situated devout knowledge within an expanded field encompassing both the logic of the source (the knowledge of the Bible) and the emotions of the practitioner. Valuing the importance of religion to society in eras that witnessed the appearance of religious art, enables us to understand religious imagery as supplementing social forms that constitute a conception of reality through visual aesthesis. At the same time, religious art was intended to be evocative of the ideologies it was designed to reflect upon.

The ability of specific religious symbols to encapsulate both logic and emotion through image has generated the conditions for implementation of the wide interpretations of the Bible. The attempt to represent the divine relationship between God and the physical reality has resulted in an inevitable need for less "wordly forms."[9] In that particular break from physical values that diminish "wordly forms" realistic visual representations dissolved into a fluctuating interplay between: realistically correct, figurative, and representational forms; and less figurative forms and dimensions. In its cultural context, the interplay between real-figurative and non-figurative forms in Christian Art had become a crucial element of the developmental process of abstraction—both in the visual and in the philosophical-cognitive sense, i.e., the ability to conceive of and imagine worlds outside of our worldy perception.

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FIGURE 1: *St Joan. The divine beginning is expressed by non-figurative inverted perspective. Reproduction on wood by Konstantin Tsankov.*

An unambiguous example of the implementation of religious ideologies into religious visual art through abstraction is the use of inverted perspective. Inverted perspective is a form of non-representational perspective that violates accepted norms of the linear one by "diverging rather than converging"[10] the lines of the vanishing points. The use of such technique which requires assimilation and interpretation beyond the scope of the direct recognition of physical reality has formed a new perceptual tradition—a re-examination of the relationship between physicality and its dematerialized reflection. This trend in abstract aesthetics has evolved in an ability to understand, interpret, and in a reflective turn, to practically implement abstraction.

ISLAM

The prohibition of use of images in Islam can be understood through the interpretation of its religious sources. The general framing of this prohibition is grounded in the belief that Allah is the creator of everything and his deeds cannot be represented by mortal hands. In this logic, image-making, pictorial representation, and drawing are considered an imitation of Allah's deeds. On the highest level the prohibition of image-making can be found through the interpretation of the Qur'an which implies that—because "God is the creator of everything"—artists attempting to create pictorial representations of the world arrogate the will of Allah. More specific evidence regarding this issue can be found in the deeds of the Prophet as well: "On the day of Judgement artists will be asked to recreate their own artistic works, and when they fail to do so, they will be severely punished."[11] However, the ultimate punishment of imagery prohibition is questionable and depends on the method of interpretation of the sacred texts. As some interpreters defended a maximal aniconism,[12] the practice or believe in avoiding or shunning the graphic representation of divine beings or religious figures, some more liberal believed that image should be forbidden only in the representation of animated life. This

can be considered a primary explanation of why Islamic visual art forms exist despite the tension between what is considered animated life and what is not. The structural interconnection between spiritual beliefs, fear from "severe punishment" by the Lord, and the inherited sense of aesthetics from pre-Islamic periods has evolved visual art forms that can be characterized by unitary rationalism.

Islamic art works reflect on a predominantly anti-animated attitude, aimed at expressiveness by an emphasis on the decorative elements imbricated in repetitive and highly geometrical structures. The purpose is to eliminate any possibility of imitation of the divine essence of Allah's creations.

The fear of Allah as a course of visual production has also stimulated the inclusion of phrases from the Qur'an into the artefacts (the Calligraphy) which embedded a verbal projection into Islamic art.
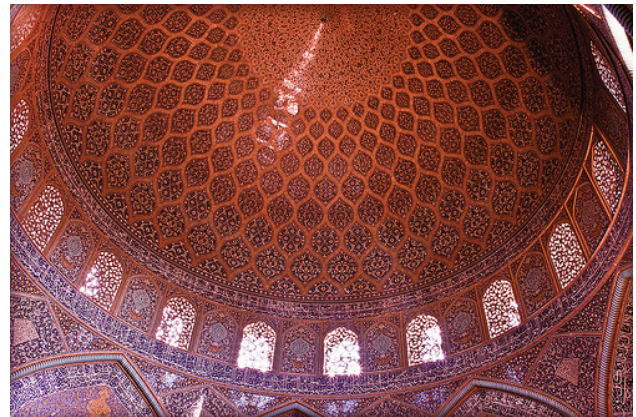

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FIGURE 2: *An example of the complexity of geometrical patterns found within Islamic Art.*

© MICHAEL KAMPEN O'RILEY, 2002
FROM "ART BEYOND THE WEST"
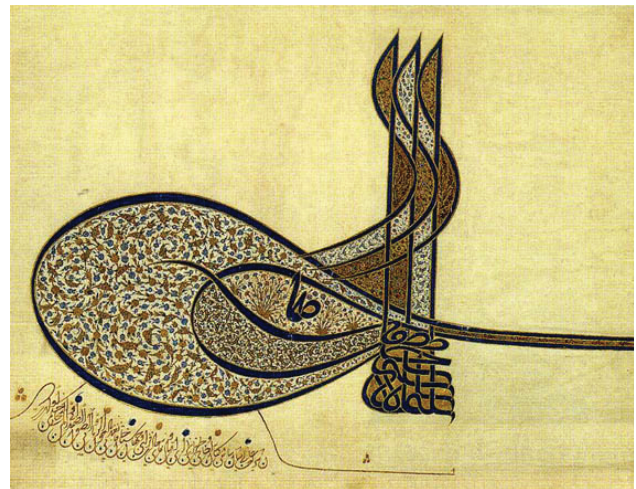
FIGURE 3: *An example of the inseparability of text and patterns found within Islamic Art.*

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FIGURE 4: *The reflection of Islamic Art in Oriental ceramics: integration of two-dimensional floral |and geometrical patterns.*

Although the patterns in Islamic art are highly complex, they can be instantly perceived for their geometrical integrity and textual content. What Islamic art achieves is expressing minimum ideology with maximum geometrical detail. The structural elements of the fractals which are usually planar, two dimensional inter-connected floral patterns contribute to a highly non-representational interpretation and formal spirit of perception.

Islamic art varies greatly in form from Christian art in its historical development and visual valuation. Although Islamic art can be considered as a mechanism to diminish representation in favour of forms that are more formal, the logical relations between the elements of its patterns are directly visually evident and geometrically structural.

PRACTICAL IMPLICATIONS: THE INTERACTION BETWEEN RELIGIOUS ART AND VISUAL PERCEPTION

If we consider that religions are cultural and symbolic systems offering a structural mechanism to perceive reality.[13] It may be concluded that religious art has provided a taciturn model of visual cognition. The working method of this taciturn model relies on the integrity of cognitive knowledge and the senses of the visual apparatus. In the historical line of religious art, there is evidence of an accumulation of sedimentary representations. Devout art is a (sometimes manipulated) translation of the dynamic knowledge of the society and a message itself. To be well understood, as such, it requires: the ability for a unique interpretation, the well-articulated visual navigation through the visual content, and the recognition of metaphors and semiotic details.

Over the years, the culturally charged representations in visual arts have formed the 'gestalt' of the visual perception of individuals from different cultural groups. What is suggested here is that the objectively knowable arena of physical reality is illusively subjectified by the parameters of the 'gestalt' of the visual perception. From this aspect, religious art has stimulated the understanding of a visual medium within the ecology of socio-cultural reality. As Ludger Schwarte formulates it: "The ability to see images is culturally and historically variable, not only in its dependence on artifacts and techniques of visualization but also because, like the ability to speak, this ability has

to be learned and because all criteria of right and wrong are based on creative practices."[14] Religion and its allowance or prohibition of visual representations has formed a structural environment of visual meaning embodied in a hierarchy of image reification—situating semantic-oriented perception within the dimensions of circle of semiotic-oriented visual perception. *Semantic-oriented perception* can thus be characterized by:

- Procession of realistic imagery

- Preference of textual content

Semiotic perception encapsulates the specifications of the semantic one while enclosing:

- Ease of interpreting abstract visual content

- The ability of treating text as symbol-structures

Christianity, with its allowance of image use and integration of devout ideologies in religious art, has stimulated the development of abstract visual representations. The exposure to this environment, where visual content was paralleled by a multilayered ideology or visual information contradictory to the physical reality, triggered the development of non-sequential visual logic behind the dimensions of the "indigenous knowledge." With the passage of time, individuals within this cultural group have shown the ability to more efficiently process abstract visual forms and entities, as well as abstract concepts and models for the world itself.

Linguistic components (text, words) are also perceived as a part of the aesthetical structure of the artefact; although they are recognized as verbal expressions at first, on an advanced level, they are perceived as a system of signs and symbols that are used as a basis for a faster recognition of the image. The deliteralization of the textual content perceived in the form of symbol-structures is one of the key points characterizing the phenomenon of semiotic visual perception.

To the contrary, the prohibition of image in Islam and the exposure to visual art primarily in the form of geometrical patterns and/or ornamented texts has stimulated the development of visual perception based on semantics. The derivation of meaning by direct perception without need for further interpretation has resulted in a form of semiotic aphasia. Representatives of Muslim cultural groups generally feel preference towards textual and/or (hyper) realistic visual content and pay high attention to

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structural details. This phenomenon demonstrates itself in the type of artifacts artist from this cultural background create. Resulting from a historical process of non-ideological representations reflected in highly detailed complexity, these artists have generally succeeded in expunging the concepts of abstraction by elaborating hyper realistic elegance and refinement.

Textual content within imagery is perceived 'directly' in a "strictly verbal" context and does not produce a true system of signs.[15] Words are words with a meticulous verbal meaning and are neither treated as a way of structuring a graphic unity nor as an iconic message.

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FIGURE 5: *A hyper realistic effusion of the matter by Roham Sheikholeslami*

VARIETIES IN VISUAL PERCEPTION AND THEIR REFLECTION IN DIGITAL TECHNOLOGIES

The developmental process of visual arts has served as a basis for many other generic categories. Although visual arts originated in analog environments, the models of representation and perception they structured have now been translated to other media as well. As image-based perception can be instant, reliable, and effective, there is no question why it is widely considered in the production process of new technologies and in particular interface design. The field of digital interface design can be treated as an extension and consequence of the historical line of visual art forms.

Despite the different technical characteristics of visualities in analog and digital environments, their conceptual resonance remains the same and is implied in a history of visual cognition. Following this line of logic, cultural differences in human visual perceptions (semantic- and semiotic-oriented) are reflected and find significant evidence in the terrain of interface design.

An interesting feature of most digital software systems is the combination of signs, symbols, and textual content which creates a homogeneous medium of visualization. The visual clues are then used by users as a form of orientation within the platform. What strikes the attention is the extraordinary expansion in ways of seeing and interpreting these visual clues. A vivid depiction of this phenomenon may be observed when users are presented with a digital software interface that uses a language (an ethnic language such as English, French, Farsi, etc) that is not familiar to them.

In our particular case, we observed the use of Windows in English by individuals having Turkish as a native language who were not fluent in English, even as second language. Within the overall setting and practice of software use in the territory of the Republic of Turkey, where the Turkish language is primarily used, spoken and written, these individuals had problems completing simple tasks such as copying or pasting and required a significant amount of time to learn, recognize, and map functionality across native language use.

Conversely, German and Italian users using Windows in Turkish for the first time, were able to easily complete the same tasks in a limited amount of time. Both the German and the Italian users had no familiarity with the Turkish language in written or spoken form. In the post-task discussion, the Turks expressed the experience as "being completely lost" because of the lack of "explanatory words." The German and the Italian explained they used the location of the commands within the menu panels and the shortcut signs where applicable as visual clues to navigate through the platform. Both declared uncertainty despite the successful completion of the tasks.

On examining the cases above, one notices that the two types of visual cognition (semantic and semiotic) are situated on the opposite sides of the 'visual meaning derivation' spectrum. In the semantic one, language is the vehicle for exploring the possibilities of the visual medium; in the semiotic one, symbolic clues and more abstract relations (such as location) between the parts of the image are the locus of visual cognition and experience. These examples illustrate how visual perception can affect and frame cognitive creativity, cognitive tasks, and the comprehension of meaning in everyday activities. With the impact of digital culture, particularly in respect to the globalization of new media, personalization of digital systems requires more than mere language translation. Forms of visual and cultural perception and integration of visual cultural norms can affect design in the cultural ecology of image production.

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CONCLUSION

This paper has argued for the importance of cultural perception in the discernment and interpretation of image by comparing the historical meaning and interpretation of image within Christianity and Islam, illustrating that socio-religious factors can be seen as a predominant source of cultural differentiation in visual cognition. It examined the role of religious art in the developmental process of cognitive formation and the ecology of image in visual culture. By putting an emphasis on the patterns in art, two models of visual perception were proposed— a semantic and a semiotic one. These models provided a theoretical base for addressing the socio-cultural context of perceived reality and its implications in contemporary visualities. Defining the differences in cultural visual perception and preferences is important as they form the continuum between cultures, art, and technology.

BIOGRAPHIES

Veronika Tzankova is a Masters student at the School of Interactive Arts & Technology at Simon Fraser University. Her background education in Civil Law was obtained in Turkey where she spent seven years of her life exploring the Oriental culture and its influence on moral values and language.

Thecla Schiphorst is a Media Artist/Designer and Faculty Member in the School of Interactive Arts and Technology at Simon Fraser University in Vancouver, Canada. Her background in performance and computing forms the basis for her research which focuses on embodied interaction, sense-making, and the aesthetics of interaction.

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