

# Digital Islamic Art: The use of digital technologies in contemporary Islamic art in the UK

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**In this paper, I provide a brief introduction to my artistic practice combining the use of digital technologies with traditional methods for producing Islamic art. Looking at further examples of Islamic artworks by artists in the UK I describe how in some cases, the artworks are digital in themselves, using digital technologies as a medium and in other cases, the digital plays a part in the creation – used as a tool. Looking at examples where traditional aesthetics characteristic of Islamic art (calligraphy, geometry and arabesque patterns), are combined with digital techniques, the concept of a hybrid art is discussed. I raise the question of adopting the hybridised term ‘digital Islamic art’ to describe these artworks, and also discuss how themes of hybridity, diaspora and the changing nature of the wider community in the UK and beyond are conveyed.**

*Digital art., Islamic art. Digital Islamic art. Hybrid art. Hybridity. Diaspora.*

## 1. INTRODUCTION

I am currently conducting PhD research at the University of Kent where I have been exploring the nature and presence of Islamic art in the UK in relation to my own artistic practice. My artistic practice involves the use of traditional aesthetics of geometry and arabesque (stylised floral) patterns in conjunction with the use of digital technologies in applying these patterns to differing materials.

In this paper I will describe the process and methods I have developed in order to produce my artworks, the role of technology in this process, and how this can be described as a hybrid art form. I will also provide further insight into the themes I explore in my artworks which relate to the topics of hybridity in form and in cultures and societies.

Finally, I will provide examples of a further three artists who are engaging with digital technologies in their art-making whilst adopting traditional aesthetics characteristic of Islamic art. In conclusion I will propose a further study in order to gain a fuller understanding of engagement with digital Islamic art in the UK.

## 2. HYBRIDITY AND HYBRID ART

A hybrid is the combining of two elements to form something new (Oxford Dictionary 2016). Based on the most inclusive and diverse interpretation, hybridisation is used to describe where there has been an instance or act of combining more than one element, be this materials, experiences, environments, cultures, systems, etc. (Kraidy 2009). Hybridisation is often discussed in the context of colonial and post-colonial history, where it is either used for acknowledgement of groups or societies who may not fit into one specific cultural grouping, or argued against by those who feel that assigning identities based on culture or race is just another example of divisive classification (Kraidy 2009 and Young 1995).

Peter Burke (2009) in his book titled *Cultural Hybridity* introduces us to many specific examples of where cultural and national interactions have led to hybridisation in language, religion, design, art, music and sports, to name just a few. All are tied to the changing nature of the population in any given region or land with the migration of peoples resulting in diaspora and globalisation.

When applied to arts, crafts and science, the assignation of the hybrid label becomes more a little more specific. For example, the process of combining traditional with contemporary making processes is referred to as a hybrid art form. Ars Electronica's annual Prix competition includes a biennial category of Hybrid Art. Entries must comply with the following remit as stated on the Ars Electronica website (2016):

The "Hybrid Art" category is dedicated specifically to today's hybrid and transdisciplinary projects and approaches to media art. Primary emphasis is on the process of fusing different media and genres into new forms of artistic expression as well as the act of transcending the boundaries between art and research, art and social/political activism, art and pop culture.

In this case the use of the term hybrid relates specifically to the art form. However, an example of where the term has been linked with an artist's background as well as his artistic output can be found in Asheer Akram's work. Curator Kimberley Masteller (2015), talks of the inclusion of Akram's Pakistani Cargo Truck Initiative in an exhibition of both traditional and contemporary Islamic art in Kansas City, USA. Masteller describes this particular work of Akram's as an example of hybrid art form due to the use of a local 1950s Chevy truck which was converted and re-styled to resemble a Pakistani truck. The hybridity here is related to the combination of the local American materials, the craft in making, the participation of local contributors, and the use of styles evoking Akram's Pakistani heritage through aesthetics and application. Akram is of American birth but Pakistani heritage, providing another aspect of hybridity through his identity. Akram uses a combination of street art and Islamic design and himself relates his work to Islamic art, making frequent use of the tag #islamicart in reference to images of his work on his Instagram account.

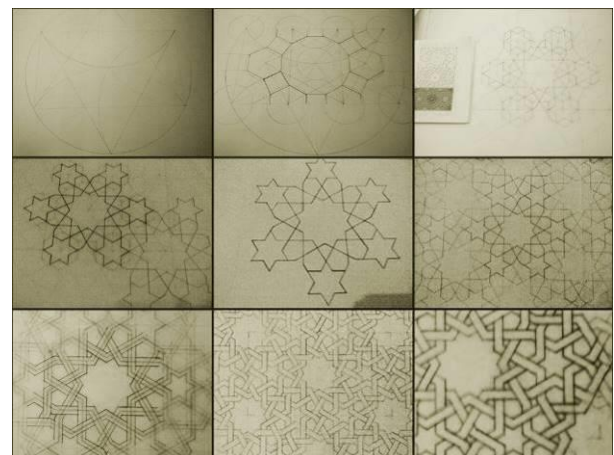
### 3. THE MANIFESTATION OF HYBRIDITY IN PRACTICE

Following on from the above descriptions of hybridity and hybrid art, I present my own work as an example of where a traditional process of creating Islamic patterns is applied to contemporary art forms, demonstrating the development of Islamic art with the incorporation of digital technologies.

Within my artistic practice I make use of two of three aesthetics characteristic of Islamic art: geometric and arabesque patterns (the third being Arabic calligraphy) (Choudhrey and Bobrowicz 2016). Geometric pattern-making is described as a

sacred art, not just in relation to religion and attributing it to Divine or sacred creation (Nasr 1987), but also in relation to demonstrating harmony in the natural world and cosmos (Critchlow 1999).

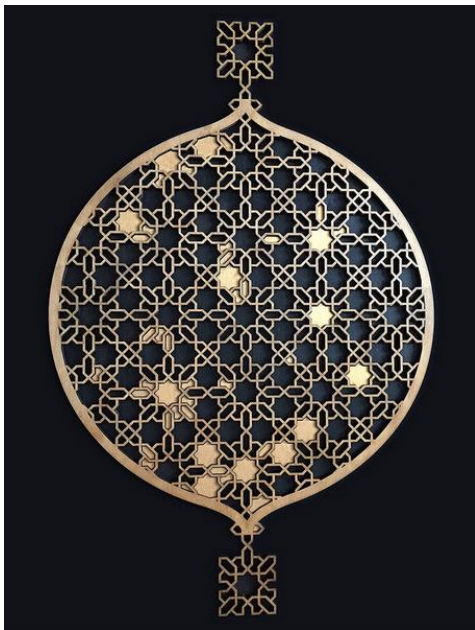
I find the process of creating complex patterns challenging, meditative and rewarding. Having learnt the methods for constructing Islamic patterns using a compass and straight edge, I began exploring ways in which patterns could be taken further, not just applied to flat surfaces in 2D form (although I have a great appreciation for all forms of decorative application), and not just applied in 3D form to buildings, as is common within Islamic art. I began considering how patterns could become the artwork itself, not just a decorative element of an artwork. However, it was essential to learn how to create the patterns proportionally and accurately before working with these further. To this end I used various resources and attended workshops to learn the traditional methods for creating such patterns by hand, as demonstrated in Figure 1.



**Figure 1:** Construction of Islamic geometric pattern based on instructions published by Daud Sutton (2007).  
© Sara Choudhrey 2010

The traditional process of pattern-making is now very much a part of the larger creative process I follow in developing an artwork. After hand-drawn construction begins the process of digitising for which I use Adobe Illustrator, producing a vector file that can be used to apply a pattern to various materials using further digital techniques. In the past these techniques have included laser-cutting, laser-engraving, water-jet cutting, animating and projecting. The choice to work with digital techniques leads to contemporary mediums. In a sense this provides an opportunity to disprove misconceptions that Islamic art consists largely of arts and crafts objects (Blair and Bloom 2003). However, the use of traditional arts and crafts techniques is not entirely lost in the process, as, in some cases, further hand-made touches of

painting, sculpting and woodwork are incorporated to complete the artwork. Hand assembly, and painting was required to complete the artwork *Roundel*. The geometric pattern used in *Roundel* is a variation of a pattern demonstrated by Issam El Said (1976), found at the Ittimad Ad Dawla site in Aghra, India. In *Roundel*, the pattern was laser cut into birch wood with selected uncut sections painted in gold. *Roundel* forms part of the *Ulterior Motifs* series, which explores the idea of taking things out of their original context and representing them elsewhere, sometimes differently, and not always in respect to their original context. This has been witnessed throughout history in regards to appropriation in material objects, religion, culture, symbols and ideology (Young 2012).



**Figure 2:** *Roundel*, 2015  
© Sara Choudhrey 2015

Sculpture is another example that is not considered a traditional medium within Islamic art (Blair and

Boom 2003), and yet this is an area I have found to be most engaging for audiences of contemporary artworks, especially when combined with interactivity. One of the earliest interactive artworks I developed was *Reflect*, seen in Figure 3, exhibited at the Watermans Gallery in London in 2010. The process for creating *Reflect* followed that described above, where a traditional geometric pattern was constructed, digitised, and then applied to aluminium. Computer aided machinery was required to cut the pattern with a water-jet. I chose to use aluminium sheet, as it had a reflective nature and was thin-enough to sculpt by hand to resemble a wave. It was important that the sculptural aspect and the digital interactivity worked together with the aesthetics to make it an appealing and engaging installation.

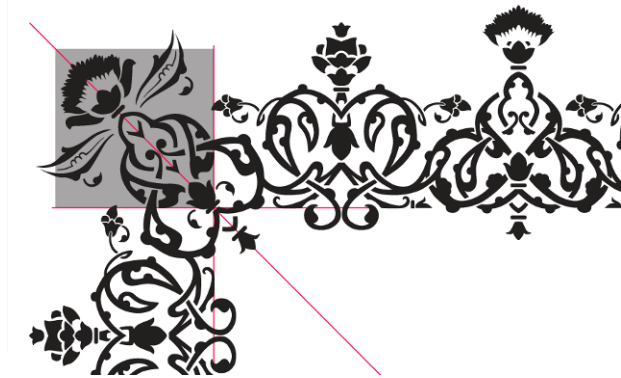
The work was further developed by incorporating a projection of real-time camera feed using an infra-red camera that would work in a darkened space. The feed was converted to basic shapes with a limited colour palette through the OpenCV library within the Processing IDE. The digitally manipulated camera feed was then projected directly onto the sculpture. Due to the highly sensitive infra-red camera used, any movement detected within the space around the installation enabled a constant dynamism to the work. The projection was in constant flux and gave the impression of an underwater rippling effect, at once creating reflections, shadows and both upon and within the sculpture and nearby surfaces. Providing the interactive element allowed for engagement of the user to explore the aesthetics and nature of the work. By openly exhibiting as an artist inspired by Islamic art and alluding to more than what meets the eye I was inviting the viewer to delve more deeply, to reflect, as the name suggested' upon their surroundings and question things beyond the surface to understand cause and effect, leaving any deeper interpretations open to the user.



**Figure 3:** *Reflect*, interactive installation, Enter10, Watermans Gallery, 2010  
Photo © Dawn James 2010

Another example of the hybrid process of digitising traditional Islamic art was applied to *Digital B-Orders*, an interactive installation which can be seen in Figure 5 below. Design of *Digital B-Orders* began with a hand-drawn arabesque border pattern of Iranian style. The border consists of floral and curved motifs joined in a vine-like manner. The curved shapes made from spirals within circles (resembling the yin yang symbol) are also known as 'rumi' or 'islimi' (Azzam 2013).

Arabesque/islimi patterns in border form are traditionally used for illuminating the pages of Qur'ans, manuscripts and legal documents. Once a segment of the pattern is constructed, it can be repeated for any desired length and width of any sized document simply by reflecting and rotating. The digitised pattern was tested by cutting a segment of the pattern into 3mm acrylic Perspex®. The design was then revised several times before it was deemed suitable for use, one such revision can be seen in Figure 4.

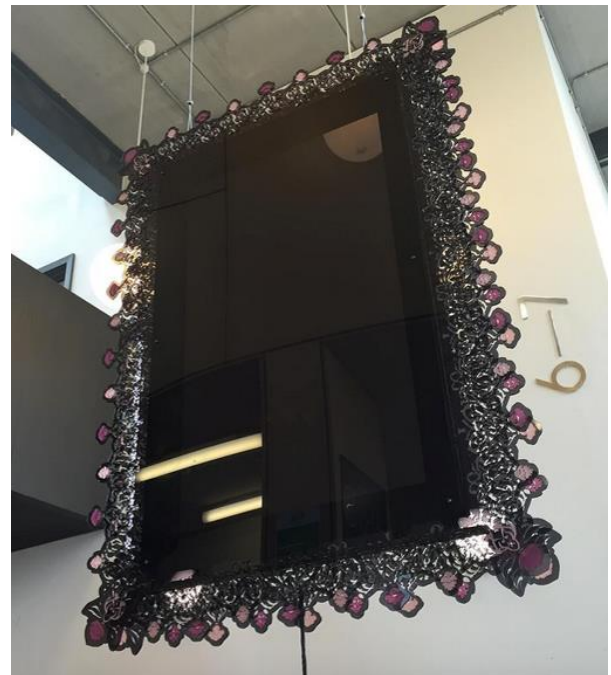


**Figure 4:** Vector drawing of pattern segment for *Digital B-Orders*. © Sara Choudhrey 2016

Perspex® is an ideal material for laser-cutting and works well in diffusing light. It is also a relatively durable material making it ideal for sculptural pieces. With the above arabesque design applied to Perspex® in a semi-transparent dark grey, a further aspect of digitisation was required in order to allow for user interactivity. LEDs were placed around an internal wooden frame which was also used to attach the laser-cut Perspex® panels on either side. Through the use of a mini Arduino board and two ultrasonic proximity sensors, movement within 80cm of either side of the artwork could be detected, this would then activate the LEDs. If movement occurred on the right of the installation, segments of LED would light up in a clockwise cycle. If activated from the left, LEDs would follow an anti-clockwise cycle, all LEDs fading in, then out at the end of each cycle.

In this artwork, the act of illuminating the artwork is placed into the users' hands. Unlike in traditional illumination, the decorative aspect is at once visual and literal; the illumination itself is illuminated. This

arrangement moves away from the traditional gallery set-up where framed artworks are the central focus and their frames can go ignored. In this case, the framing border is a central component of the artwork, highlighted by the user's effect on it. A further aspect of suspending the work in this nature produces a frame, positioned off the floor, as if suspended in mid-air. The position of the framed space with reflective surface allows for a self-portrait of the viewer, whilst the semi-transparent, hollow centre creates a frame viewable by anyone positioned on the other side. This placement of the work encourages the viewer to look beyond their 'selfie' of a more traditional nature to contemplate the composition and relevance of a highly decorative border.



**Figure 5:** Installation view of *Digital B-Orders*, International Festival of Projections, Canterbury 2016. © Sara Choudhrey 2016

In naming *Digital B-Orders* there is an intentional play on words. For one it is drawing attention to the digital in the digital age, questioning our interactions through digital devices and interfaces. There is also the significance of the border in a literal and figurative sense – the order of not only nature (evoked by the floral pattern) but order imposed by boundaries affecting the movement, placement and displacement of communities. The work speaks of hybridity but also of globalisation, and allows for the decorative ornamentation to draw connections between East and West, alluding to the long history of material interactions that continue today. By incorporating the engaging elements of interaction, the artwork forces the user to understand their impact in a sensory manner and

hopes to instigate contemplation of interactivity between persons in the wider global community.

#### 4. DIGITAL ISLAMIC ART IN THE UK

I have dabbled with using the term 'digital Islamic art' to describe my artworks, my intention being to bring further clarity to the type of art I am creating. Although Islamic art and digital art are considered art types in their own right, I see the combination of the two as a hybrid art. I combine the two in practice, in terminology and in meaning. Outside of the literal concept of combining the terms and practices, there are a number of theoretical concepts of hybrid identity, diaspora and dis/placement that I look to communicate through my artworks. The focus is, therefore, not just on aesthetics and medium, rather it is also the message being portrayed through the use of decorative and interactive elements within the work.

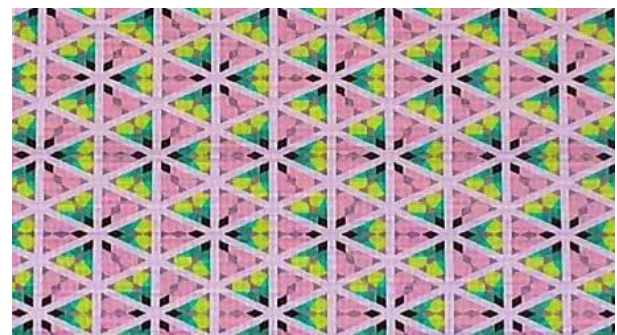
Based on Burke's descriptions of hybridity, there are many cross-cultural influences being encountered in my existence and my output (Burke, 2009). Being of Pakistani heritage and a Muslim born and living in the UK, I am from what would be considered both an ethnic and religious minority in the UK, Muslims accounting for approximately 4.9% of the population (Ali 2015). Would it be correct to assume my art is hybrid by way of being a representation of my hybrid identity, similar to that of Asheer Akram's? To me, it has always felt a natural progression of my interests and skills. Either way, perhaps this scenario provides validity to my usage of hybridised terminology. I consider the usage of the term 'digital Islamic art' to describe and perhaps reconcile the hybrid nature of identity, themes and practice in my art.

In trying to understand the contextual relevance of my artistic practice I have been exploring the presence of similar artworks by artists in the UK, where Islamic art is combined with the use of technology and where the hybridised term 'digital Islamic art' might also be applied. One of the earliest examples of Islamic art using digital technologies I encountered in the UK was *Beauty of Abstraction* by Zarah Hussain, a still of which can be seen in Figure 6. Hussain, is an artist of contemporary Islamic art, of Pakistani heritage, born and living in the UK. She is known for her artworks of colourful geometric compositions that highlight the 'order and harmony of the world around us' (Hussain 2015). In producing geometric patterns of a digital nature, Hussain has managed to bridge two areas, combining her knowledge of software and technologies with her traditional training in Islamic art. *Beauty of Abstraction*, was the first digital animation Hussain produced using

Islamic pattern presenting an ever-changing, evolving pattern of colours and compositions within a set grid of shapes.

These hypnotic animations have led to Hussain's work being projected on to buildings, as public displays with a higher level of engagement achieved through user-input. In the recent *Southend Colour* display in the UK (shown in Figure 7), the local public were invited to share their views on migration and demographic change, leading to a colour palette echoing public views whilst simultaneously providing a visual documentation of community sentiment.

**Figure 6:** *Still from Beauty in Abstraction*  
© Zarah Hussain 2005



**Figure 7:** *Still from Southend Colour*  
© Zarah Hussain 2015

A further description of *Southend Colour* from Hussain's website describes:

a visual exploration of feelings about migration, identity and demographic change. It changes colour according to responses made by the people of Southend in real time through internet enabled devices. The resulting data is collected and presented as a mathematical geometric pattern.

Hussain's work explores an infinite range of colours and variation but still adheres to the structural composition of the underlying grid and pattern. It is also the conscious inspiration she draws from her faith whereby the act of art-making involves a sense of spirituality. The constant variation in colours provides an apt analogy for the changing nature of diaspora populations and global communities.

Artists using geometric patterns of Islamic style speak of their inspiration coming from the patterns adopted and applied to arts and architecture in Islamic regions, a source of inspiration to myself too. Sama Mara, an artist of Jordanian heritage bought up in the UK, is not a Muslim but is inspired by Islamic art. Mara has studied traditional techniques for drawing geometry from the Islamic and Christian traditions (Mara 2012) and makes

reference to the order and harmony present in the world through his artworks. The sense of spirituality is again present for Mara in his understanding and his expression of the art forms and methods he practices, most recently combining his traditional

training with knowledge of computer programming. Mara, in collaboration with composer Lee Westwood, developed a program for producing Islamic geometric patterns based on sound.



**Figure 8:** A Hidden Order performance with live ensemble at PSTA, 2014  
(Photo: Jonathan Stokes) © Lee Westwood and Sama Mara 2014

Taking a hands-on approach to programming, Mara developed a custom software program to convey the visualisation of harmony in music through shapes and compositions distinct to Islamic patterns.



**Figure 9:** Hexagon II – Cello & Percussion  
© Lee Westwood and Sama Mara 2014

The result was an installation that displayed sound as art. The final installation could take on various modes: as a real-time animated performance with live musicians (as shown in Figure 8), as a

standalone touch-screen interactive display, or as a projected animation with a specific sound-track. Lastly, the program also allowed Mara to compose visual art using sound as the tool to create patterns which could then be printed (as shown in Figure 9). The results, although varied with each medium and method, allowed for variety but also consistency, as the design of the program still ensured the results were visually and musically proportional and harmonious. The outcome is therefore a new form of musical visualisation that bridges the science of sound with the science of geometry, whilst adhering to the fundamental principles of both.

As a final example I would like to present the work of classically trained calligrapher Soraya Syed. Syed can be described as being of a hybrid heritage with Pakistani and French parents. Syed had studied extensively in the UK prior to pursuing knowledge of Arabic language and calligraphy through an apprenticeship in Egypt. She was also trained by master calligraphers in Turkey and after seven years of training she became the first Britton to receive a licence in classical Arabic script.

Although calligraphy is traditionally produced with reed pens using ink on paper and commonly used to decorate religious architecture, Syed has used her knowledge of calligraphy to produce a number of digital artworks for exhibitions in the UK. One such example is *Hurriyah* (shown in Figure 10), described as a 'calligraphic exploration of freedom through animation and dance' (Syed 2013).



**Figure 10:** Hurriyah design in calligraphic formation for the Hurriyah animation  
© Soraya Syed 2013

*Hurriyah* was accompanied by a dance performance by Salah El Brogy when exhibited as part of the Nour Festival in London in 2013. Whilst the animation presents the formation of the word 'hurriyah' (meaning freedom in Arabic), beginning as a simple dot growing into a sail set free upon the ocean. In displaying the animation as part of a live performance the medium of the art becomes a hybrid in merging the two. The work, although produced in 2013 is now significant in light of recent journeys made by refugees seeking escape from war-torn lands, travelling by sea to find freedom via displacement. This theme of seeking freedom may resonate with those aware of the current migrant crisis in Europe (BBC 2016). The subject of migration and public concern relates back to the work of Zarah Hussain's *Southern Colour* presenting local concerns regarding the presence of migrants. Both artworks allow for a subtler engagement of topics considered to be one of the most important issues faced by the UK public (2015). Perhaps this hybrid art provides an alternative perspective on the issues facing the changing population. By engaging with and adopting digital technologies in an age in which the digital is the norm, it might be more relevant to the wider public to view art of a hybrid nature, as it may provide an affinity with the hybrid community in which they are situated.

Another example of Syed's adoption of technology in art was in the use of a holographic display box to present a part animated piece *The Pen and the Sword*, as shown in Figure 11. In this artwork a calligraphic animation inspired by an antique pen case in the Cartwright Hall's permanent collection was produced.



**Figure 11:** Still from *The Pen and the Sword*  
© Soraya Syed 2015

The display was an integration of the static display of the pen case and the animation in 3D form appearing to soar out through the pen case, binding the two together in presentation. The alternative materiality of the animation, juxtaposed against the physical presence of the pen case, gave the impression that the two held an equal relevance for the viewer. In combining the old with the new, Syed presented a continuity in Islamic art not reliant on specific form or medium, contributing to another form of hybrid art that could be termed digital Islamic art.

## 5. CONCLUSION

In this paper I have presented my artistic practice in using a combination of traditional Islamic aesthetics with digital technologies. These artworks have been informed by and address the subjects of hybridity through their own hybrid nature whilst adhering to Islamic artistic aesthetics. As a result, I have considered applying the hybridised term of digital Islamic art to describe these artworks. I have also presented examples of artworks by artists Zarah Hussain, Sama Mara and Soraya Syed who have also combined traditional Islamic aesthetics with the use of digital technologies to produce hybrid art. In exploring examples of digital Islamic artworks, I have considered the possibility of these being an apposite form of art for exploring and conveying the topics of hybridity in culture.

In continuing research on the topic of digital Islamic art I propose a study to understand how hybrid artworks might be interpreted by an audience of the general public. An exhibition would showcase digital Islamic artworks and would incorporate quantitative and qualitative data retrieval via an exit questionnaire. By allowing the audience to describe

the artwork themselves, there would be the opportunity to understand if these types of artworks are recognised as hybrid at all, or merely identified as Islamic, digital, or even less specifically, as just contemporary art.

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