Religious Constraints as Catalyst for Innovation
A call for Muslim-friendly Design

ABSTRACT
Misunderstanding the importance of Religious constraints has been working as an obstacle in the field of creative designing. Both Western and Eastern designers tend to regard Islam in a limited perspective that, according to some of them, is a hinder against creative designing. This paper aims at clarifying such misunderstanding offering several suggestions and examples showing how Islam can be a trigger to creative as well as functioning designs in different fields. Such new friendly designs, though dedicated initially to Muslims, can be of equal benefit to various groups that may or may not be of the same religion.

1. INTRODUCTION: DESIGN CONSTRAINTS

Design, as a longstanding human practice, has always been shaped according to the human lifestyle. The practice is often seen as both a mirror and an agent of change (Moalosi et al. 2005); it can play a role in making our daily lives easier, and offer a practical solution to a great number of problems. Another inherently human practice that is similar in importance but not necessarily in definition is ‘religion’, an unwavering part of human culture and a universal human tendency to abide by a belief system that makes life meaningful. Whatever the religion may be, one may say that, it is evident that the human religious practice has constantly influenced the design practice in some form, whether it was architectural design of worship houses, or small designed product that may adhere to a religious symbol.

Design is demanding the need ofvarious constraints, since such constraints setlimitations that eventually can define the shape and functionality of the realized product. The word ‘constraints’ is also meaningful when speaking of the Islamic religion, and is perhaps even more significant. Islamic constraints play a vital role in the religious practice that is carried on by a huge Muslim population worldwide that cannot be overlooked. What is important in this context is to consider how both design and religious constraintscan be combined into one; in addition, howIslamic constraints can serve and inspire the design practice and innovate the final product.

Despite the attempt of integrating Islam in design not being an alien idea, such integration underlies several cognitive issues.It will be discussed later in this paper, how products influenced by Islamic constraints rely more on spiritual function rather than practicality. However, the main notion that is in need of change is how the religion, Islam,may stand in the way of cultural progress and development, as some may perceive the constraints created by religion, and specifically Islam, as an oppressing discourse in any society. The goal here is prove the validity of the counter argument, and in this paper it is discussed that instead of preventing progress and innovation,Islamic constraints can in fact initiate it when it comes to designed objects.

2. CULTURE AS THE MAIN INFLUENCE

One of the main aspects that influencesdesign constraints is ‘culture’.Studies in linguistics, anthropology and sociology describe culture as a phenomenon that resulted from an evolutionary process in human civilization that integrates societal features such as language, customs, religion and arts. It has been commonly believed that culture has a profound influence on all aspects of human life (Schwartz, 1997; Zhan, 1999; Hofstede,2001; Salimi, 2002; UNESCO, 2002; Yaveroglu and Donthu, 2002),including design being a unique human activity, to be influenced by culture as well. Nonetheless, the influence is present the other way around; design can actually push cultural development forward (Lin, 2007).Cultural features create constraints that can serve as a catalyst for innovation (Moalosi et al. 2005a).It is sensible to say that considering culture features during the design process can inspire diverse ideas and lead to designers’ creativity (Razzaghi and Ramirez, 2006). This process is related to a new design vision called ‘Strategic Design’ which links the culture of product to the emotional culture of the society (Lucchio, 2009). It is widely believed that culture is a vital part in an individual’s personality (Lambourne et al. 1997), therefore inducing cultural features in a design enhances the individual experience of the target consumers, and consequently, the identity of the product in the global market (Handa, 1999; Yair et al. 2007, 1999).

According to Ho (1996), products based on cultural features require a process of rethinking and reviewing the cultural features themselves and then inventing something consistent with the culture and give aesthetic satisfaction to the consumers. However, it is worth mentioning that the phenomenon of culture is often not easily understood and translated by designers, due to lack of in-depth research as well the ambiguity of the term(Moalosi et al. 2007). Accordingly, it is important for designers not just to challenge themselves and develop a deeper understanding of the target culture, but also create an area of focus that would have its specific features that lead to useful design constraints.

3. RELIGIOUS CONSTRAINTS

Religion is one of the main factors that define any culture andthroughout history religion was the most significant field of expression designers made use of (Lucchio, 2009).In other words, religious beliefs, teachings and practices havecreateda lifestyle for many consumers and thus create constraints useful for the design field. This ultimately helps in making what sociological disciplines call an ‘Economy of Religion’; and thus perceiving religion not only as a profound human expression but as a practical activity that require objects and facilities to aid its experience (Lucchio, 2009).Such constraints may be highlighted in the following.

3.1 Islamic as a Constraint

Religious constraints are naturally delineated based on the religion itself; the target religion chosen here is Islam, which is the world’s second largest religion.In the early centuries, Islam as a new religion inspired many innovations in art, product design and architecture, which is verypresent and visible in the Middle Eastern, Asian, Turkish, Spanish and Persian cultures.Muslims, who make upmore than one billion of the world’s population, lead lives that are shaped by their religion’s guidelines, or as we can call it here, constraints. All the same, the religious constraints

in Islam are evidently very unique, and they can serve as an initiating force for a wide range of design ideas, which can satisfy many Muslims and help them practice their beliefs. The problem lies in the fact that this design approach is unfamiliar to the western producer, who may fail to understand the religious and practical needs behind it. On the other hand, the Muslim producer does not often recognize the opportunity offered by these constraints.

3.2 Halal vs. Haram

One of the main issues is that Islamic religious constraints have been repeatedly identified through the frame of '*Halal*' and '*Haram*'. 'Halal' isan Islamic assessment that dictates what is permitted, while what is strictly notpermitted is referred to as'Haram'. Similar to the Kosher industry, the 'Halal vs. Haram' law has been usedto create an industry for Muslims, especially ones living in non-Muslim countries, and by time it has become overly used by producers evenidentified as the sole guideline that Muslims live by. In the original sense, the 'Halal vs. Haram' label was not like a chess game with contestants; in Islamic theory, everything is 'Halal' and permitted, it is the way things are used that make them Haram. For instance, alcohol is permitted as a disinfectant but drinking the substance is haram. Equally so is the use of swine reprocessed products like gloves or shoes out of the skin, but eating the meat is strictly haram.It is important to mention that the Halal vs. Haram constraint can actually only be applied in matters that deal with food products and banking services, not in product design, which is why the use of the label when it comes to design is quite irrelevant

Accordingly, if we were to design a product for a Muslim consumer to make their religious practice more convenient, the product should be defined as 'Muslim-friendly'not as 'Halal', in that way the product will not be seen as just 'permitted' but as something that aids the Muslim in their habits and duties.Another reason that makes the 'Halal' label inadequate is the fact that it usually carries the connotation that any other product is 'Haram', whereas the 'Muslim-friendly' label does not imply that. Furthermore, to label a product as 'Halal' or 'Haram' requires religious authorities and approval, while the 'Muslim-friendly' label merely requires the approval of the market and target consumer.

4. PREVIOUS ATTEMPTS

As previously mentioned, Religion plays a vital role in culture,as it is full of features that can be incorporated by designers. However, the issue here is that when it comes to a product influenced by Islamic culture, the attempts have usually been concerned with the outer appearance; integrating an Islamic aesthetic feature in the design, to make the product deal with symbolism and emotion rather than functionality. Islamic designs can be commonly visualized as a product with an Islamic pattern or calligraphy, which conveys how limited the definition of design has become when it comes to this religion. Still, it is common however that any faith-based designs usually prioritize spiritual experienceand how it can be induced aesthetically in the product. This supports the argument ofLee (2004), that designers are reducing the understanding of major topics and aspects of culture to merely identifying aesthetic stereotypes.

As an attempt for a change, “Design for Faith”, a western design research project, was initiated aiming at creating new contemporary looking, material-wise and up-to-date products, that are not only functional but meaningful and symbolic, for the three main monolithic religions present in Europe, Islam being one of them. The project followed a semantic approach due to the conflicting symbolic and figurative role of objects as viewed by each religion. A prime component of this project was the creation of a “Meta-Concept” for each religion which enabled the students of Sapienza Università di Roma to identify and creatively realize an actual product for each Faith. The main concern here is the Meta-concept defined for the Islamic religion which was one of “memory, adaptation and order and about the need of rules to show the rhythm and the meaning of the everyday life”, (Lucchino, 2009). The practical outcome of the project concerning the Islamic religion was an electronic organizer and clock that would remind devout Muslims of the time of prayers. Lucchino attributes the choice of a clock to the idea that the Islamic religion, does not have “much objects” and therefore, the key theme was the “immaterial sign”, which was interpreted as an “interactive object” that helped Muslims to manage the five daily prayers which she finds as the main practice in Islam. Unfortunately Eastern designers also take this direction; the “Azan” clock was designed for the same purpose but takes the shape of the Madinah Mosque in Saudi Arabia. The clock integrates microchip software, which is supposed to be programmed to determine the prayer times for Muslims living far from Mosques. There have also been numerous mobile devices and applications that serve the same purpose like the Emirate 1, the LG Qiblah and the Ilkone i800 (Block, 2004; Escarlate, 2004; Rojas, 2004), which also integrates GPS technology to determine the “qibla”, the direction of the prayer.

This Meta-Concept chosen for this project displays how Islam was perceived as a thing of the past and was based heavily on Sufi principles. It also sounds like Islamic interlaced star patterns or repeated motifs seen decorating the surfaces of Islamic artifacts or the walls of Islamic architecture. It also echoes a western‘stereotypical’ view of Islam that only includes concepts like “order” and “adaptation”. What this view seems to lack is the comprehension of Islam aspractical requirements and how Muslims apply them in everyday situations in their everyday lives. The religion is considered as a lifestyle for many Muslims, not only as a series of rituals or a spiritual resort.For example Muslim prayers are the spiritual part but they are always preceded by an obligatory practice of ablutions, i.e.. Ablution or Wuduu’ simply is a series of steps taken by Muslims to wash different parts of their bodies; its purpose is to be clean and spiritually pure before performing prayer. This practice of ablution requires redesigningcurrent bathrooms, a point to be discussed later in this paper.

Norman (1998) has divided cultural products into three levels of design features: the visceral design, which is concerned with the appearance; the behavioral design, which is concerned with the behavior and function of the product; and the reflective design which is concerned with the emotion and cognition of the cultural aspect. In the examples above-mentioned, the designers have adapted the visceral and reflective levels of design, whereas the behavioral level was not achieved. In other words, the designers did nottake advantage of the Islamic features and constraints to benefit the practical function of the product.

As previously stated, the aim of a ‘Muslim-friendly’ product is to make the religious practice or habit easier and more convenient and flexible. In these examples however, the Muslim user is being merely reminded of performing the prayer or alarmed of their times. This does not ease the practice itself; in fact it hardly interferes with it.

The desired outcome suggested here should be that the practical function itself is what represents the religious features, not the symbol, aesthetic form or spiritual function.

5. EXAMPLES OF MUSLIM-FRIENDLY PRODUCT

The direction of products suggested by this paper aims at easing certain actions and activities that are unique to Muslims, whether they are performed for the purpose of a religious ritual, or as ausual daily activity.The goal here is to integrate the function of the product directly with the action itself, rather than leading to it (eg. Alarm clock leads to prayer). The design ideas discussed below are attempts to fulfill this goal.

5.1. Ablution Shoes, for ‘Wuduu’

A vital part of being a practicing Muslim is performing daily five prayers at different times of the day. Before each prayer Muslims are required to perform ablutions, known as ‘Wuduu’ which includes washing the feet. Several problems arises from this action in particular, the main one is the necessity to take off one’s shoes (and socks sometimes), which results in a hassle and crowds of people taking off their shoes which delays the prayer, not to mention the shoes can get stolen if left aside and if not, they may turn into a burden. In the same discourse, the wet feet after washing usually cause the carpets in praying areas to turn damp and smelly.

While some have tried to offer a solution by making organized shelves for shoes, the problem still persists. However, it is important to realize that most shoes worn by Muslims are made, or at least inspired by, a western design, and thatthis design is in fact not practical for Muslims who take off their shoes occasionally to perform a religious ritual everyday, which is why the solution not considered and suggested here is to rethink and redesign the idea of the shoes itself to be more ‘Muslim-friendly’.

Shoes made with this constraint in mind can be made to be worn during ablution, so that there would be no need to take them off. There can be design solutions that turn the shoes into a slipper, or divided into separable parts so that the base is removed, or even with the possibility to be covered and worn during prayer. Design can offer endless ideas in this matter that can revolutionize the form of modern shoes in this light. If such a design is attained, it will save the money-needed for shelves, prevent possible theft and above all keep the praying area clean and dry.

5.2 Ablution basins

Within the same regard, there is another problem regarding washing the feet during ‘Wuduu’, which is in the difficulty of lifting the feet up to the basins for water. Most Muslims take it the easy way and wash their feet under the basin, while others

go all the way up, which usually results in the splashing of water around the basin and a constantly wet floor. This issue can be solved if the basin was designed to have adjustable heights, and lowered down. Or it can be designed having two fixed levels. A solution like this will not just benefit the elderly or people physically incapable of lifting their feet up, it will benefit children alike.

5.3 Single Cutleries set

One of the constraints present on Muslims regarding food is that they are advised to eat with their right hand. It is not a required duty as the prayers, but rather a preferred habit adapted from the prophet of Islam. The usual cutleries eating tools used by most Muslim societies are the common fork and knife, as an eating tool with the left hand, and a cutting tool with the right hand respectively. This forms a famous obstacle when most Muslims eat, as they find themselves switching the fork and knife after cutting their food in order to hold the fork and eat with their right hand asadvised.

A simple solution for this is redesigning the fork and knife to be only one tool, held solely by the right hand. There have already been attempts to merge eating tools, like the spoon with the fork, and a knife with a spatula, therefore merging the fork with the knife in one design is not an impossible idea. Not only can this design benefit Muslims who prefer to eat with their right hands, but can also benefit handicapped people who are forced to eat with one hand. It can also prove to be useful in stand-up parties where people only have one hand to eat with and hold their plates with the other. Needless to say, a design like this can inevitably benefit other target groups.

6. CONCLUSION

Muslim-friendly products are an attempt to involve design with the personalpractical lives of Muslims. It is also a wayto see religious constraints in a different light, instead of being conflicting or indifferent to cultural development, it can serve as a catalyst for it. The idea of adapting religious constraints into practical products is not alien to other religions. There is already a whole line of products called ‘sabbath-friendly’ which serves Orthodox Jews. From kitchen and home appliances to elevators and vehicles, the products have a great versatility and display full range of innovation(Gorman, 2009).Similar approaches can be found in Hinduism and Buddhism, which have products that are not limited to statuettes of their gods.

Ultimately, it is a matter of rethinking Islamic constraints and being aware that they are not just a question of what is Halal or Haram. All of the ideas suggested above, whether it was a shoes or a cutleries set, they are initially and undoubtedly ‘Halal’ products, but the modification of them is what earns them the label ‘Muslim-friendly’. Therefore, it is important that designers develop an appropriate understanding of design innovation from this perspective, and turn usual everyday products into Muslim-friendly’ones. It is also a matter of rethinking the way design and Islam collide and look beyond the symbols of patterns, calligraphy or modeled mosques.

Islam as a part of the religious culture of a huge worldwide population is a rich market to make use of.The result of such venture will not just bring satisfaction to a

lot of Muslim consumers but also bring by economic growth as well as balance the force of globalization in the market(Razzaghi and Ramirez, 2006).Nevertheless, to assume that only the billion Muslim consumers of the world will benefit from this product-line is quitea fallacy, as we have come to realize that there are many chances that non-Muslim consumers with similar needs or activities can benefit from such products.It all comes back to the design industries of the Middle East and Muslim world, and on them realizing the impactand the positively influential results of the stated design vision.

REFRENCES

Block, R. (2004) "LG's Qiblah Jumps on the Islamic Bandwagon – Engadget." http://www.engadget.com/2004/07/27/lgs-qiblah-jumps-on-the-islamic-bandwagon/(accessed May 22, 2008).

Escarlate, A. (2004) "Do you know the way to Mecca? – Engadget." http://www.engadget.com/2004/07/15/do-you-know-the-way-to-mecca/ (accessed May 22, 2008).

Gorman, C. (2009). Religion on Demand: Faith-based Design. *Design and Culture,1*(1), 9-22.

Handa, R. (1999). Against arbitrariness: Architectural Signification in the Age of Globalization. *Design Studies, 20*(4), 363-380.

Ho, M. C.; Lin, C. H.; and Liu, Y. C. (1996). Some Speculations on Developing Cultural Commodities. *Journal of Design*, 1(1), 1-15.

Hofstede, G. (2001), 'Cultures's Consequences: Comparing Values, Behaviors, Institutions, and Organizations across Nations', (2nd ed.), Sage Publication, Thousand Oaks.

Lambourne, R., K. F. and Rigot, B. (1997). 'Social Trends and Product Opportunities: Philips Vision of the Future Project', Paper presented at the CHI97 (Computer-Human Interaction) Human Factors in Computing Systems, Atlanta, Georgia, USA.

Lee (2004) Design Methods for Cross-cultural Collaborative Design Project in Redmond, Durling and De Bono (Eds.) Design Research Society international conference: Futureground, Melbourne, Australia, November 17-21

Lin, R. T. (2007). Transforming Taiwan Aboriginal Cultural Features into Modern Product Design: A Case Study of a Cross-Cultural Product Design Model. *International Journal of Design, 1*(2), 45-53.

Lucchio, L. (2009). 'Design for faith. A performative change, from design of function to design of meaning', Paper presented at 8th European Academy Of Design Conference, Aberdeen, Scotland.

Moalosi, R.; Popovic, V.; Hickling-HudsonA.; and Kumar, K. L. (2005) Integrating Culture within Botswana Product Design, International Design Congress, Yunlin, Taiwan, November 1

Moalosi, R.; Popovic, V.; and Hickling-Hudson, A. R. (2007) Culture-Orientated Product Design. In *IASDR07: International Association of Societies of Design Research 2007, Emerging Trends in Design Research*, 12-15 November 2007, Hong Kong.

Norman, D. (1998) *The Invisible Computer: Why Good Products Can Fail, the Personal Computer Is So Complex, and Information Appliances Are the Solution.* Cambridge, Mass.: MIT Press.

Razzaghi, M.; and Ramirez, M. (2006). The Influence of the Designers' Own Culture on the Design Aspects of Products.

Rojas, P. (2004) "The Emirate 1 – The first Pocket PC Phone to Help You Pray towards Mecca – Engadget." http://www. engadget.com/2004/03/03/the-emirate-1-the-first-pocket-pc- phone-to-help-you-pray/ (accessed May 22, 2008).

Salimi, A. (2002). 'Design for Cultural Differences'. Paper presented at DETC 2002, Montreal, Canada.

Schwartz, S. (1997), 'Values and Culture' in Motivation and Culture, Munrco, C. D. and Schumaker, J. (Eds.), Routledge, New York. pp. 69-84

UNESCO (2002), 'Cultural Diversity; Common Heritage, Plural Identities'. Paris: UN.

Yair, K.; Press, M.; and Tomes A. (2001). Crafting competitive advantage: Crafts Knowledge as a Strategic Resource. *Design Studies, 22*(4), 377-394.

Yair, K.; Tomes, A.; and Press, M. (1999). Design Through Marking: Crafts Knowledge as Facilitator to Collaborative New Product Development. *Design Studies, 20*(6), 495-515

Yaveroglu, I. S. and N. Donthu (2002), 'Cultural Influences of the Diffusion of New Products', *Journal of International Consumer Marketing*, Vol. 14, No. 4, pp. 49-63

Zhan, S.E. (1999), 'Marketing Across Cultures', *World Trade*, Vol. 12, No. 2, pp. 80-81