UNIVERSITI PUTRA MALAYSIA

COLOR COMPARISON OF IRANIAN TRADITIONAL ARCHITECTURE INTO TELEVISION STUDIO SETS

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By

MALIHEH BAHARI POOR FARKOOSH

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfilment of the Requirements for the Degree of Master of Science

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DEDICATION

Thanks my greatest God who blessed me every beauties and happiness in universe with the gift of adorable family.

I dedicate this thesis to my lovely family who helped and supported me patiently during my study life. I dedicate my dissertation work with special feeling of gratitude to my pure heart parents, Hossein and Zahra, who dedicated their life to me.

I dedicate also, this dissertation to my plenty kind and supportive brother, Hamid-Reza, who has never left my side and whose words of encouragement and push for tenacity ring in my ears.

It is dedicated also to my peaceful, merciful and brave people of Iran.

Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science.

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July 2013

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A national television channel should contain national contents in order to have acceptable representation of the nation through its historical and cultural backgrounds. Novel aesthetic approach to television besides modern intellect of architecture, as will be argued in this thesis, opens a way to compare television with other arts such as architecture. In this thesis, following to the argument above, Iranian national television and Iranian historical architecture have been focused as example. By concentration on Iranian historical architecture, one of the most influential Iranian architectures was specified and was suggested to Iranian national television people to consider it in their programs. Specifically in Iran, virtual media such as national television programmes should present contents that portray the representation of Iranian identity adapted from real media such as Iranian arts and architecture. These contents could appear in the topic or subject of the programmes or in design elements (e.g. forms, shapes, colours and textures) or symbols of spaces showed in the programmes. However, there are still lacks of studies on colour

comparison between these two media as well as the convenient technique for studio sets designers and television producers to estimate such comparison. Therefore, the aim of this research is to conveniently estimate the colour similarity of Iranian national television studio sets with one of the most influential architecture in the Safavid period i.e. Ali-Ghapoo Palace.

This study adopted a correlational research method by applying some statistical manipulations for comparison purposes. Sixty images of six studio sets from Iranian national television cooking shows and thirty images of Ali-Ghapoo Palace were collected. Numerical colour histograms of Red, Green and Blue were extracted from each image of both sets. Histograms of studio sets were then separately transformed to relative histograms by mathematical formula and this method was then applied to each chosen histogram of Ali-Ghapoo Palace. Subsequently, the resulting relative histograms of each studio sets were adapted mathematically to those of Ali-Ghapoo Palace; and finally, the resulting relative histograms of all studio sets were adapted together to those of Ali-Ghapoo Palace.

The results reveal that, out of six studio sets in total, two studio sets have intertwined histograms with those of Ali-Ghapoo Palace suggesting that these studio sets have many analogous colours with Ali-Ghapoo Palace. Another one studio set has separated histograms with those of Ali-Ghapoo Palace indicating that this studio set contains many different colours in comparison to Ali-Ghapoo Palace. Finally, after adapting all six studio sets with Ali-Ghapoo Palace, the result shows that all six studio sets, despite several diversities, are generally matched with Ali-Ghapoo Palace in terms of colour comparison. These results will potentially guide Iranian studio set designers and producers in adapting appropriate sets of colours in the future television programs in order to support and strengthen Iranian traditional identity.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Master Sains.

PERBANDINGAN WARNA DALAM SENI BINA TRADISIONAL IRAN KEPADA SET STUDIO TELEVISYEN

Oleh

MALILEH BAHARI POOR FARKOOSH

Julai 2013

Pengerusi: Zalina Shari, Pensyarah Kanan, PhD

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Satu Saluran Televisyen Nasional harus mengandungi kandungan nasional yang mempunyai perwakilan Negara bagi melalui latar belakang sejarah dan budaya.Dalam usaha untuk pendekatan estetik novel ke televisyen selain akal moden seni ,seperti yang akan berhujah di dalam tesis ini.ia akan membuka cara untuk membandingkan televisyen dengan seni yang lain seperti seni bina.Dalam tesis ini , bersambungan kepada hujah di atas,Televisyen Kebangsaan Iran dan Seni Bina Bersejarah Iran telah memberi tumpuan ke atasnya.Contohnya , salah satu seni bina yang paling berpengaruh di Iran telah ditetapkan dan dicadangkan oleh Orang Iran untuk dipertimbangkan dalam program mereka.Khususnya di Iran , Media Maya adalah salah Program Televisyen Nasional yang harus mengemukakan kandungan yang menggambarkan perwakilan identiti Iran yang disesuaikan daripada media sebenar seperti seni dan seni bina Iran.Kandungan ini boleh mucul dalam topic atau subjek program yang berunsur reka bentuk(contohnya bentuk ,warna dan tekstur) atau simbol ruangan yang ditunjukkan dalam program ini.Walaubagaimanpun , masih terdapat kekurangan kajian mengenai perbandingan warna antara kedua-dua

media serta teknik yang mudah untuk menetapkan studio pereka dan pengeluar televisyen untuk menganggarkan perbandingan itu. Tujuan kajian ini adalah untuk mudah menganggarkan persamaan warna Iran studio televisyen nasional yang menetapkan dengan salah satu seni bina yang paling berpengaruh dalam tempoh safavid iaitu Ali-Ghapoo Palace.

Kajian ini telah menggunakan kaedah penyelikan Korelasi bagi mendapatkan beberapa manipulasi statisik untuk tujuan perbandingan.Enam puluh imej dan enam set studio dari rancangan masakan kebangsaan Iran dan tiga puluh imej Ali-Ghapoo Palace telah dikumpulkan. Histogram warna berangka RGB, iaitu Merah, Hijau dan Biru telah dipetik daripada setiap imej kedua-dua set. Kemudian, histogram set studio akan bertukar secara berasingan kepada histogram relatif dengn menggunakan formula matematik dan kaedah ini kemudiannya digunakan untuk setiap histogram yang dipilih dari Ali-Ghapoo Palace. Selepas itu, disebabkan histogram relatif setiap set studio telah disesuaikan secara matematik kepada orang-orang Ali-Ghapoo Palace; dan akhirnya menyebabkan histogram relatif dari semua set studio telah disesuaikan bersama-sama dengan mereka Ali-Ghapoo Palace.

Keputusan menunjukkan bahawa daripada jumlah enam set studio , dua set studio telah terjalin histogram dengan orang-Ali-Ghapoo Palace yang mencadangkan bahawa set studio yang berkenanan adalah mempunyai pelbagai warna analogi dengan satu sama lain. Sebaliknya, salah satu studio telah dipisahkan dengan histogram Orang-Orang Ali-Ghapoo Palace yang menunjukkan bahawa set studio ini mengandungi pelbagai warna yang berbeza berbanding dengan Ali-Ghapoo Palace. Akhirnya, selepas menyesuaikan semua set studio enam dengan Ali-Ghapoo Palace,hasilnya menunjukkan bahawa semua enam set studio ini, walaupun beberapa,kepelbagaian warna apabila dipadankan dengan Ali-Ghapoo Palace dari

segi perbandingan warna.Keputusan ini berpotensi dan ia akan membimbing pereka set studio Iran dan pengeluar dalam penyesuaian set warna yang sesuai dalam program TV masa depan dalam usaha untuk menyokong dan mengukuhkan identiti tradisional Iran.

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DECLARATION

I declare that the thesis is my original work except for quotations and citations which have been duly acknowledged. I also declare that it has not been previously, and is not concurrently, submitted for any other degree at Universiti Putra Malaysia or at any other institution.

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MALIHEH BAHARI POOR FARKOOSH

Date: 25 July 2013

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coefficient with Ali-Ghapoo Palace

LIST OF ABBREVIATIONS

TV:	Television
RGB:	Red, Green and Blue histograms
O_l:	Overlap function
O.C:	Overlap Coefficient
AKAA:	Aga Khan Award for Architecture
UNESCO:	United Nations Educational, Scientific and Cultural Organization
MIT:	Massachusetts Institute of Tech nology
FLOW:	critical forum on media culture and television published by the Radio, Television and Film Department of University of Texas, Austin
CBIR:	content based image retrieval
NHK:	Broadcasting Corporation of Japan
IRIB:	Islamic Republic of Iran Broadcasting
JPEG:	Joint Photographic Experts Group

CHAPTER 1

INTRODUCTION

1.1. Overview

Architecture as a social phenomenon is extracted from the culture of people and affect on it (Beheshti, 1999). It also has direct interaction with its own viewer without the need of sender and receiver, so based on post modernism it could be considered as a real media. On the other hand, television is a virtual media which depends on technology of sender and receiver with its own audience. Therefore, both of television and Architecture could be considered as independent media (television as a virtual media and Architecture as a real media which their audience can feel them in real world) (Colomina, 1996). In traditional view, television was considered as a medium to deliver other arts but nowadays, specifically in post modernism point of view, scholars consider television itself as an art. So, television programmes are comparable with other arts, sharing with them 'representational or artistic' and often 'fictive or imaginative' qualities (Cardwell, 2006).

Moreover, one national television channel could be defined by national contents with national identity of its own culture. These contents could be appeared in each programme of television, hide or unhide, by elements or symbols in textual contents, spaces which that programme are sited on it (Smith, 1991).

Architecture is extracted from culture and affect on it and is a mirror of human thoughts in close relation with space, aesthetics, and culture. Therefore, architecture of each period is considers as a reflection of culture and art of that period and is relevant to the evolutions occurred in other aspects of life and art (Beheshti, 1999). There is more than 6000 years that architecture has continuous history in Iran which is divided into many periods based on political conditions, locations and etc. Accordingly, it has been divided into two major eras: Pre-Islam and Islamic era. There are important historical architectures from both eras which have great influence to other architectural periods and their styles. Furthermore, although colour was used extensively in all periods of Persian architecture, the most significant period in terms of colour usage in Persian architecture is Islamic era (Pope, 1982). It is believed that one of the most influential periods of Islamic era is Safavid period with the significant city of Isfahan. Naghsh-e-Jahan's square in Isfahan city is the 6th largest square worldwide which Ali-Ghapoo Palace is one of the most important architectures in it (AKAA, 1980).

On the other hand, modern architectural discourse is considered as the intersection of various representations such as models, drawings, books, photographs, films, and advertisements. Television is one of these representatives in which studio sets are one of the most important parts. Studio sets assist television programmes to express target of the programmes more comprehensive and coherent. There are four kinds of studio sets based on the programme's massages: represential-supportive, symbolic, realistic or replica and fantasy sets. Colour, shape, form, texture etc. are helpful tools for studio

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sets in order to achieve its aim (Cyber College: Internet campus, n.d.). Colour is one of the perceptual characteristics of each television images which helps to deliver the target message of television programme more coherent.

A television image can be considers as a digital image that is made of pixels. The colour digital image pixels are made of combinations of primary colours which represent the digital colour by Red, Green and Blue channels. A colour histogram in digital images, which is known as colour distribution, is representative of the number of pixels with colours in a fixed set of colour ranges. In other word, colour histograms in digital images span the colour space of digital images and show the set of all possible colours (Henshall, 2005). Image comparison and retrieval, object tracking, colour adaptation, analyses and normalization (Pass & Zabih, 2001; Gershikov et al., 2007; Kinnareea et al., 2011), in applications such as measurement of co-localization of image (Manders et al., 1993), syntactic and psychological colour-mood analysis of films (Yu Wei et al., 2005) are some examples of studies based on digital colour image. According to these statements, a study with aesthetic perspective to national television programmes and with a computable colour estimation method may be interesting.

1.2. Problem statement

In"National identity" it is suggested that a sense of belonging or unity is felt by inhabitants with regard to their residence in a common national space and even in contrast with the cultural and social differences of their nation (Higson, 2002, p.354). According to Anderson (2006, p.6), a nation can be

considered as an "imagined community" when the sense of communication between members of a nation is limited who "will never know most of their fellow-members, meet them, or even hear of them". The imaginative link between people reviling the cultural nature of "national identity" and emphasising that national identity is not purely physical or biological process is something that is learned consciously or even subconsciously (Higson, 2002). In this stream, the importance of media in constructing a common sense of unity or national belongings in a nation can be understood which becomes increasingly significant in the particular case of television because of its outstanding capacity. The significant increase of selling television programmes to overseas markets in recent years is a successful practice of adapting them to the target national sensibilities (Beeden, 2010).

A national television channel (as a government-funded public broadcast) could integrate national contents that reflect national identity by showing the characteristics of the nation's own culture. There is a need for national contents in national television channels to have a better connection with their own audience. In this stream, Price (1995, p.4) in "Television: The Public Sphere and National Identity" stated that:

> *"Each nation thinks it is important to teach its own history to its children. Monuments constructed in public squares are important for more than their time. They are temples of remembrance, building loyalties for the future... Even in a world exploding with information, there is a role for a*

government-funded public broadcasting system that will enrich

and help to define and reflect the national identity."

These national contents could be appeared in television programmes by displaying elements or symbols in textual contents as well as spaces in which the programmes are sited. National television needs national content even hide or unhide to have a better connection with its own audience. Depletion of national contents in a national television programme is a serious issue within the national television organisation and addressing this issue is necessary and important. For instance, in the first decades of the twentieth century, there were many influences of American border broadcasts on Canadian television and this caused less audience for Canadian television. Consequently, since 1952, reformations were made to the following three main issues: 1) threat of American influence; 2) language (as a national identity) division; and 3) government's response to both of these. After these improvements were made, the number of Canadian television audience drastically increased (Michel, 1996).

In another side of the world i.e. Iran, there is a huge gap between Iranian traditional art (architecture, literature, music, painting and theatre) and television and cinema. Since, television and cinema were born and developed along with technological advancement in the West, they carry the Western identity and therefore potentially have great discontinuity with the concepts of Iranian national culture (Fahimifar, 2011). Advancement of television in different locations together with incorrect policy making because a potential (but not necessarily) discontinuity between content of television programmes

and national identity of Iran. The discontinuity arises from incorrect policy making and as a result lack of methodological research on this issue. This clearly shows that studies on Iranian national television are important to preserve the national culture of the Iranian society in order to improve perceptual connections with audience and to increase television popularity. However, little methodological research has been conducted to close the gap between television organizations and television researchers in Iran (Valinemati, 2011).

In general, television organizers or managers should examine whether their programmes fulfil their intended purposes (Yu Wei et al., 2005). Since many scholars consider television as a medium to deliver message to audience or observers, audience themselves should play the role of evaluating television programmes (Pearson, 2010; Ikawa et al., 2010). Another evaluation technique is based on literary content evaluation (Cardwell, 2006). It is only since the late 1970s that scholars have started to express their thoughts that television is not just a medium but rather a form of art, comparable to other forms of arts, based on aesthetic elements (Metallinos, 1979). This viewpoint leads to a study that analyses the fundamental units of television programmes such as colours and lights, cameras, editing, and audio to explain their collaboration in producing programmes. This approach also, highlights the fundamental compositional principles of programmes to examine the various production techniques in the areas of staging, lighting, audio, and editing (Thorburn, 1987). Since, there is an extreme aesthetic discontinuity between Iranian television and the concepts of Iranian traditional art; studies to decrease this

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aesthetic discontinuity become highly relevant (Fahimifar, 2011). These arguments show the nobility and importance of this approach in television studies, which may help television artists to examine their products based on aesthetics view instead of communications approach.

On the other hand, each of architecture, literature, music, painting and theatre make dimensions of television and cinema. For instance, in the field of architecture, studio set and stage, as architectural and physical space in television and cinema, were indebted aesthetic concepts of architecture (Fahimifar, 2011). Since, the visual perception is the first basis of continuing the communication or disconnection and is the best scale of evaluation, then, grace of studio sets and stages can have a major contribution in communication with the audience (Abhari, 2012). For instance, according to the two lacks mentioned before, Mohammad Ghaeli (2012) and Majid Eskandari (2011) in their dissertations stated the importance of attention to studio sets of Iranian national televisions. They carried out their studies by aesthetic approach to television shows of Iranian national television and focused on colour, shape, texture and other elements of visual images in studio sets to make image of Iranian television shows more picturesque with Iranian traditional concepts. In addition, colour is one of the most important aesthetic elements of visual images, and because digital images are widely used in different fields such as experimental and computer sciences and also photography and movie, many digital image estimations, adaptations or approximations based on colour were done (Gershikov et al., 2007; Kinnareea et al., 2011; Sawahataa et al., 2008; Manders et al., 1993; Mizuno et al., 2005).

However, these studies were conducted by using complex algorithms in the field of computer programming (Pass & Zabih, 2001). None of these studies used a convenient method that can be applied by television producers, artists or designers to examine television programmes based on colour; hence, this issue is addressed in this study.

From the above discussion, there are three research gaps identified; hence, addressed in this study: 1) lack of adequate methodological research on Iranian television and this has contributed to the deep gap between television researchers and television organizations; 2)lack of studies to reduce the aesthetic discontinuity between Iranian national television and the concepts of Iranian traditional art; And 3) lack of convenient method for television producers, artists or designers to self-examine colours of their television programmes .

1.3. Research question

The aesthetic approach to Iranian television programmes based on Iranian traditional arts is an important concern to Iranian television scholars. Therefore, this research looks for an approach to interlink Iranian national televisions with Iranian traditional arts, specifically architecture. Hence, this thesis addresses the following research question:

"What is the amount of colour comparison of studio sets in Iranian national television cooking shows to Persian Architecture, particularly in Ali-Ghapoo Palace by using of a convenient technique?"

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In order to answer this question, the following three sub-research questions were formed:

1) What is the colour pattern of Ali-Ghapoo Palace, one of influential buildings in Iranian architecture, which reflect the national colour identity?

2) What are the colour patterns of cooking show studio sets in Iranian national television channels?

3) what is the convenient method to be used to examine television programmes based on colour

1.4.   Research aim and objectives

The research aims to conveniently estimate the colour comparison of Iranian national television with an Iranian architecture. Specifically, it involves a comparison of cooking show studio sets in Iranian national television with Ali-Ghapoo Palace based on RGB colour histogram.
The objectives of this research are:

1) To analyse the colour patterns of Ali-Ghapoo Palace and find out the reference histogram that reflects the national colour identity;

2) To analyse the colour patterns of cooking show studio sets in Iranian national television channels;

3) To conveniently estimate the amount of colour similarity between cooking show studio sets and Ali-Ghapoo Palace.

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1.5. Research focus and limitation

This research focuses on television studio sets as they are the architectural and physical spaces in television and cinema, designed based on aesthetic concepts of architecture (Fahimifar, 2011). There are many programmes with studio sets in Iranian national television and these include news, movie series, sport programmes and training shows. Movie series and training shows usually have realistic studio sets; although, some are produced outdoor. For instance, most of movie series are produced in real locations such as houses, stores etc. without using any built-up studio sets, and some of them, depending on their content and type, are produced in studio locations (for instance television-theatre series). Training programmes however, are usually produced in studio sets which involve considerable details to hold up from various camera angles. Such programmes include cooking, art training, medical advice for families, psychology training for child keeping and other types. So, any television shows with realistic studio sets could be chosen but for the purpose of this research, cooking training shows have been selected just because of limitation of access to television achieves. There were many cooking shows in Iranian national television but only programmes with built studio sets are selected. To have better category without influence of daily tastes, programmes have been chosen within long duration. Therefore six cooking shows broadcasted in Iran national TV 1 and 2 (I.R.I.B.1 and I.R.I.B.2) broadcasted in duration of 15 years have been selected.

With regard to the architecture of Iran, Ali-Ghapoo Palace, one of the most influential architecture from the Islamic era of Iranian architectural history,

was selected for the study. The palace was built in the Safavid dynasty, which is known as the most significant period in terms of colour usage in Persian architecture after Islam. It is placed as the crown of Naghsh-I Jahan Square, in Isfahan city of Iran, which was the main square of the capital city of Shah Abass 1st. Apart from historical value, the building itself becomes the referral source for a wide range of Iranians who could be the viewers of any Iranian national TV programmes, including cooking programmes. This is due to the fact that the users of Ali-Ghapoo Palace are not only the King but the peasant class of people as well.

In this study, only a limited number of images were selected. Using databases containing a large number of images make the manipulations extremely complex, which are in the scope of computer programming and image processing. The aim of this research however, is to develop a convenient technique to estimate colour similarity, and not a complex one. Therefore, only linear dependence of the histograms is probed in this research instead of other more statistically complex tools.

1.6. Research methodology

The methodology of this study is Correlational research. Random variables identified in this study were Red, Green, and Blue channel histograms collected from images of Ali-Ghapoo Place and cooking show studio sets. The histograms of studio sets were analysed by means of some statistically manipulations and discussed in terms of image appearance to fulfil the first objective. To achieve the second objective, the histograms of Ali-Ghapoo

Palace were analysed and the reference histograms were attained by averaging over different views. In order to attain third objective, Red, Green and Blue histograms of each studio set were compared with the reference histograms to find out the most similar colours and overlap coefficient were estimated to show the total amount of similarity.

1.7. Research framework

Figure 1.1 demonstrates graphic framework followed in this thesis. After image selection from studio sets, the numerical colour histograms of the selected images were extracted using Photoshop software (Color Picker tool). At first the resulting numerical histograms were equalized using Excel software to become comparable with each other. Then, the histograms averaged over images of each studio set and over images of each view of Ali-Ghapoo Palace. The averaging process was continued by averaging over different views of Ali-Ghapoo Palace to find out the reference histograms and also averaged over all studio sets to get the total histograms. The histograms of each studio set and/or total studio sets were compared with total histograms of Ali-Ghapoo Palace and the colour correlations were estimated at the end.
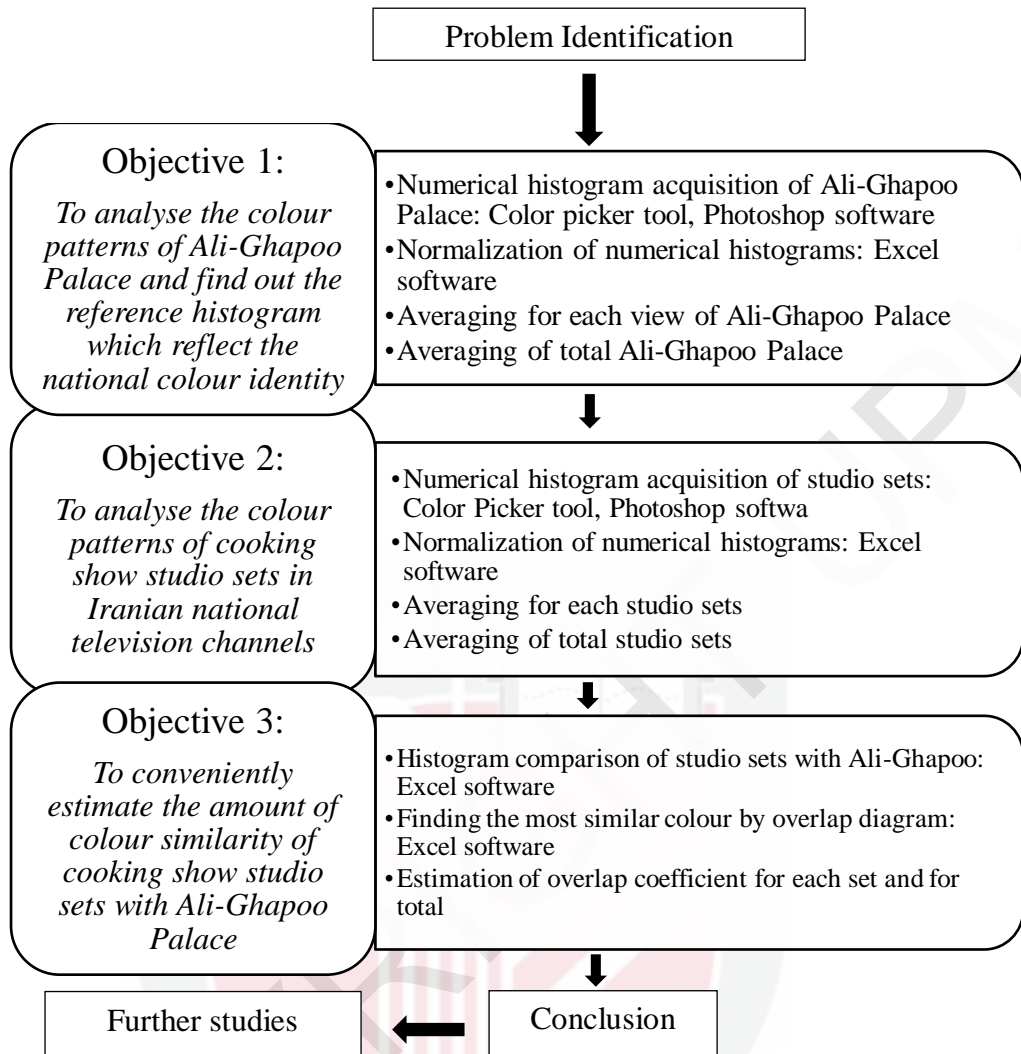
Figure 1.1: The graphical framework of the study.

1.8. Significance of research

This study introduces a convenient method which has the potential application for television managers, producers, and designers to self-estimate their programmes or products based on aesthetic elements. This method is based on aesthetics point of view to television which is a new and important approach to television. This research aims to make a contribution to the body of knowledge by developing a method that can be used to estimate the national content of television programmes by using computable parameters (colour

histograms of RGB channel from digital images) to facilitate elevated tools for organizing television programmes in personal storage.

1.9. Chapter organization

After introducing the background, problem and aim of this study, a brief description of the contents of next chapters of the thesis is coming at the rest of this chapter.

Chapter 2: This chapter first provides a review of the most influential Persian architectures. It then explores architecture as an approach to media followed by a review on television as a form of art. It concludes with a review on colour digital image and computable estimations of television programmes based on aesthetic elements and colours. Totally, this chapter highlights architectural history of Ali-Ghapoo Palace, architecture as media and television as an art, colour digital image and correlational research.

Chapter 3: This chapter discusses the methodological details of the study including research design, data sources, data collections and statistical methods of data analyses. Selected method of this study is Correlational research. Then we express how data are collected by using RGB channel histogram from images of Ali-Ghapoo Place and cooking show studio sets and how data are analysed by statistically manipulations.

Chapter 4: Presentations and discussions of the statistical results are the subject of this chapter. In particular, it discusses numerical RGB channel histograms extracted from Ali-Ghapoo Palace and cooking studio sets images

following by introducing dominant colours. Then by adapting numerical RGB histograms of Ali-Ghapoo Palace to Studio sets, similarities between them will be extracted. Finally, correlation coefficient of adapting each studio set to Ali-Ghapoo Palace will be calculated and compared to each other.

Chapter 5: This chapter summarises the research and states the conclusions. The possibilities of further research are suggested at the end of the chapter.

REFERENCES

AKAA. (1980). *Ali Qapu, Chehl Sotoun & Hasht Behesht.* Pakistan: Aga Khan Award for Architecture.

Ambrose, G., & Harris, P. (2005). *Colour*. Lausanne, Romandy: AVA publishing SA.

Anderson, B. (2006). *Imagined communities: reflections on the origin and spread of nationalism*, London: Verso.

ArchNet. (2002). Dictionary of Islamic architecture-Safavid. Retrieved November 5, 2012, from http://archnet.org/library/dictionary/entry.jsp?entry_id=DIA0826&mode=full

Arjmandi, H., Tahir, M., Shabankareh, H., Shabani, M., & Mazaheri, F. (2011). Psychological and spiritual effects of light and colour from Iranian traditional houses on dwellers. *Journal of Social Sciences and Humanities*, 6(2), 288-301.

Bauer, P, & Foster, J. (2002). *Special edition using Adobe Photoshop 7*. USA: QUE publishing.

Beeden, A., & Bruin, J. (2010). The Office: Articulations of national identity on television format adaptation. *Television & New Media*, 11(1), 3-19. doi: 10.1177/1527476409338197.

Beheshti, M. (1999). The relation between appearance and inner of Persian architecture. In *articles collection of architecture and urban of Arg-e-Bam (*Vol.2(2), pp. 357- 364). Tehran: Institute of Cultural Heritage.

Cardwell, S. (2006). Television aesthetics. *Critical Studies in Television: scholarly studies in small screen fictions*, 1(1), 72-80.

Chiang, C. (2003). *Statistical methods of analysis*. River Edge, Singapore: World Scientific.

Ching, F., Jarzombek, M., & Parkash, V. (2007). *A global history of architecture*. New Jersey: John Wiley & Sons.

Colomina, B. (1996). *Privacy and publicity: modern architecture as mass media*. Cambridge, MA: MIT Press.

Cyber College: Internet campus. (n.d). *Studio Sets*. Retrieved September 28, 2011, from http://www.cybercollege.com/sets.htm

Dorai, C., & Venkatesh, S. (2002). *Media computing: computational media aesthetics.* MA: Springer.

Eskandari, M. (2011). *Study on influence of colour, shape and texture on transferring religious-Koranic concepts of talking shows in Quran channel of Iranian national television* (Master disertation, University of Islamic Republic of Iran Broadcasting, Tehran). Retrieved from ProQuest Dissertations & Theses. (15664)

Fahimi Far, A. (2011). The aesthetic identity of media television, *Ravagh-e Honar va Andisheh,* 14, 30-45.

Filion, M. (1996). Broadcasting and cultural identity: the Canadian experience. *Media, Culture & Society*, 18(3), 447–467. doi: 10.1177/016344396018003005

Galdieri, E. (1984). *Esfahan, Ali Qapu: An Architectural Survey* (A. Jebel-Ameli, Trans.). Tehran: National Organization for Protection of Iranian Antiquities. (Original work published 1979)

Gershikov, E., Lavi-Burlak, E., & Porat, M. (2007). Correlation-based approach to color image compression. *Elsevier*, 22(9), 719–733. doi: 10.1016/j.image.2007.04.001

Ghaeli, M. (2012). *Provide a model for television dramatic shows based on paintings of Kamaluddin Behzad* (Master disertation, University of Islamic Republic of Iran Broadcasting, Tehran). Retrieved from ProQuest Dissertations & Theses. (2381)

Gill, M. (2000). *Color harmony: pastels: a guidebook for creating great color combinations*. Massachusetts: Rockport publishers.

Groat, L., & Wang, D. (2002). *Architectural research methods*. New York: John Wiley and Sons.

Hensel, M., & Gharleghi, M. (2012). Iran: Past, present and future. *Architectural design*, 82, 16-25. doi: 10.1002/ad.1401

Higson, A. (2002). Nationality: national identity and the media. In Briggs. A & Cobley, P. (Eds). *The media: an introduction* (pp. 354-364). UK: Addison-Wesley Longman Limited.

Ikawa, K, Fukuhara, T., Fujii, H. & Takeda, H. (2010). Evaluation of a TV Programmes Recommendation using the EPG and Viewer's Log Data. In Peng, C., Vuorimaa, P., Naranen, P., Quico, C., Harboe, G., & Lugmayr, A. (Eds.), *Adjunct Proceedings EuroITV 2010* (pp. 182–185). Tampre, Finland: Tampere University of Technology.

Kinnareea, P., Pattanasethanonb, S., Thanaputtiwirota, S., & Boonthoa, S. (2011). RGB color correlation index for image retrieval. *Elscvier*, 8, 36–41. doi.org/10.1016/j.proeng.2011.03.007

Mehrnews. (Interviewer), & Abhari, M. (2012, March 21). Sometimes the psycological quality of television studio sets is not noted. Retrived from http://www.mehrnews.com/detail/News/1562499

Manders, E., Verbeek, F., & Aten, J. (1993). Measurement of co-localization of objects in dual-colour confocal images. *Journal of Microscopy*, 169(3), 375-382. doi: 10.1111/j.1365-2818.1993.tb03313.x

Manning, C., & Schütze, H. (1999). *Foundations of statistical natural language processing* (1st ed.). Massachusetts, MA: MIT Press.

Metallinos, N. (1979). Composition of the TV Picture: Some Hypotheses To Test the Forces Operating Within the Television Screen. *ECTJ*, 27(3), 205-214.

Metallinos, N. (1996). *Television aesthetics: perceptual, cognitive, and compositional*. Mahwah, NJ: Erlbaum.

Mittell, J. & College, M. (2005). The loss of value (or the value of Lost). *FLOW*, 2. Retrieved from http://flowtv.org/2005/05/the-loss-of-value-or-the-value-of-lost/

Mizuno, S., Yamaguchi, T., Fukushima, A., Matsuyama, Y., & Ohashi, Y. (2005). Overlap coefficient for assessing the similarity of pharmacokinetic data between ethnically different populations. *Clin Trials,* 2(2), 174-181. doi: 10.1191/1740774505cn077oa

Naficy, H. (1993). *The Making of Exile Cultures: Iranian Television in Los Angeles.* MN: U of Minnesota Press, pp. 3-15.

Pass, G., & Zabih, R. (2001). *Method and system for comparing data objects using joint histograms (U.S. Patent No. 6181817B1)*. NY: United States Patent.

Pearson, K. (1895). Contributions to the mathematical theory of evolution. II. skew variation in homogeneous material. *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences, 186*, 343–414. doi:10.1098/rsta.1895.0010

Pearson, R. (2010). *Reading Lost: perspectives on a hit television show*. New York: I.B. Tauris.

Photoshop help. (2012). *Help and tutorials*. Retrieved August 29, 2013, http://helpx.adobe.com/photoshop/topics.html

Pope, A. (1971). *Introducing Persian architecture: library of introductions to Persian art*. London: Oxford University Press.

Pope, A. (1987). *Persian Architecture: The Triumph of Form and Color* (k. Afsar, Trans.). Tehran: Farhangsara. (Original work published 1965).

Poynton, C. (2003). *Digital video and HDTV: algorithms and interfaces.* San Fransisco: Morgan Kaufmann.

Price, M. (1995). *Television: The Public Sphere and National Identity*. New York: Oxford University Press.

Reding, E. (2010*). Adobe Photoshop Cs4 revealed.* New York: Cengage Learning.

Research Center of Islamic Republic of Iran Broadcasting. (2013). *Programe Survey*. Retrieved August 30, 2013, http://rcirib.ir/report/

Research Center of Islamic Republic of Iran Broadcasting. (n.d). *Reports*. Retrieved August 30, 2013, http://rcirib.ir/report/

Rose, C. (2002). *Teach yourself Adobe Photoshop 7 in 24 hours*. County Durham: Sams Publishing.

Russ, J., & Christian Russ, J. (2008). *Introduction to image processing and analysis*. New York: CRC Press.

Sachs, J. (1999). *Digital image basics*. Digital Light & Color, 1-14.

Sawahataa, Y., Khoslab, R., Kominea, K., Hirumaa, N., Itoua, T., Watanabec, S., ... Issiki, N. (2008). Determining comprehension and quality of TV programs using eye-gaze tracking. *Elsevier*, 41(5), 1610 – 1626. doi: 10.1016/j.patcog.2007.10.010

Shahba, M. (2012). *Aesthetics of visual elements in talk shows and news television programmes*. Tehran: Sorush.

Shekarinia, J. (2003). The position of colour in Islamic culture and art of Iran. *Moddares Honar*, 1(3), 93-104.

Shelly, G., Cashman, T., & Starks, J. (2008). *Adobe Photoshop CS3: complete concepts and techniques*. Boston, MA: Cengage Learning.

Smith, A. (1993). *National identity: ethnonationalism in comparative perspective*. Reno, NV: University of Nevada Press.

Solmon, C., & Breckon, T. (2011). *Fundamentals of digital image processing: a practical approach with examples in Matlab*. West Sussex: John Wiley & Son.

Sutherland, R. & Karg, B. (2004). *Graphic designer's color handbook: choosing and using color from concept to final output.* Massachusetts: Rockport Publishers.

Thorburn, D. (1992). Television as an aesthetic medium. *In Critical Studies in Mass Communication: CSMC: a Publication of the Speech Communication Association* (Vol. 4, pp. 161-173). Annandale, VA: Speech Communication Association.

UNESCO. (1979). *Word heritage list: Meidaan-e Shah-N 115*. Paris: unesco.

Vali Nemati, M. (2011). What is the power of television?. *Ravaagh-e Honar va Andisheh*, 16, 147.

Yu Wei, C., Dimitrova, N., & Chang, S. (2005). Color-mood analysis of films based on syntactic and psychological models. *IEEE Computing & Processing (Hardware/Software) International Conference*, 2, 831-834. doi: 10.1109/ICME.2004.1394329

Zettl, H. (2009). *Television production handbook.* CA: Cengage Learning.

Zettl, H. (2011). Sight, sound, motion: applied media aesthetics. Boston, MA: Cengage Learning.