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Using deconstruction to advance traditional compositional and pictorial spaces in contemporary Iranian art

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A thesis submitted in partial fulfilment Of the requirements of the University of Northumbria at Newcastle for the degree of Doctor of Philosophy

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Abstract

This thesis considers the possible association of Deconstructive thinking with the pictorial practices of traditional Iranian painting. The author's intention has been to improve the understanding of the type of compositional device here termed 'broken space' for artists who are interested in the traditional Iranian concept of space, by using deconstruction philosophy and its application in architecture. This research compares and contrasts the ideas that inspired Iranian painters and deconstructionist architects in order to explore ways in which they can be integrated.

The author realized that the Iranian-Sufi view of the 'world of the imagination' and the deconstructive architect's concept of 'chora' would be the key ideas for producing the 'broken spaces' that are so characteristic of both art forms. Interestingly, these two ideas have comparable features that seem to have generated spaces with similar attributes. Nevertheless, the two forms are derived from completely different ambitions: the Iranian concept is metaphysical and the deconstructive chora is post-metaphysical.

The practical part of the research established methods for employing deconstructive thinking whilst advancing the Iranian tradition of representing space. The author's practices, which were embedded in the techniques of printmaking, reflected the theoretical and philosophical ambition of building links between medieval thinking and a contemporary movement which is still felt to be radically positioned.

Finally the thesis compares the author's pictorial approach to 'broken forms' of architectural spaces developed in this research with those of other contemporary Iranian artists. The advantages of the deconstructive method are outlined and theoretical and practical similarities such as the desire to create dreamlike spaces are evaluated. All things considered, the two forms can be integrated with greater ease than the alternative interactions with Western ideas currently used by the contemporary artists included in this study. The thesis concludes with some suggestions for further research that could help realize this goal.

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Declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work.

Name: SEYED ABDOLHADI SHOBEIRINEJAD Signature: Date:

Introduction

This research considers the representation of what will be referred to throughout this text as 'broken spaces', from the viewpoint of a contemporary Iranian artist. The phrase 'broken space' will be used in the first instance in reference to the particular pictorial organisation of architectural space and form, that characterises the period of Iranian painting from the mid fifteenth to the mid sixteenth century. The term 'broken space' has also been employed as a means of elucidating connections the author has made in later discussions concerning theories of deconstruction and its representation in architecture, and his own artistic practice.

'Broken space' will therefore be used to describe and to define two distinct forms of fragmented pictorial and architectural space, with the intention of revealing ways that parallels and differences can be identified. Although these points of reference exist in radically different time frames and do not share an obvious philosophical connection, the author will discuss how relationships with historical Iranian painting, western theories of deconstruction and his own fine art practice can be considered. (Image 1)



Image 4: (left) *Isfandyar slays arjasp in the Brazen hold*. Baysunghur's manuscript of Firdausi's Shahnama, Heart, (1430). (Sims, 2002, p.177) (middle) The author, 15 X 21cm, etching, (2005). (right) Eisenman, Wexner Centre, The Ohio State University, (1989). (Sullivan, 2003)

This research examines two ideas, one of which seems to have great influence on contemporary artists in Iran, such as the researcher, and the other of which can help them to improve their knowledge. The first is the notion of architectural spaces in traditional Iranian painting, and the second is the movement of deconstructive architecture in Western art. This research introduces these two forms of 'broken spaces' and conducts an investigation into them. The author studies the philosophical background of deconstruction and its application in art and compares it with theoretical explanations about pictorial space in Iranian painting to find a way of bringing together the two ideas and advancing the comprehension of 'broken architectural spaces'. He employs a practice-led method to develop his system of integrating the two ideas and showing the possibility of this combination.

The idea of this research has been developed from experiences which the author has obtained during his life. It derives from his experience of the actual spaces he has lived in or visited, from his childhood up to now. The spaces which have affected him are the buildings of traditional Iranian architecture, which were very common until a few decades ago. Today in Iran, as in other countries, architects follow Western designs and apartments and offices are built in Western styles. On the other hand, there are still architects who are working with the conventional forms of space. Traditional Iranian architecture has its devotees and many buildings such as mosques, universities, museums, art galleries, and bazaars are still being built in established styles. As is to be expected, along with these two groups, there are also architects who try to mix the old with the new.

Nowadays, many artists in Iran are interested in the representation of 'broken space' in their artworks. Although the reason for this interest is not clear, it can be speculated that this interest is related to the current social situation in Iranian society. Among these artists, some painters, such as Kalantari and Ossouli, are interested in depicting traditional spaces. Kalantari (1931-present) paints the traditional architectural spaces. He uses thatch (a mixture of straw and mud) as the main material of his paintings to make the appearance of his architectural spaces similar to the real ones (Image 2). He is trying to transfer the atmosphere of Iranian architecture to the viewer and in some of his work he uses fragmented forms of architectural spaces for this purpose.



Image 2: (left) Kalantari, P., *cheshm-andaz*, 120 X 80cm. acrylic, mud and straw, (1981). (right) Kalantari, P., *composition*, 50 X 70cm. collage with adobe and paint on canvas, (1996).

Ossouli (1953-present) is another artist interested in the composition of traditional Iranian painting; some of the spaces she produces are reminiscent of those found in traditional Iranian painting (Image 3). This is characterised in the way she employs pattern and more representational space within a relatively flat pictorial plane.



Image 3: (left) Ossouli, F., 60 X 60cm. media: gouache on paper. (http://www.elahe.net). (right) Ossouli, F., 50 X 50cm, media: gouache on paper. (http://www.elahe.net)

Another group of Iranian artists creates their spatial compositions by showing contemporary architecture. Tajalli (1975-present) is one of these artists. Her paintings consist of dark and mysterious spaces (Image 4). She is interested in representing modern architecture in her artworks in the form of complex, fragmented spaces that employ dramatic shadows to create imaginary and mystical atmospheres.



Image 4: (left) Tajalli, E., 84 X 104cm. Mixed media, (2002). (http://www.elahe.net). (right) Tajalli, E., 51 X 45cm. Mixed media, (2002). (http://www.elahe.net)

Ghaemi (1970-present) is another Iranian painter who is working with architectural spaces. He creates complex and fragmented forms of contemporary architecture (Image 5). He explains that the reason he shows the 'broken forms' of these spaces is that he wants to protest against the cultural situation in society, because he thinks that the contemporary architecture of Iran has lost its previous excellence and that Iranian architects have lost their identity. He has said: "I decided to show in my painting the crisis of identity and culture which I think our society and our artists and architects are experiencing" (the author's interview of 01/03/2009). He believes that the traditional architectural spaces of Iran "have marvellous designs and the architects planned for every corner of the building and thought about its design" and "people have a deeper sense of tranquillity inside those spaces compared to contemporary buildings" (the author's interview of 01/03/2009).



Image 5: (left) Ghaemi, A., 100 X 100cm, media: Acrylic on Canvas, (2004). (http://www.elahe.net). (right) Ghaemi, A., 100 X 100cm, media: Acrylic on Canvas, (2004). (http://www.elahe.net)

The third group of artists consist of those who are interested in demonstrating the existing forms of Iranian architectural spaces. They represent the spaces as they are living inside them and feeling them. Their artworks consist of both traditional and modern architectural spaces. They represent them separately or mix them together, as one can experience in everyday living. Manouchehri (1973-present) is a photographer interested in the profound psychological effects of space. Her photographs show her comprehension of an everyday sense of space (Image 6). She chooses particular angles for her photographs and mixes them together in a form that suggests a sense of mystery to the viewer.



Image 6: (left) Manouchehri, S., media: Photograph, (2005). (http://www.elahe.net). (right) Manouchehri, S., media: Photograph, (2005). (http://www.elahe.net)

Mozaffari (1958-present) is painting the spaces which she feels every day around her. In her paintings, she tries to show the relation of people to the world around them (Image 7). She wants to visualise every moment of life "by breaking the spaces and transforming them all together." According to her, the viewer cannot say that s/he "stands inside or outside of the room", or that what s/he is seeing "is the present reality or a past memory" (the author's interview of 14/03/2009). She breaks the spaces, mixes them together, and transfers a deep sense of space to her audience.



Image 7: (left) Mozaffari, M., 100 X 70cm. Mixed media. (http://www.elahe.net). (right) Mozaffari, M., mixed media. (http://www.elahe.net)

This is a brief outline of a selection of Iranian painters who represent 'broken forms' of spaces in their work. These are the artists whose works are broadly similar to those of the author. The current research hopes to expand on the practical and theoretical understanding of these pictorial systems in relation to aspects of western deconstruction theory in particular. As this research is a practice-led, the artworks of the researcher can in themselves, therefore demonstrate the results of this study.

Chapter plan

The thesis begins by introducing the methodologies which have been chosen for this research. The first chapter brings in the techniques and methods used for the current study. It states their advantages and the reasons for choosing them.

The second chapter discusses traditional Iranian pictorial spaces. The period of those paintings which is recognised as the Golden Age of Iranian art will be specified. Then, the features and characteristics of those paintings will be introduced. Thereafter, there is an attempt to discover the reasons for these features. In order to do so, all important research which has been conducted into the subject, from both contemporary and historical sources, will be analysed and critically reviewed. The outcomes will be compared to influential philosophies and theories which dominated Iran during the given period. Finally, the results will be summed up and compared with the pictorial spaces of traditional Iranian paintings.

In the next chapter, with the ambition of using deconstruction to advance the traditional Iranian concept of pictorial spaces, the author conducts an investigation into the deconstructed form of spaces. Firstly, a brief description of the deconstructive architecture movement is given and then the different approaches to it are briefly explained. Among deconstructive architects, those who put more emphasis on the use of deconstruction philosophy will be introduced and the most suitable project for the purposes of this research will be chosen. The methods of applying deconstruction philosophy in architecture will be investigated and clearly categorised. After this, the results of this study will be compared with the results of the previous chapter. Before this, a search will be conducted to find similar studies which compare these two ideas, in order to establish whether

such a comparison has previously been made in any other field. Finally, the author will try to find possible ways of integrating these theories.

Chapter 4 contains a description of the practical part of the research. It gives a step by step report about the development of the idea in practice. How theory is applied in practice and what result is achieved from this process is elaborated at each stage. The methods established by the researcher and the outcomes attained through the process are named and defined at every stage of the project.

As a conclusion, firstly a summary of the literature review will be provided. After this the process of developing the practice-led research is explained. There is then a return to the selected artists introduced in the introduction and a statement of how this research differs from their method of breaking pictorial spaces. There is a consideration of their methods; looking back to their work and interviews with some of them. Finally a contribution to knowledge is proposed, especially for the artists who are interested in the representation of 'broken forms' of spaces in relation to the traditional Iranian concept of pictorial spaces.

1 Methodology

1.1 Action research

Reason (2000) describes action research as a way of producing knowledge which brings ideas, theories and action together with the aim of creating 'practical knowing'. O'Brien (1998) gives a similar definition and characterises action research as 'learning by doing'.

Generally, in this method, the knowing is produced through practice, but the practice itself should be planned. It is planned according to the researcher's knowledge, which is derived from theory. Action researchers, unlike researchers using other methods, play an important role in the process of generating knowledge and the more s/he is involved in resolving a problematic situation, the more s/he will be regarded as an action researcher.

In the current practice-led research, in which the author's desire is to create an artistic production of space that can answer his theoretical intentions, action research, predicated on 'practical knowing' and learning by doing' has therefore been selected as an appropriate method.

As has been mentioned, in action research, the researcher plays an important role and is not neutral; his opinions and intentions influence the research process. It is clear, therefore, that the outcomes of research are not obtained simply from theoretical studies but are also gained from the process of action and the researcher's practice. Thus, a method should be chosen which can gather information and generate knowledge. Action researchers

use specific inquiry strategies for doing this, and as Reason and Bradbury stated, the term 'action research' is "the term to describe the whole family of approaches to inquiry which are participative, grounded in experience, and action-oriented" (Reason & Bradbury, 2001, p.xxiv). Action research is deeply bounded by its methods of inquiry. As Torbert says, in action research, all the actions, "including those we are more certain about and are most committed to, are in fact also inquiries" and, conversely, "all our inquiries, including those we most painstakingly construct to detach ourselves as researchers, in so far as possible from biasing interests, are in fact also actions" (Torbert, 2001, p.250).

Since, in action research, knowledge is derived from inquiry, we should now give the process our full attention. Heron conducted an epistemological study of inquiry which can be helpful for understanding the position and value of the knowledge based on it in research. He believes that "there are at least four main kinds of inquiry outcome, corresponding to the four forms of knowing: experiential, presentational, propositional and practical" (Heron, 1996, pp.36-37). These are presented as the forms of knowing which represent the different aspects of human intelligence.

Experimental knowing is engendered by a direct engagement and encounter of the researcher with the process of the inquiry. It depends on the researcher's "feeling and imaging the presence of some energy, entity, person, place, process or thing" (Reason & Torbert, 2001, p.13). So, experiential knowing expresses reality through the inner character of the researcher and this is the essential basis of the other forms of knowing.

Presentational knowing is the next stage when we try to explain our experimental findings through any system of signs. It includes all "expressive forms of imagery, using the symbols of graphic, plastic, musical, vocal and verbal art-forms, and is the way in which we first give form to our experience" (Reason & Torbert, 2001, p.13).

Propositional knowing explains and describes the things which have been explored in the previous stages. It makes theory, formulates outcomes, and provides commentary on them. It also illustrates the inquiry method.

Practical knowing is, knowing how to do something with your ability and skill, in the domain of inquiry. "It fulfils the three prior forms of knowing, brings them to fruition in purposive deeds, and consummates them with its autonomous celebration of excellent accomplishment" (Reason & Torbert, 2001, p.13).

As Heron believes, these forms of knowing include all the kinds of knowledge which originate from the inquiry process. In his epistemology, these four kinds of knowing are related to each other in a sequential order in which each is built on the basis of the others. Heron illustrates this ordering in the form of a pyramid, which shows the sequence and reliance of each form on the others (Image 1-1). He has described this relationship as follows: "these kinds of knowing are a systemic whole, a pyramid of upward support in which experiential knowing at the base upholds presentational knowing, which supports propositional or conceptual knowing, which upholds practical knowing, the exercise of skill" (Heron, 1996, p.52).



Image 1-1: Heron, pyramid model of epistemology. (Heron, 1996, p.52)

1.2 Different strategies of action research

Depending on the subject and the field of research, inquiries can be fostered from different sources. If the subject is a professional one that needs specialized types of reading (for example, the field of fine art practice), the researcher cannot take the inquiry to ordinary people. However, a subject that has a general social relevance the inquiry can be undertaken using a wide range of participants. In collaboration with Judi Marshall and Bill Torbert, Reason identifies three main strategies for action research in relation to inquiry methods:

- First-person action research/practice skills and methods address the ability of the researcher to foster an inquiring approach to his or her own life, to act awarely and choicefully, and to assess effects in the outside world while acting. First person research practice brings inquiry into more and more of our moments of action—not as outside researchers but in the whole range of everyday activities.
- Second-person action research/practice addresses our ability to inquire face-to-face with others into issues of mutual concern—for example in the service of improving our personal and professional practice both

individually and separately. Second person inquiry starts with interpersonal dialogue and includes the development of communities of inquiry and learning organizations.

 Third-person research/practice aims to extend these relatively small scale projects so that 'rather than being defined exclusively as 'scientific happenings' they (are) also defined as "political events". Third person strategies aim to create a wider community of inquiry involving persons who, because they cannot be known to each other face-to-face (say, in a large, geographically dispersed corporation), have an impersonal quality. Writing and other reporting of the process and outcomes of inquiries can also be an important form of third person inquiry. (Reason, 2000)

In the current research, information was gathered from a self-inquiry process and the researcher chose only the first-person action research strategy amongst the three described above. The reason for choosing this policy was that the subject of this research required specialised reading and knowledge and the researcher could not trust more public viewpoints about the outcomes of his practice. Since a large part of this study is based on artistic conventions and philosophical theories that are unfamiliar to the author's peer group, the method of first-person inquiry was selected in order to concentrate the research process on personal reflection and day-to-day studio experiences. Marshall describes a similar situation concerning her research:

Some of my testing is not seeking joint exploration or affirmation from others. Sometimes this would be inappropriate or unlikely, for example if my approach comes from a more critical theory or political frame. Then I might need to monitor and critique my sense-making without direct confirmation; being disconfirmed by others may be significant in its way. So my researching is not necessarily consultative. (Marshall, 2001, p.434)

As the strategy chosen, the first-person strategy needs to be further explained here. Its definition, features and process are thus elaborated in the following.

1.2.1 First-person action research

First-person research, or first-person inquiry, involves the skills and ability of a single person to take the inquiry into her or his own life, and the way in which s/he acts and practices (Reason & Torbert, 2001, p.1; Heen, 2005, p.265). In this method of research, it can be seen that the focus is on "the self directing, self generating, self knowing and self transcending capabilities of the individual person as inquirer" (Reason, 2000). The researcher should act with awareness in his life and foster an inquiring approach to it. So, these inquiry approaches used, would be based on the researcher's own qualities and, according to Marshall, these are personal and distinctive, they depend entirely on the individual. Also, the methods and disciplines used cannot be copied and each person should create and manage his own method and practice (Marshall, 2001, p.433).

Reason and Torbert have divided the methodologies of first-person inquiry into two categories: 'upstream' and 'downstream' forms. The first group expands 'mindfulness, awareness and presence in action' and includes 'autobiographical writing, psychotherapy, meditation' and many other methods (Reason & Torbert, 2001, p.17). The second form intends to improve the researcher's moment-to-moment mindfulness, and is "based in personal self-observation-in-action, [which] can be enhanced by journal writing and by careful reflection on audio- and videotaped behaviour" (Reason & Torbert, 2001, p.18). These two methods of making a bridge

between action and reflection in the research process are described by Marshall as 'cycling between action and reflection'. She states that:

At its clearest this may mean planning to engage in some action or exploration, becoming immersed in the chosen territory in an appropriate way, noting as I go along, and then taking a step back and reflecting on what I have experienced and done, later moving on again to plan another cycle of engagement. This is a classic action research format, with the potential to be tailored to inquirer, topic and situation in a multitude of ways. The rhythm and discipline of moving back and forth between action and reflection in some way or another seems to generate its own momentum, and so to enhance different forms of attention and of behavioural experimentation. (Marshall, 2001, p.434)

She writes that she finds herself in the continuous act of testing her ideas, "back and forth between practice and theorising" (Marshall, 2004, p.309). This is the basic form of conducting first-person action research. The first idea or the primitive plan of the research comes to mind, then it is improved in practice, along with reading supportive theories and applying them to the action; afterwards, based on the researcher's analysing the reflective reports of the practice and actions, the second plan will be generated and this loop will be repeated again and again until it achieves the intended aims.

1.3 Relationship between theory and practice in action research

Besides the central notion of developing a practice-based research, a considerable part of the current project is based on supportive theories about Iranian paintings and deconstructive architecture. Therefore, the author contemplates the relation between theory and practice in action research more seriously. The following part explains this relation from the viewpoints of pioneers in action research and current ideas from contemporary scholars.

Kurt Lewin (1890 – 1947) was the first person who coined the term 'action research' in about 1940. He "associated the idea of action research with the idea of doing experiments, albeit in the field rather that the laboratory" (Gustavsen, 2001, p.17). He believed that an action research experiment must express theory in such a way "that the results of the experiment can be fed directly back to the theory" (Gustavsen, 2001, p.17). From this assumption, it can be concluded that a theory can be expressed directly in action. This idea is not accepted by all contemporary thinkers, and some of them believe that it is impossible to make a simple direct connection between theory and action. Most supporters of action research think that the relations between theory and practice are more multifaceted than Lewin suggested. They have "argued that theory alone has little power to create change and that there is a need for a more complex interplay between theory and practice" (Gustavsen, 2001, p.17).

Habermas (1929-present) thinks that the "creation of theory and the development of practice" are two different activities (Gustavsen, 2001, pp.17-18). He believes that when somebody builds a theory s/he wants to reflect a truth or give a sufficient interpretation of it; but when s/he is conducting practice s/he wishes to achieve something in reality. He agrees that theory and practice influence each other, but he rejects the idea of a direct relation between them. He argues that there is a link between ideas, notions and elements which derive from theory and the development of practice, but he thinks this link is discursive. According to him, instead of the direct

relationship between theory and practice which Lewin believed in, "the relationship between theory and practice can be seen as a relationship between three different but interdependent discourses – a discourse on theory, a discourse on practice and a mediating discourse on how to link them" (Gustavsen, 2001, pp.17-18). As indicated by Gustavsen, until the middle of the 1980s, the focus centred on these three points, and Habermas's ideas were felt to be quite well-substantiated among scholars (Gustavsen, 2001, p.19).

After this brief history, an examination follows of how contemporary researchers consider the relationship between theory and practice. Reason and Torbert consider prominent positions concerning theory in scientific action research, and they believe that "theory is intended to guide inquiry and action in present time" (Reason & Torbert, 2001, p.14). According to them, "all movements of the attention, all knowing, all acting, and all gathering of evidence" are based on theories which say what action should be taken at any moment of the research (Reason & Torbert, 2001, p.7). Reason and Torbert argued that in order to learn from everyday activities, these should be explored through a variety of "alternative philosophical viewpoints"; these philosophies will help researchers to find appropriate "methods for improving validity under action conditions" (Reason & Torbert, 2001, p.3). On the other hand, they argue that the only purpose of inquiry is "to forge a more direct link between intellectual knowledge and moment-to-moment personal and social action" (Reason & Torbert, 2001, pp.5-6). Therefore, they believe in a mutual relationship between theory and inquiry in which theory can inform

and give direction to the inquiry on the one hand, and, on the other, inquiry makes a direct relationship between theory and practice.

O'Brien also believes in a mutual relation between theory and practice. According to him, in action research, "theory informs practice, [and] practice refines theory, in a continuous transformation" (O'Brien, 1998). He describes this relationship between theory and practice as follows:

In any setting, people's actions are based on implicitly held assumptions, theories and hypotheses, and with every observed result, theoretical knowledge is enhanced. The two are intertwined aspects of a single change process. It is up to the researchers to make explicit the theoretical justifications for the actions, and to question the bases of those justifications. (O'Brien, 1998)

As can be seen, he explains the intertwined link between theory and practice and the way the two improve in connection with each other. In action research, practice should initially be based on theory, and after this, practice will reflect on the theory and enhance it and this cycle will be repeated continuously during the whole process. Marshall holds that the researcher should pay as much attention as possible to this relationship between theory and practice. Action inquiry develops correspondences between the researchers' purposes, their theories and frames, their behaviour, and their impact in the world (Reason & McArdle, 2004, p.116). In the current research, O'Brien's 'mutual relationship' has been chosen as the method of making the link between theory and practice in the project. The author always tried to be aware of this reciprocal influence of theory and practice, and improved his research by gathering theoretical information and implementing it through the productions in the studio. The author recorded any ideas that

came into his mind during his practical activities or when he was reading theoretical texts. Therefore he continuously re-planned the process of the research with regard to his updated knowledge.

1.4 Methodology of action research

Action research methodology consists of certain stages which should be followed in order to achieve the aim of generating knowledge. These stages, according to Winch and Gingell, are as follows: generally, in action research the researcher "will identify an issue that needs to be resolved. She will design an intervention and record the effects of its implementation, review the outcomes and disseminate her results" (Winch & Gingell, 1999, p.8). However, after reviewing the outcomes, most of the time the intended result will not be achieved in the first process, and, therefore, the procedure should be repeated again with the reflections on the first outcomes influencing the design of the intervention and the implementation of the practice. According to Reason and Torbert, at every stage it should be asked whether the intended outcomes have been achieved; if they match the approach or adopted theory; and if the outcomes fit our purposes (Reason & Torbert, 2001, p.18). Every time that the researcher feels that he has not answered one of these questions; he should re-plan his action and search for the right direction.

The circle of action and reflection is the key technique in this method and all scholars emphasise it. This repeating circle is regarded as the classic

method of conducting research. According to O'Brien, different academics draw this cycle in a more or less similar format. The model below was suggested by Stephen Kemmis (1995). It consists of several cycles, each of which has four steps: plan, act, observe, and reflect (Image 1-2). O'Brien called this "a simple model of the cyclical nature of the typical action research process" (O'Brien, 1998).



Image 1-2: Kemmis, cycle of action research. (O'Brien, 1998)

O'Brien describes Gerald Susman's (1983) model, which gives a slightly more detailed procedure. Instead of four steps within each cycle, he differentiates five phases of action:

Initially, a problem is identified and data is collected for a more detailed diagnosis. This is followed by a collective postulation of several possible solutions, from which a single plan of action emerges and is implemented.

Data on the results of the intervention are collected and analyzed, and the findings are interpreted in light of how successful the action has been. At this point, the problem is re-assessed and the process begins another cycle. This process continues until the problem is resolved (O'Brien, 1998).

In his action research on educational theory Whitehead states that researchers should apply a form of action/reflection cycle into their work by thinking about the following propositional steps during their practice:

How do I improve this process of education here?
I experience problems when my educational values are negated in my practice.
I imagine ways of overcoming my problems.
I act on a solution.
I evaluate the outcomes of my actions.
I modify my problems, ideas and actions in the light of my evaluations.
(Whitehead, 1989)

Then he writes that the cycle should be repeated until it can satisfy researchers' assumptions. In his research to establish a suitable methodology to apply to his own inquiries, the author examined a number of action research theories and strategies. In particular, Whitehead's description of a cycle of action /reflection emerged as an effective method on which to structure the practical and intellectual explorations contained in this thesis. The following section explains how this procedure has been applied to this research project.

1.5 Using action research in the present research

The entire purpose of the author's research was to develop a practical approach to producing art in such a way that it occupies a position between

two theoretical concepts of space in, that of Western deconstruction and the fragmented spaces found in Iranian painting. Therefore, the resulting information of the theoretical studies has been constantly taken into the studio, from the beginning to the end of the project, in order to produce practical knowledge. Hence, the most suitable methodology which can develop an approach and establish a method of representing pictorial and compositional space in such a way to fulfil the author's aims and intentions would be action research.

The cycle of action/reflection occurred several times during the practical stage of the inquiry. Some of these cycles were very important to the author and changed the entire direction of the study. Some had a lesser impact but were, nevertheless, a subtle influence on the author's understanding of his research. For example, at the beginning of the second year the author had read enough of the relevant literature to be able to link the emphasis that deconstructive philosophers put on language to the relationship between Iranian painting and Persian literature. At this point the interaction of language with compositional processes became a key point but, after a few weeks, as the author reflected on his actions, he realised that the idea was not fulfilling his intentions, and he returned to his previous track. These minor cycles are not mentioned in the practice report, but they have their place in the generation of a complex body of research.

The main cycles of action/reflection in this project have been explained in detail in the practical report chapter. They are briefly summarised here in order to illustrate the author's application of the literature on action research methodology to his research.

- The first cycle of action/reflection in this project sought to find a way in which the feeling which the author originally had about architectural space can be articulated in a clear and intellectual manner.
- To solve this problem the author started reading about the phenomenology of space.
- Simultaneously, the author selected the technique of etching as an area of practical research and began work in his studio. At this point the notion of intimate space (Bachelard) stimulated studio experiments that reflected the author's memories of the interior of his childhood home. He used his childhood home to embody the compositional dimension of spatial intimacy.
- After reflecting on the practical work produced during this period, the author began to explore the notion of mysterious space. The techniques of etching were able to produce ambiguous, almost dreamlike, spatial effects. This was particularly evident in the contrast between areas of dense black and tonal contrast that the author was employing at this time.
- The author then compared his discoveries as an etcher with the work of other artists using this technique in order to assess the spatial achievements of the practical stage of the research.


Image 1-3: The author, 10 X 15cm, etching, (2004).

- The author then embarked on the next cycle of action/reflection.
 The aim was to comprehend the impact of deconstruction philosophy on the pictorial and compositional spaces that the author was creating within his studio activities.
- The author was simultaneously extending his reading on deconstruction philosophy whilst continuing to create new prints.
 Different interpretative approaches were explored in order to theorize the author's practice and find aspects of the deconstruction philosophy that should, in the next stage of the research, become the focus of the investigation.
- The author constantly assessed and evaluated his artworks and, as a result, continually modified his printmaking techniques. This

allowed the selection of the most suitable fragmenting and distorting processes in the realizing of architectural compositions of the kind that interest the author. Textural and tonal qualities turned out to be the most efficacious way of achieving deconstructed compositions. This procedure is explained in Chapter 4 and Appendix 1.



Image 1-4: The author, 15 X 21cm, etching, (detail), (2005).

• After the author applied deconstructive thinking to his practice he reprised the approach that architects had taken in applying

deconstruction theory to architectural practices. This initiated the third major cycle of action/reflection research.

- Initially, the author found the subject confusing; he analysed several methods that seemed to overlap with one another and, on occasions, appeared to be irrelevant to his research. He found that in architectural practices, deconstructionists base all their ideas on the notion of functionality, a concept that lies at the heart of architectural theorizing. Gradually he was able to categorise the deconstruction methods as two groups: chora and superimposition.
- The author transferred these ideas to his practice and built architectural structures with three-dimensional computer software that allowed him to understand Western experiments with architectural space more effectively.
- Reflecting on his practice the author decided that, rather than deconstruct function, he should concentrate on the deconstruction of physical presence inside architectural space.



Image 1-5: The author, computer generated images, (2006).

- The fourth cycle of action/reflection considered the author's interest in the concept of space used in traditional Iranian painting.
- The author then conducted a fieldwork in Iran in order to take photographs of traditional architecture. He also read about the techniques employed by Iranian architects.
- At the same time, the author began to build similar structures using three-dimensional computer software.
- During this period, the interaction of theoretical study and practical experiment helped the author to speculate on the geometrical structure of Iranian architecture. The research generated a curiosity about the role of geometry in Iranian painting leading to a new literature review and an interest in analysing the compositional structure of medieval Iranian paintings.
- The author's analysis of Iranian paintings suggests that the geometry of medieval Iranian compositions and the superimposition technique used by deconstruction architects can be united as a single field of research.
- After a lengthy period of investigation the idea failed and the direction of research was reconsidered.



Image 1-6: The author, computer generated images, (2006).

- Following the advice of an expert in medieval Iranian painting (Sheila Canby) the fifth cycle of action/reflection commenced. This involved experiments with watercolour, the medium used by traditional Iranian artists. This medium produces qualities that give architectural compositions increased atmosphere and a fragmented and distorted formal design.
- At this stage, most of the elements at work within the author's practical research have been firmly established.
- As the investigatory journey nears its end, increasingly positive responses to the self-questioning process required in action research informed the author's reflection on his artworks. During this period the central concept of 'deconstructing on two levels' was established – probably the most important practical discovery of this study.



Image 1-7: The author, 30 X 42cm, watercolour, (2007).

The final stage of the practical work was planned utilizing all the philosophical reflections and formal processes that the author had found to be workable solutions to his research questions. The cycle of discovering and solving problems generated through the reflections and self-assessments of the action research process lead directly to the author's images of 'broken space' in the exhibition of prints submitted for examination alongside this thesis – these artworks demonstrate the results of the thinking on deconstructed space (both Western and Iranian) explored in the thesis. The author chose photo-etching as his final medium because it provided an opportunity to gather and collage material from earlier stages in the research. As a result the author was able to deconstruct a range of spatial compositions generated using different techniques and more speculative sets of ideas. In these final works the process of drawing with etched lines became as a form of action research in itself: the author was able to evaluate and modify the broken-ness of his spatial effects at a level of thought and action not easily captured by words. This aspect of the author's research is explained in more detail at the end of his fourth chapter.



Image 1-8: The author, 30 X 42cm, photo-etching, (2009).

2 The particular forms of representation of architectural spaces in the Golden Age of Iranian painting

2.1 Introduction

As has been mentioned before, the first aim of this research is to introduce the particular forms of representation of architectural spaces from the Golden Age of Iranian painting. Therefore, it is important to make clear in using the term 'Golden Age' which period of Iranian art is being addressed. After describing this period, the author will search for the defining characteristics of these paintings. He introduces their important features by considering some particular examples from the paintings of the Golden Age. Thereafter, he seeks the reason behind the characteristics of Iranian paintings. The researcher does this by investigating existing studies of the subject, from the period of creation of the artworks and also from contemporary sources. By conducting this research he attempts to discover the ideas which inform these types of spaces. Finally, he endeavours to strengthen his argument by tracing these supporting ideas to their original philosophical sources.

2.2 The Golden Age of Iranian painting

The earliest surviving examples of post-Islamic Iranian painting date back to the end of the thirteenth or beginning of the fourteenth century. "It is from the reign of Ghazan [the first Muslim Mongol ruler of Iran, 1295-1304] that the earliest surviving illuminated Persian manuscript has come down to us" (Gray, 1977, p.22). However, it took more than another century until Iranian art found its identity and became an identifiable art tradition in its own right.

In the use of the term the 'Golden Age' of Iranian art, different scholars have slightly different ideas. Yves Porter believes that the Golden Age of Iranian painting began in the Timurids period (second half of the fifteenth century) and started to fade in the second half of the sixteenth century, which was in the middle of Safavid dynasty (Porter, 2000, p.115). Purinton and Watters indicate a similar date to Porter's. In their article, about the materials and techniques of Iranian painting, they wrote: "The techniques described in this section are those employed during the Golden Age of Persian painting that began early in the 15th century" (Purinton, 1991, p.138).

Nevertheless, other scholars do not agree with Porter's opinion. When they talk about the Golden Age of Iranian art (not only painting), they use different dates. For instance, Dimand believes that: "The period in which the Safavid rulers greatly encouraged the arts and crafts is rightly called the golden age of Persian art" (Dimand, 1925, p.125). Similar to Dimand, Sheila Canby named her book about Safavid arts: *The Golden Age of Persian Art, 1501-1722*, but she explains that:

I exaggerate in calling the Safavid period (1501-1722) *the* golden age of Persian art. It was one of several golden ages with which the history of Iran has been blessed. The Achaemenids, the Sasanians, the Seljuks, the Timurids and even the Qajars could lay claim to the same epithet (Canby, 1999, p.6).

In this research the Golden Age of Iranian painting is considered as similar to that put forward by Porter, which is the period between the mid Timurid to the mid Safavid. This period consists of two schools of artists, firstly the School of Herat, which was started under the patronage of the Timurid, and secondly the School of Tabriz under the support of the Safavid kings. There are various reasons for choosing this period as the Golden Age. The School of Herat was the beginning of what we can call the perfection of Iranian painting. In this period, Iranian painting found its own particular characteristics and became distinctive from other schools of Islamic painting. There are several recognized traits attributed to these paintings, such as shadow-less figures, bright and pure colours, and two dimensional figures. However, it was the introduction of spatial recession that gave the paintings of the School of Herat their most distinctive characteristics. Prior to this period objects, figures and ornament were all depicted together in one flat frontal plane that gave no suggestion of optical depth (image 2-1). According to the Encyclopaedia Britannica, this significant shift in approach to structuring pictorial space has been attributed to the influence of the early Mongol rulers and developed by the Jalavirid School from the mid-14th century to around 1400. (http://www.britannica.com).



Image 2-1: Khouyi, A., Varqa u Gulshah, end of 13th century – beginning of 14th century. (http://mehdim.multiply.com)

Following the Mongol invasion of Iran, and in the reign of Ilkhanid (1256–1335), the first Mongol dynasty in Iran, the court brought Chinese artists to their capital in Tabriz, who worked alongside Iranian artists on a series of books called *jami al tawarikh* (a compendium of chronicles) (Pakbaz, 2000, p.61). This cross-cultural exposure introduced a radically different way of describing pictorial space. Iranian artists integrated and then significantly adapted these alternative compositional devices (most notably parallel and axonometric projection systems), over the Ilkhanid, Jalayirid and Timorid periods. Although this was a gradual process, by the end of the Timorid period, artists had established a method of depicting spatial depth in their compositions which was very much their own. One of the early examples of showing spatial composition in Ilkhanid period is the paintings of *Demotte Shahnameh*. A comparison with a painting from Demotte Shahnameh and a Chinese painting from fourteenth century illustrates how

the Chinese perception and depiction of space had begun to influence the way Iranian artists portrayed three dimensional volume on a two dimensional plane (image 2-2)



Image 2-2: (bellow) Demotte Shahnameh, *Grief and sorrow for death of Alexander*, 14th century. (http://commons.wikimedia.org). (above) Chinese century scroll painting, *The story of the Lady Wen-chi, a Chinese princess abducted by nomads*, 14th century. (http://www.tcoletribalrugs.com)

Until the mid Safavid dynasty, the characteristics of the School of Herat were continued in Iranian painting. "Safavid painters working in the 16th century at Tabriz in north-western Iran did not look for a new mode of architectural expression as did some of the earlier schools but chose instead to elaborate and refine Timurid models" (De Angelis, 1982, p.12).

Because the Tabriz school of artists in the Safavid period, only continued the Timurid tradition established in the School of Herat, this research concentrated only on paintings produced in the School of Herat. The next section explains more about the Herat school of artists, and analyses some of its use of architectural spaces. Clearly, this introduction could be extended to the entire period between the mid-fifteenth to the midsixteenth century as the Golden Age of Iranian painting.

2.3 Architectural space in the Golden Age of Iranian painting

As De Angelis and Lentz mention in *Architecture in Islamic painting: permanent and impermanent worlds*, "the movement toward a canonical mode of architectural representation was consummated in the 15th century under the Timurid dynasty (1370-1506)" (De Angelis, 1982, p.10). By improving the Muzaffarid and Jalayirid styles, the painters of the Timurid period initiated several artistic principles for representing architectural spaces. "It seems that the intent was to construct a balanced and controlled

composition rather than to reproduce faithfully or record a contemporary building type" (De Angelis, 1982, p.10). Afterwards, artists of the Timurid court advanced these principles, eventually reaching a point where architecture is "fully removed from the frontal plane and set back into the picture space, completing a trend begun in the fourteenth century" (De Angelis, 1982, p.10).

As mentioned before, this change in architectural representation in Iranian painting happened after artists became familiar with other traditions of painting in the reign of the Mongol emperors. Although Iranian artists imported the techniques of representing architectural spaces in painting, they developed a form of spatial composition which was identifiable from those influential traditions. In confronting the spatial composition of Iranian paintings, a non-professional viewer may think that it was caused by their lack of knowledge, or as a result of technical bungling. Bronstein has corrected this misapprehension. He believed that, because of the "intellectual curiosity and the advancement of mathematical science in Iran, [and] the constant contact with the arts of other countries (especially of China and more intensively and regularly since the Mongols - of Western Europe), countries whose pictorial canons where directly opposed to those of Iran" (Bronstein, 1994, p.32), this supposition about Iranian painting is unacceptable. In fact, these artists invented a very clever method to show their intentions concerning space.

Bronstein describes space in Iranian painting as "neither a twodimensional space, nor a three-dimensional" (Bronstein, 1994, p.54). He portrays it instead as being in a state of becoming three-dimensional space.

In the following part of this section, a more detailed description of the pictorial space of the period is given, in order to elucidate what Bronstein means by giving this description of the use of space in Iranian painting.

2.3.1 Two-dimensional three-dimensionality

According to De Angelis and Lentz, Iranian artists used certain devices to give depth to their works and, at the same time, preserve the twodimensionality of space. Some of these devices included the "oblique perspective, open doors and overlapping planes" (De Angelis, 1982, p.23). In order to become familiar with them visually, some specific paintings have been chosen from the Herat school of artists for analysis. In choosing these paintings, it has been considered how the painters focused on architectural space.

2.3.1.1 Using different parallel projection systems in one composition

One of the most important features of Iranian painting is the use of different parallel projection systems in one composition¹. As can be seen in Image 2-3 the stream on the floor of the courtyard has been drawn from above. It is a tradition in Iranian painting that, for most of the time, "The floors of the royal halls, the palace gardens or the fields [and their belongings like tiles and streams] are represented vertically" (Bronstein, 1994, p.33). Also,

¹ Appendix 1 page 179

the pulpit to the left in this image has been shown in side view; when only one side of an object is reflected on a parallel projection plane, the system is called orthographic projection.



Image 2-3: *Arresting Qutb al-din Qerimi and bringing him to the great masque of Shiraz*, Zafarnama Timuri, School of Heart, 16th century. (Thompson, 2003, p.41)

As can be seen in the background of this image, "often nothing divides the horizontal from the vertical plane except changes in pattern" (De Angelis, 1982, p.23). The vertical floor of the courtyard is divided from the vertical wall of the building only by horizontal gray and red stripes. This use of a vertical oblique projection system can be frequently observed in Iranian painting. As Dubery and Willats describe: "A simple form of vertical oblique projection may be obtained by adding together the front and top views of an object, or, in the case of an interior, by adding a plane of the floor to a view of one wall. The system is also common in Indian and Persian miniature paintings" (Dubery, 1983, p.24).

Another parallel projection system that can be identified in Iranian painting and that is also found in Roman, Byzantine, and Chinese paintings, is isometric projection (image 2-4) (Dubery, 1983, pp.38-39).



Image 2-4: A manuscript of Poems of Ali-Shir Nava'i, *Sheikh of Sanan*, School of Heart. (Welch, 2005, p.49)

In many Iranian paintings, the structure of buildings is mostly shown in oblique projection. The image below is an example of this (image 2-5).



Image 2-5: *Tatter dervish and arrogant young man*, Seven Thrones of Jami, Mashhad, 23.2 X 34.2cm, 16th century. (Welch, 2005, p.101)

According to Dubery and Willates, in a drawing or painting contains several oblique projections from different directions of view, a "strange, slightly unreal quality seems to be enhanced" (Dubery, 1983, p.32). An example of this can be found in the way Iranian artists used to apply oblique projection into their painting:

Stranger still, to Western eyes, is the artist's apparent disregard, in many of these paintings for any single direction from which the scene as a whole is to be viewed. In the Persian miniature painting *Scene from a Love Story* [image 2-6] the tower is shown from one direction, the steps at its base from another, and the projecting balcony or bay window from a third direction; and while these objects are shown as side views, the garden and its ornamental pool are seen from above. In fact, each object is drawn so that its salient or most characteristic face is set in the plane of the picture; objects are drawn in isolation, and almost no attempt is made to show the true orientation of the various objects, in relation to either the viewer or the scene (Dubery, 1983, p.47).



Image 2-6: Shams al-Din, *Scene from a Love Story*, Anthology of Baysunghur, Heart, 19.7 X 12.4cm, 1427. (Dubery, 1983, p.48)

Similarly, in her thesis *Architectural representations in Persian miniature painting*, Serajuddin also described this mixing of directional projections as a "multiplicity of viewpoints" (Serajuddin, 1968). Some similarities to this approach may also be found by considering and comparing the pictorial conventions of Byzantine art:

For roughly eight hundred years, the Byzantine artists seem to have used the outward forms of oblique projection without relating the positions of objects or parts of objects to each other, or to real space; so that the orthogonals often become little more than decorative lines across the surface. Within single objects the orthogonals were often divergent; and where more than one object appeared in the picture the orthogonals very frequently ran in opposite directions [image 2-7]. Thus individual objects are shown as solid but the divergence of the orthogonals has the effect of flattening the picture space as a whole. (Dubery, 1983, p.34)

Since the Byzantium Empire traversed the borders between the east and west, it may be interesting to speculate on the influences that might have occurred between the different artistic cultures. However, there is little concrete evidence to substantiate any definitive relationship between the two traditions, although in *Iranian Painting* (2000), Pakzad mentions that in the first Mongol dynasty established in Iran, (the Ilkhanid empire), there is some evidence that could suggest an influence of Byzantine compositional design on early Iranian paintings, such as disproportionately tall figures in some of the paintings of *jami al tawarikh* (a compendium of chronicles), (Pakzad, 2000, p.61). Therefore, any apparent similarities might well be coincidental.



Image 2-7: *The Numbering of the People*, Mosaic from St Saviour in Chora (Kariye Cami), Istambul, 1300-20. (Dubery, 1983, p.35)

In *Perspective and other Drawing Systems*, Dubery and Willates conclude that sometimes, when two or more drawing systems are used

together in one composition, "the artist may use mixtures of systems deliberately, either to obtain some expressive effect, or in an attempt to come closer to the realities of the perceptual process, or to comment on, or ask questions about the nature of pictorial structures" (Dubery, 1983, p.108). In this chapter these ideas will be explored and extended specifically in relation to Iranian painting.

Before embarking on this discussion it is also useful to consider the work of the early Renaissance Florentine painter and architect, Giotto di Bondone. In breaking with the flat stylisation, so characteristic of Byzantine art, Giotto is recognised as the founder of Western concepts of pictorial representation of form and space. Although he introduced a form of realism that offered a convincing illusion of volume created on a two dimensional surface, Giotto's frescoes also employed different parallel projection systems. Many of the frescoes attributed to Giotto in the upper church of San Francesco at Assisi which illustrate the Legend of St Francis contain a 'mixture of systems', or a 'mixture of implied direction of view', or both. For example, "in the Vision of the Thrones [image 2-8], the thrones above are in oblique projection, with the orthogonals strictly parallel; while the altar and its platform and canopy below are in an irregular version of perspective, with the orthogonals converging in a horizontal plane but diverging in a vertical plane" (Dubery, 1983, p.108). Dubery and Willats believe that: "certainly to the spectator the use of two different and spatially incompatible systems within a single picture does give a strong suggestion of the supernatural" (Dubery, 1983, p.108). This desire to reference the spiritual dimension is also a key characteristic behind the intentions of the painters of the Iranian Golden Age,

but again without firm evidence we have to assume that these developments occurred independently.



Image 2-8: The Master of the Francis Legend: Vision of the Thrones, c. 1297-1300. (http://commons.wikimedia.org/)

2.3.1.2 Using spiral composition as a pictorial device

Iranian artists developed a range of very particular strategies that suggested pictorial depth and volume but also conveyed a sense of the other worldly or spiritual dimension. One of these was spiral composition. Spiral composition cannot usually be seen without closely analysing a painting, but in Image 2-9, it is clearly apparent. It can be followed from the top row of jags on the walls and helmets of the soldiers in the top section. Most of the time, spiral composition is not one of the architectural devices in the paintings, and it is mostly used for the arrangement of the human figures in the scene. However, it still has an influence on the composition of these paintings and gives them an illusion of depth and a suggestion of movement towards a centre.



Image 2-9: *Isfandyar slays arjasp in the Brazen hold*, Baysunghur's manuscript of Firdausi's Shahnama, Herat, 1430. (Sims, 2002, p.177)

2.3.1.3 Using overlapping layers as a pictorial device

In Image 2-10, the artist used a very complicated and intricate building to emphasis the core concept of the painting, which is the isolation of Yusuf and Zulaykha in the room. He wanted to show that no-one was aware of them, so he used numerous closed doors and walls and showed all spaces as empty. To give a sense of depth inside the scene, the artist used the technique of overlapping layers. The exterior walls of the building overlap the vertical floor of the yard; in the top left of the image again we can see the use of this technique. In the room containing Yusuf and Zulaykha, the vertical carpet is overlapped by the wooden parapet. Overlapping layers occur from the bottom to top of the composition and this is a very common technique used in Iranian painting to imply a sense of depth.



Image 2-10: Zulaykha attempts to seduce Yusuf, Sa'di's Bustan (The Orchard), Herat, 1488. (Sims, 2002, p.326)

These three techniques or devices were commonly applied in Iranian paintings in order to achieve the illusion of perceptual architectural space and volume within a two dimensional space of a painting. In the next section, the reasons for this are investigated. However, before that, another technique should be considered which artists used to employ in their practice which involves mathematical relationships.

2.3.2 Mathematics: the hidden structure behind Iranian painting

Up to now, various types of space in Iranian painting and their characteristics have been described. By paying greater attention to these spaces, the role of geometry can be discovered. A prominent geometrical analysis of Iranian painting has been performed by Michael S. Schneider, an educator interested in the uses of mathematics in nature, art, and science. He conducted an analysis of an Iranian painting created in 1560, called: *Salaman and Absal on the Heavenly Isle* (Image 2-11). He concentrated on the use of the golden ratio in that painting and based his analysis on it (Schneider, 2004). His analysis will be explained in more detail, later in this chapter.



Image 2-11: Salaman and Absal on the Heavenly Isle, Haft Aurang of Jami, Mashhad, 1560. (Schneider, 2004)

Another study has been carried out by Sarah Chapman at the University of Edinburgh under the title: *Mathematics and Meaning in the Structure and Composition of Timurid Miniature Painting.* According to Chapman, the most famous scholars who have worked on the geometry of Iranian painting are: Guest, Zain, Adle, and Stchoukine:

Guest identifies the importance of text panels in the calculation of the important measurements and relationships within Persian painting, and discusses the repetition of certain measurements and distances as 'a kind of counterpoint throughout the design.' Zain further investigates the relationship between text and painting, identifies certain formulaic tendencies in the building of Timurid compositions, and discusses the presence of a 'hidden structural line' in many paintings which 'guide' our experience as a viewer. Adle and Stchoukine both investigate the 'mathematical' nature of Persian painting in some detail: Adle finds, like Guest, the repetition of certain measurements and goes on to describe a modular system for the organization of hunting and sporting scenes especially. Stchoukine identifies different geometrical types of composition, and investigates the presence of preconceived linear structures behind apparently random and unstructured scenes (Chapman, 2003, p.33).

From the above description, Chapman concludes that among these scholars there is a consensus on the importance of mathematical structure behind Timurid painting. What she has tried to add in her research about Timurid painting is the classification of two different levels of the use of mathematics. She wants to show that these painters have actually applied "different branches of mathematics: for example both geometry and algebra. The strong sense of visual structure which is so immediately apparent can turn out to be only the most basic level of organisation: there is another, far more complex structure which dominates the painting mathematically, but 'invisibly'" (Chapman, 2003, p.34). She introduces this invisible structure by analysing some of the painting of the School of Herat (Image 2-12). Then she

raises the question of whether or not there are any other reasons behind the mathematical composition, except for its visual effects. This question, however, is beyond the scope of her research and she does not answer it.



Image 2-12: *Bathing maidens observed by the eavesdropping master*, Khamseh of Nizami, 1494-5. (Chapman, 2003, p.48 & p.60)

According to the present study, Iranian painting has followed two principles in the representation of architectural space: firstly, establishing a spatial composition which is neither quite three-dimensional nor twodimensional; and secondly, a hidden structure based on mathematics and geometry governing the entire composition. In the next section, the possible significance of these two characteristics of traditional Iranian painting is explored.

2.4 Investigating theories supporting the representation of space in Iranian paintings

In the previous section, the representation of space in the Iranian painting of the given period has been analysed and its specific features introduced. This section reviews scholarly and historical research which presents explanations of the concepts behind those pictorial spaces, up to the time of the present research.

Firstly, contemporary points of view are described and the weaknesses and strengths of each evaluated. Following this, some historical texts which considered the paintings at around the time of their creation are reviewed. Finally, conclusions are offered about the theories that have dealt with these methods of representing architectural space.

2.4.1 Contemporary theories

The following evaluates the most important ideas that have so far been introduced on the subject. However, this subject has not been the focus of much research and most scholars have simply ignored the possible reasons for the defining characteristics of architectural spaces in Iranian painting. A possible reason for this ignorance might be the influence of other art traditions on Iranian painting. It seemed possible that many features of Iranian painting were introduced from other visual arts traditions; although from a contemporary perspective one can see its specific characteristics; for instance, the use of bright colours, the shadow-less objects, and, in the case of this research, the exclusive form of representing architectural space.

The researcher reviewed many sources about Iranian painting and tried to find those scholars who had noticed these characteristics of space. Amongst those sources, this study considers all the important research that has provided discussions of the subject, and the following pages give a summary of the key theories from these contemporary resources.

2.4.1.1 Geometry

In order to discover the reasons for the particular visual composition and pictorial elements of Iranian paintings, one may concentrate on the techniques which were used in them. One of the best examples of this approach is the analysis by Schneider. As mentioned before, Schneider discovered the use of the Golden Ratio in an Iranian painting created in 1560. The Golden Ratio "is a number often encountered when taking the figures" ratios of distances in simple geometric (Weisstein, http://mathworld.wolfram.com). Schneider clarifies and clearly shows the Golden Ratio in the painting and claims that it was no accident that the painter used it.

He writes: "This ratio has been well-known in virtually every culture and by countless names, including the Golden Ratio and the Divine Ratio, indicating the respect held for it. It embodies the heavenly ideals of beauty,

self-similarity and unity in diversity" (Schneider, 2004). He characterised it as the best way to represent the notion of spiritual birth, which is the central theme of the Sufi story behind the painting.

Furthermore, Schneider claims that it is a common characteristic found in all of the artworks from the ancient world, and that if one finds an example which does not follow that rule, it should be considered an exception. However, by analysing other contemporary artists' paintings in the same century, and especially the ones of the period of the present study, it can be seen that the aforementioned work was exceptional in that period, and that the use of the Golden Ratio was not typical in Iranian painting.

Another assumption based on the study of sections derives from a comparison of compositional sections in Persian painting in relation to Persian calligraphy (Image 2-13). In this regard, Yves Porter states that: "the composition of the illustrations closely follows the lines of the *mastar* [required ruling for calligraphy in Persian script], this *mastar* includes not only the horizontal lines for calligraphy, but also vertical lines for the columns of a poem, and perhaps also some oblique ones" (Porter, 2000. p.111).



Image 2-13: *Iskandar visiting the hermit*, Khamseh of Nizami, 1494-5. (Chapman, 2003, p.53 & p.67)

Chahryar Adle continued this notion and identified the grid used by the painters in their works. It is not difficult to discover this grid in Iranian painting as well as in Iranian decorative art. By analyzing architectural space in most of these paintings, the presence of a grid as the basis of the lines can be clearly seen. Similar angles and parallel lines are two important pieces of evidence for the existence of the grid.

These ideas and those which were introduced in the previous section about the broad application of mathematical and geometrical rules can explain some features of Iranian painting which direct it toward harmony and a unity between text, illustration and layout. However, as Dr Canby mentions (the author's interview of 21/02/2007) those features cannot suggest any convincing reason for the specific characteristics of the spatial compositions of Iranian painting. It is, therefore, proposed here that the use of mathematics and geometry in Iranian art in fact merely shows the importance of these sciences in Iran at the time. While Schneider has tried to relate these features to ideas of heavenly beauty, self-similarity, and unity in diversity, he cannot support his claims by any convincing proof. Furthermore, there is no research which can clearly explain and make a connection between the use of mathematics and geometry and the before-mentioned characteristics of spatial composition of Iranian painting.

2.4.1.2 Literature

Another method for understanding the ideas behind Iranian painting is to make a comparison between Persian literature and painting. Yarshater makes this comparison in four respects, two of which – according to him – are relevant to the representation of architectural space in Iranian painting. These two aspects are "abstraction" and the "harmony of the whole despite a pronounced diversity of the component parts" (Yarshater, 1962, p.67).

Yarshater describes Persian poetry as referring more to the subjective meaning of reality rather than demonstrations of the visible world. He considers it as an abstraction of 'real objects', and states that the Persian poet always treats objects as 'types' and not as 'individuals'. Comparing this feature of poems with those of Iranian painting, he argues that in painting, too, a similar attempt is made by artists to represent an abstract view of the real world. He thinks that one way for an artist to achieve this abstractive

form is by taking away the linear perspective² from the painting. "By this simple device we are at once introduced to a world which is one stage removed from reality as it appears to the eye, a world not bound by any specific notion of time or space" (Yarshater, 1962, p.63). This idea conveys the necessity of excluding linear perspective, shadow and the sense of reality from pictorial spaces in those paintings. This "subjective meaning of reality", or what we shall refer to as "imagination" later in this chapter, has a profound meaning in Iranian schools of thought.

The other aspect which Yarshater points to is the Sufi belief in 'unity despite diversity'. According to this belief, everything in the world is a representation of the entity of God. Yarshater declares that he has found this notion in Persian painting as well as poetry. He says that the Iranian artist used many different motifs in his painting, "such as human figures, animal and floral elements, or architectural fragments in their own right, no matter how relevant or irrelevant they may be to the main theme of his work" (Yarshater, 1962, p.67). Yarshater thinks that these features produce diversity in Iranian painting which should lead to 'a certain lack of unity'. He believes, however, that the artists solved this problem by making 'an amazing harmony' through their methods of design and colour. Despite Yarshater's claim, it is not clear how architectural fragments and the other above-mentioned components can represent the notion of unity despite diversity in

² Linear, scientific or artificial perspective makes artists "able to achieve a systematic representation of naturalistic space in picture. The first known description of artificial perspective is by Alberti, in his *Della Pittura* written in 1436 (Dubery, 1983, p.56)." Although there is no evidence which shows that Iranian artists of the Golden Age knew about this kind of perspective and were not using that deliberately.

relation to harmony. This connection of the elaborative observation of nature and architectural spaces to the Sufi notion of diversity despite unity seems rather far-fetched. In almost every culture and tradition, from China to the West, there are many paintings which have delicate representations of nature and the real world and almost all of them have excellent harmony and perfect composition.

Another piece of research has been conducted based on some stories in Persian literature. In some Persian tales, the main character sees a picture of a person and falls in love with him or her. The lover usually then finds the painter, asks about the person, and finally meets him/her. For example, in *Khosro and Shirin* by Nezami e Ganjavi (1141 – 1209), Shirin saw a picture of Khosro and fell in love with him (Image 2-14):

They brought the portrait [of Khosro] to her She gazed at it for several hours She neither could leave it And nor could hug that portrait She became drunk by looking at it The guard tore off the portrait Because it made the beautiful princess pale When Shirin asked again for the portrait They said that the devil draws that picture (Nezami, http://ganjoor.net)

Finally she found Shapour, the painter of the portrait, and asked him about it and, at the end of the story, Shirin and Khosro met each other and fell in love. The issue here is the similarity; is the picture so realistic as to help someone to find the person depicted and fall in love with him?



Image 2-14: Muḥammadī, *The Portrait of Khosrow Is Shown to Shīrīn*, Khamseh of Nizami, 1539– 43. (Welch, 2005, p.74)

By reading the stories carefully, it can be understood that the similarity which is mentioned in these narratives is not a physical one. The researcher, Burgel, believes that this is a magical similarity, the power of a picture, or a representation of a deeper spiritual meaning. Burgel asserts that "a hidden layer of meaning seems to exist, at least in some of these tales. If I am not mistaken, they symbolize man's search for the reality that lies beyond the image" (Burgel, 1988, p.135). In other words, the painters of those portraits were seeking and showing a deeper meaning or reality beyond the visible presence. This idea has been supported by other researches, which will be mentioned in the following pages.
2.4.1.3 Sufi traditions

One reason which has been offered by many researchers for the specific characteristics of spatial composition in Persian painting is that the painters were attempting to represent heaven or the divine world in their artworks. The similarities between heaven and earth in Islam are noticeable. According to the Koran:

And convey good news to those who believe and do good deeds, that they shall have gardens in which rivers flow; whenever they shall be given a portion of the fruit thereof, they shall say: This is what was given to us before [in the world]; and they shall be given the like of it, and they shall have pure mates in them, and in them, they shall abide. (Koran, 2:25)

Following the Koran's description of Heaven, some Iranian Sufis believe in other important characteristics which are attributed to it and were brought to Islam from Zoroastrianism by the master of Illumination Philosophy, Suhrawardi, in the twelfth century. According to this belief, Heaven is made of a delicate matter which is called 'light' in Zoroastrianism and illumination Philosophy.³ Later in this chapter these characteristics of Heaven are explained.

According to Sufis, terrestrial matter is a veil which does not let us taste and enjoy all the beauties of Creation perfectly. This world provides us with all of the forms, colours, smells, and so on, and the divine world does not

³ Porter explains the influence of Mazdean (Zoroastrian) notions in Sufi traditions in the "theory of the two qalams" using a slightly different approach (Porter, 2000, p.113).

have anything more except the possibility of experiencing them free from the veil. This divine world implies the necessity of a different concept of space, which many, such as Nasr, believe that Persian paintings were representing. In Nasr's view,

The space of Persian miniature is a recapitulation of this space (Divine) and its forms and colours are a replica of this world The space is depicted in such a way that the eye roves from one plane to another, moving always between the two-dimensional and the three-dimensional. But the miniature does not allow the eye to 'fall' into the three-dimensional pure and simple. (Nasr, 1987. p181)

Nasr and his colleagues explain how an Iranian painting's specific forms of space, which is neither completely two- nor three-dimensional, can show the divine world. Although most of these paintings illustrated Persian myths, which belong to the pre-Islamic Iran, as we shall see later, the Iranian Muslim painters had established various rules, which they believed that a painter must follow in order to produce an Islamic artwork. This is explained in due course in the story about Daniel and Mani's paintings.

2.4.1.4 Observing nature

Another important issue which can definitely influence painters concerns how they view nature and the world around them. To find out how Iranian painters looked at the world during a specific period, their contemporary intellectual contexts might be studied. Sufism was the most influential school of thought in Iran during the medieval period and many Iranian painters used to be part of Sufi circles, such as that of Behzad (the most famous artist of the School of Herat). This, therefore, gives us a clear idea about how artists saw nature and the visible world, and how they saw its connection to the divine or the other world. According to Sufi tradition, one can "reach the next world not by denying this world, but by understanding how this world represents a channel to the next world, i.e. by understanding how extraordinary the ordinary is" (Leaman, 2004, p.177).

Leaman argues that, if we observe the Sufi tradition in the Persian world, we can see how they were looking at the world in the most realistic possible way; this is because they believed that the ordinary world represented the divine world. He gives some examples of the exhaustive realism which can be found in the decorative patterns, forms of objects, and representations of nature, such as "the hairs on the head of the cat" or "every fibre in the turban on someone's head" (Leaman, 2004, p.169).

He draws our attention to the fact that as we look at something very closely, we discover more about it and can penetrate deeper inside it. He thought that this is what a Sufi practitioner would try to do when he looks at nature. If we were to look at the architectural space in Iranian painting from this point of view, we may find this idea relevant to the way in which ornaments appear on buildings. We can observe delicate decorative details on walls, edifices, or the very tiny parts of buildings. Although Leaman's idea about the Sufi's philosophy of the world sounds very feasible, his argument about showing details in Iranian painting is less certain if one compares Chinese and Iranian paintings of that specific period (Image 2-15). Chinese painting also has the same interest in detail. It could be very acceptable,

therefore, to search for the origin of this aspect of Iranian painting in Chinese or Western miniatures or any other art which influenced it.



Image 2-15: (Left) detail of: a Chinese painting, 1413. (www.wikipedia.org). (right) Detail of: *Salim visiting Majnun in the desert*, Khamseh of Nizami, Herat, 1494. (Gray, 1977, p.120)

So, if we ignore Leaman's notion about the depiction of detail, we may find the rest of his argument acceptable when he describes the painters' activity as a concentration on the shapes of objects in order to reach the divine meaning behind the world (Leaman, 2004, pp.167-168).

2.4.1.5 Anti-Sufism

From these reports of contemporary scholarly articles about the theories behind Iranian painting, the only point which can be found in common among all the aforementioned researchers is that they look at Iranian painting as divine art or an art inspired by Sufi thought. All of the theories discussed gather around one central idea: an effort to show the deeper, spiritual or divine meaning behind the ordinary object and the terrestrial world. It can be observed that all of these scholars seek the reasons for the specific features of the spaces of Iranian painting in Sufi thought; although none of them has clarified this subject perfectly and exhaustively. Conversely, Oleg Grabar thought that Iranian painting does not correlate at all with the Sufi tradition in Iran. Grabar rejected the notion by arguing that:

When one contemplates the mass of Persian miniatures, it is tempting to throw oneself into this kind of mystical explanation, seeing in it successive representations of a paradise of gardens, flowers, beautiful pavilions, and two-dimensional human figures floating in an unreal universe ... The chief difficulty with this interpretation comes from what we know of the circumstances in which these paintings were created. It is an art of the court, and, with a couple of exceptions it is not very likely that the Turco-Mongol princes, on whom the Timurid and Uzbek *kitabkhanes* (libraries) depended, would have been mystics or would have favoured the attitudes or practices of mysticism, nor, usually, would the Safavids (Grabar, 2000, Pp.143-144).

Grabar's claim may sound reasonable if one believes that a professional mystical debate, which needed to be supported by the court, was going on in those paintings. In fact, the main issue here is the existence of mystical beliefs, which were accepted as conventions in a particular society, and a sort of religious truth in the heart of individuals, as well as artists. On the other hand, consider what Grabar stated only a few pages earlier:

[Persian painting has] only a secondary element for the princely patron who sees the expression of his worth in its existence and not in its forms, and [...so it] can serve as a vehicle for all kinds of ideas and observations sometimes difficult to explain in written form and not always immediately obvious to viewer (Grabar, 2000, p.127).

A paradox in his argument can thus be observed, where it presents simultaneously two different aspects. Grabar writes that, because the courts of the Turco-Mongol kings were not mystical, it cannot be accepted that these artists produced mystical art. However, he has already stated that these kings were only interested in the worth of the paintings and not in their forms, so that artists could show their ideas in their paintings. It is highly irrational to think that because the patrons of the artworks were not artists and did not believe in mystical traditions, the artists could therefore not demonstrate their beliefs in their art.

Things become even more interesting when one reads Grabar's rationalization of the specific forms of space in Iranian paintings. From his point of view, Persian paintings represent ideal forms of the aristocratic and royal life of their times. He claimed that the absence of real forms and spaces in these paintings reflects the special features and characteristics of the small court in which they were produced (Grabar, 2000, p.144). However, given that there is no logical relationship between the small world of the court and the unreal forms of architectural spaces, his argument seems to be based on claims with no reasonable justification, and we cannot agree that he has disproved the Sufi origin of Iranian painting.

2.4.2 Historical documents

After considering contemporary viewpoints about the representation of architectural spaces in Iranian paintings of the given period, this research turns to reviewing the historical sources written close to the time of the creation of those artworks. One of the best existing sources of information about the Golden Age of Iranian painting is the treatises surviving mostly from the sixteenth and the seventeenth centuries. Generally, these treatises were written to accompany albums and art collections which contained paintings and calligraphy. Most of the texts have a similar structure independent of the content of the collections. They usually provide a short history of Iranian painting and calligraphy from the era of Mani (Iranian Prophet and painter (210-276 CE)) to their own time. By comparing several treatises, the present author has found three dominant texts which served as references for the others. These are: a preface to Bahram Mirza's Album by Doust Mohammad; Gulistan-i honar (The Rose-garden of Art) by Qadi Ahmad ibn Mir-Munshi al-Husayni, who lived in the Safavid Period and, according to Minorsky, the date of whose Treatise must be 1596-97 (Qā.dī, 1959, p.15); and Qanun al-sovar (The Canons of Painting) by Sadiqi bek Afshar, which is a book about paintings and their techniques, probably written in the late 16th or early 17th century.

From these three sources, two major principles have been derived, which are: the similarity to Creation, and the superiority of meaning over form.

2.4.2.1 Similarity to Creation:

In the epistle of Dust Mohammad, which was written as the preface to *Bahram Mirza's Album*, the author regarded painting as a metaphysical

issue. He recounted a story and concluded that good paintings which pious artists create are a tradition going back to God, whereas other paintings are devilish.

The story relates to some companions who went, following the Prophet Muhammad's demise, to Byzantium to present Islam to other nations. They met an emperor called Hercule there. The emperor showed them a chest full of beautiful portraits which amazed the group. They asked Hercule about the origin of these paintings; he answered:

"Adam besought the Divine Court to see the prophets among his offspring," said Hercule. "Therefore the Creator of All Things sent a chest containing several thousand compartments, in each of which was a piece of silk on which was a portrait of one of the prophets. [...] After attaining his desire Adam placed the chest in his treasure house, which was near the setting place of the sun. Dhu'l Qarnayn carried it away and gave it to the prophet Daniel, who copied [the portraits] with his miraculous brush" (Thackston, 2001, p.12).

The author then compared this kind of painting – which originated in the Divinity and was established by a prophet – with Mani's painting as a fake prophet. He wrote that when Mani decided to claim his prophecy he chose painting as his miracle. He stayed in a cave for one year and when he emerged he brought a painting out with him. Dust Mohammad described Mani's painting as forms which can "sit on the page of possibility in the visible world only with fantastic shapes" (Thackston, 2001, p.12). He asserted that only short-sighted people would accept this painting as a miracle. It can be seen that Dust Mohammad did not tolerate any unreal and fantastic figures in painting. He regarded them as seductive and misleading. He thought that good art, that is, to him, religious or divine art, should reflect the art of God,

similar to the portraits which the companions saw in the chest of the emperor Hercule.

The second source which supports this idea is Qadi Ahmad's treatise. He insisted on the similarity of painting to nature as the most important feature of art. He and many other authors regarded Creation as the art of God and recommended it as the best model for artists. He described his famous contemporary artists as *"shabih-kesh"* (able to paint similar to objects) (Qadi Ahmad, 2004, p.139, 140,151). One of Qadi Ahmad's poems reads:

Well done, the magic-working masters of the brush Whose bewitching tool bestows a new life? They come to grips with every creature And conjure up to life the likeness of everyone; In creating they are followers of the pure godhead, From the encompassing circle of the sky to the surface of the earth, They cast their glances about Creation And make copies of every original. Their creative art is a guide to the plan of the universe, With them the *qalam* [brush] is bent in prostration (before God). I cannot understand with what art they treat images, So that they seem to be speaking to men. (Qā.dī, 1959, p.178-179)

This idea can also be traced in our third treatise, Qanun *al-sovar*. Sadiqi bek has an analogous opinion about similarity to Creation in painting. He said:

If they draw a portrait, you can count the magic and miracle in it If they decided to paint a portrait, they made it in a way that from the origin of the portrait...

Nobody can distinguish any difference, except from the point that one of them is moving and the other one is still. (Qadi Ahmad, 2004, p.154-155)

Without exception, therefore, all of these Iranian scholars in the given time emphasise Creation as the best model for artists. This is also similar to Leaman's idea about the Sufi influence on Iranian painting, as mentioned before. So, if the artists were trying to show a similar picture of nature, why can we not see this theory reflected in their practice? Why in Iranian painting can there be seen an intentional attempt by painters to distance their paintings from the copying of nature? As pointed out by Burgel, there was a similar idea about portraits in Iranian stories. According to him, the reason should be searched for in terms of "the reality that lies beyond the image" (Burgel, 1988, p.135). The artists were not trying to copy nature; instead they were searching for the reality of nature. The next section helps us to better understand this issue.

2.4.2.2 Depicting the meaning or reality of Creation

Another feature attributed to the Iranian paintings by commentators in the sixteenth and seventeenth centuries is "meaning". We can see evidence of this in the description of Abd al-Samad about one of the paintings of his colleague, Mir Sayyid Ali (sixteenth century). According to Abd al-Samad, "Mir Sayyed Ali moved away from an art based on form (sura) to one based on meaning (ma'na). This is very much a Sufi distinction, and places the emphasis on showing things as they really are, not as they might be or could be in some possible world" (Leaman, 2004, pp.167-168). Another example of this point of view can be found in Dust Mohammad's preface to *Bahram Mirza's Album*, when he introduced one of his artist contemporaries: "Then there is the portraitist and poet Mawlana Muhammad known as Qadimi who, knowing that content is more important than form, has painted and spoken things as they ought to be" (Thackston, 2001, p.16). Note that there are two mistakes in this translation; one in the word *"mosavvar,"* which has been translated as portraitist but means painter in general, and the other is *"ma'ni"* which has been translated as "content" rather than "meaning". According to this source, therefore, Qadimi was a painter who preferred meaning to form.

The final source is Sadiqi bek Afshar's poems in *Qanun al-sovar*. Sadiqi wrote:

My heart always desires to become like Behzad [famous Iranian painter, 1450-1535] Become a professional in painting, and searching for meaning from the appearance of things If my heart knows about the techniques of painting, it will go in the way of finding meaning, unconsciously... I learned painting in a way that I could reach to meaning from the appearance... If you want to enjoy painting, I am teaching you some points If you have the talent, then Sufism is the most important matter in painting. (Qadi Ahmad, 2004, pp.155-157)

Sadiqi believed that the task of the painter is to find and indicate meaning from the appearance of objects. He specified his claim by stating that, after possessing the talent, one needs to learn Sufism in order to become a good painter. It has been shown that two of our medieval Iranian authors emphasised the importance of searching for the meaning behind the visible world. They contended that painting should follow God's creation in order to be good art, but they add that artists should not simply copy nature but should search for the meaning or reality of Creation through Sufism, and demonstrate it in their art.

2.4.3 Summary and conclusions

From this study of existing historical and contemporary sources, it can be understood that most of the scholars agree on the Sufi origin of the representation of space in Iranian painting. Some of them, like Schneider and Yarshater, think of unity in diversity which, as has been mentioned before, cannot be accepted because this is unsubstantiated and implausible. Others, like Porter and Nasr, discus the representation of the heavenly world in these paintings; and some, like Burgel, Leaman and medieval Iranian scholars, consider the demonstration of the real meaning behind the visible world to be the most important issue in Iranian art. The latter assert that Iranian artists were seeking the spiritual and divine meaning of the world. They were looking at the world as their model and trying their best to represent nature by searching for the reality of it. They were observing the world around them carefully and creating an art which was not simply a copy of the visible world, but were, rather, representing the real forms of the objects. The visible world for them was a stage of "the spiritual journey and a crypt from which the gnostic must escape in order to reach ultimate liberation and illumination, as is seen in the writings of Illuminationists and Sufis like Suhrawardi and Ibn Arabi" (Nasr, 1993, p.2).

As has been mentioned above, there are two influential ideologies which, according to most of the scholars, have affected the representation of space in Iranian painting: one of these is the concept of heaven, or the heavenly world in comparison to the terrestrial world; and the other is the real meaning behind the visible world. In the following, each of these ideologies will be explained and clarified.

2.4.3.1 The heavenly world in comparison to the terrestrial world

As Nasr and Porter mentioned, one of the famous reasons given for the specific features of the spatial compositions of Iranian painting is that they are attempting to show Heaven in their paintings; and because Heaven is immaterial they make the paintings different from the real world. However, according to Islamic doctrine, resurrection is materialistic and the heavenly world is similar to this world, as can be read in the 75th Surah of the Koran, called 'The Resurrection': "Does man think that we shall not gather his bones? Yea! We are able to make complete his very fingertips" (Koran, 75:3-4). These phrases insist that God will gather the matter of the bodies of creatures and rebuild them to be similar to their terrestrial bodies. Therefore, the idea of an immaterial Heaven cannot come from original Islamic sources and must have another root. This idea is derived from Illumination philosophy in Iran. The School of Illumination was established by Shahab al-Din Yahya Suhrawardi (1155-1191) and continued in Iran until the Safavid period, when it reached its summit in philosophers such as Mulla Sadra (1571–1640), who wrote a profound explanation and commentary on Suhrawardi's most

important book, *hikmat al-ishraq (Illumination Philosophy)*. The main book of Illumination philosophy, *Hikmat al-ishraq* is a suitable source for introducing the Illuminationist idea of Heaven. The subsequent quotations are from this book.

Suhrawardi tried to revive Zoroastrian ideology and cosmology in Iran and to mix it with Platonic philosophy. According to him, Illumination philosophy is:

the very intuition of the inspired and illumined Plato, the guide and master of philosophy, and of those who came before him from the time of Hermes, "the father of philosophers," up to Plato's time, including such mighty pillars of philosophy as Empedocles, Pythagoras, and others. [...] This is also the basis of the Eastern doctrine of light and darkness, which was the teaching of Persian philosophers such as Jamasp, Frashostar, Bozorgmehr, and others before them (Suhrawardi, 1999, p.3).

In establishing his idea, Suhrawardi follows the Zoroastrian division of the world into light and darkness. From this point of view, the material is darkness, whereas God is pure light and does not contain any matter. This notion also states that the world of light and its delicate order is superior to that of the world of darkness. Lights are also divided into two groups, incorporable light and accidental light. Incorporable lights are immaterial and shapeless. God is incorporable light, and any other lights, such as angels, spiritual existence, and visible light, are accidental lights and derived from Him. Similar to this group, celestial bodies in Heaven are also a kind of accidental light. Suhrawardi extracted these ideas from Zoroastrian philosophy, as he mentioned in *hikmat al-ishraq*, "... the spiritual luminaries, the wellsprings of kingly splendour and wisdom that Zoroaster told of [...and the entirety of the] sages of Persia were agreed thereon" (Suhrawardi, 1999, p.108).

The heavenly bodies are neither terrestrial matter nor immaterial light; they can be defined as something in between. To understand better the 'world of celestial bodies' or Heaven in Illumination philosophy we should understand what celestial bodies are. Suhrawardi usually refers to the 'celestial bodies' as the 'suspended images' (which is a term borrowed from Platonic philosophy). Suspended images can be seen in this world through imagination or as objects inside mirrors. He argues that, the images in our brain – which he calls imagination – or in mirrors are 'suspended images' because, when somebody looks at an object, it cannot be imprinted on his eves or brain, and also when an image is reflected in a mirror, the object is not imprinted on it. The mirror and imagination are places for suspended images to appear, but this does not mean that they are inside them; in fact, they are not in any place in this world, at all. He gave a similar account of the imagination and images in mirrors in relation to dreams. He said that all we are experiencing and seeing in our dreams are the same 'self-subsistent images'. This is because we cannot encompass, for example, mountains or seas or anything we see in a dream inside the brain or one of its cavities. He argues that because luminosity makes the images in mirrors and also the images of mirrors, dreams and imagination have the same quality, so all such images are made of light and they have smooth bodies (Suhrawardi, 1999, p.154).

If it is possible that we can see some images in our dreams or imagination or in a mirror without "depth or back," which are "self-subsistent",

made of light and not in the material world (Suhrawardi, 1999, p.138); therefore, it can also be possible to think of another world which these images can be present in. This world is the heavenly world, as spoken of by the illuminationists. Suhrawardi calls this world the world of "incorporeal figures", the "resurrection of images", and the "lordly forms" (Suhrawardi, 1999, p.150).

According to Suhrawardi, the prophet and saints and 'the ascetics whose worship is pure' can enter Heaven or the world of suspended images, and they can bring their imagination into existence there. They can create everything that they desire, such as any form that they imagine. "These forms are more perfect than those that we have; for the loci in which these of ours are made evident and their bearers are deficient, while those of the former are perfect" (Suhrawardi, 1999, p.148-149). It is also worth reading in full Suhrawardi's description of the people who attend this world during their lives:

The brethren of incorporeality have a special station in which they are able to bring into existence self-subsistent images in whatever form they desire. [...] Whoever sees that station knows with certainty the existence of a world other than that of barriers. [...]Whoever has experienced it in his divine traces as he ascends will not return until he has ascended from level to level of the agreeable forms. The more perfect is his ascent, the purer and more delightful will be his contemplation of forms. Thereafter, he will penetrate the world of light and finally reach the Light of Lights (Suhrawardi, 1999, p.155).

In short, all objects in Heaven are made of a delicate matter. This delicate matter is not terrestrial but at the same time it is not immaterial, and it is something in between. The objects in Heaven are similar to those of the imagination, dream, or the objects in mirrors. Because of their delicate matter

they are more perfect than their equivalents in the terrestrial world. Good people can enter the world of these objects and observe their forms and also they can bring their imagination into existence in that world.

2.4.3.2 Sufism and the real meaning behind the visible world

Sufi traditions vary according to their period and the region of Iran, although all of them share similar principles. One the most famous mystics in the entire history of Sufism in the Islamic world is Ibn Arabi (1165- 1240). Ibn Arabi has a key position in Islamic Sufi traditions, similar to that of Suhrawardi in the philosophy of Illumination. His thoughts on Sufism have been referred to by different Sufi traditions, in different periods. For instance, a contemporary of the Herat school of artists, Nur al-Din Abd al-Rahman Jami (1414-1492), the best known Sufi and poet of his time, was very enthusiastic about Ibn Arabi, and wrote a book called *naqd al-nosus*, which is a critical review of Ibn Arabi's *fosus al-hikam*.⁴

Ibn Arabi usually uses the Koran or *Hadith* (the Prophet's words) to support his thought. In this sense, he is closer to the original Islamic sources than is Suhrawardi. He uses a phrase from the Koran to show the relationship of God to the cosmos. According to the Koran, God "is the First and the Last and the Manifest and the Nonmanifest" (Chittick, 1998, p.201).

⁴ Jami was very influential in the Herat Court, and some of his books were illustrated by the artists of the School of Herat and also of the Safavid period. Alishir Navai'i, a poet as well as minister in the Herat Court was a well known Sufi and a disciple of Jami. He was a devotee of painting and had close relations with the artists of the court.

That God is the 'First and Last' reflects the point that everything comes from God and will return to him. It indicates that the world is temporal. On the other hand, according to Ibn Arabi, God created the world to be similar to him; so the phrase 'God is Manifest and Nonmanifest' refers to the dual existence of the cosmos, the visible world and the hidden world. The visible world is the world that we can see or feel with our sensory faculties. In the non-visible world, "beyond seventy or seventy thousand veils of light and darkness – stands the divine Essence, which is totally and utterly hidden to all things" (Chittick, 1998, p.201). Ibn Arabi described these two worlds as "the bodily world and the spiritual world" (Chittick, 1998, p.242). In addition to these two worlds, he claimed that there is a third world between the bodily and spiritual worlds which is called *Barzakh* or the world of imagination. If we look at the world of imagination from our bodily perspective it will be spiritual, but if a spiritual being looks at it, it seems bodily.

According to Sufis, the world of imagination is the reality of the visible world. Ibn Arabi says that in order to unveil the reality of the world, one cannot use his/her rational faculty; instead s/he needs an "illumined visionary organ" which is pure from the "dross of the lower worlds" (Chittick, 1998, p.253). With this illumined visionary organ, the real meaning of the world can be seen; this real meaning is the world of the imagination. The world of the imagination is nearer to the divine world and it has attributes such as 'luminosity, knowledge, life, and power.' Everything which can be seen in the visible world derives from the world of the imagination and finds its origin in it (Chittick, 1998, p.258). Since the *Barzakh*, or the world of the imagination, stands between two other worlds it has the properties of both. Therefore, "the

barzakh is the most perfect of worlds because it embraces the attributes of the two sides" (Chittick, 1998, p.259).

Another *hadith* which Ibn Arabi used in his argument concerned the reason for Creation. According to the Prophet, God said: "I was a hidden Treasure, I yearned to be known. That is why I produced creatures, in order to be known in them" (Corbin, 1969, p.184). God created the world to manifest himself, to become visible and limited in forms, but at same time He has no limit and cannot be seen. Therefore, God should be manifested and seen in a form that cannot limit Him or make Him visible. This is the manifestation by imagination. So God created the world to be known by his creatures through their imagination, and therefore Ibn Arabi regarded the imagination as an encounter:

the coincidence, between God's descents toward the creature and the creature's ascent toward the Creator. The 'place' of this encounter is not outside the Creator-Creature totality, but is the area within it which corresponds specifically to the Active Imagination, in the manner of a bridge joining the two banks of a river. The crossing itself is essentially a hermeneutics of symbols (*ta'wil, ta'bir*), a method of understanding which transmutes sensory data and rational concepts into symbols (*mazahir*) by making them effect this crossing (Corbin, 1969, p.189).

As mentioned, the intermediary or bridge between the hidden world and the visible world is only the imagination. In the space of the imagination the incorporeal being of the hidden world is embodied, but is still not a material or physical body. On the other hand, the material and sensible world are immaterialized and spiritualized in the imagination and find a more delicate body. This intermediate world is what Sufism believes to be the reality of the terrestrial world (Corbin, 1969, p.190). Ibn Arabi used another *hadith* attributed to the Prophet to show the importance of the role of the imagination in comprehending the reality and truth of the visible world. The Prophet says "Men are asleep, they awaken at their death". According to Ibn Arabi this means that:

Everything human beings see in their earthly lives is of the same order as visions contemplated in dream. The advantage of dreams over the positive data of waking life is that they permit, or rather require, an interpretation that transcends all data, for data signify something other than what is disclosed (Corbin, 1969, p.208).

He said that this interpretation of the earthly or visible world can be made only in the imagination. The true imagination can reveal 'the true nature of the world'. Sufis can understand the reality of the terrestrial world and everything they see in it only with the help of their imagination.

It can be summed up that the world of imagination similar to Suhrawardi's Heaven is a world in between; it is not terrestrial and not immaterial. Also it is the most perfect world because it has the attributes of both divine and material worlds. According to Sufi belief, the real meaning of the material world can only be understood through imagination and also God or the divine can only be comprehended by it.

2.4.3.3 A comparison of these two theories with the characteristics of Iranian painting

It has become clear from the foregoing discussion that Heaven, which some scholars believe to be the origin of the representation of space in Iranian painting, is made of light. This light is not the immaterial light of God, on the one hand; and, on the other hand, it is not made of terrestrial matter. It is the third kind of being or the in-between being. Interestingly, the world of the imagination, which is referred to by some other scholars as the real meaning of the visible world, is also made of a similar matter to that of Heaven. As Corbin (1903-1978) stated, 'Ibn Arabi's metaphysics of the Imagination' borrows lots of important features from 'Suhrawardi's Oriental theosophy'. And one of those is that the material of the world of the imagination consists of light; the world of the imagination is a luminous world similar to Suhrawardi's Heaven (Corbin, 1969, p.190). Thus, in both accounts of the particular forms of representation of architectural spaces from the Golden Age of Iranian painting, a reference to a world which is made of light can be found.

Illuminationists believe that this world is Heaven; but Sufis think that, because God has insisted on material resurrection, this world cannot be Heaven; instead, it can only be comprehended inside our imagination. They, too, believe that it is a space between the spiritual and bodily worlds. Whether it is imagined as Heaven or *Barzakh*, both have the same characteristics, and can be depicted with the same qualities. According to existing sources it is impossible to decide which of these worlds was being referred to by Iranian painters, but it is clear that there is a consensus among most scholars that Iranian painting always represented a world which is not made of terrestrial matters and has specific features.

As has been said before, Heaven or *Barzakh* is made of light, and because of this no shadows are found in Iranian painting. As also mentioned, the images in this world should be similar to the images in mirrors, and they

should not have depth. On the surface of a mirror, one can touch the reflected images of the objects which are near to the mirror or those which are far away. The depth inside a mirror is not real and it is only an illusion. Similarly, in Iranian painting, all objects are at the same level, and the depth is an illusion made mainly by overlapping planes, mixture of different parallel projection systems or by spiral composition. The other feature is that the world of imagination or heaven is the world of suspended images which should not settle in the form of corporeal objects. In order to represent this feature in Iranian painting, they depicted different objects from several different direction of view. Iranian artists knew that they should not reproduce real spaces which could exist somewhere in the world, and they arranged the spaces in a particular form as introduced during this chapter.

3 Understanding deconstructive architecture in order to advance the traditional Iranian concept of space

3.1 Introduction

This research concerns the possibility of using deconstruction to advance understanding of the notion of space in Iranian painting. The second chapter of this thesis has provided an introduction to the idea of space used in Iranian painting during the Golden Age, showing how Iranian artists established their specific forms of space to indicate the real meaning of the world. It has been explained that, according to their belief, heaven, or the world of the imagination, constitutes the reality and true meaning of the visible world. They thought that the real and perfect forms of objects are those which exist in heaven, or the world of the imagination, and so they tried to demonstrate those real forms in their painting. As has been argued, heaven, or the world of the imagination, is made of light and is not terrestrial, and Iranian artists considered this point in creating artworks; therefore, the spaces in their paintings look unearthly, and different from the architectures in the real world. It has also been mentioned that this real meaning of the world, which is addressed in the 'broken forms' of space in Iranian painting, is a hidden meaning which can only be discovered by observation of the world through Sufism.

With the intention of understanding the possibilities of using deconstruction to advance the concept of space in Iranian painting, the

author introduces in this chapter the spaces of deconstructive architecture, which have been derived from the philosophy of deconstruction. Initially, the author began with a study of the philosophy of deconstruction for a period of approximately one year. He examined the works of the French philosopher Jacques Derrida (1930-2004), who is the originator of deconstruction philosophy, and also the books and articles which explain his ideas (there is a summary of this study in Appendix 2). This study was undertaken in order to comprehend the application of Derrida's philosophy in art. There follows an explanation of this, which is intended to assist in the understanding of the concept of deconstruction and its function in relation to architectural space.

From the short summary of deconstruction philosophy in Appendix 2, it can be seen that deconstruction is a critique of the concept of presence in the metaphysical tradition in Western philosophy. Western philosophy holds that each sign at a given time and in given conditions has only one present meaning and its other possible meanings are absent. Derrida looks for a way in which he can release the Western mind from this strong hand of binary opposition of presence and absence. He wants to say that every possible meaning that can be comprehended from one text is equally valid. He suggests that if two or more opposite concepts of a word or sign in general be considered together and equally, the metaphysical notion of presence will be destroyed forever. As a deconstructionist writer, he produced texts which do not give any simple or straightforward meaning to the reader. He aimed to remove any difference between presence and absence of meaning in his text by creating ambiguity and uncertainty in them. Derrida takes these ambitions to architecture as well. The following section shows how Derrida and his

colleagues destroyed the concept of presence inside a deconstructive architectural project.

3.2 Beginning of deconstructive architecture

The 1980s was an important decade for contemporary architecture. Around the beginning of that decade, it can be seen that different architects, in different places, began to build some strange structures;

[They] seemed to be placing buildings and bits of buildings at odd angles so that they clashed and even penetrated each other. They made immensely complicated drawings and models, sometimes so packed with detail that you could hardly see the building for the drawing. It all seemed, to say the least, unsettled and unsettling – if not confused and confusing (Glusberg, 1991, p.12).

These unsettled or confused structures were the beginning of deconstructive architecture. During the 1980s, the idea was improved and developed, and many architects began to show interest in deconstructed forms of spaces. The year 1988 was a turning point for the young movement, a symposium was held by Academy Editions⁵ in London, at the Tate Gallery, and some related articles were published in two magazines, *Architectural Design* and *Art and Design*. In the same year, an Exhibition on 'Deconstructivist Architecture' was run at the Museum of Modern Art in New

⁵Academy Editions was a publisher based in London, which published major postmodernist texts during the 1970s and 80s. It also used to publish the *Architectural Design* magazine (known as AD), which was first launched in 1930 (http://en.wikipedia.org/).

York. The exhibition contained the works of the most important architects of the movement, such as, Frank Gehry, Peter Eisenman, and Bernard Tschumi. From these two events, two assumptions about the new movement emerged. One of them centred London, where the majority of scholars believed that deconstructive architecture was related to Derrida's philosophy, and the other one was in New York, where they did not accept the same assumption. Mark Wigley, who wrote the catalogue for the exhibition in 1988, named the movement Deconstructivism, in regard to Russian Constructivism of the early twentieth century. The architects of Deconstructivism were interested in forms, similar to Russian Constructivism. They were thinking of the possibility of deconstructing the use of basic forms which constructivists established in their work. They denied any relation to Derrida's philosophy, and rejected any similarity between their work and his philosophy. One such dissenter was Frank Gehry, who will be introduced later in the next chapter.

Since this research intends to compare the philosophy behind the spaces of deconstructive architecture with Iranian painting, the work of the New York based Deconstructivism movement cannot help us in the case of this research. Consequently, the London based assumption about deconstructive architecture, which is relevant to this research, will be studied here, with the aim of finding how the philosophy of deconstruction was applied to practice.

The first architect who started to think about using deconstruction philosophy in architecture is Bernard Tschumi. He was living in New York, when he wrote his famous book *The Manhattan Transcripts* in around 1976 and 1981. This book was the beginning of the theory of deconstructive

architecture (Papadakes, 1988, p.33). According to him, he read 'Grammatology', 'Marges' and 'Positions' by Derrida, before writing his book (Glusberg, 1991, p.66). Two years later, in 1983, Tschumi won a competition to design a park with several functions on the site of a previous slaughterhouse in Paris. Tschumi's park, which has been called, *Parc de la Villette*, is the most important project for the purposes of this research, for two reasons. Firstly, because Tschumi and Eisenman, who both worked on this park, are famous for their interest in deconstructive architectural theory; secondly, they worked directly with Derrida. The park project will be explored as a case-study of deconstruction. Therefore, in the following sections, deconstructive architecture and its characteristics will be explained, based on the theories which have been written about *Parc de la Villette*, or by the architects who participated in that project.

3.3 Deconstructive Architecture

According to Eisenman, deconstruction "says something about the possibilities for theoretical activity in the centre" (Papadakis, 1989, p.149). Therefore the most important task for a deconstructionist architect is to understand and recognize this centre in every architectural structure and to think about the possible ways of deconstructing it.

Architecture, like philosophy or metaphysics in general, or any other structure, signifies a concept and meaning. This meaning and concept is

traditionally the centre of all structures, and directs the structure and form of architecture. Some examples of these meanings can be the notion of function, the relation of space to the concept of habitation, and the culture in which architecture is rooted (Derrida, 1997b, pp.104-105). In architecture, meaning always derives from different aspects of belief and the requirements of human beings. It can be said that architectural spaces have been made for the presence of men (Tschumi, 1986, p.9). This is what is called the anthropological dimension of architecture. Eisenman stated that "architects always relate what they are doing to the human figure" (Derrida, 1997b, p.7), such as scale and function. Some traditional aesthetic rules about this relationship have even been found. So, function (and scale in relation to it), is the anthropocentrism of architectural tradition, and similar to logocentrism in Western philosophy for Derrida, it became the main issue for deconstructionist architects.

Eisenman established a critique of the systematic privileging of the human body and its actions in space, over scale, form and design of space. Tschumi also considered the rift between space and action, form and function. To begin the process of deconstruction Tschumi thought that instead of this transcendental relation between form and function, perhaps it would be possible to relate form to other things. He wanted to prove that it is possible to construct a complex architectural organization without referring to traditional rules of composition and order. For instance, he tried to relate different forms to each other (Papadakes, 1988, p.38). In *The Manhattan Transcripts,* Tschumi said that he is looking for "new relations, in which the traditional components of architecture are broken down and reconstructed

along other axes." He wanted to dismantle the buildings which are constructed based on the relationship between form and function and reconstruct them with no regard to their function. As Derrida explained, however, this breaking down and reconstruction is not a 'nihilistic gesture' or 'reversal of values' or even an 'anarchic chaos'. It is only "an architecture simply left vacant after the retreat of gods and men." He claimed that Tschumi is no longer concerned with organising space as a function, in any form (Tschumi, 1986, p.11).

To sum up, it has been stated that architecture has traditionally been regarded as a metaphysical subject, human beings and their beliefs and desires governing its order, giving it meaning and standing as the central concept of its structure. The forms and spaces in architecture are traditionally designed to fulfil its assumed applications and functions. Therefore, function is the main concept of architectural structure and its meanings.

The architects of the *Parc de la Villette* project were searching for ways to deconstruct this central concept, which, according to them, is the logocentrism of architecture. Tschumi tried to remove function from its transcendental position in architecture and supplement it with other structures, and Eisenman, with the help of Derrida, struggled to defer the function of space by reducing the difference between presence and absence in space. The techniques used in that project can be divided into two categories: firstly, the technique called superimposition, which supplements the centre to deconstruct it; and, secondly, the technique that is called chora in this project, which deconstructs the centre by deferring the presence of its meaning. In the following, it can be seen how Tschumi and Eisenman used

these techniques to deconstruct the concept of function in the project of *Parc de la Villette*.

3.3.1 Superimposition

Superimposition has been used by most deconstructionist architects. According to Tschumi, it is a technique drawn from a deconstruction critique of language. He thinks that the assumption of architecture as a pure language claims that the architectural object is a never-ending play of the grammar and syntax of the architectural signs. Thus, architecture becomes a selected vocabulary of architectural elements of the past, with their oppositions and contrasts (Tschumi, 1994, pp.36-37). In a superimposition process, architects find different elements and layers of the past inside the site, before starting to design; then they combine, clash and superimpose them.

In designing the *Parc de la Villette*, Tschumi established three different layers (Image 3-1):

- 1. Points: This is the point grid of *folies*, which will be explained later.
- 2. Lines: These are the pedestrian movements through the park.
- Surfaces: These are the various park surfaces which have their own textures, dependent on their function (pavements, grass, sports) (Tschumi, 1987, p.6).



Image 3-1: Tschumi, Superimposition technique, Parc de la Villette. (Tschumi, 1987, p.3)

He explained that when systems of points, lines and surfaces are superimposed on each other, the subject and the architect will be erased. "According to Tschumi, each system is conceived of as an idealised structure, a traditional effect; but when these systems are superimposed, distortions arise and the result is 'a series of ambiguous intersections between systems'" (Proudfoot, 1991). Tschumi held that the superimposition of points, lines and surfaces opens up "a field of contradictory and conflictual events which deny the idea of pre-established coherence" (Tschumi, 1986, p.3). This process of superimposition, which governs the *Parc de la Villette* design, is questioning the concept of function, use and centre in the structure. In Tschumi's superimposition, each layer is a system, and has its perfect structure and process, and by clashing and conflicting these systems a complicated and ambiguous result is achieved.

For Eisenman's deconstructive architecture, the history of the site becomes the existing lexicon of architectural language. Eisenman suggested the process of palimpsest, which consists of rooting down to earlier developments on the site and to ancient foundations. He used these traces in his designs, even if sometimes it was impossible to find such history in a site; he designed and built foundations that he thought should be there (Glusberg, 1991, p.76). Eisenman compares this process to the postmodernist idea of contextualism. Contextualist urban designers have been trying to find latent existing figures, and giving them the value of their past presence on the site. This is against the modernist doctrine of every site as a possible tabula rasa⁶ (Derrida, 1997b, pp.134-135). Eisenman did not follow contextualism and forgot about the past presence of those elements; instead he used each existing history on the site as a quarry for his future project. In designing the garden for the Parc de la Villette project he thought that Tschumi's plan for the park would be one of his guarries for his garden, and Paris has been used as his other quarry, particularly the slaughterhouse and its walls

⁶ "The *tabula rasa* in architecture signifies the utopian blank slate on which a new building is conceived, free of compromise or complication after the demolition of what previously stood on the site" (http://en.wikipedia.org).

(Derrida, 1997b, pp.70-71). For Eisenman, different layers are the existing forms which can be used in designing architecture (Image 3-2).



Image 3-2: Eisenman, Superimposing technique, garden of the Parc de la Villette. (Tschumi, 1987, p.III & p.9) & (Derrida, 1997b, p.60 & p.88 & p.130)

It can be seen that various architects superimpose and clash their layers in different ways; for example, Eisenman employs clashing angles,

Tschumi clashing geometric systems, and some of them clashing 'beams' in three dimensions (Glusberg, 1991, p.17).

At this stage, one of the layers that Tschumi invented to use in the *Park de la Villete* project is explained. This layer or system is Point-Grid. Originally it is a supplement added to the central idea of the park to replace the centre and deconstruct the structure. In anticipation of the park competition, the park was expected to have a great deal of functionality. The point-grid, then, was a brilliant idea for Tschumi to find an appropriate solution for this, and to release himself from any preconceived meaning or function attributed to the project. He said:

There must be no identification between architecture and program: a bank must not look like a bank, nor an opera house like an opera house, nor a park like a park. This distanciation can be produced either through calculated shifts in programmatic expectations, or through the use of some mediating agent – an abstract parameter that acts as a distancing agent between the built realm and the user's demands (at La Villette, this agent was the grid ...) (Tschumi, 1987, p.49).

The general circumstances of the project, according to Tschumi, were to find an organizing structure that could exist independently of the function, a structure without centre or hierarchy, a structure that would negate a causal relationship between a programme and the resulting architecture (Tschumi, 1987, p.IV). He designed twenty 10 X 10 X 10 metre cubes consisting of a three storey construction of neutral space (Image 3-3), which could be transformed and detailed according to functional needs. He called these cubes *folie*. He suggested this name because the *folie*-grid serves several constant points of reference of disjunctions and dissociations between use, form, and social values, throughout the park. He regarded them as a characteristic of the situation at the end of the twentieth century (Tschumi, 1994, p.174).



Image 3-3: Tschumi, Twenty cubes of folie, Parc de la Villette. (Tschumi, 1987, p.25)

He elaborated his idea and gave an explanation about one of the *folies*. He explained that during the project, he designed a building for a gardening centre, but after finishing the concrete framework it was recognized as a restaurant, and finally it was used successfully as a workshop for children's painting and sculpture (Tschumi, 1994, p.21). Derrida said that these *folies* destabilise meaning and call the structure of the building in question and deconstruct it (Tschumi, 1986, p.11).

As has been mentioned, the *folies* are neutral structures which do not have any relation to function, and can be used for any purpose, and the grid is a plan for settling the idea. The grid is a repetitive structure, defining a potentially infinite field of points. The grid is a system which can be extended infinitely; it is a supplement which is added to the centre of the project and replaces and decentres its structure. It disrupts all borders of the project and makes it infinite. By superimposing two systems here, one neutral, antifunction, 10X10X10 red cubes of *folie*, and one infinite, anti-centre and borderless system of grid, Tschumi designed one of the most successful deconstruction projects.

3.3.2 Chora

Chora is another technique established by Eisenman and Derrida through the series of meetings and conversations they had together. Chora is about the deferring of the presence of meaning in architectural structure. In order to understand chora, firstly we should know what is called presence in architecture and what is called absence. Traditionally in architecture solid parts are presence and voids are regarded as absence. As we know in deconstruction, presence does not have any privilege over non-presence,
and they are equal, so in deconstructive architecture a void should be as much presence as a solid. Solid and void, presence and non-presence, positive and negative these are all taken to be synonyms (Derrida, 1997b, p.7). With this new point of view Eisenman defined the new term of chora in architecture. The main idea drew on Plato's *Timaeus*. Derrida found *Timaeus*. to be a text which attempted to defeat the logic of binary opposition. According to Plato, there are two kinds of being: the intelligible, which is eternal and unchanging, and the sensible, the becoming world. The sensible are a copy of the intelligible in the material world. Then, ironically, in Timeaus, Plato states that there is something else, a third kind: a kind in which all types are inscribed, and at the same time is none of them, this is the chora. Chora means place or receptacle in general. It receives everything and gives place to everything. However, it is not like sensible matters and stays absolutely blank; everything that is printed on it is automatically effaced. It remains foreign to everything it receives, so, in a sense, it does not receive anything. Everything inscribed in it erases itself immediately, while remaining in it (Derrida, 1997b, pp.9-10).

Chora is a place, a receptacle, which, because of its nature, cannot be represented in any form, or any architecture. Eisenman, with Derrida's contribution, thought about a way to represent the non-representable space which could give the visitor the possibility of thinking about the meaning of architecture. Eisenman explains his understanding of chora as following:

Since classical times there has been another definition of place, which suggested such a simultaneity of two traditionally contradictory states. This is found in Plato's Timaeus in the definition of the receptacle (chora) as something between place and object, between container and contained. For Derrida, chora is a spacing, not a between, but a neither nor, neither a space nor a place. For an architect who needs to "ground" a concept, chora is like the sand on the beach: it is not an object or a place, but merely the record of the movement of water, which leaves traces of high-tide lines and imprints – erosions – with each successive wave receding to the water. [...] Chora introduced another possible conception of space as the distinction between trace and imprint. In my earlier projects, because there was no idea of receptacle, all of the marks were essentially traces, that is, the residue of something that was formally present. In the sense that the term is used here what was formally seen as a trace can now be called imprint (Derrida, 1997b, p.134).

The concept of trace leads to a previous, hidden or absent presence. However, with the notion of imprint no present meaning is pointed at, not in past nor currently. From here, Eisenman tried to find possible ways of applying the concept of chora to architecture. He has suggested two ways of representing it; one way was to destabilize the traditional functionality of space by make it in part inaccessible; for example, he designed a house with a room which one can look into but can never enter; one can feel its presence in every other room in the house but can never experience it. This had the effect of always making one feel outside of the house, because the ultimate interior was inaccessible. Derrida found it as a good analogy for chora (Derrida, 1997b, p.34). This method of making ambiguity in spaces is directly related to the concept of function in architecture. The function of a space traditionally is habitation but in this method it finds another function; it can be felt as a space but cannot be entered. It can be compared with some previous works of Eisenman, for instance, in House VI, which will be explain in next chapter, having a stairway that doesn't work, or a bed with a window in between, or a column in the middle of a bedroom which nobody can put a bed inside (see Image 4-11). Eisenman said that: "I would argue that the

work was certainly not anti-functional but against symbolizing function" (Papadakis, 1989, p.142).

The second method was erasing and effacing in order to get to chora. Because chora is nothing in itself, because it erases everything inscribed on it immediately, the act of erasing would be a way of representing chora. However, according to Derrida, at the same time, there should be something, and that would be the traces of erasing (Derrida, 1997b, pp35-36). The result is having a space which is not stable, but leaves the traces of a former stability; an ephemeral and constantly changing project (Derrida, 1997b, p.46). Eisenman thought about using sand and water to represent this method. People who visit the park can draw on the sand and by running water on it, their marks will be erased. Because this idea is not related to architectural spaces directly, it will not be considered in this research.

It is possible to make a closer comparison between chora in architecture and some methods in deconstruction philosophy. The idea of chora can be considered as an equivalent to the idea of *différance* in literature. Like difference between signs which makes meaning in language, different spaces are making the meaning in an architectural structure. Similar to meaning in language, which lost its presence by the double concept of the word *différance* (to differ and to defer), presence of meaning in architectural structure will be lost when we have a double concept of chora, which is giving space to all objects and at same time being always empty and erasing everything enter it. It is a space which is both present and not present, and at same time is neither of them. Chora can be replaced with any idea about

spaces with unstable presence, for instance, Eisenman found similar ideas in the concept of atopia, he said:

There are other conceptions of place that are similar to the idea of chora that enter into the La Villette project. The idea of atopia is one. Atopia is literary 'no place' or 'without place.' The relationship between chora and atopia is that they both propose a displacement of the traditional concept of place [...]. The concept of urban place has been associated with a bounded or framed unitary condition of presence (Derrida, 1997b, p.135).

3.4 Comparing the idea of deconstructive space with the pictorial spaces in Iranian painting

This research has introduced two examples of using 'broken spaces' in two divergent cultures and backgrounds. It has explained the theories which support each of them and tried to show how, in each case, theory can be applied to practice. The next stage of this research will provide a comparison and possible ways of integrating these two different traditions with each other. This comparison will be performed with the intention of answering the research question of how deconstruction can help Iranian artists to improve their concepts of space.

At the time the author became familiar with the ideas that supported deconstructive architecture and Iranian painting, he began searching for other studies that compared these two theories. Interestingly, he found that in some theoretical fields, such as philosophy and Gnosticism, there exists some research which compares deconstruction to the Eastern Gnostic traditions. The most helpful and relevant source of information on this particular comparison was a symposium held in Tehran. Three months after Derrida died in October 2004, the Iranian institute of Philosophy with the cooperation of The Iranian Academy of Arts, held a conference in Tehran under the title 'Jacques Derrida: From Philosophy to Art'. In this symposium, Pakatchi, a university tutor in philosophy, gave a lecture about Derrida's theories of deconstruction as perceived by scholars of Eastern Gnosticism. In this lecture, he mentioned research carried out in this subject, such as comparative research by Drob (*Tzimtzum and Différance: Derrida and the Lurianic Kabbalah,* 2004) examining deconstruction and the Jewish cabbalistic tradition, and also Toshihiko Izutsu's research comparing Zen and Buddhism to Derrida's ideas. Finally, he referred to research conducted by Coward (*A Hindu Response to Derrida's View of Negative Theology,* 1992) (Pakatchi, 2007, pp.185-188).

The final part of his lecture involved a comparison of deconstruction and Islamic Gnosticism. He said that one of the best arguments in this subject has been made by Almond (2002). In his comparison between Sufism and deconstruction, Almond chose Ibn Arabi for his research on Sufism. As mentioned in the last chapter, Ibn Arabi (1165-1240) is one of the most influential and famous Sufi Muslims, and it is commonly accepted that his ideas can be regarded as the principles of Islamic Sufism. Therefore, Almond chose him and made a comparison between his ideas and deconstruction philosophy in four respects:

- 1. Sufi/deconstructionist opposition to rational thought.
- 2. Derrida and Ibn Arabi on 'bewilderment'.
- 3. The meaning of infinity in Sufi and deconstructive hermeneutics.
- 4. The secret in Ibn Arabi and Derrida.

Pakatchi explained the second aspect of Almond's research in his lecture. This is a comparison between the concept of *différance* in deconstruction, which causes confusion in a text and doesn't allow a straightforward meaning for the reader, and the concept of 'perplexity' in the Sufi method of knowing God, which is the "unthinkability of God" (Almond, 2002, p.525). According to Almond, "for both Derrida and Ibn Arabi, the perplexity, effusion of meanings and manifestations can be neither controlled nor resisted" (Almond, 2002, p.534). God as the ultimate truth in Islamic Sufism cannot be comprehended and conceived through the human mind, and all the perception of Him are bafflements and confusions. Similar to this is the meaning of a text according to Derrida, as it cannot be clarified purely and depends on the perception of different readers.

For the present research it was decided to review the details of Almond's comparison to find out if there is anything particularly relevant to our subject. From this, it seems that the part of Almond's research most relevant to the present discussion is the third aspect of his comparison. In his argument Almond deals with the notion of the infinite meanings of one text, and he suggests that deconstruction in fact "restores a medieval sense of infinity to the text" (Almond, 2004, p.97), although it uses a completely different method from those of the Sufis.

Almond describes various characteristics of Ibn Arabi's hermeneutic as: "counting up the letters numerologically, deriving meaning from their various shapes and arrangements, extracting acrostics and anagrams from apparently straightforward pieces of verse" (Almond, 2004, p.99). These features show Ibn Arabi's effort in extracting hidden and mysterious meaning

from a text. Almond states that, similar to Derrida, Ibn Arabi did not believe that a text transmits a fixed meaning to its readers. To Derrida, every time somebody reads a text, it brings new concepts to his/her mind - according to the situation, and his/her knowledge and experience at the moment of reading - and there is no end to this production of new meanings. Ibn Arabi says in *Futuhat* (written at the beginning of the 13th century): "Hence, when someone understands a sense from the verse, that sense is intended by God in this verse in the case of the person who finds it" (Almond, 2004, p.103). This reflects the belief that the Koran has as much meaning as the people who read it. This is called ta'wil in religious sources. The word ta'wil means carrying back to the origin, but in a religious text it means that the text has an infinite number of inner meanings. Unlike the interpretation of a text, ta'wil lets the readers of a text release their imagination and discover the absent meanings of the text (Almond, 2004, p.101). In this sense, Almond thinks that what Derrida did with texts in general seems to be an extension of Ibn Arabi's idea about the Koran. In both cases, there are no proper meanings in a text and what exists is, instead, an infinite possibility of new concepts, an endless possibility of reading in different ways.

So how can it be possible that these two completely diverse ways of thinking produce similar results? Ibn Arabi is a fourteenth century Sufi, and Derrida is a twentieth century philosopher. There are obvious cultural, historical and methodological differences between these two thinkers. Almond has noticed these differences in his research and holds that their similarity derives from different backgrounds and they are not completely comparable to each other. According to him, in Ibn Arabi's case, the infinite

presence of God causes the multiplicity of meaning. In other words, God is present in every different meaning which can be produced by different people in any possible circumstance. This omnipresence of God gives all those divergent meanings equal validity. However, in Derrida's sense, it is the never-ending absence of the author or creator which leads to countless meanings and makes all of them invalid. They are invalid because there is no access in a text to the original meaning or the meaning in the mind of the writer. Therefore, all meanings that are produced by different readers can be equally invalid. Almond says: "The Derridean text, essentially parasitic, is not infinitely rich but, in fact, infinitely poor – far from being an 'inexhaustible' storehouse of treasures like the Qur'an, it draws its wealth from its surroundings, having nothing of its own to offer" (Almond, 2004, p.105).

This comparison shows that in Sufi texts such as Ibn Arabi's books there is an attempt to represent every apparently absent meaning. Sufis give an equal value to every interpretation of a text. Similar to Derrida, they enjoy encouraging readers to produce their own meanings by playing with texts. This playing with text and creating ambiguity can also be seen in every other aspect of their work. One of the most important of these is the paintings made for illustrated books where this ambiguity can be recognised in the spaces that Iranian artists represent in their painting. This is a reminder of deconstructive architecture, in which architects play with certain concepts of the architectural structures, such as function and scale, to make meanings vague. Therefore, it is a common quality of both the spaces of Iranian paintings and of deconstructive architecture. In the following section, the deconstructive techniques in architecture, which have been mentioned before, are compared with the methods used in Iranian painting in order to find possible resemblances in visual art.

3.4.1 Comparing the superimposition technique in deconstructive architecture and Iranian painting

As mentioned in the previous chapter, scholars have found various geometrical and mathematical systems in traditional Iranian painting. These systems consist of geometrical patterns like grids, and some hidden mathematical systems, for example based on algebra. The artists superimposed these systems and organised the structures of their paintings with them. To the best knowledge of the present researcher, no study can satisfactorily explain the motivation of Iranian artists for using these systems. The only obvious reason that comes to mind when comparing Iranian painting with Iranian architecture, the latter using geometry more fundamentally, is that it was a tradition amongst artists to make their work perfect and more organised by using geometrical and mathematical systems in their work.

Iranian artists used variant geometrical and mathematical systems in their paintings, they being almost the same in all of the paintings. These systems are independent from the story of the paintings and also from each other. It can be said that they were establishing a method of superimposition similar to that of deconstructionist architects. Therefore, it should be possible to compare these two art traditions in this instance with the hope of finding

some similarity. In deconstructive architecture, two methods of superimposition were introduced: firstly the superimposition of existing layers in the site; and secondly the superimposition of different systems, which Tschumi was especially interested in.

The superimposition of existing layers can be compared with the use of *mastar* in Iranian painting. *Mastar* are the lines which are drawn, usually by calligraphers, to lay out their writing on a page. Ives Porter believes that painters followed these lines as a pre-existing arrangement for the composition of their painting (see Chapter 2). There is a similarity between traditional Iranian painting and deconstructive architecture in this case. As mentioned before, Eisenman states that by using the existing layers in a site architects can release themselves from the subject of the architecture or its central notion, which is the function. Similarly, in traditional Iranian painting, by following the *mastars* artists can draw a structure independent of the subject of the painting, which is the story.

However, the truth is that this similarity can only be a coincidence. Deconstructionist architects wish to release themselves from the central notion which traditionally governs architecture, but traditional Iranian artists never wanted to release themselves from the centre or the story of the book which they illustrated. The inspiration for using an existing layer in their painting seems to be that they should strive for harmony between the text and painting in the book, and if they have to follow some lines independent from the central notion of painting they return back to the centre by using the other components of their paintings. Thus, in the above Iranian version of

superimposition of existing layers, there is no such thing as liberation from the centre as is the case in deconstructive architecture.

The second method of using superimposition in architecture was the superimposition of different systems. Tschumi who has established this method, identified different systems and superimposed them in his projects, for instance in *Parc de la Villette* he defined three systems of points, lines and surfaces. In this case, Tschumi's superimposition is similar to the use of different geometrical and mathematical systems in Iranian painting. Iranian artists also established their systems and superimposed them in their paintings.

As part of this research, some traditional Iranian paintings were analyzed with the aim of discovering the geometrical systems behind them. A general geometrical system found in all these paintings was the grid. The architectural structures in all of them were drawn on the basis of a grid. As we know, in the *Parc de la Villette*, Tschumi also used a grid-point system as the basis of his project. It could be very helpful to compare the two systems of grids in Iranian paintings and Tschumi's deconstructive project. This is because both were originally established as a system in the process of superimposition and in both cases there is no relation between the centre, the function or the story of the artwork and the grid, which has been added to those artworks for another purpose. Because the grid is independent from the central concept of the artwork we can call it a supplement, as has been identified in the vocabulary of deconstruction.

It can be seen that there is some similarity between the grid layer in Iranian painting and the *Parc de la Villette* project, but there are also some

noticeable differences between them. We saw that the grid layer had been supplemented to the central idea of those artworks, but in the *Parc de la Villette* project the grid is a deconstructive supplement. It is added to the central concept of the project to deconstruct it, so that it replaces the centre in that project. Conversely, in Iranian painting the fact that this supplement is not intended to replace the centre, the narrative function of the paintings – which is their central notion – can be clearly seen in all of the artworks. In Iranian painting, the grid seems to be added only because it helps the painter to create more perfect art. It seems to be a part of a tradition in Iran of making perfect art which can be compared with architecture, pattern and decorative design and the other arts which share an interest in the use of grids. Therefore, the grid in Iranian painting is not a deconstructive supplement and does not function like one. The discourse about grids can be extended to all the systematic layers in Iranian paintings and deconstructive architecture.

Despite the apparent visual similarity between these two traditions in the case of using the method of superimposition, there is a conceptual contradiction which prevents their integration. It becomes clear that superimposition in both the method of Eisenman (based on the previous existing layer in the site) and that of Tschumi (based on the different systems) are comparable to examples in traditional Iranian painting, but these similarities are purely visual and they have completely divergent conceptual backgrounds. For Iranian contemporary artists, using the technique of superimposition cannot demonstrate what tradition they are interested in, and it depends on their inspiration and aim in using this

technique. Superimposition can help the artists in the process of deconstruction, but it depends completely on what they are doing with the notion of the centre in their artwork.

3.4.2 Comparing the spaces produced by the concept of chora and Sufi thoughts

It has been mentioned that in Parc de la Villette - which is one of the most important projects for the deconstructive architecture movement in the 1980s – two main practical techniques were derived from deconstruction philosophy; superimposition and chora. It has been discussed why superimposition cannot be integrated conceptually into the Iranian traditional notion of space. In the following, the second technique, chora, will be discussed and compared with the spaces of Iranian paintings. As has been said, most researchers believe that traditional Iranian painting is based on Sufi thoughts, and in the same way the chora is based on a philosophical text by Plato. Unlike the superimposition technique, which is based on existing layers or independent systems, the chora and Sufi thought have a more profound effect on the resulting art. We already know that both the concept of chora and Sufi traditions lead to the 'broken forms' of spaces in deconstructive architecture and Iranian traditional painting. They can both be considered as methods of representing meaning, which is visualized through the particular forms of spaces. It has also been discussed how the spaces of both Iranian tradition and deconstructive architecture are the result of those

meanings that they want to represent. Therefore, we should compare the meaning which they are going to represent, in order to understand the visual similarities of them. These types of spaces have a deeper similarity in the thought and philosophy which support them. The following section compares the concept of Plato's chora with the Sufi concept of the world of the imagination.

Chora is a technique based on Derrida's reading of Plato's *Timaeus*. In the *Parc de la Villette* project Derrida introduced the idea of the chora to the architects. With regard to the notion of the chora, Derrida and Eisenman produced spaces which question the concept of space, especially the notion of function as the core idea in architecture. At this point in the present research, firstly, the concept of chora will be elaborated according to Plato's *Timaeus*, and then the traditional Iranian concepts of space – based on the Sohrawardi and Ibn Arabi's thought – will be compared with the deconstructive notion of chora.

In *Timaeus*, which seems to be one of the latest of Plato's texts, he explains his famous division of the cosmos into two forms and the world which contains them. He describes these under the names of the sensible world and the intelligible world, but suddenly he talks of a third kind when he writes:

We must start our new description of the universe by making a fuller subdivision than we did before; we then distinguished two forms of reality – we must now add a third. Two were enough at an earlier stage, when we postulated on the one hand an intelligible and unchanging model and on the other a visible and changing copy of it (Plato, 1977, p.67).

Then he describes the third form which, according to him, is 'the receptacle' or 'chora'. Plato states that this receptacle or chora gives a place to everything and receives all of them, including intelligible forms and sensible beings. The 'third kind' is a receptacle which can give place to the two other kinds. But Plato holds that this place never "takes permanent impress from any of the things that enter it"; he describes it as "a kind of neutral plastic material on which changing impressions are stamped by the things which enter it, making it appear different at different times" (Plato, 1977, p.69). Therefore, the chora is a flexible receptacle that gives place to everything – no matter if they are intelligible images or sensible forms. It always remains itself and has no intelligible or sensible characteristics.

The second description of the chora given by Plato is "the nurse of all becoming and change" (Plato, 1977, p.67). The chora is a place for becoming and changing; a place in which intelligible images becoming sensible being. Plato said that sensible objects are copies of intelligible images; therefore the chora does not add any features from itself to them. In fact, it should be neutral and devoid of any features. This is because if it had any characteristic inherent to it, "it would badly distort any impression of a contrary or entirely different nature when it received it, as its own features would shine through" (Plato, 1977, p.69). As a result, the chora is a place which does not have any quality of intelligible or sensible being or any distinguishable character. It is something else and, as Plato portrays chora, "we shall not be wrong if we describe it as invisible and formless, all-embracing, possessed in a most puzzling way of intelligibility, yet very hard to grasp" (Plato, 1977, p.70).

After reading Plato's definition of the chora, we can move to Derrida's perception of it. Derrida describes the chora's state of 'being neutral' in his own way and suggests that because chora is neither sensible nor intelligible, "one cannot even say of it that it is *neither* this *nor* that or that it is *both* this *and* that" (Derrida, 1995, p.89). He thinks that because the chora can gather with both intelligible and sensible forms and at the same time has no similarity with those two forms it cannot follow the traditional logic of binary opposition which used to be known as the rightful logic. He contends that the chora does not follow "the natural or legitimate *logos*". Instead, it derives from "a hybrid, bastard, or even corrupted reasoning" (Derrida, 1995, p.90). He finds this logic similar to the logic of deconstruction.

After becoming familiar with the notion of chora, the next stage will be to compare it to Sohrawardi and Ibn Arabi's idea of 'heaven or the world of imagination'. The first similarity coming to mind is the division of existence into three worlds or parts. We shall start with Plato's summary of his idea about the cosmos, where he describes these three parts:

First, the unchanging form, uncreated and indestructible, admitting no modification and entering no combination, imperceptible to sight or the other senses, the object of thought; second, that which bears the same name as the form and resembles it, but it sensible, has come into existence, is in constant motion, comes into existence in and vanishes from a particular place, and is apprehended by opinion with the aid of sensation; third, space which is eternal and indestructible, which provides a position for everything that comes to be, and which is apprehended without the senses by a sort of spurious reasoning and so is hard to believe in (Plato, 1977, p.71).

As mentioned earlier, Sohrawardi and Ibn Arabi also divide the world into the same partitions: a world of intelligible, spiritual or immaterial light or being; a world of sensible, bodily, dark or material beings; and a world in between these two, which can be perceived by looking at the images in a mirror or in a dream or the imagination. The similarity between the intelligible world and the spiritual world or the world of immaterial light on the one hand, and the sensible world and the bodily world on the other, could be the subject of further research which might emphasise the influence of Plato on Sohrewardi and Ibn Arabi. However, our present purpose requires a comparison of their conception of the third kind of being. As Plato states, the chora stands between the intelligible and sensible worlds; it receives everything from intelligible forms to sensible bodies and gives place to all of them. Similarly, Ibn Arabi believes in a world between the bodily and spiritual worlds. He says that the cosmos consists of two worlds: the bodily and the spiritual; but he adds a third world to these two, which is in between the bodily and spiritual worlds, he calls this the world of the imagination (see Chapter 2). He holds that everything in the sensible world comes from the world of imagination, and that the world of imagination stands between the two other worlds and has the properties of both. Ibn Arabi's world of the imagination, according to him, is like a place which bridges the two sides of a river. The objects in this world consist of a delicate matter that is neither sensible nor intelligible (See Chapter 2). From Ibn Arabi's description of the world of the imagination, it seems that both he and Plato are talking about a similar world.

Another comparison can also be made between the qualities of forms inside these third worlds. According to Plato, we can look at the chora as a dream-like form, and so we can understand the quality of chora by comparing it with dreams. He states: We look at it indeed in a kind of dream [...]. And because of this dream state we are not awake to the distinctions we have drawn and others akin to them, and fail to state the truth about the true and unsleeping reality (Plato, 1977, p.71-72).

Botz-Bornstein believes that Plato suggests a comparison between chora and dreams because the discussion about them is not "purely logical" (Botz-Bornstein, 2002, p.174). The world of dreams does not follow the logic of the ordinary world. The logic of dreams and its spaces is vague, and different from the order of the sensible world. The condition of the chora is similar to that of dreams. Because of this similarity, if one wants to understand the chora s/he should look at dreams. Botz-Bornstein also thinks that the most important quality of a dream is that it exists "between abstract (invisible) and concrete (visible) Being" (Botz-Bornstein, 2002, p.174), and therefore chora will exist between abstract and concrete, invisible and visible states. In addition, as Derrida thinks, this dream-like quality of chora can give it "a power or divination" (Derrida, 1995, p.90). Besides all these explanations, what is more obvious is that the comparison between the chora and the dream "means also that the dream corresponds to the third kind of being" (Botz-Bornstein, 2002, p.174). Therefore, the chora and the dream both belong to the third kind of world, or, in other words, both are names for one quality or nature.

After this introduction it is time to go back to Sohrawardi's discourse on dreams. As explained in the previous chapter, according to Sohrawardi we can perceive heaven by observing three forms of images: those of dreams, images in a mirror and the imagination. We already know that the third kind

of being is called heaven in Sohrawardi's philosophy and we can see that he – like Plato – compares heaven with dreams. According to Sohrawardi, dreams or the imagination are spaces in which suspended images appear, but at the same time, they are not located inside them. He said that these images do not exist in any sensible or material place. They do not have any 'depth or back' and they are 'self-subsistent'; therefore he suggests that there is another world in which these images are present. He has called this world heaven, or the world of 'incorporeal figures', or the 'resurrection of images' (see Chapter 2).

Up to now, it has become clear that the chora and the world of the imagination (or heaven) are the third world which stands between the two worlds of intelligible and sensible, or spiritual and bodily being. We know that they both give place to the two other forms and at the same time do not have their characteristics; and to understand and imagine them we should compare them with dreams. Both the chora and the spaces of heaven or the world of the imagination follow the logic of dreams and are different from the ordinary world.

The other important issue about this third world is the status of images in it. Plato engages in a discourse about the difference between the two concepts of 'true opinion' and intelligible. He thinks that the 'true opinion' is a way to understand the third kind of being, saying that "if intelligible and true opinions are different in kind, then these 'things-in-themselves' [or the third kind] certainly exist, forms imperceptible to our senses, but apprehended by thought" (Plato, 1977, p.71). Then he adds that if we take them as one thing then we must be able to achieve intelligible reality through our physical

senses, which is impossible. So he concludes that there is a difference between 'true opinion' and intelligible, and on the other hand, one can perceive the 'third kind' only through his/her 'true opinion'. True opinion can be compared with the true or sincere imagination in Ibn Arabi's thought. It is the imagination which can help people come into contact with heavenly images and perceive them (see Chapter 2). True opinion reminds us of the role of imagination in Sohrawardi and Ibn Arabi's philosophy. Plato's definition of true opinion, which is 'imperceptible to our senses, but apprehended by thought', is similar to Ibn Arabi's statement that we should comprehend the third kind through our imagination.

Derrida says that because the chora does not follow the order of intelligible or sensible worlds, it should be "of images of the *eidos* [or the intelligible world] which come to imprint themselves in it" (Derrida, 1995, p.95). From this explanation of chora we can understand that it consists of certain images similar to the world of the imagination. These images are dissimilar to the images in the sensible world and they are also different from intelligible images. The most important quality of these images should be their in-between-ness, and, as Derrida says, being neither sensible nor intelligible, and at the same time being both sensible and intelligible. This condition of being between and, as Plato mentioned, this state of becoming and changing, is similar to what Sohrawardi said about the imagination. According to him, imagination is between immaterial light or the intelligible and material or sensible; he believes that good people can enter it and bring their imagination into existence (see Chapter 2). This means that good people have this power to change intelligible imprints in the world of

imagination into sensible being. Similarly Derrida said: "Plato would designate the place (Ort) between the existent and being" (Derrida, 1995, p.104). Both Derrida and Sohrawardi think that the images of the third kind are something between existence and being, and they can come into being. The quality of being in between, the quality of always becoming, being not stable and always changing are important attributes of the third kind of images.

Finally, the similarity between the chora and the world of the imagination can be summed up in three points:

- 1. Both stand between two opposite worlds.
- 2. Both address the images in dreams.
- 3. Both describe the stage of becoming.

3.4.3 Synopses and conclusion

From the beginning of this comparison it has been understood that there were other scholars who have made similar comparisons in other fields, such as philosophy and Gnosticism. Amongst them, the comparison which has been conducted by Almond is closer to the present research because he has considered Islamic Sufism and deconstruction together. Even though this present research was inspired by some visual similarity between deconstructive architecture and Iranian painting, it has led to a contrast between Sufism and deconstruction philosophy. Despite the closeness in subject between Almond's research and this research, the aspects of the comparison and the result of the current work are unique. That is because it concentrates on the visual similarities. It looks at the representation of philosophical and Sufi ideas in art. As a result, it categorises the similarities into two groups, one depends more on theory and one more on practical considerations. In the practical case, superimposition was discussed and it was concluded that by using this technique one could not achieve deconstruction or Iranian painting unless the artists thought about the notion of centre in the artwork. The other aspect, which is more theoretical, appears by comparing chora and the world of imagination together, which are the related ideas of two traditions; and it was concluded that the spaces in Iranian traditional painting and deconstructive architecture both follow the three before-mentioned points. However, despite these similarities, there is an important difference between the Iranian tradition and Western contemporary arts. Iranian traditional painting is supported by spiritual beliefs and it represents the third kind because the artists thought that it is one stage closer to the metaphysical world. The spiritual world, according to Muslim thinkers, is imperceptible and invisible, and therefore to represent it they need to find the closest perceptible form to it, which is the world of the However, in the case of deconstructive imagination. architecture. practitioners are interested in the third kind because it does not follow the logic of binary opposition. They are not looking for any metaphysical concepts in their third world; they only want to protest against the domination of traditional metaphysical logocentrism in Western philosophy by destroying the binary logic.

4.1 Introduction

Throughout the entire period of my research I was always thinking between two theories: deconstruction, which is known as a postmetaphysical, if not anti-metaphysical, approach in philosophy, and traditional Iranian painting, which is considered as an art based on metaphysics. The entire process was a struggle to integrate two apparently diverse ideas by considering my experience and art work. It required going back and forth between two traditions in order to find my position as an Iranian artist.

In this journey, I tried several different methods to find a way of integrating these two ideas. I had two principles in mind: firstly, not to forget my metaphysical ideas; and, secondly, not to be trapped in metaphysical boundaries and forget deconstruction. I saw Libeskind's Jewish museum in Berlin. In that project, the architect had tried both to retain his metaphysical Jewish concepts while making a strong effort towards deconstruction. I did not find this to be successful, and I thought that he fell into the metaphysical trap, a catch of logocentrism, so that his entire struggle in deconstructing the building become an expressionist representation of the Holocaust, of the tortures which the Jewish people experienced during the Second World War. For example, the entire shape of the building is the shape of a broken Star of David (Image 4-1). Although he called this a deconstructed form of that star,

in fact it is not, because the form symbolises a meaning, which is the history of Jewish people in Berlin.



Image 4-1: (left) Libeskind, third floor plane, Jewish Museum. (Schneider, 1999, p.22) (right) Libeskind, broken shape of Star of David, Jewish Museum. (Schneider, 1999, p.10)

Deconstruction cannot symbolise a meaning and doing so is, indeed, against its whole purpose. As mentioned in the previous chapter, Eisenman stated that in deconstruction we should not have any trace which symbolises meaning, and all elements which we regarded as traces should become neutral imprints. Symbolism is a kind of tracing to a meaning. Other examples of using symbols in Libeskind's Jewish museum are the windows he designed, which show the traces of wounds on the bodies of Jewish people, and also the void of the Holocaust, which represents the fear of the places that Nazis used to burn Jewish people (Image 4-2). These are, all, clearly symbolic (Eylon, 2001, p.D1.2). This was a warning for me; it was the trap of logocentrism, of a metaphysical centre inside the structure, which entangled a great architect like Libeskind.



Image 4-2: (left) Libeskind, windows and the façade, Jewish museum. (Schneider, 1999, p.4) (right) Libeskind, the void of Holocaust, Jewish Museum. (Schneider, 1999, p.50)

As I shall describe in this chapter, I was not secure all the time in my journey. I specify where I lost my way and how I came back on track, and how I finally solved the problem and found my way between deconstruction and the Iranian metaphysical tradition. I explain why I think that I was successful in using deconstruction to improve a metaphysical tradition. In this report, I consistently link my practice to the knowledge I obtained during the process. I endeavour to show what I thought about deconstruction at each stage. I also explain which techniques I used at each stage and why.

4.2 Background of the researcher

I began to be interested in traditional Iranian painting during my BA studies. My BA project tackled the special light in these paintings and I started to study the philosophy behind them (Image 4-3).



Image 4-3: The author, 21 X 30cm, pencil & Photoshop software, (2001).

I continued my studies for my MA project and I focused on the representation of the human figure in these paintings (Image 4-4). When I considered my practical work in both my BA and MA, I realised that the most important thing in my painting was the architectural spaces. Having decided to improve my knowledge of this subject, I discovered a similarity between the use of spaces in my paintings and illustrations and those spaces in the traditional Iranian painting by which I had been inspired. On the other hand, I found that there was also a similarity between my work and deconstructive architecture.



Image 4-4: The author, 21 X 30cm, pencil & watercolour, (2004).

From this background, the idea for a doctoral research came to my mind. I thought that I could conduct practice-led research based on a comparison between, on the one hand, the philosophies which generated the use of spaces in traditional Iranian painting, and on the other hand, deconstruction philosophy and its demonstration in architecture. I thought that it might be possible to integrate these ideas, which might help me to improve my practice and could also help other Iranian practitioners to apply new knowledge in their work. I have come to believe that it could also inform Western artists about other possibilities in this subject area.

4.3 The beginning of the research

I came to the UK with the ambition to research pictorial space in the form of a practice-led project. I hoped to extend my creative engagement with pictorial composition as it relates to architectural space. My supervisor suggested that I start my reading with The Poetics of Space, a book by Gaston Bachelard (1969), to initiate a programme of work based on this French philosopher's phenomenology of architectural space. When I started my practical work I chose the medium of etching. Under the influence of Bachelard's book, I began creating pictorial compositions giving close attention to the feeling of intimacy. Spaces that reminded me of my childhood home were an obvious topic. My subject became an old house which belonged to my grandparents and was built to a traditional Iranian design. It contains two central courtyards, dark cellars and beautiful arches. I found that I could easily match my memories of this architecture to Bachelard's descriptions of cellars and the mysterious space and darkness of underground rooms. In the following image (Image 4-5), the lit courtyard is punctuated by a shadowy doorway that leads to a space in which "darkness

prevails both day and night, and even when we are carrying a lit candle, we see [mysterious] shadows dancing on the dark walls"(Bachelard, 1994, p. 19).



Image 4-5: The author, My childhood home, 15 X 21cm, etching, (2004).

As a child, I never entered the cellar entrance which I depict in this print, and so it remains to this day a mysterious and unknown place. Following Bachelard's notion of the psychological impact of domestic buildings, I was able to explore and visualise a powerful fear of unknowable and dark spaces. I found my attention to those spaces similar to that generated by "the mysterious unknown darkness underground" (Aycock, 1977) in the works of American sculptor Alice Aycock (1946-present). In the 1970s she conducted an interesting project about architectural space, which is called '*The* *beginning of a complex'* (Image 4-6). I found that project quite similar to my experience. In the essay *For Granny (1881-) whose lamps are going out*, which she had published for that project, she described some of the influential architectural spaces she had experienced mostly during her childhood. One of those spaces is her grandmother's house, where I find her experience close to that I had in my grandparents' house. She writes:

The ground floor of her house is divided in half. Each side is exactly like the other side, room for room. A hallway runs down the centre of the house. Granny always kept the door to the half in which she didn't live locked. At the back of the hall are stairs to the second floor bedrooms. [...] At one end of the hall is a door to a room that my grandmother always keeps locked. [...] Several mornings, as I was going down the steps, granny would be coming out of the room and I would catch a glimpse into it. It was always very light (Aycock, 1977).

Living as a child in a house with locked spaces can be very mysterious, just as I had felt when I was in my grandparents' house. There were several rooms and spaces in that house which I never entered, or I had only entered them when I was very young and I just have some vague images of them in my mind. They always remained as secrets in my mind and my imagination was always weaving around them. I think that perhaps there was a quite similar experience for Aycock in that house. The locked room at the end of hall seemed to be both mysterious and heavenly, because any time she found a chance to catch a glimpse into the room she saw a strong light coming out from it. The locked part of the ground floor, which she knows is similar to the other part, can become a mixture of reality and fiction in her mind. There is a mixture of the spaces she actually experienced in her grandmother's house with the mysterious locked spaces. The imagination could bring together the images of her grandmother's house as it can be seen with the one she created in her mind. And the locked space became a complex and secret world. The interesting point for me is that the experience of mysterious, locked or dark spaces in her childhood and mine, influenced our imagination as children and, years after, its effects appeared in the form of the creation of mysterious dark space in our artwork.



Image 4-6: Aycock, The beginning of a complex, (1970s).

By reading Bachelard's book I became more aware of my feeling about the architecture in which I grew up. I recognised the irreplaceable feeling of intimacy and mystery that I had gained during my childhood in those traditional buildings, and because of my experiences at that age, these have become equivalent to the concept of metaphysical spaces for me. I had a trip to Iran after reading Bachelard's book, to visit traditional Iranian architectural spaces with my new knowledge.



Image 4-7: The author, A mosque near Yazd, Photography, (2005).

Then I came back with a collection of photographs of old houses, mosques and palaces from Yazd, Kashan and Isfahan, the historic cities of Iran (Image 4-7). I put these photographs on the walls of my studio in the printmaking workshop and began to develop images that explored, in a dislocated form, the store of ideas and feelings about Iranian architectural space and its use. During my first year printmaking experience, I learned much from Piranesi's prints and his method of representing architectural spaces, such as using shadows and showing the texture and materials of buildings. Also the angles and viewpoints he chose for showing the spaces were very inspiring for me (Image 4-8).



Image 4-8: Piranesi, Carceri d'invenzione, plate fourteen of the revised edition of Etching, 41 X 53.5cm, c.1761. (Penny, 1988, p.56)

4.4 Reading about deconstruction philosophy

I began to read about deconstruction philosophy immediately after I had finished Bachelard's book. This stage of my literature review was continued until the end of my first year. I carried on my printmaking during this period and I think that the effect of my studies can be seen in my practice. By the end of my first year, I could see an obvious development in my etching when I compared my first prints with the later ones (Image 4-9). This development involved both the form and the content of the images. As my knowledge about deconstruction improved, so my practical work changed.



Image 4-9: (left) The author, 15 X 21cm, etching, (2005). (right) The author, 9.5 X 21cm, etching, (2004).

I should now explain how my new knowledge of deconstruction in that period helped me to improve my practice. As has been elaborated in Appendix 2, Derrida's main idea is about the presence and absence of meaning in a text. He tried to prove that there is no privilege in present meaning over seemingly absent meanings. He explained how *différance* postpones forever the moment of reaching a purely present meaning by its double concepts (to differ and to defer). Also he clarified how the infinite play of the centre and the supplementation of margins replace the traditional notion of the existence of an absolute present concept as the centre of a structure. However, in order to reflect his ideas in my practice, I thought that firstly I should understand how he applied his theory in his writing. What was his method of deconstructing a text? Anybody who has ever read one of Derrida's books will accept that his writings are some of the most complex and difficult texts ever. In *Impossible God*, Rayment-Pickard explained that:

We must ask the question of the meaning of Derrida's complexity: what does the difficulty of Derrida's writing reveal about his philosophical idea? [...] Among British academics particularly, Derrida's complexity is often taken to be pretentious, an attempt to substitute the convoluted for the profound. [...] For others - particularly the enthusiasts of deconstruction in departments of literary studies - Derrida's complexity is taken to be a poetic virtue, a sign that his texts are rich in meaning and nuance. [...] We may separate this complexity into two closely interrelated aspects: a structural complexity that arises because of the way Derrida believes language functions; and the conceptual complexity that arises as he tries to indicate the unstable. paradoxical and impossible character of all foundational ideas and realities. [...] The structural complexity of language results from the instability of language itself, which never permits a merely 'simple' expression of ideas. [...] In fact this is precisely how deconstruction works, by exposing or laying bare the structural complexity of language, a complexity which constantly frustrates 'simple' claims to truth, meaning or reality. [...and the second reason:] His need to-speak-about-the-difficulty-of-speaking forces Derrida to adopt a complex and twisted philosophical language (Rayment-Pickard, 2003, pp.1-3).

So Derrida made his texts difficult, complex, and not straightforward in order to make it possible for his readers to play in structure as much as they can and draw out meanings from the text. He wanted to let different meanings be understood from one single text, especially the apparently absent meanings, despite one present fixed concept. "According to Barthes, a complicated text demands that readers create their own story while reading it. Thus, the readers become creators of a text through choice and interaction between the different subtexts" (Rozenberg, 2006). This was exactly what I started to do in my first year. I tried to make the architectural spaces of my prints more complex. In this period I thought that by producing complexity in my work I could make viewers think and imagine other possible meanings for these spaces. With the metaphysical meanings of them in mind, I hoped that some of the possible meanings which could be drawn out from this complexity might be close to my impression of those spaces. However, from reading about deconstruction, I knew that my impression would be only one of the possible concepts which could be taken from my prints and that it had equal value with the concepts which other viewers imagined for them.

A comparison of early and late images from this stage reveals that my reading of Derrida's theories of *différance* and *decentring* (as explained in Appendix 2), as well as improving my etching technique, caused remarkable changes in my work. I now demonstrate these effects in my last print of this stage (Image 4-10).


Image 4-10: The author, 15 X 21cm, etching, (2005).

My main aim in this image was to produce a more complex and ambiguous interpretation of these spaces. I did this in order to encourage viewers to think about the meaning of these spaces, and to make them create as many meanings as possible from them. I drew the walls in oblique positions to induce a sense of instability, to indicate that this is not simply a representation of a concrete, tangible, and solid building. My interpretation of these spaces derived from the feelings of intimacy and metaphysics developed during my childhood experience, and I wanted to transmit more profound meanings to viewers.

In the top middle of the print it can be seen that one column of the arch is not on the ground. In the bottom middle, one tree can be seen from the inside and top of an arch, where the discontinuity of the trunk of the tree and the dark area on the wall tries to achieve a sense of illusion. We can see that in many parts the walls are transparent and the viewer can see the structure behind them. Some spaces, however, seem to have depth, but nobody can enter them as in an ordinary space, such as in the spaces at the top left of the print. All these illusions, ambiguities, and complexities have been rendered to lead the viewers to produce their own meaning from the spaces. This is similar to Derrida's attempt in his complex texts to encourage readers to make as many possible different meanings as they can from his texts; meanings which at first sight are simply absent.

4.5 Reading about deconstructive architecture

I moved to the next stage of my literature review from the beginning of my second year. I started to read about different architects who belonged to the deconstruction movement. Soon I realised that, among all these architects, a majority did not follow Derrida's philosophy, and only a few were interested in Derridian deconstruction. I looked for the architects who did follow Derrida's idea because my aim was to discover how architects have applied the theory in their work. Tschumi and Eisenman are two such figures who have given noticeable weight to theory. As I related in Chapter 3, Tschumi was the first architect who had read Derrida and used his ideas in architecture, and Eisenman is the one who has worked enthusiastically on the theory, working directly with Derrida and writing many books on the theory of his work. Among Tschumi's and Eisenman's many projects, *Parc de* *la Villette* is one where they worked hard together on Derrida's theory, and Derrida himself participated in it. So I chose *Parc de la Villette* as a case study for this part of my research.

As mentioned in Chapter 3, Eisenman had several meetings and conversations with Derrida in order to find a way to use deconstruction in his practice. Here I want to give a brief outline of his achievements in this respect from a letter he wrote in response to Derrida. Derrida thought that perhaps deconstruction could not be applied in architecture perfectly because architectural structure is always present. Eisenman explained to Derrida the difference between his method of deconstruction in architecture and Derrida's in literature: "I am preoccupied by absence, but not in terms of this simple presence/absence dialectic, as you might think. [...] Architecture, unlike language, is dominated by presence, by the real existence of the signified" (Eisenman, 1990, p.15). He said that it is unlikely that architecture can behave similarly to the way that Derrida used language, because architectural objects are actually present. Then he continued to describe his method: "Only when the thought-to-be essential relationship of architecture to function is undermined, that is, when the traditional dialectical, hierarchical, and supplemental relationship of form to function is displaced, can the condition of presence, which problematise any possible displacement of architecture, be addressed" (Eisenman, 1990, p.16). He then gave a further explanation:

The need to overcome presence, the need to supplement an architecture that will always be and look like architecture, the need to break apart the strong bond between form and function, is what my architecture addresses. In its displacement of the traditional role of function it does not deny that architecture must function, but rather suggests that architecture may also function without necessarily symbolizing that function (Eisenman, 1990, p.16).

The more I read about deconstruction in architecture, the more I became aware of Tschumi's and Eisenamn's emphasis on deconstructing the relationship between form and function. To find my version of deconstructed spaces I felt that I should improve my knowledge about the architectural spaces which I was trying to deconstruct. For this purpose, I decided to change my medium for a period and started to learn computer software in order to produce three dimensional, virtual spaces⁷. I hoped that technique would help me to study those spaces better. On the other hand, with the etching I was repeating myself, and although this repetition was in a sense a move forward, the process did not answer all the theoretical questions I was asking myself. Because my subject matter was always derived from real buildings, and the deconstructive architecture that interested me occupies actual space, I thought that working with 3D software would help me to put myself in the spaces that my theoretical studies were beginning to allow me to imagine.

⁷ The computer software which has been used in this research is Autodesk 3ds Max. "It has strong modeling capabilities; [...and] is mostly used by video game developers, TV commercial studios and architectural visualization studios. It is also used for movie effects and movie previsualization." (www.wikipedia.org)

4.5.1 Deconstruction of the relationship of form to physical presence instead of form to function

At this stage, I was constantly thinking about the methods which Tschumi and Eisenman used in practice to deconstruct function in architecture. Tschumi used the grid to iterate his basic structure by ignoring the particular function of each module and with no regard to any centre for the entire project. I found it similar to the repetition of vaults and arches in my work and I tried to maintain and improve this in my practice. Eisenman's idea of the chora has been for me the most interesting of his techniques. He represents this idea in architecture by suggesting a space which nobody can enter and feel as a space, but at the same time one can be aware of its existence and feel it in other ways. He compared this notion to his previous works where he made spaces which are not functioning as they are supposed to; for instance in one of his projects called House VI, he set a rift in the middle of the floor of the master bedroom which does not allow the inhabitant to put a double bed inside it, or he designed a staircase on the ceiling which is upside down (Image 4-11). The concept of chora deconstructs the original relationship between a space and its function as habitation, and this gave me many ideas.



Image 4-11: Eisenman, details of House VI, (Davidson, 2006, p.70) (Frank, 1994, 61) (Eisenman, 1999, p.220) (Bach, 2006)

As I have mentioned above, Eisenman said that deconstructionist architects are not anti-function and do not make buildings useless. What they do is to change form in such a way that it does not simply imply the traditional relationship between form and function. For example, he said about his project *Wexner Centre, Centre for the Visual Arts*, which he designed for Ohio State University, Columbus, 1982 – 89 (Image 4-12), "what I am suggesting is that, yes, a building has to function, but it does not have to look like it functions. [... And when] it does not look like it functions, then it functions [...] differently" (Eisenman, 1991, pp.38-39). He said the curators hate his design for the art centre, "because it provokes them to have to think

again the relationship between painting and the space of painting" (Eisenman, 1991, p.40).



Image 4-12: Eisenman, Wexner Centre, The Ohio State University, (1989). (Sullivan, 2003)

But these changes can be felt when somebody moves into those spaces. Architectural spaces in reality are comprehended differently from their representation in painting. Actual spaces in reality are used for habitation, and have different forms according to their function. However, in two dimensional drawings nobody can feel the actual changes in this relationship. To deconstruct a drawing of an architectural space we should first understand what the function of that space is in a drawing. In my work, I have found this function. I am using architectural spaces to transmit to the viewer the metaphysical sense which I had when I was physically present in those spaces. My feeling derives from my physical presence in those spaces, which helps me to experience a metaphysical presence. So my central concept, which should be deconstructed in my work, is the relationship between form and physical presence in architectural spaces. As I explained in the previous section, I used to represent certain spaces in my work which, although they have depth, are impossible spaces which nobody could simply go inside of. This should make the viewer think about the concept of presence in those spaces. Because of this attempt, the spaces in my work have been compared with those of M.C. Escher (1898-1972), because "He played with architecture, perspective and impossible spaces" (http://www.mcescher.com/). I also like the spaces in Escher's work, and enjoy his method of representing spaces, and I think in this regard his works are inspiring me (Image 4-13).



Image 4-13: Escher, lithography, (1955). (http://www.mcescher.com)

Thus, with my new knowledge about deconstructive architecture I thought that I could use my techniques to achieve my new aim. I then concentrated more on this aspect of my work and tried to advance it. However, my new medium did not make this work easy, because the spaces which I made using 3D software were actually three-dimensional, and I wasn't free to employ illusion and ambiguity as I was when making two-dimensional drawings with complex and deceptive composition. On the other hand, I did not have enough experience in using the software, which caused additional problems. To elucidate this, I now describe one of the images I produced at this stage (Image 4-14).



Image 4-14: The author, computer generated images, (2006).

The first problem which I faced in making this image arose from my lack of skill in working with the software. As can be seen in the image above, with the software, I could only look at the building either from the outside or inside; and to solve this problem, I had to cut the structures from different parts. Therefore the result does not have the same effect as my previous artwork. In addition, because of my using a computer my images became a mechanical product which lacked emotion. I tried to create the feeling of impossible spaces by using oblique doors and windows, fragmenting different components of traditional Iranian architecture, and mixing them together in strange ways, but still I was not satisfied with the results. The only advantages of the computer-generated images were their dramatic shadows that helped to transmit a sense of mystery and secret meaning to the viewer, and the use of different camera lenses allowed me to render strange views. I also tested the possibility of using different textures which the software provides. In this image, I used four different textures, one for the building and another for the added components, which are bricks, with others for the texture of the tree and floor. I then tested the effect of using different textures in another structure I made in this period (Image 4-15). I made a chamber and gave it the texture of bricks, and then I changed the texture and covered all the walls with mirrors. This idea came to me when I read Italo Calvino's Invisible Cities (1974) and his description of strange buildings made with extraordinary materials.



Image 4-15: The author, computer generated images, (2006).

4.6 Fieldwork in Iran

From the beginning of my research up to my midpoint, I passed several stages. Bachelard's book helped me to clarify my feelings about traditional Iranian architectural spaces. Reading about Derridian philosophy gave me some understanding of present and absent meanings in a structure. I realised that deconstructionists are encouraging their audience to be aware of the absent meanings inside a structure. Derrida implemented this idea by making the structure of his texts more complex and difficult to understand. He made the readers of his books think about the meaning of those texts and produce their own concepts from them. So I made the structure of my work more complex and confusing for the viewers, to encourage them to look for new meanings. After that I studied and learned the methods that deconstructive architects used in order to apply Derrida's idea in their buildings. I was especially interested in Eisenman's method of making spaces and voids which are not enterable or usable in a traditional sense; but they can still be felt and challenge the concept of function. This method derives from the notion of deconstructing the relationship between the form and function of a space. It aimed to problematise the usage of spaces and to make the inhabitant of the building think about the meaning of them. I thought that I could achieve my intention by taking similar difficulties into my works. But, instead of deconstructing the relationship between form and function I

thought about the link between form and the feeling of physical presence inside the architectural spaces which I depicted.

After my midpoint, I travelled to Iran to begin my research into Iranian concepts of architectural space. I continued to work with the 3D software and attended classes to improve my skills in modelling and lighting. At the same time, I started to look for books which could help me to better understand traditional Iranian architecture. I found two books which helped me most with this issue. The first that helped me very much in my practice is *Geometry in Architecture* (2006). This book is about Iranian vaults (*Karbandi*) and arches (*Chafd*) and shows the geometries which were used in designing these structures (Image 4-16).



Image 4-16: Bozorgmehri, a karbandi and its geometrical structure. (Bozorgmehri, 2006, pp.28-29)

The second book is *Applied Geometry* (2005), which was written by the geometrician Buzjani (940-997) in Arabic and which was translated into Persian in the same century. This book helped me to understand that many techniques used in Iranian art were not accidental and have a scientific background.

I began to build all the structures in *Geometry in Architecture* with the 3D software, which helped me to improve both my skills in using the software and also my knowledge about traditional Iranian architecture. I soon realised the relations between different parts of a traditional building, and I understood that Iranian architecture is mainly based on a unique form which is called *chartaghi*. A *chartaghi* is a room with four walls with a dome set on top of it. Geometric forms (*karbandi*) help the architect to merge these two forms together. By working on these forms I found that I could reduce these variant forms (*karbandi*) into four basic ones. These four basic *karbandis* are: 3x5, 4x6, 5x7, and 6x8, which are the scales of length to width of the basic rectangular shape of each (Image 4-17).



Image 4-17: The author, computer generated images, (2006).

By reading these two books and working on the architectural components I realised how important geometry is in Iranian art and architecture. Then I made another trip to Isfahan to look at the buildings there and take photographs of them with my new knowledge about the architecture. I also became more curious about the role of geometry in Iranian art, so my next task was an analysis of traditional Iranian paintings. I started to analyse those paintings with the hope of finding a hidden geometrical order inside them, where my aim was to discover how the painters actually changed the architectural representation in their painting (Image 4-18). I thought that it might be possible to find some reasons for this deformation of spaces by discovering the method of their creation. In doing this analysis I found that Iranian painters used to use a grid in their paintings

for drawing architectural spaces. I found this by tracing the vertical and horizontal lines and the angles of oblique lines.



Image 4-18: (left) *Tatter dervish and arrogant young man*, Seven Thrones of Jami, Mashhad, 23.2 X 34.2cm, 16th century. (Welch, 2005, p.101) (middle & right) The author, linear analysis of the painting, (2006).

After I returned to the UK, I continued these analyses in my studio. My supervisor suggested that I visit an exhibition by Richard Talbot at the Red Box Gallery in Newcastle (Time, Space and other stuff, Red Box Gallery, Newcastle, 2006). Talbot uses geometry in his paintings and he is mainly interested in medieval and early Renaissance arts. He has said that his studio practice, led him to consider "the possible origins of perspective and its relationship to architecture and pictorial space during the renaissance" (Talbot, http://www.richardtalbot.org). I put some of his artworks on the wall of my studio, and they encouraged me to start thinking about using geometry more seriously in my drawings. On the other hand, Daniel Libeskind's

drawings inspired me to reconsider the superimposition technique previously described in Chapter 3 (Image 4-19).



Image 4-19 (left) Libeskind, Superimposition technique. (Grzeg, 2007). (right) Richard Talbot, drawing. (http://www.richardtalbot.org)

As well as considering Libeskind's, Tschumi's, and Eisenman's methods, I began to think about the different possible layers I could find in an Iranian painting, and to use these for my drawings. An obvious one was the grid. There are grids behind all of those paintings which can help – like the grid point in Tschumi's design for *Parc de la Villette* (see Chapter 3) – to undermine the concept of the centre in my work. Another relevant geometrical layer is the spiral. In *Applied Geometry* it can be seen that spiral forms were used regularly in Iranian geometry and art from the10th century

(Image 4-20). As mentioned in Chapter 2, the spiral form can be found in some Iranian paintings.



Image 4-20: Albuzjani, drawing a spiral. (Albuzjani, 2005, p.125)

At the same time, I found an article by the mathematician Michael S. Schneider which is called: 'Salaman and Absal on the Heavenly Isle: Discovering the Geometric Scheme of a Persian Painting'. As explained in Chapter 2, the author tries to show us how the painter used golden sections in this work. This example of using golden sections had a tremendous influence on me and dominated my analysis for some time. From that point on, I tried to find golden sections in several Iranian paintings, but I was unsuccessful. By examining some paintings made in different years I concluded that Schneider's case may be an exception among Iranian paintings.

The ideas which I had gathered about geometry confused me somewhat, and I felt that for about 10 months my research and my practice had not improved. I asked my supervisor to arrange a meeting for me with an expert in the field of traditional Iranian painting. She contacted Dr Sheila Canby, the curator of Islamic collections at the British Museum, who specialises in Iran, Central Asia and Islamic India. She has conducted considerable research into the history of Iranian art and paintings and written many books in this field. I took a trip to London to visit her, she advised me to read The Topkapi Scroll: Geometry and Ornament in Islamic Architecture (1995) by Gulru Necipoglu. She told me that with my aim of discovering the philosophy behind Iranian paintings, I should not concentrate so much on geometry and the methods of creating those arts (see Appendix 3). Reading that book helped me to come back onto the right track. Although Necipoglu writes about geometry in her book and supports some of my ideas, such as the use of the grid, in a chapter about the ideas behind Islamic art, she gave some examples of the philosophy of art in Islam and Iran, and made strong arguments on these subjects. After I had consulted Dr Canby and read Necipoglu's book, I left geometry and ideas around it behind, and moved to another phase of my research.

4.7 Reading about Iranian Painting

I conducted some research into the philosophy behind Iranian painting and I realised that most scholars in the field believe that the specific features of architectural spaces in Iranian painting derived from the Sufi tradition in Iran. They have argued that Iranian painters made the effort to show that the spaces in their paintings were heavenly and divine ones rather than simple representations of contemporary buildings. They broke the spaces up and used mixtures of different parallel projection systems and directions of view in order to prevent the audience from comprehending those spaces as ordinary buildings.

I found that Iranian painters were looking for a way to show a meaning in their work which is absent in the visible world. This meaning is the spiritual reality of the world as is mentioned by Sufi thinkers (see Chapter 2). The difference between this absent meaning from an absent meaning for a deconstructionist is that, here, we know that we are talking about a divine meaning, whereas in deconstruction the audiences should find their own absent meanings. I have explained this difference in Chapter 3 in broad terms. I started to look for a way in which I could apply what I had learnt about Iranian painting and deconstruction to my practice. As an Iranian painter who wants to follow tradition, my aim was not to copy the old techniques but to use deconstruction to advance them. I did not want to use geometrical and other old techniques as they had. What I wanted was to find a way to use deconstruction techniques to relay similar metaphysical meanings.

I chose watercolour in this period, trying the same medium that Iranian painters used to work with. This was the first time I had come back to

drawing since my first year when I worked on etching techniques. The year working with three-dimensional virtual spaces did have some influence on my drawing. For instance, it made me more aware of the interior spaces of architecture and their relation to the outside of the constructions. Also, in my last year of research on Iranian architecture I understood that its basic form is a room with four walls and a dome on top, which is called *chartaghi*, and with my knowledge about iterability⁸ in deconstruction as Tschumi mentioned in relation to Parc de la Villette. I decided to concentrate on using this form in a way similar to the cubes of folies. I became more confident about my decision after a meeting that my supervisor and I had with Andrew Ballantyne, professor of architecture at Newcastle University. Ballantyne is the author of Architecture Theory: A Reader in Philosophy and Culture (2005) and is an expert in theories of architecture. In this conversation he told me about Frank Gehry (1929-present) and his attempts to deconstruct the basic forms (Image 4-21). Frank Gehry is an American deconstructivist architect who is interested in the Russian Constructivist movement (1920s and early 1930s) and who does not follow Derrida's philosophy.

Gehry started to design new buildings, with an obvious kinship to Russian Constructivist work, that seem frozen in state of becoming. His own muchpublished house in Santa Monica, California (1977-78) is a case in point. Its ribbed metal siding, chain-link fencing, and unpainted wood, all pouring forth from a seemingly confused early twentieth-century bungalow behind, make the composition look as much like an active construction site as an occupied structure. Afterward, Gehry began to explode buildings, breaking them up into discrete volumes in a way that, to some reflects the fragmentation of modern society (Moffett, 2004, p.560).

⁸ Iterability in deconstruction is the capacity to be repeatable in different contexts (http://en.wiktionary.org).

I had the idea of *chartaghi* as a basic form and unit from Gehry and decided to experiment in my work with the same fragmentation he used. On the other hand I tried to use them like the cubes of *folies* of Tschumi's work, with the idea of iterability and the disjunction between form and function.



Image 4-21: Gehry, the architect's house, Santa Monica, California. (http://weburbanist.com)

4.8 Deconstructing on two levels

In the etchings which I created in the first year of my research, I was not completely aware of the importance of a central meaning. I used to weave the structure around a raw primal idea gradually, and magnify that idea into a centre in my work. Simultaneously, by creating complexity in the structure I tried to add supplements to that 'becoming centre', in order to enable viewers to have their own meanings. This method had a serious intrinsic problem, which was the inverse movement towards making a centre. To deconstruct a structure, first of all we should clearly specify its central concept, and then try to supplement the concept and play with the centre. We can see this process in the methods of deconstructionist architects. Firstly, they realised that the central notion of architecture is form in relation to function, and then they attempted to deconstruct this relationship. In Derrida's work, we can see the same effort; he had the idea in his mind and he wrote a text adding complexity, metaphors and homonyms into its structure to deconstruct it.

By working on the basic unit of Iranian traditional architecture, *chartaghi*, I specify clearly the central meaning of its structure in advance and then find out how to deconstruct it. This also followed my supervisor's suggestion that I should not limit my work to rectangular frames. My etchings used to be limited to rectangular outlines and the forms were cut in various ways. She advised me to draw in such a way that the work could be continued on each side and could be imagined in an infinite space.

I have made eleven watercolour drawings with these new changes. I bring the deconstruction techniques to bear on my basic form, which is the *chartaghi*. My work no longer consists of continuous structures of several buildings stuck together. Instead, it includes separate *chartaghis* which are deconstructed individually and joined to each other in a deconstructed manner. In general, there are two stages in my new method: deconstructing

the units, and deconstructing the composition. I call this technique deconstruction on two levels.



Image 4-22: The author, 30 X 42cm, pencil & watercolour, (2007).

This new technique has two advantages. Firstly, for deconstructing one unit, I can think in advance about the concept of it. This has replaced my previous method of thinking about the concept during the process of creating the artwork. Now, by having a clear idea about the central concept, I have been able to play with it inside the structure in order to deconstruct its meaning. Secondly, deconstructing on two levels has given me the possibility of different manoeuvres in arranging the components and deconstruction of the composition. As can be seen in Image 4-22, five *chartaghi* have been combined in a complicated and fragmented manner, and by emphasising the illusory nature of the composition I have increased the illusion of the artwork.

Afterwards, I felt that with this new method of deconstruction which I had developed and applied to my watercolour drawing, I should try to produce some new computer-generated spaces. I had made *chartaghis* with the four main *karbandis* (3x5, 4x6, 5x7, and 6x8) inside them in my fieldwork in Iran. Each of these *karbandis* could be applied in three different planes (Image 4-23). The basic plane is square and by omitting two sides of that square we can have a rectangular plane, whereas by cutting the square into two equal parts we could have Ivan (the threshold of Iranian architecture).



Image 4-23: The author, Basic forms of chartaghi 4X6, computer generated images, (2006).

By working on these basic forms I made twelve deconstructed *chartaghis*. My new computer-generated images did not involve the previous problems which I faced in my original attempts. The problems came from my lack of experience in using the software to find suitable viewpoints, and I had

to cut the structures up and make sections of them to show the inside and outside. With my new method of deconstruction and the improvements in my software skills, however, these problems disappeared and I was very satisfied with the new images. I chose a simple concrete material for all these images, and used all of the techniques which I had learned during my practice to make the building extraordinary (Image 4-24).



Image 4-24: The author, computer generated images, (2008).

4.9 The final stage

I finished and summed up my literature review, and clarified its main points. I now understood exactly which theories caused the 'broken spaces' in Iranian painting and deconstructive architecture. Also I appreciated in which cases these two traditions could be integrated and in which cases they were in contrast. From Chapter 3, I recognize that the similarities between these two art traditions are in two categories: practical and theoretical.

The practical similarity is the application of superimposition techniques in deconstructive architecture and traditional Iranian painting, even though their use derived from divergent theoretical backgrounds. Personally, I am not interested in this technique, but it is a very common technique among artists who are interested in complex forms of architectural space. I looked at a number of western artists, and I found Aycock's practice particularly resonated with this idea. In her project about architectural space in the 1970s, she described her main ambition as "how to set up the conditions which would generate the beginnings of a complex" (Aycock, 1977). In order to reach this complexity, her method was to "literally worn a path to the work while building it" (Aycock, 1977). She thinks that by "combining a simple enclosed structure like a hut with the notion of a path" (Aycock, 1977), the complexity will emerge. This technique reminds me of the superimposition method in deconstructive architecture and Iranian traditional painting, although she has not said anything herself about those theories. It can be seen that superimposing different systems together is a common method for generating complexity. Therefore, it can be a method for Iranian artists to apply deconstruction to their work. However, as I mentioned in Chapter 3, for creating a deconstructed space with superimposition techniques, they should

be used for decentring a structure; and any complexity which is produced by superimposition is not necessarily deconstruction.

The theoretical similarity derives from the concepts of chora, which has been used by deconstructionist architects, and that of the world of the imagination which dominates space in traditional Iranian painting. As mentioned in Chapter 3, both theories seem to indicate the features of one world; that world is between the 'spiritual, intelligible and immaterial world' and the 'bodily, terrestrial and material world'. It was also said that the Iranian painters and deconstructive architects were interested in this world for different reasons, but they have attributed the 'broken spaces' of their work to it equally. So, depicting this world in the form of 'broken space' is a common characteristic of these two historically and theoretically diverse traditions. The features which are common to these spaces have been specified as follows: 1) they both stand between two opposite worlds; 2) they both address the images in dreams; 3) they both describe the stage of becoming.

I sought all of these characteristics in my work. In relation to the first point, the spaces of my works do not represent real architectural spaces and I have always tried to make them different from physical reality. I have done that by making them mystical and close to my own metaphysical and spiritual feelings. Besides this, similar to the ideas of Ibn Arabi and Plato and their discussion of the invisible nature of immaterial or intelligible being, I have also believed that it is impossible to represent directly the immaterial and intelligible world. Instead, I created spaces in my compositions which derived from my imagination. Consequently, I realised that my work has the first characteristic of the spaces of chora and the world of the imagination, which

is the 'in-between-ness'. Secondly, I always rely on my imagination and I am interested in spaces which can evoke a dreamlike feeling. I find that my works, in a sense, bring the forms of the world of the imagination - as Ibn Arabi named it - into visualisation. Particularly, after I became aware of the role of the imagination in deconstructive architecture and Iranian painting on the one hand, and also the risk of symbolising and narrating feeling and expressions from Libeskind's Jewish Museum on the other hand, I made an effort to avoid any symbolic and narrative quality in my works. Therefore, the spaces of my prints have only based on my imagination and found a strong dreamlike quality. The third characteristic is the stage of becoming, which means that intelligible images can come to this space and change to visible and material being. In thinking about this concept, I have been able to reference the metaphysical and spiritual feelings that I have experienced inside traditional Iranian architecture and the mystical emotions related to my childhood memory. My main aim for creating broken and mystical spaces in my artworks has been to make visible an imagined and emotional space.

After attaining all the practical and theoretical experiences, I chose to return to my original technique, of printmaking. Following a consultation with my supervisor, I made the decision to use collage techniques to combine the different results of my practical work together and then to present the final work as a series of photo-etchings. I decided to collage my watercolours and virtual three-dimensional spaces, which I had made in the previous stage, and mix these with drawings. I had made digital copies of my watercolour drawings and virtual three-dimensional images, and I began to combine them together using Photoshop software. Because the final results would need to

be printed using photo-etching techniques I changed all of them to black and white only, and, by using a Photoshop filter called Noise, I converted the flat tone to a pattern of very fine dots. These changes helped me to achieve a more satisfactory result for my photo-etchings.

I also thought that perhaps I could insert some of my photographs into my collages. However, after completing the first collage I realised that, because of their realistic forms, the photographs would not match the rest of the image. I understood that in my work deconstruction must happen at the levels of both components and composition, and if I added elements to the composition which were not deconstructed in their structure this would destroy the whole image. If I chose to use photographs, I should first fragment, displace and disorder their architectural structures. Eventually, I decided to abandon the use of photographs in my collages.

Here, I am going to provide visual evidence for the final stage of my work with some of my photo-etchings. My final series of prints are in the scale of A3 and are all made on zinc plates in order to achieve a better contrast of black and white. All the plates were etched twice, first using the photo-etching process, and then adding hard ground drawing to each plate. The collages that I made for the prints consisted of five *chartaghi*. Every *chartaghi* was designed separately and deconstructed individually, using both my watercolour paintings and computer-generated images. In the next stage, I mixed and collaged the *chartaghis* to create dislocated and ambiguous spaces with multiple vanishing points within each composition. The following image is one of these prints (Image 4-25).



Image 4-25: The author, 30 X 42cm, photo-etching, (2009).

The spaces of my prints call to mind the characteristics of Iranian traditional painting with their imagined and fragmented spaces and suspended images that do not reflect the material world. Like any deconstructed structure, there is no centre in the composition of my prints and the eye is constantly travelling around the works and cannot stop in one particular part. The photo-etching technique allows me to create and combine different types of visual spaces: the virtual spaces of computer generated images, the spaces created in watercolour paintings and the linear representation of space. Because each *chartaghi* was created by a mixture of these techniques it makes them more complex and less realistic. The nature of the photo-etching, aquatint, and hard ground etching techniques lend themselves well to the dark, shadowy and mystical spaces, I wanted to

create. The rich black achieved from the aquatint was particularly relevant in communicating these emotive and atmospheric qualities.

The impossible spaces of my works derive from my imagination and memories from my childhood; for instance, the ladders and staircases which are going nowhere, or are fading into the darkness, the dark and mystical spaces inside the windows, and the fragmenting forms and so on. The lines which connect the components together imply spaces which do not clearly exist, and one does not know whether one sees it from outside or inside. The forms appear to extend beyond the edges of the plate taking the imagination outside of the frame. They let viewers continue the structures and build them through their own feeling and contemplation. Adding buildings and trees with drawn lines to the photo-etched prints offers another layer of space and reality inside the composition. The eye is encouraged to move in and out of these pictorial spaces, and the viewers are invited to occupy them through their own imagination.



Image 4-26: The author, 30 X 42cm, photo-etching, (2009).

As I explained before, there are distinct differences between my later and earlier works. Originally, I was concerned with communicating a very direct narrative that expressed my ideas in a symbolic way. As my explorations developed I looked for a method of representation that would connect to particular theoretical ideas that were emerging out of my research. I rejected my practice of illustrating particular stories, in favour of finding a visual language that could allow me to make more conceptual connections between the fragmented spaces of Iranian painting and theories of deconstruction.

The 'Broken Spaces' exhibition describes the connection I have discussed above, between both my practical and theoretical explorations and discussions. At the final stage of my practical research I recognised that there was a clear synergy between my practice and my research. I decided to expand this synergy into my final exhibition and the way I presented my works. The idea of darkness and light, the sense of space, and the oblique arch inside the exhibition came from this ambition. I made the gallery almost entirely dark; the only source of light was a single spotlight which illuminated the artist's book on the back wall of the otherwise empty gallery (image?). This focused the viewer's attention directly on the book. The darkness, the shadows cast by the pool of light and the oblique archway helped to create a mysterious atmosphere similar to the dreamlike quality that I achieved in my prints.

As a printmaker with a background in illustration, I have a natural affinity with the book format. The idea of presenting the artworks in the form of an artist's book functioned perfectly with the design of the exhibition. I made a very deliberate choice to present the work in this way and I felt that a conventional linear display would not generate an effective sensation within the space. It was very important to me that the viewer could interact intimately with the book itself and to be able to turn each page themselves. The gallery was divided into several small spaces, and I think this, together with the oblique archway, made a relevant and simple reference to my ideas about fragmented and 'broken spaces'.



Image 2-27: The author, 'Broken Space' exhibition, Installation [artist's book 58 X 50cm], (2009).

In the following section I have provided a synopsis of my theoretical discussions which have influenced the development of my practice.

5 Conclusion

5.1 Summary of the theoretical context of this research as outlined in the Introduction to this thesis

This thesis began with a discussion of the representation of architectural space in the Golden Age of Iranian painting. The more acceptable assumptions introduced in this chapter are: 1) those spaces that represent the heavenly world in contrast with the terrestrial world (Nasr, 1987; Porter, 2000), and 2) pictorial forms that show the real meaning of the visible world from the Sufi point of view (Leaman, 2004; Burgel, 1988; Yarshater, 1962; and historical documents from Qadi Ahmad, Dust Mohammad, and Sadiqi bek Afshar). These two ideas were compared along with other relevant theories in this research and as a consequence the author made a number of significant observations and findings that influenced his thinking.

Amongst these was the idea of an immaterial Heaven, derived from Illumination philosophy, which was first established by Suhrawardi (1155-1191). Following Zoroastrian ideology and cosmology and Plato's philosophy, Suhrawardi's thinking divided the world into light and darkness (Suhrawardi, 1999). The belief is that the material and visible world are darkness, but God is immaterial and consists of pure light. Suhrawardi said that, except for God all other light is neither purely immaterial, nor terrestrial matter, and they are something between them. Heavenly bodies are made from this kind of light. According to Suhrawardi, they are equivalent to the 'suspended images' in Plato. People can see the suspended images in this world through their imaginations or in their dreams or by looking at objects in mirrors. Suspended images do not have the quality of the objects of the terrestrial world, and so they cannot exist in any physical place in this world. Therefore, it can be possible to think of another world in which these images can be present. Suhrawardi calls this world heaven (hence 'dreamlike').

The second idea concerns the representation of the Sufi's real meaning of the world, in relation to Iranian painting. The thoughts of Ibn Arabi (1165-1240) have been investigated in this context (Chittick, 1998). Ibn Arabi divided existence into two different kinds, the visible and the invisible, or, in other words, the bodily and the spiritual. He then introduced a third world which is positioned between the bodily and spiritual worlds. He called this the world of the imagination. It is the most perfect world because it stands between the bodily and spiritual worlds and has the properties of both. In fact, it embraces the attributes of its two sides. Then he referred to a verse where God says that he created the world to be known. Ibn Arabi says that God decided to manifest himself but this should not limit Him or make Him visible. He thinks that the only possible way that God can manifest himself to His creations is through their imaginations. Therefore, the world of the imagination is the closest world to God.

To sum up, whether it derives from Sohrawardi's philosophy or Ibn Arabi's Sufism, the pictorial spaces found in the period of Iranian painting in question, do not consist entirely of terrestrial matter nor are they completely immaterial. They do not exist in the visible world and yet they are not

invisible. They are imaginary and dreamlike. These concepts revealed important connections the author was able to apply to his conceptual and visual research.

Chapter three compares the theories behind deconstructive architectural spaces with the Iranian concept of space. For this purpose, the Parc de la Villette project was chosen as a case study for deconstructive architecture. The architects of this project tried to deconstruct the relationship between form and function in architecture, which they believe had traditionally been considered as the central meaning and purpose of architectural structure. They used two techniques to deconstruct this notion: firstly by supplementing it, and secondly by deferring the presence of this relation. They called the first technique superimposition and the second the chora.

In superimposition, the elements of the past in a project were combined, conflicted and superimposed to dislocate the central concept of the architectural structure.

The second technique is the chora, which was suggested by Derrida and was derived from his reading of Plato's *Timeaus*. In Plato's philosophy existence is divided into two types: the intelligible-immaterial and the sensible, which is made of matter. But in *Timeaus* Plato adds a third kind of existence, which he called chora, which means receptacle and place (Plato, 1977, p.71). This place can be thought of as a space that confirms the presence of the physical and non-physical and exists somewhere between the two. The most important method twentieth century architects found for representing the concept of chora was to problematise the functionality of
spaces. Chora obliterates the traditional position of function in architectural structure by its double concept (giving a place to everything whilst always being empty of things), like the concept of *différance* in Derrida's philosophy. The forms in architecture are supposed to provide spaces for functions, but by making this relationship a problem, we can have spaces which are not anti-functional, but are also not functioning in their traditional sense.

Having introduced the notion of deconstructive space and the impact of Derrida's thinking on architects, the author moved on to compare architectural techniques drawn from the *Parc de la Villette* project with compositional techniques used in medieval Iran. This comparison uncovered similarities between contemporary architectural uses of the concept of chora, and traditional representations of the Sufi notion of the world of the imagination. The influence of these two concepts on spatiality, in either an actual or pictorial realization, is comparable in three respects:

- 1. Both stand between two worlds: the domain of the intelligible, spiritual and immaterial and that of its opposite, the sensate, bodily and material.
- 2. Both address the kinds of images experienced in dreams and have the same dreamlike spatial qualities.
- Both describe the space of becoming: they are conduits in which intelligible images enter the realm of the senses.

However, in relation to these similarities, there is an important difference between Iranian artists and Western architects that should be noted. As explained in Chapter two, traditional Iranian artists depicted spaces that, whilst resembling spatial ideas influenced by the concept of chora, reflected a belief in the world of the imagination, a conviction that the imagination takes us a stage closer to the spiritual goal of Sufism. In contrast, the deconstructionist architects create spaces that remind us of the Sufi world of the imagination of because chora breaks down all metaphysical binary oppositions; it upholds the logic of deconstruction – it is not a product of the desire for spiritual development (see Chapter 3).

This theoretical platform has informed the practice of the author who, as a contemporary Iranian artist, explores the medieval legacy of 'broken spaces'. As mentioned before in this thesis, a number of contemporary Iranian artists work in a similar vein and in the following section the author will show how his theoretical interests can support artists working in presentday Iran.

5.2 The author's practice-led research into deconstruction and deconstructive architecture: impact of these ideas on his practices as a printmaker.

This section will explain how the practice changed in the course of the author's research. He will describe how studying deconstructive architecture influenced his printmaking and imbued his approach as an artist with a stronger sense of both the contemporary philosophical imagination that shaped deconstructive architecture and the traditional Iranian vision of space that holds a continuing interest for artists in his home country.

Traditional architectural spaces have retained a special place in his imagination since his childhood. He cannot forget the mysterious spaces of the home in which he grew up. This spatiality has taken on a kind of metaphysical dimension in his memory, and it forms the origin of the pictorial compositions he has created in his printmaking. Besides improving his knowledge of deconstruction philosophy in the first year of his research, he tried, in his practical work, to make these spaces more complicated and unfathomable, in response to Derrida's ideas. The French philosopher deconstructed texts, making them intentionally difficult to analyse, in order to make readers play with potential interpretations and construct individual meanings. The author tried to do the same in his prints. He tried to make his viewers follow their own associations and produce their own meanings.

In the next stage of the research, the author thought about different ways of applying the idea of deconstructing form and function to his practice. However he realised that traditional pictorial systems had never impelled him to think directly about architectural functionality. Instead he was interested in inhabiting unusual spaces within his imagination. Therefore, he replaced the notion of function with that of physical and emotional presence and, as a result, began to use computer three-dimensional software to help him invent virtual, imaginary spaces, based on actual buildings that could be photographed in Iran.

At this point the author conducted fieldwork in Iran and, whilst photographing the interiors and exteriors of ancient buildings, became aware of the important spatial role of geometry in Iranian architecture. He wondered if similar geometries had been at work in medieval Iranian painting and

began to base digital images on the basic formal unit of Iranian architecture called *chartaghi*. This allowed him to solve the formal problems he had encountered in the etchings he had made in the first year of his research. He had failed to understand that he needed to clarify the stable central concept of spatiality in advance in order to apply the deconstructive techniques that would generate 'broken spaces'.

During the practical stages of the author's research he established various techniques for deconstructing space in his prints. These included: creating fragmentation and complexity inside the spaces and deconstructing the relationship between the forms and the physical presence of the architectural spaces. He calls these techniques but they were much more than procedures of creative production: they were intellectual frames through which he realized the theoretical dimensions of chora and the world of the imagination as pictorial images. In this way he was able to demonstrate the three pictorial features that represent the conclusion to his research. The first feature is the quality of 'in-between-ness', the aspect of his prints that illustrate a world situated between his visual and metaphysical perceptions of life. The second feature is the dreamlike quality that emerges as his metaphysical speculations replace the expressionist and narratalogical characteristics of his early works. This feature is manifest in fragmented and ambiguous pictorial spaces that convey a sensation of displacement and unreality. The third feature makes visible the state of becoming. The author's work has struggled to achieve this feature but as his research progressed and his theoretical deliberations on the nature of deconstructive thinking began to inform his activities as a printmaker, he was able to give his

metaphysical intuitions a visible form. Taken together these features reveal how the author has used the entirely alien notion of deconstruction to advance his ideas about pictorial space, traditional ideas he absorbed as an artist growing up in Iran. The eventual impact of this research on other Iranian artists is a matter of post-doctoral dissemination but this thesis is the author's mechanism for establishing a platform for debate on the profound question of spatial imagination.

5.3 The author's contribution to knowledge in the context of the selected contemporary Iranian artists

In this final section, it will be briefly explained how the results of this research may contribute to the understanding of artists who are interested in the traditional Iranian concept of space. Then the thesis will be drawn to a conclusion with a short recommendation for further research. The type of understanding which has been sought is the intellectual dynamic that produces what the British Arts and Humanities Research Council describes as the originality, quality and significance of creative outputs. This is the goal of practice-led research, it is a form of investigation that can probe 'the significance of creative practices in the past' in order to generate new artworks in the present (AHRC, 2009, p.6). Because this description helps us understand the potential value of artists undertaking research, the following pages will be used to summarize the practice-led contribution the author hopes to have made to the field of knowledge available to contemporary

artists working in Iran and, outside his home country, to artists interested in the interaction of historical ideas with contemporary theories and practices.

Similar to the researcher's situation, many artists currently working in Iran are interested in traditional Iranian art as well as Western art. They try to learn from both to improve their artworks. Ghaemi's and Mozaffari's viewpoints cannot be cited as evidence here. In his BA project Ghaemi worked on the urban spaces in Western paintings from 1930 to 1960. His research included painters such as Grosz, Feininger, Léger and Picasso. Beside this he also studied the spaces of the Golden Age of Iranian painting. He says: "I have analyzed them because of their lack of the use of perspective" (the author's interview of 01/03/2009). Similarly Mozaffari says: "From that time [i.e. her BA] I began to use the composition and perspective of Iranian painting, which consists of overlapping planes from bottom to top, and simultaneously showing diverse spaces which sometimes connected together with a staircase. This has remained in my mind from that time and later I combined it with my experience of Cubism" (the author's interview of 14/03/2009). Both these artists had read about the Golden Age and its specific architectural space form. Interestingly both had also studied Cubism and considered its affect on their artworks. The author believes that, because of the academic system of Iran, most contemporary Iranian artists are in quite similar situations. They know about the Iranian concept of space and also use some Western ideas which mostly belong to Modernist movements. This research, however, is comparing the Iranian idea to a Western post-modern movement. Deconstruction never became an established fine art theory in Iran and Iranian artists know little about it. It will be clear from the preceding

chapters of this thesis that the similarity between the ideas that supported traditional Iranian painting and those that have informed deconstructive architecture, would allow creative integration. Indeed this research proposes a more extensive amalgamation of the two worlds than a superficial, more stylistic, assimilation of Iranian traditions with Cubism. In particular, It has been tried to argue that the idea of chora and the world of the imagination can be perfectly matched together and it is the final task of this thesis to promote an understanding of traditional Iranian space as a kind of 'broken space' that fits deconstructionist practices.

In order to have deconstructed spaces, the central concept of an artwork should be considered seriously. As Eisenman mentioned, deconstruction "says something about the possibilities for theoretical activity in the centre" (Papadakis, 1989, p.149). The relationship between form and function, as the central concept in deconstructive architecture, can be replaced with the relationship of form to any other ideas for different artists. For example Ghaemi explains his main idea: "I decided to show in my painting the crisis of identity and culture which I think our society and our artists and architects are experiencing" (the author's interview of 01/03/2009). Or Mozaffari tries to show the relation of people with the world around them in her paintings, and to visualise every moment of life "by breaking the spaces and transforming them all together" (the author's interview of 14/03/2009). Each of these artists can find their way of using the deconstruction techniques in their work in regard of their ideas.

The other important point is that, similar to chora and the world of imagination, 'broken space' produces a sense of the imaginary and the

dreamlike. Ghaemi also emphasises this point in his art works (the author's interview of 01/03/2009) and this may be another reason for him to apply the approach that is introduced in this thesis, to the spatial construction of his paintings.

To conclude, some topics will be recommend for further research. In the first chapter, when the researcher was investigating the theories that seem to explain the specific features of architectural spaces in Iranian painting, he found only a few books and articles on the subject. When he discussed the issue with Dr Canby she suggested that he himself should conduct research in this field. Therefore, a good topic for follow-up research to the current practice-led enquiry would be a discursive comparison between the Persian theoretical sources of the fourteenth and fifteenth centuries and the pictorial characteristics of Iranian paintings in the same period. Such research would surely uncover interesting relationships between medieval philosophy and painting in Iran.

Another future research topic is derived from the practical work of the author where he introduced a superimposition technique as a method for creating ambiguity and complexity inside a pictorial structure. His discussion of this point stated that, as an artist, he was not interested in developing this approach further. However, in introducing this technique in relation to the application of deconstruction to metaphysical ideas in Iranian paintings it struck me that the superimposition of different layers of mathematical and geometrical systems in Iranian painting could be studied by other artists and used to extend and diversify the concept of 'broken space'.

This thesis has allowed the author to enrich his thinking about spatial composition and its philosophical implications. He has been able to journey across cultural and historical divides in order to rethink his attitude to the Iranian art he grew up with. In extending his intellectual range with deconstructionist theories he has simultaneously expanded the way that he constructs pictorial compositions as a printmaker. The author hopes that his thesis and his prints do, in the end, use deconstruction to advance our understanding of the pictorial and compositional architectural spaces in traditional Iranian painting.

Appendix 1: Drawing systems

Designers, painters and other artists, "whose language is wholly or partially visual" (Dubery, 1983, p.7), use different traditions and styles for drawing. These drawing systems can help them solve particular problems or help them to articulate their specific intentions. One of the most well known drawing systems is the parallel projection system, which was used in ancient paintings and is also employed by contemporary artists. Another important drawing system is artificial, scientific or linear perspective which was developed in Florence in the fifteenth century by the architect Filippo Brunelleschi. This system of 'mathematically founded perspective, based initially on one fixed central viewpoint', presented a method of describing 'spatial extension on a flat or shallow surface' that represented the 'optical phenomena of the apparent diminution in size of objects and the convergence of parallel lines as they recede from the spectator.' (Chilvers, 1996, pp.352-353) In this appendix these two kinds of drawing systems which have been addressed in the current research will be introduced. explored and elaborated, using the book Perspective and other Drawing Systems (1983).

Parallel projection systems:

Parallel projection systems, are kinds of drawing systems which have been used frequently in different countries from medieval painting to contemporary drawing and design. Some of these systems were used in Chinese, Indian, Persian and Byzantine arts. They used these systems to imply a sense of spatial depth inside their paintings. "In these systems, the projection rays are parallel and result in drawings in which the orthogonals (lines representing edges in the third dimension) either disappear (as in orthographic projection), or form parallel lines across the picture surface" (Dubery, 1983, p.9).

Point or direction of view:

"Drawing in all the projection systems, including the parallel systems, imply a certain point or direction of view from which the object is seen" (Dubery, 1983, p.9). Although, this direction of view is related to "a frame of reference based on the principle axes of the object itself, rather than being described as they appear from a particular point of view" (Dubery, 1983, p.9).

In the following section all the projection systems will be introduced by diagrams. This appendix explores the terms and expressions which have been used in chapter 2 of the current thesis.

Orthographic projection:

"Orthographic projection (or orthogonal projection, as the system is also called) is the least general system, since the projection rays are parallel and intersect the picture plane at right angles in both directions" (Dubery, 1983, p.14) (image 1). In orthographic projections from any direction that the object is shown, the true shapes of its faces can be seen.



Image 1: The primary geometry of orthographic projection. (Dubery, 1983, p.15)

Horizontal oblique projection:

In horizontal oblique projection, the front face of the object and one side face are shown side by side and in true dimension. In other words: "The projection rays intersect the picture plane at an oblique angle in the horizontal direction only" (Dubery, 1983, p.22) (image 2).



Image 2: Horizontal oblique projection. (Dubery, 1983, p.22)

Vertical oblique projection:

To have a vertical oblique projection, the object or scene should be projected on to "a picture plane using projection rays which are oblique to the picture plane in the vertical direction, but at right angles to it in the horizontal direction" (Dubery, 1983, p.24) (image 3).



Image 3: Vertical oblique projection, (Dubery, 1983, p.26)

Axonometric projection:

In order to draw an object in axonometric projection system, "a plan view of the object is first drawn at an oblique angle to the picture surface (usually but not always 45°), and side and front views are then added with the verticals shown as true lengths." In other words, firstly, the object turns around a vertical axis for about 45°, and then it should be projected to the picture plane, following the vertical oblique projection system" (Dubery, 1983, p.28) (image 4).



Image 4: Axonometric projection, (Dubery, 1983, p.29)

Oblique projection:

In a drawing using oblique projection system, the front face of the object is shown in true shape and a side face and the top view of the object are added to it. In order to join up the side and top faces to the front face, they have to be distorted. "This means that the line representing the edge which is common to both faces must run at an oblique angle across the picture surface" (Dubery, 1983, p.29) (image 5).



Image 5: Oblique projection, (Dubery, 1983, p.30)

In a basic format of the oblique projection, "the lines representing the other two side edges should be parallel to this first oblique line." (image 6a and 6b) But sometimes these oblique edges diverge," giving an effect of inverted perspective." (image 6c) Or, sometimes they may converge, "giving an effect of normal perspective." (image 6d) If the length of lines in oblique are drawn in true dimension it is called 'cavalier oblique' projection (image 6a), and, if the length of lines are drawn as half of their true dimension, it is called 'cabinet oblique' projection. (image 6b) The angles of the oblique lines are usually about 45° with the horizontal line, but it can change to any value: "horizontal and vertical oblique projections are simply the special cases of

oblique projection in which this angle is either zero or 90" (Dubery, 1983, p.29).



Image 6: varieties of oblique projection, (Dubery, 1983, p.30)

Dubery and Willates say that in any oblique projection drawing there is a paradox inherent:

In drawing in oblique projection, the front faces of objects are normally shown as true shapes, but the top and side faces are also shown in the drawing. In real life the viewer can only see the front face of an object as a true shape if it is viewed directly from in front; but if the viewer wishes to see the top and side faces of an object, the object must be turned into a foreshortened position, when the front face ceases to be seen as a true shape. (Dubery, 1983, p.32)

Isometric projection:

In isometric projection, the front, top and one side face of an object are drawn, equally distorted from their true shapes, therefore, all these faces can be joined together. In a drawing using isometric projection system, "the edges are shown as true lengths; and all the horizontal edges lie at an angle of 30° to the horizontal" (Dubery, 1983, p.38) (image 7).



Image 7: Isometric projection, (Dubery, 1983, p.38)

Linear perspective:

In 1436, Alberti introduced in his *Della Pittura* the first known description of linear, artificial or scientific perspective. "In this work he defined: the picture plane (which he compared to a window frame); a fixed spectator point; the orthogonals; the eye level or horizon; the central vanishing point; the ground line; and the distance points." (Dubery, 1983, p.56) Although, the use of perspective was adopted quite rapidly in the West, by artists of the Italian Renaissance, we cannot find any evidence of its arrival in Iran until the end of the Golden Age of Iranian painting. According to Pakbaz it was not until the seventeenth century that Iranian artists learned of the principles of Western perspective, this is at least fifty years after the period examined in this research (Pakbaz, 2000, p.138). As a result, the history of the development of perspectival space in Western art is beyond the scope of the author's research. Similarly, the drawing methods of contemporary Western deconstruction architects, whilst of great interest to the author, are not immediately relevant to the ultimate goal of this research project; that is, the future development of spatial composition within contemporary Iranian art. This research has therefore concentrated on the theoretical thinking by which deconstruction philosophy was applied to architecture and there has been no obvious benefit to discussing the drawing processes particular to the architects. The author has wanted to keep his readers focussed on the potential of deconstruction (as an idea) in the context of contemporary Iran and therefore felt that a detailed discussion of the drawing systems used by architects like Tschumi and Libeskind would, in order to do the topic justice, require more room in the thesis than is available under the regulations for the word count of a practice-led submission.

Appendix 2: Deconstruction Philosophy

Deconstruction is based upon the theories and books of the French philosopher, Jacques Derrida (1930-2004). Derrida began his argument by using Saussure's (1857-1913) idea of the arbitrariness of the relationship between sign and meaning, which says that each word has two sides: "an acoustic image or sound pattern and a concept." He called the former a signifier and the later the signified. "Saussure's crucial point was that the connection between the two is arbitrary - that is to say, a convention accepted by all users of a given language, not a result of some existential link between word and thing" (Lodge, 1988, p.1). In the absence of an existential link between word and meaning, the process of producing meaning in the mind of each individual person depends on background and experiences, methods of thinking and many other factors. Therefore, Derrida claims that, in communication too, there is no direct relation between the concepts which are produced in the mind of the receiver and those which exist in the mind of the sender. He concluded that: "the signifier [or the concept in the mind of the receiver] can no longer be replaced by its signified [the original meaning in the mind of the sender], so that in consequence no signifier can be replaced, purely and simply" (Norris, 1987, p.85). Therefore, no signifier can bring a pure meaning or concept to the mind.

On the other hand, he claimed that any form of sign which is included in speech must be "repeatable – producible or reproducible – even in the absence of communicative intention" (Sturrock, 1979, p.171). This is what

Derrida described as the most fundamental feature of language. He usually referred to this by using the word iterability (Ulmer, 1985, p.58). Iterability, according to him, indicates that language in general and in any form, "can be taken over by anyone at any time" (Lechte, 1998. p109). As the fundamental feature of language, iterability destroys the idea that a face to face conversation should be privileged over any other form of transferring meaning.

In the tradition of metaphysics a face to face conversation is regarded as the best way of transferring information. Conversely, writing is regarded as the most seductive way of transferring information because of the absence of the writer. However, with the lack of an existential link between signifier and signified, the production of meaning only occurs in the mind of the receiver, so the presence of a speaker is like the absence of the writer. Also, the iterability of language means that a face to face conversation can be repeated even in a written format. Therefore, Derrida maintains that everything which is structured like a language can be recognised as a type of writing. They can all be called writing, and they would have the same quality and be treated like a text.

Derrida also established the idea of 'the death of the author', which means that an author has no authority over his published book, so that the meaning need not coincide with his intentions. He said that meaning depends on who reads the text and in what circumstances (Sturrock, 1979, p.14). He noted that: "writing presupposed the absence of the author and so we can never be sure exactly what is meant by a written text; it can have many different meanings as opposed to a single unifying one" (Kearney, 1989.

p116). Divergent meanings derived from one single text were traditionally ignored in comparison with one recognised meaning, and they were thus regarded as miscomprehension. However, Derrida thought that this was wrong, and so he established the science of writing or grammatology, as a new method of understanding a text. He claimed that this new science was one that functioned as the deconstruction of the concept of science (Ulmer, 1985, p.12). Deconstruction is a strategy which is used in the science of writing to search for new forms of concept and meaning. It considers the traditional notion of present meaning and reconstructs it with due attention to the problems which are inherent to a text (Sturrock, 1979, p.14).

Present and non-present meanings

Derrida believed that there is no superiority of presence over nonpresence. He gave the example of an arrow to prove this. He says that, if one can determine the presence of an arrow in a single instant, its movement would be impossible. Therefore, in order to make that movement possible, the presence of the arrow in each instant requires reference to other instants which are not present in them. This shows that the non-present is a crucial part of the present.

Derrida says that in any structure, if an element wants to function as a sign and signify a meaning, it should be related or compared to other elements which are not simply present (Sturrock, 1979, pp.163-164). Everything which is supposedly present depends for its identity on differences and relations with other signs which are not present; but this does not mean that they are absent (Sturrock, 1979, p.163). As a result, the signs which are not simply present at the moment are more important in our intellectual life (Norris, 1987, p.176).

Derrida emphasises words with two opposite meanings, where in given circumstances only one of their meanings seems to be present. Philosophers before him used to treat an example of this kind of word as "a torque turning back to a sense already present, a production of sign, rather than of meaning" (Ulmer, 1985, p.33). However, Derrida describes these words as a catachresis that can put the traditional logic of binary oppositions in danger. As the basis of the traditions of Western philosophy, the binary opposition means that for each concept there is an opposite concept; for example, intellectual/sensible, present/absent, and so on. For Derrida, these oppositions inhabit philosophical discourses and disorganize them. However, he does not wish to make a new form of present meaning outside of the binary opposition; instead, he wants to use these words in order "to carry thought not forward to the origins, but elsewhere" (Ulmer, 1985. p33). Deconstructionists try to reach a profound understanding of all of these conceptual oppositions. Their mission is not to decide that either this meaning or that one is correct, but rather, 'neither this nor that'. They release themselves from any kind of binary opposition, which Derrida describes as 'substitution for thinking' (Glusberg, 1991), and accept that all philosophical concepts are metaphors in the end (Norris, 1987, p.82).

Derrida identified some of these words in philosophical texts to support his ideas. The first word which he found in Plato's texts was *Pharmakon*, a

word which has two opposite meanings in Greek, poison and remedy. He argues that it is not by chance that this word inserts this strange double logic into Plato's text where he is directly discussing writing. Writing is both poison and cure; on the one hand a threat to the presence of meaning in speech, on the other an essential medium for recording, delivering or remembering that presence (Norris, 1987, pp.37-38).

Among these kinds of words, two have a key rule in the process of deconstruction. These two words, which are described further below, are: *différance* and supplement.

Différance

One of the principles of modern structural linguistics is that meanings are produced from differences between signifiers. Saussure says that the difference between signifiers shows the difference between signified and meaning emerges from these differences which exist at every level of language (Norris, 1987, p.85).

Derrida made a slight change in the spelling of the word difference and wrote it *différance*; then he found a double meaning for the new word: to differ and to defer (in French the same verb *differer*). Therefore, *différance* is a difference which is deferred. By deferring any differences, no concept can be produced and no event can happen at any time (Sturrock, 1979, pp.164-165). Derrida used these dual concepts of *différance* to expose how metaphysical presence could be completely deconstructed (Kearney, 1989,

pp.105-106). A presence cannot be identified by differences anymore, because *différance* defers any difference which is supposed to make a concept or meaning present. This shows that meaning is never punctually present in language (Norris, 1987, p.15). As soon as a meaning comes into existence from the difference between signifiers, it will be deferred forever, and can never become present.

Supplement

According to metaphysical philosophy, a structure always has a centre or refers to a point of presence or fixed origin. This centre limits the substitution of content inside a structure. It governs the structure, and at the same time is not part of the structure. It is always a transcendental concept which is paradoxically inside the structure and outside of its totality.

Derrida used Levi-Strauss's (born in 1908) discourse on *bricolage* to show that such a fixed centre does not exist inside any structure. Bricolage means a composition made out of bits and pieces (similar to collage), and Levi-Strauss used this term to explain how each text (in his case myths) had been composed of pieces of culture, history, language, and other texts. Then he opposed the engineer to bricolage. The engineer is the one who makes the structure of language; that is, syntaxes and lexicons. It is the subject who makes the structure out of nothing and is its origin or centre. Therefore, according to metaphysical philosophy, the engineer is a theological concept. As Levi-Strauss states, all theological ideas are myths and all myths are made by bricolage. As a result, the engineer is a myth produced by the bricolage. It can be seen from Levi-Strauss's argument that, in all structures such as myths, the origin or centre (engineer) cannot escape structurality and the transcendental centre becomes part of the structure. When the centre loses its privileged position and is reduced to a part of a structure, any sign can be added to it as a supplement, just like with other parts of the structure (Lodge, 1988, pp.113-116).

According to classical ontology, a supplement is everything which is added to a self-present origin but does not become part of it and will remain outside of its fixed order and priority (Norris, 1987, p.111). For Derrida, however, the supplement has an opposite meaning: firstly, what adds itself to something, a surplus; and, secondly, a part of something which completes it, by adding to it. So, it is both inside and outside the thing which it has supplemented.

With respect to this dual concept of supplement, Derrida reconsidered the position of the centre inside the structure. He replaced the old notion of centre with the notion of supplementarity and described this as a movement of free-play: "One cannot determine the centre, the sign which supplements it, because this sign adds itself, occurs in addition, over and above, comes as a supplement" (Ulmer, 1985, p.40).

The logic of supplementarity says that everything which is characterized as marginal with respect to a structure can be identified as a substitute or supplement for the structure's totality (Sturrock, 1979, p.168), and Derrida showed great respect for borders and margins rather than centres (Ulmer, 1985, p40). In *Margins* (1972), Derrida speaks of the deconstruction of

borders or limits. He thought that because borders can supplement centres and replace them, they can make new borders which are replaced again and again. This makes the structure infinite. This infinity appears when one considers a structure and recognises that it always exceeds its borders (Johnson, 1993, p.189). Infinity is the precondition of the structure.

Appendix 3: Interview with Sheila Canby

Sheila Canby is Curator of Islamic Collections at the British Museum. Her special field is Iran, Central Asia and Islamic India. "The focus of her research has been on the art of the Safavid Dynasty which ruled Iran from 1501 to1722" (http://www.britishmuseum.org). She has published widely on the subject of Iranian art, including the well-known book *Persian painting (1993)*. The following text contains Dr Canby's answers to my questions on 21th of February 2007, in British Museum; however, it does not include the sources which she recommended for my further researches.

Hadi Shobeirinejad: When I found the idea of grid I asked my teacher about it, and he said that there is a grid in some periods of time but not in all them.

Sheila Canby: But of course the question is really, the grid is there, if it exists on the page with the painting it also mentally exists on all pages of the texts as well. And you know that because you know from the illuminated pages where you have the diagonal sections of texts, that someone, the person who does the marginal rulings, probably has also laid out that. So the question really is whether the artist, Jonaid, thinking in terms of a grid, or whether that is actually something that exist but he is thinking in terms of colour and, you know, what is most important to the artist? I mean, yes, I do not dispute, I do not disagree that it probably underlies these paintings, and there is a system of proportion that is essentially a geometric system, but really is that the most important thing in the paintings?

HS: Because of the comparison with deconstructive architecture, I concentrate on the use of geometry in Iranian painting for a while. I found this article about the use of geometry in those painting by Michel Schneider, who is a mathematician. He wrote this article about using the golden section in Iranian paintings.

SC: Yes, and that is the same argument that Yves Porter uses for this manuscript.

HS: I have tried some of Behzad's painting and cannot find any use of the golden section in them.

SC: No.

HS: None of them!

SC: No, and that is why you have to read this book (The Topkapi scroll). Because it is not the same from 1396 to 1496; 1496 is a hundred years later and it is a different thing. And it is not the same in everyone's work either. So, that is why I ask, is that really what is important. Isn't it just a kind of an exercise? Yes it is good to understand the space, but really you want to understand what they say, what they try to express in the painting and how

they use space to help them express it, not the other way around, you see? So, I mean that what I would say, that is what I think you have to think about how you are going to analyse these paintings. Not just that "oh, did they use a grid?" you really have to work at the paintings as understanding what it says, and then go from that to how they say it, how they express it, what means their use. And if the space is one of those means, then what is it? How is it used? And you know, and the use of things like you take the a painting as a classic, because the brilliant use of space expresses the emotion of the poetry.

HS: Yes exactly, when I first saw this painting (Yusuf & Zolaikha by Behzad) it was shown for example this act is going to happen in a completely private space. So, Behzad uses lots of doors in this painting, and all of them are shut. It shows that nobody is there except Yusuf and Zolaikha. I think that the space is going to express the story.

SC: Yes, exactly. I mean you can go on from that and you can talk about closeness to the picture plane, and how deep or shallow the space is, and all of that. These things are interesting. And how he supports the way he paints the rooms. What makes them, what differentiate them, and all of that? So, from here, what do you have to do now?

HS: First I want to know: can I make a clear period of time that this kind of spaces and use of architecture has started and some especial artists who did that?

SC: This type of manuscript painting? Like Behzad? In fact, it started with Mohammad Juki's Shahnameh, so that is about 1444, so early Timurid painting. That has very interesting depictions of space, not all interior space but very dramatic bird's eye view. I can show you. So, it might be interesting to limit yourself to the Timurid period or to the Safavid period, and use the Shahnameh Shah Tahmasb. Because there are so many pictures.

HS: You mean only limit myself to the Timurid period?

SC: One or the other. Because what happens with the PhD thesis, if it is too broad, you never go into it deeply enough, and that is no good and no use to anybody. To have a sort of survey, it is much more interesting...

HS: Maybe I can limit myself to Behzad...

SC: Well, you could but everybody write about Behzad. It is more interesting to find somebody.... OK, you know, something like this, you can see the whole notion of space is quite important because they want to show inside but they also want to show outside. That is what I mean and then, there other paintings in this manuscript (Shahnameh Shah Tahmasb). [...]I mean something like this Shah Thamasb Shahnameh, there was a big book written on it and then, there have been things written about it ever since, but nobody has taken this topic and applied it to that manuscript. So it might be a better thing. I just feel that Behzad... people write about Behzad all the time. And hardly anyone ever adds anything to it. And it is better to take something else. Most were published 25 years ago or more, and it is time for some new ideas. Shahnameh Shah Tahmasb is a good example because it has everything.

.... OK what is your next question?

HS: Do you think it is good to investigate which techniques they used in their work?

SC: Well, they pretty much use the same technique. In that they are using opaque water colour and they are using gold and buffer their green with saffron and there in not much more that you are going to find there unless you are a conservator or chemist. There is a woman, Mandana Barkeshli, she is Iranian who is a conservator and who has done a lot of interesting research on the use of saffron, and other buffers to keep the green from eating through the page. But I do not think that has anything to do with your topic.

HS: Because my topic is mostly about philosophy

SC: Exactly. And this (The Topkapi Scroll, by Najiboghlo) is quite far the best thing you would find on that, really, I am telling you. Even though it is Turkish, she is not limited to Turkish, and the good thing about it is, that..., I am not trying to be critical, but in Iran the tradition is very much to start with the Mani and whoever and staying within an Iranian framework. But actually you know there was a great deal of exchange between the Arab world and the Iranian world, in the Islamic period, and that is why this is good because she talked about people like Omar Khayyam and other very important people in the whole mathematical tradition in Iran up until beyond Omar Khayyam, and how that in a practical sense and a theoretical sense is the basis for understanding the geometry in architecture and space. That is really it will tie in with your Sohrewardi and all of that, and that is why it is important.

Appendix 4: Interview with Ali Ghaemi

Ali Ghaemi is a contemporary Iranian artist interested in broken form of architectural spaces. He started his work by drawing for an architectural company. He also designs sets for TV programmes. He teaches painting to high school students and on foundation courses, and also teaches drawing and mono print in college. He has participated in more that 10 group exhibitions and had several individual ones. There follows the author's interview with Ghaemi on 1st of March 2009:

 What is the influence of everyday experience of spaces which you are living inside in your artworks?

AG: Hello, I am Ali Ghaemi. I graduated with a B.A. in Painting from the Art and Architecture Faculty of Azad University in Tehran. My interest in architectural space derived from my childhood experiences and the spaces which influenced me at that time. The neighbourhood I grew up in had traditional and old architecture spaces and is still like it was at that time. I am still living there, with those brick walls and those chimneys, and the pond full of goldfish, and I have lots of memories from that time. I remember that every time I opened my eyes I saw those spaces from the window of my room. I always liked to stand in front of the window and look outside. Fortunately in the old buildings windows are always very large and so we could see a vast area. Because of the use of fireplaces, old buildings have lots of chimneys

which give them special character, and I really liked them and enjoyed looking at them, and sometimes I even talked to them. As I remember, because those spaces were really attractive to me, it made me want to discover the unknown and complicated spaces of our relatives' houses. Despite their darkness and scary and frightening environments, I really enjoyed doing that. I have always been interested in spaces which repeated one after one, with those enormous thick walls. I always liked to make a house out of the chairs in our home, and to go inside it or to use the dinner table for making a house. There is a very important and strange subject for me, which I realised later, is about the influence of my childhood in my painting at the present time. In those days we often slept on the roof, and I had a full view of the city and of the roofs of our neighbours' houses, especially at night when the lights were flickering. That was a mysterious atmosphere for me, and I love it. It has always been attractive to me. Painting helped me to realise how influential the spaces that I experienced in my childhood were.

2. How important are the traditional architectural spaces for you? Do you think they influenced your paintings? Do you have any specific sense about them?

AG: The area which I grew up in was in the middle of the city and all the buildings had traditional designs. My childhood home, where I am still living, was built about 50 years ago and still has its old appearance, with those brick walls, chimneys, the pond and windows. Those windows narrate the story of

life; the stories going on inside each of them. I always thought about what was going on behind those windows and in those spaces; it was always interesting to me. I believe that traditional and old buildings have marvellous designs and the architects planned for every corner of the building and thought about its design. I think that people have a deeper sense of tranguillity inside those spaces compared to contemporary buildings, and they have very good feelings inside them. That architecture has influenced my paintings. I grew up inside those spaces and engaged with them, enjoyed them and felt them. When I began high school, [...] I started to work in an architectural office, and my colleagues included architects, painters and musicians; they played instruments and they were intellectual people. This really helped me to choose my way in life after that, at university. The office was a gateway for me to the world of art and painting. But, unfortunately, I had to do military service after high school. During that time I paid a lot of attention to the architectural spaces around me and tried to analyse them and understand them. I thought that we could see the relations between different parts of our body in architectural spaces. Fortunately, the place where I had to do my military service had traditional and old buildings and I could continue my study of them and their proportions. After my military service, I entered university and started to study painting. As soon as I began my course I chose architectural space as my subject, and luckily I had very good tutors who guided me in this field. My final practical B.A. project's title was "Urban spaces at night", and my theoretical project was "Urban spaces in painting 1930 – 1960" which included painters such as Grosz, Feininger, Léger and Picasso. Considering each of my exhibitions as a stage of my
work, in every stage one sense and idea about architectural space has dominated. [...] I have always believed that every element and every space has its own characteristics and that it is the artist's responsibility to discover those characteristics and feelings and personalize them and represent them in the artwork. Therefore in my work, as I have said, traditional Iranian architectural spaces have a great influence.

3. How important are the contemporary architectural spaces for you? Do you think they influenced your paintings?

AG: Another aspect of my work is about showing the unpleasantness of our society in the case of human behaviour or ugliness of urban spaces and their design, and also of the houses which are built in them. In other words, I want to say that the entire traditional architectural space in which we have grown up, and all of the memories that we have about this, were suddenly destroyed because of the growth of the population or for other reasons. Apartments have been built instead which have no excellence in design and do not transfer any positive feelings to us. One may even feel like one is in prison inside them. All these previous memories have vanished and these ridiculous apartments replace them. The great history and ideas which supported our traditional architecture have not been maintained in contemporary apartments. When we live in traditional architectural spaces we have a sense of tranquillity and relaxation, because they have such a good composition, and are supported by ideas and deep concepts.

4. What are you going to say by breaking and fragmenting the architectural spaces in your paintings?

AG: I decided to show in my painting the crisis of identity and culture which I think our society and our artists and architects are experiencing. I cannot paint a joyful, happy artwork when I see that my society and my people are suffering. I cannot lie to myself when I am feeling sad, and when I have serious criticisms how can I not show them in my work? In my recent exhibition this criticism was stronger. In fact, there is a kind of resurrection happening in my architectural spaces, which is the result of my daily life in this city (Tehran). However, I am not sure how successful I was in conveying my ideas about my artworks to the audience.

5. How much do you know about the architectural spaces in traditional Iranian paintings from the Herat and Tabriz schools of artists? Do you think that your knowledge about them has influenced your paintings?

AG: Concerning Iranian traditional painting, and the Herat and Tabriz schools of artists, I have to say that they have never been my subject. Although I have analyzed them because of their lack of the use of perspective, I never fragmented the spaces of my work in response to the lack of perspective in those paintings. Instead, I broke the spaces of my work, simplified them and used dark colours in order to show my criticism and express my feelings. [...] but I have always believed that, if after the Safavid period, those traditions continued to improve, how wonderful it would be today... Some people ask me why I do not include human figures in my painting. I believe that the architectural spaces of my works are strong enough and that I do not need to put human figures inside them [...] I think that if a figure existed in my work it should happen by itself and that I should not enter it into my spaces. I think my paintings are figurative enough and can have their expression.

I think that the contemporary modern architecture of Iran does not have its own identity and does not transfer any feelings. I believe that there is no architectural space inside those buildings from which we expect to experience emotion. I think this is because the architects who design those spaces have lost their identity and do not have any knowledge about the feelings of intimacy inside the spaces. And the tastes of the people who choose to live inside those spaces are also not of high quality...

When I am walking in the street, I am always looking at architectural and urban spaces and trying to find compositions and ideas for my future artwork. My paintings always derive from my imagination and I usually do not make any sketches for my paintings. I merely walk in the city and look around, and if I see something very special and I think that I may forget it, I will take a photograph or draw a sketch of it.

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Appendix 5: Interview with Masoumeh Mozaffari

Masoumeh Mozaffari is a contemporary Iranian artist interested in broken form of architectural spaces. She was born in 1958; she has a Master's degree in Fine Art from Azad University in Tehran. She is the writer of *Humanistic reflections in Kamal AI-din Behzad's works* (1991) *How to Teach Painting to Children and Young Adults* (1999) and *Color in Painting* (2001). She has taught Fine Art at Azad University since 1991. She is the Ex-President of SIP (Society of Iranian Painters) and a member of DENA group; this is a group established in 2001 with the ambition of introducing Iranian women artists to Iran and abroad as professionals with independent voices and different outlooks. She has also been the Vice Chair of the Society of Iranian Painters, since 2002. Mozaffari has also taken part in more than 40 group exhibitions. The following text is of the author's interview with Mozaffari on 14th of March 2009:

 What is the influence of everyday experience of spaces which you are living inside in your artworks?

MM: Visual spaces in relation to human beings have been the major issue for me in recent years. The relations of people to others and to objects and generally to the world around them are making the life. Our life consist of moments which we have in rooms with half-opened doors, with stairs, tables and cups on them and crumpled napkins.

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2. What are you going to say by breaking and fragmenting the architectural spaces in your paintings?

MM: I have tried to visualise these moments and days, the comings and goings, and death and life, by breaking the spaces and transforming them all together. In my paintings you cannot say that you stand inside or outside of the room, or that what you are seeing is the present reality or a past memory.

- 3. How important are the traditional architectural spaces for you? Do you think they influenced your paintings? Do you have any specific sense about them?
- 4. How important are the contemporary architectural spaces for you? Do you think they influenced your paintings?

MM: I do not use any of them, exactly. What I am using is the architectural spaces around me, which are not modern or traditional, but are of today and contemporary architecture. They consist of intricate rooms and doors, windows and staircases, and even streets and cars.

5. How much do you know about the architectural spaces in traditional Iranian paintings from the Herat and Tabriz schools of artists? Do you think that your knowledge about them has influenced your paintings? MM: I have read about the Herat and Tabriz Schools of artists and the way they used architectural spaces. This needs lots of explanation but I think you know about them yourself (she used to teach me 'the analysis of traditional Iranian painting' at university). In addition, I created artwork inspired by traditional Iranian painting when I was doing my B.A. at Tehran University. From that time, I began to use the composition and perspective of Iranian painting, which consists of overlapping planes from bottom to top, and simultaneously showing diverse spaces which sometimes connected together with a staircase. This has remained in my mind from that time, and later I combined it with my experience of Cubism.

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