

CALIFORNIA STATE UNIVERSITY, NORTHRIDGE

ENTROPIC FUTURE

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By

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## DEDICATION

This thesis is dedicated to my family: to my husband because of his love, encouragement, and support throughout my life; to my mom, Homayoun because she perseveres through every obstacle to bring happiness to our family; and to my brother, Firouz, because he supports me.

In loving memory of my father, Pashoutan Bharthania, who helped me discover my talent, and to all my teachers and friends because they helped support and guide me through graduate school.

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## ABSTRACT

### ENTROPIC FUTURE

By

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My work is about the city of Tehran, which suffers from severe air pollution and is often covered by smog, making breathing difficult and causing widespread pulmonary illness. This problem goes beyond the geographic and economic situation in Tehran. Poor political and social decisions have fueled urban sprawl, an epidemic throughout developing countries. Too many people are crowding together in a small geographic space bordered by mountains. Trapped air creates a noxious stew for the people to breathe. Utilizing many layers of photographs, prints, and paintings, my work simulates layers of pollution, uncontrolled constructions and the ever-growing population of this city.

## INTRODUCTION

### **The History of Tehran**

Tehran, today's capital of Iran, is an ancient city with a glorious history. However, a polluted environment obscures these cultural memories. Knowing about the history of Tehran, and what has happened to this city in different eras will help to understand the sources of the problems plaguing my hometown.

Tehran covers an area of 1500 sq. kilometers in the north-central part of Iran, on the slope of the Alborz Mountain. As the national capital it is the most populated city and the center of cultural, economical, political and social activities. It is 1200 meters above sea level and enjoys a mild climate.

Tehran became the capital of Iran in 1795, when the Qajar king Agha Mohammad Khan was crowned in the city. It covers an area of 1500 square kilometers in the north-central part of Iran, on the slope of the Alborz Mountains. The nation's capital, Tehran is the most populated city and the center of cultural, economic, political, and social activities, with an estimated night time population of 8,429,807. Tehran sits 1200 meters above sea level and enjoys a mild climate. [1]

In the 1920s and 30s Reza Shah Pahlavi ordered to build the city under a new plan. To build a modern city, many historic buildings and places such as Golestan Palace, Takieh Dowlat and the Toopkhaneh Square were abandoned and new buildings with pre-islamic architecture such as National Bank and Police Headquarter were built to replace them. In this way many historic buildings were destroyed to build wider avenues in Tehran and many Persian Gardens also was replaced with new constructions.

“In the 1960s and 70s Tehran was rapidly developing under the reign of Shah Mohammad Reza Pahlavi. Modern buildings altered the face of Tehran

and ambitious projects were envisioned for the following decades. The majority of these projects were continued after the Islamic revolution in 1979 when Tehran's urbanization had reached its peak, and the new government started many other new projects like Milad Tower.”[1]

## PERSONAL HISTORY

### **Coming to the United States**

Leaving Iran and immigrating to America in 2007 has had an intense impact on my life as an artist. Before immigrating to the U.S., I had a chance to experience life in Vienna for a few months. Living in this small city, I experienced a new culture and European lifestyle in Austria. This new social experience inspired my interest in differences and similarities between nations and cultures around the world.

Moving to the United States was a new chapter in my life and artwork. Living in this new culture, with a completely different lifestyle and quality of life, introduced me to the world of contemporary art. While in Tehran, I knew the contemporary art of my culture. However, this contemporary art lagged behind global trends because of government censorship.

The very different cultural and social values between the United States and Iran has led me to investigate urbanism in both countries and its effects on: social life, urban space and design, cultural manifestations, and construction materials. The more I delve into this subject, the more I see variations between these two very different places; one has a rich and ancient culture, and the other has a youth-oriented, more contemporary presence.

### **Travel Back to Iran**

While living in the United States, I began following the news about Iran from different sources to keep myself updated. During this time, (2010) many changes were happening in the social and political arena in Iran. These recent changes, mainly a result



of international sanctions, have influenced the quality of the Iranian peoples' lives, especially in Tehran. While Iranian people have faced many changes and challenges during the last three decades, it is the recent political and environmental shifts that bear the largest impact on my work.

Since 2010 I have received photos of Tehran from my friend who lives there. The images were so sad and different from my memories; the comparison of these very current images with my fond memories forced me to contemplate how much my home has changed in my absence. As a result, I started working on a new body of work related to my hometown. Initially, I worked using pictures sent to me by a friend, but since photography was the key to my work, I decided to work from my own images. In 2011 I traveled back to Iran to complete my research by taking pictures, taping videos and studying more about the history of its urbanization, and the reasons behind some of the problems that Tehran residents are facing now.

My work concentrates on the air pollution in Tehran, which is at an extremely dangerous level for its residents. The severe air pollution has made breathing very difficult for the residents of Tehran. The smog from the city makes its citizens' breathing difficult and causes lung cancer and cardiopulmonary diseases. Researchers determined that 27 people die daily from ailments caused by the air pollution and 3,600 people have died in a single month due to difficulty in breathing and suffocation. [4]

The next chapter explores the historical changes that have converted Tehran into a highly populated city without proper control over the expansion of its urban spaces and concern for the consequences that come with such rapid expansion.

## METHODOLOGY AND RESEARCH

### **Changes and Upheaval in Iran**

While researching the situation of Tehran, especially the current population and construction issues, I discovered that the changes that have happened to this historical city since 1979 after the Islamic revolution in Iran are the main reasons behind these issues. On the other hand, International sanctions after 2010 have been additional factors worsening the situation in recent years.

As Dr. Soheila Shahshahani indicates in her research, “ Tehran, Paradox city” about the changes in the city of Tehran in recent decades, there are two key elements that have formed the face of the city as it is now:

“One was an oral decree by Imam Khomeini that all Tehrani[ans] had the right to possess a house. This ignored the city limits set by the TCP (Tehran Comprehensive Plan) and, overnight, small houses were built on the outskirts of the city. The second was the government’s decree, in 1989, after the war with Iraq that different sectors of the government had to become economically self-sufficient. This encouraged the municipality to allow, and then fine, illegal buildings. Fines thus became permits and buildings were constructed in ways that were not permitted by law.”[2]

As a result of these problematic urban policies, people fled to Tehran from other cities. Population grew drastically and consequently the city developed in every direction without any control over the construction. In addition to these actions, more poor decisions and policies made this situation even worse, as Dr. Shahshahani mentioned about the green part of the Tehran;

“Old gardens and mansions were destroyed to clear space for massive new apartment blocks. Fines for cutting trees or building high-rises brought colossal amounts of money to the municipality. In modernizing the city, the municipality was in the paradoxical situation of planting trees and flowers to make small parks while benefiting from the destruction of the ‘lungs of Tehran’, the gardened northern section of the city. Previously the gardens had brought cool weather down from the mountains, sweeping pollution into the lowlands beyond the city.

Pollution, traffic congestion and accidents thus became facts of daily life. Painting pedestrian crossings white, allowing advertisements to appear on buses and walls, placing billboards along highways and lining streets with lights and colourful flags for festivities added to the transformation of the city, but not necessarily in welcome ways.”[2]

Tehran became a unique city in Iran, which was attractive for many people because of the job opportunities and facilities. The city began to expand year after year and the numbers of people, cars and factories increased. Now Tehranians possess a city they can't enjoy living in and suffer from numerous problems that threaten their lives.

Besides those mentioned factors, the geographical location of Tehran surrounded by the Albourz Mountains, has limited the growth of Tehran -- resulting in a crowded city with expensive land. The cars and factories produce most of the pollutant gases, which have transformed Tehran into one of the most polluted cities in the world.

### **Air Pollution**

To address the problem of air pollution in Tehran it is necessary to identify the various causes. Based on studies, there are two main sources causing the air pollution in Tehran. Stationary sources such as factories, businesses and residential buildings are the first but not the main sources that contribute in air pollution. According to the Environmental Software and Services, over-concentration of factories and other businesses in Tehran cause air pollution. As discussed before, the unregulated construction and development of the city has attracted countless people to the city. This resulted in a dense concentration of these resources throughout the city; more buildings, more pollution. [5]

The second and major source of pollution is cars. Based on the reports from Iran's Environmental Protection Organization (IEPO) numerous cars flooding the city streets everyday are the origin of Tehran's air pollution. Daily life in Tehran relies heavily on private cars, buses, motorcycles and taxis. According to Tehran Municipality Environment and Sustainable Development Office the number of cars on the street in the city is more than four times its capacity. The streets are inundated with cars and slow traffic is now a routine even late at night. According to IEPO, 80% of the pollution emissions come from the cars. Low standard and old cars that don't meet the emission regulations are even worsening the situation. [4]

Obviously all those problems originate from the wrong policies mentioned in the previous chapter. There have been some short-term solutions and strategies followed by the Iranian government to alleviate the problem; imposing traffic restrictions on cars at downtown areas, closing of schools, colleges and universities and some government offices on heavily polluted days or even spraying water over the city are some examples of these short term solutions.

In addition to all the previously mentioned problems, international sanctions and the enactment of The Comprehensive Iran Sanctions, Accountability and Divestment Act (CISADA) after July 2010 have made the situation worse. When the sanctions began gasoline delivery in Iran fell by 75%. [6] As a result Iran had to increase the domestic production of petroleum through a generally inferior process leading to a large increase in air pollution in Iran. As head of the Iranian parliamentary committee for healthcare, Hosein Ali Shahriari has stated locally refined gasoline produces high levels of pollution and contains ten times the level of contaminants of imported fuel. [7]

## ENTROPIC FUTURE PROJECT

When I returned to the United States, I began to use my investigation of Tehran in my artwork. Leaving my homeland once again and coming back to the states was difficult for me, because I felt uncertain about Tehran's future and how the city and its people, my people, would look upon my return. I carried these concerns with me on my trip back to the states. I wanted the work I was going to make embody my mixed feelings of sadness, uncertainty, worry, and nostalgia, and I was concerned about how those feelings would change as time eroded my memories.

My Thesis work is the result of all my experiences during my graduate career. I started the program using different materials like resin, transparency sheets, plexi-glass, wood and many others, which helped me to express my idea and concept in a unique way. My work shows my concern about my hometown. I use different tools and techniques to express my feelings through the channel of my thoughts about the changes happening there, and the way that the city has transformed.

The base of the work consists of paintings and/or transferred photos on different sizes of wood board in varying thicknesses, which are then built up through layers of resin and paint. Some of the paintings are a view of Tehran, which I have had in my mind from many years ago or the ideal view of the city. In this case I use pure and bright colors with a bright, blue sky. In contrast, other paintings start with images from my last trip in 2011, which show the current situation of the city by implying differing times of the day, different heights and multiple viewpoints. Sometimes I embed layers of paintings and photographs in between layers of resin of various thicknesses, which allude to Tehran's ever-growing population and constant construction. The layers of pigmented resin

function as a metaphor for the literal smog and the more abstract lack of clarity of Tehran's future. The process of transferring images on to resin blocks and handmade papers sometimes leads to uncontrollable outcomes.

As a result, because of the unpredictable process of working with resin, sometimes it ends up in different results, such as a cracked surface, or the reaction between resin and paint, which varies because of different uncertain causes. These outcomes of the processes relate to the main idea of unstable and no pre-planned city.

The partially transferred images on resin blocks imply the non-regulated construction in Tehran. The different approaches in my work reflect and comment on this sad situation. Some of these paintings protrude from the wall in a way that causes them to lose their rectangular shapes as they grow. The second layer consists of transparencies and vellum cut in different shapes and sizes and covering the wood boards to varying degrees. Photographs from Tehran have been transferred onto these sheets of transparencies and vellum, embedded within the piece. There are translucent resin blocks in different sizes, which as described above the images have been transferred onto them partially.

Due to the nature of my installation, the viewer sees these blocks through every other layer, referencing a dense and chaotic city. The overview of the work represents the ever-growing construction and unplanned urban development in Tehran. Also the way that my work expands in every direction relates to the unplanned growth of the city in every direction, and as a result there is no place for the city to breathe. This has formed an unstable city with disordered development.

The colors vary from bright and solid to dark and unclear, and as I layer them on

top of each other, the resulting outcome is dark and dense; a metaphor for smog and pollution. I have used both warm and cold colors, which relates to different times and spaces in the city.

In some parts the images and colors are clear and obvious. However in most of the work darkness and foginess result from the layering. Layering is an important element in the whole process of the work, which represents all the changes that have been added to this city in different time eras. As a result, Tehran has been turned into a dense, populated polluted city, which without taking any serious action against this trend will have an unclear and disastrous outcome.

## CONCLUSION

As an immigrant from Iran I have had a long and eye-opening journey to reach the U.S, which has allowed me to explore and experience the life here, and as a result compare these two different lifestyles. More over seeing them through the lens of an artist, all these changes, comparisons, and experiences have been projected in my body of work. These changes are really challenging and interesting to me and they compel me to explore my work more. As time passes, I feel a greater sense of belonging to my country and want to think more about the memories from my past and try to bring them back by remembering all the details. But naturally as time passes, memories fade and some are eventually lost. I try to represent these memories in my work and want the viewers to put themselves in the same situation, especially those who have left their countries or even their homes for whatever reasons and are looking back to keep their connections.

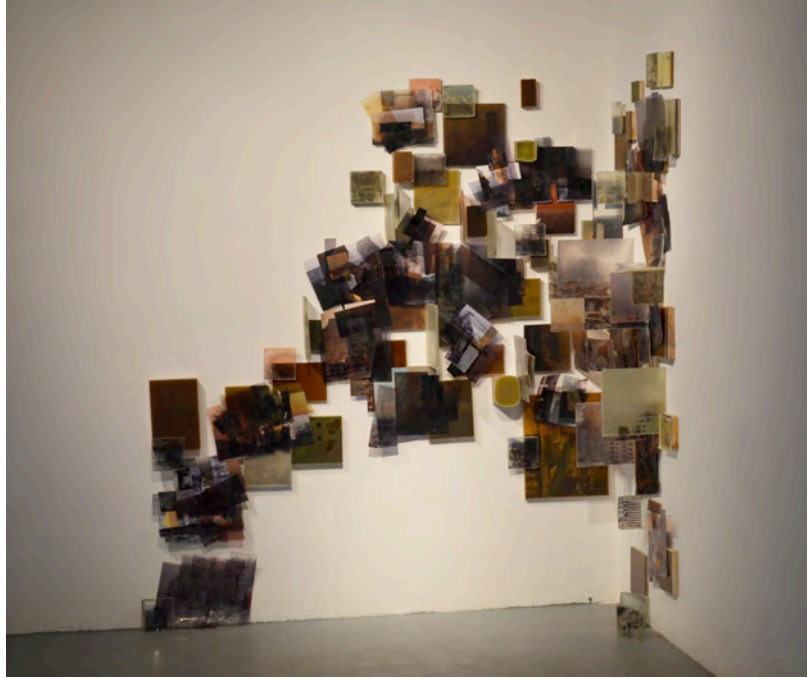


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APPENDIX

Installation: Entropic Future, Multi media, 2012









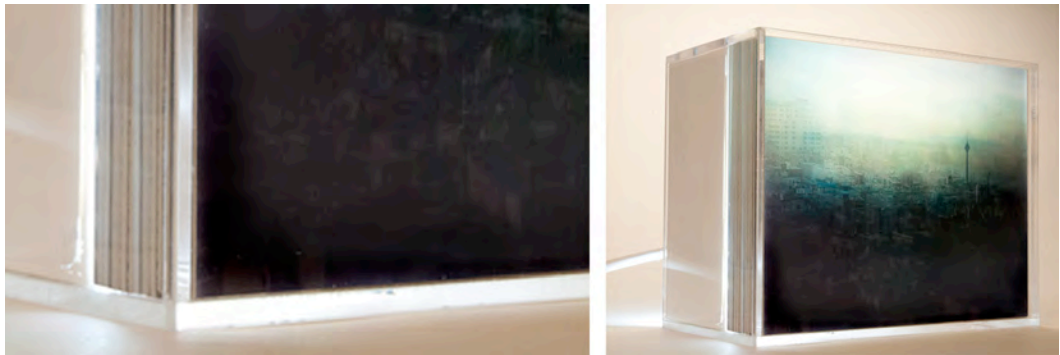
Serina's House, Transferred photos on transparency sheets, Metal, and wood,  
10" x 18", 2012



What the Future Holds, Photo Transfer, and Resin, 12" x 8", 2012



Acrylic, Resin on Board, 6" x 6", 2011



Density, Twenty-five stacked Transparencies, Plexiglass Light Box,  
8" x 10" x 7", 2011



Photo Transparency, Resin on Board, 6" x 6" x 1", 2011



Photo Transparency, Resin on Board, 6" x 6" x 1", 2011





Untitled, Photo Transfer on Resin, 4" x 4" x 1/2", 2012



Untitled, Photo Transfer on Resin, 4" x 4" x 1/2", 2012



Installation: Sand Castle, Multimedia, 2010



Installation: Sand Castle, Multimedia, 2010