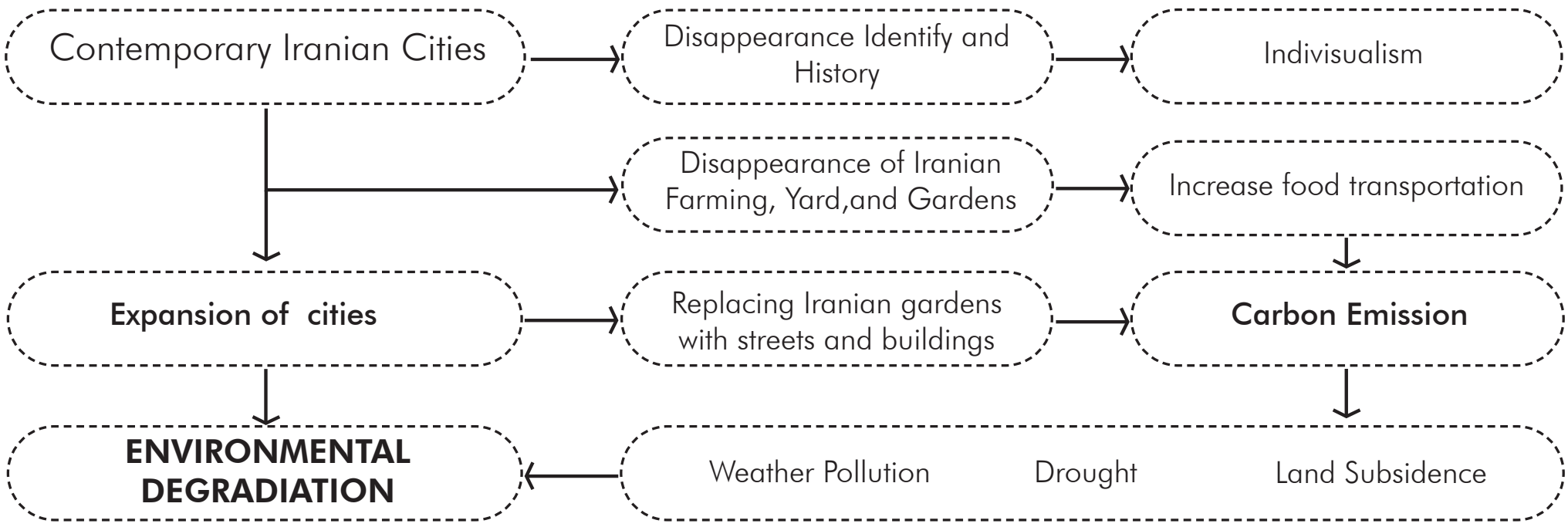
NEW PUBLIC SPACE FOR CONTEMPORARY IRANIAN CITIES
MICRO-URBAN AGRICULTURE

Shayan Baranian Kasir, Sayede Nazanin Ommi

Keywords: Food, Chahar-Bagh Garden, Urban Farming, Esfahan, CO2 emissions



URBAN FARMING

While yard gardens and Chahar-Bagh gardens have gradually disappeared in Iran, urban farming has emerged as an integrative factor for city resilience and a key theme for utilizing vacant lots and open spaces in contemporary cities.

ISFAHAN

One city that was once abundant in gardens is Isfahan, located in the middle of Iran.

We have chosen Isfahan's historical residential district as the focus of our analysis. It is obvious that the ancient Isfahan once had green areas, including yards and gardens, which gradually disappeared over time and were replaced by buildings.

ISFAHAN in 20 Centery

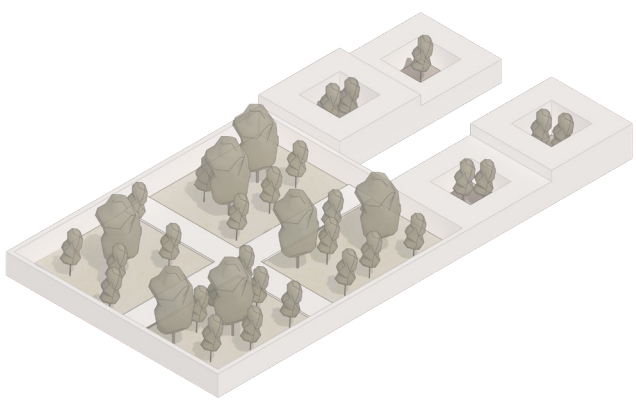
ISFAHAN in 21 Centery

As a metropolitan city in a dry climate, Isfahan has faced climate catastrophes such as drought and subsidence, exacerbated by CO2 emissions and ecosystem degradation. To address these issues, the historical inspiration of Chahar-Bagh Gardens has illuminated potential solutions to reduce pollutants.

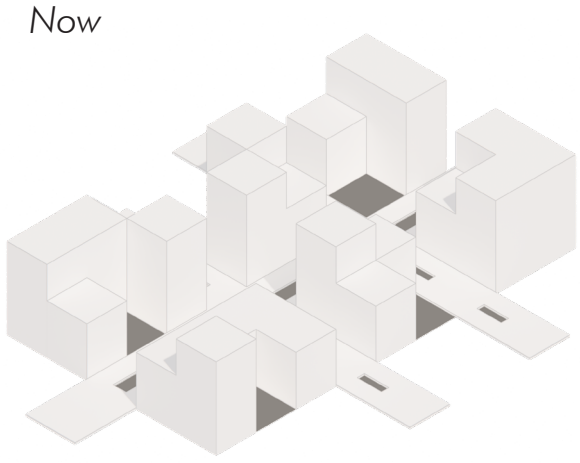
Main Concept

As cities grow and become more densely populated, the concept of concentrated urban farming becomes challenging to accommodate. Therefore, the idea of **micro-urban agriculture** comes to mind. The characteristics of this form of urban agriculture can vary based on community customs, size and enclosure, light availability, and access to water. For instance, it can be implemented in vacant lots, alongside streets, in shared yards of residential complexes, or even on the banks of the Zayande-Rod River (the central river of Esfahan), contributing significantly to the provision of locally sourced food for daily life.

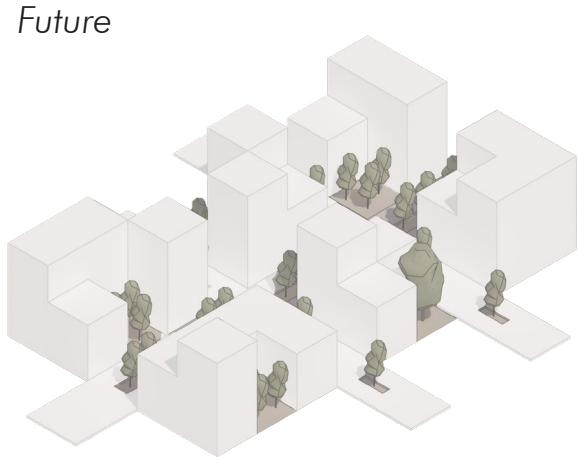
Before



Now



Future



Potential Vacant Spaces

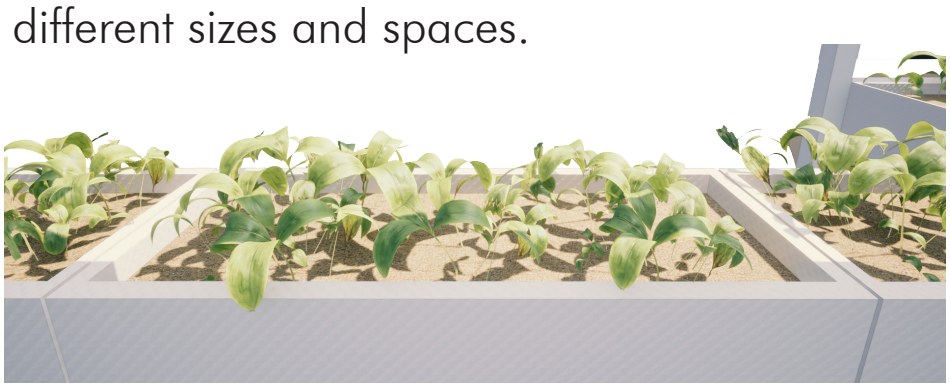
We have identified vacant spaces in the designated region most of them are currently used as accessible car parking areas. These spaces hold potential for Micro-Urban Farming, and by utilizing them, we can establish local food services to benefit the community.

1

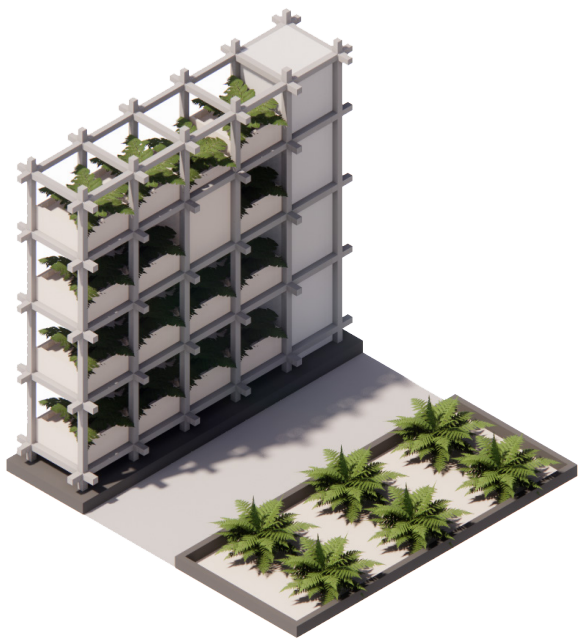

2

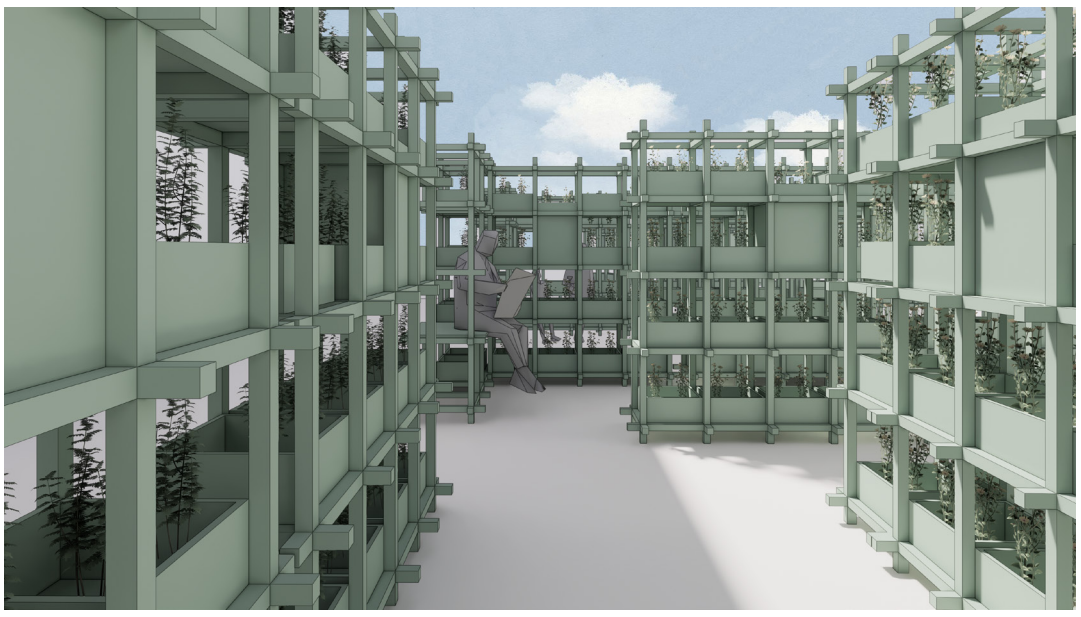

3


We have designed both vertical and horizontal urban agriculture systems that can be implemented in various places, accommodating different sizes and spaces.



Vertical farming is exactly what it sounds like farming on vertical surfaces rather than traditional, horizontal agriculture. By using vertically stacked layers, farmers can produce much more food on the same amount of land (or even less).





Potential Vacant Spaces

We have made the decision to focus on designing one of the potential vacant spaces as an example, providing more detailed planning. This particular space is surrounded by residential buildings as well as service establishments such as restaurants and cafes. It's worth noting that similar spaces can be found throughout the entire city, offering numerous opportunities for implementation.

1

2

3

Implementing this process requires the collaboration of architects, urban planners, botanists, phycologists, and sociologists. Architects and planners should identify suitable locations for urban farming cells, botanists should select appropriate plants for cultivation, and experts should define the methods for managing each cell.

In conclusion, urban farming, as an urban ecosystem, offers a contemporary and straightforward approach to mitigating climate change by reducing CO2 emissions associated with food transportation. This idea also strongly supports cultural regeneration and the fostering of shared culture in cities, particularly in Iran, given the historical significance of gardens and yards.

References:

1. Sommariva, Emanuele. 2014. ***Cr(eat)ing City, Urban Agriculture Strategies for City Resilience***. LISt Lab Laboratorio Internazionale Editoriale. Italy.

2.Khansari, M., Moghtaderi.M., Yavari.M. 2016. ***The Iranian Garden reflects heaven***. Research Institute of Cultural Heritage, Crafts, and Tourism. Iran.

3. Li, M., Jia, N., Lenzen, M., Malik, A., Wei, L., Jin, Y. and Raubenheimer. 2022. ***Global food-miles account for nearly 20% of total food-systems emissions, Nature Food***. Science for Environment Policy. published by the Directorate-General for Environment.s

4. Sarah N. Gatson, Marissa Cisneros.Robert Brown, Jacqueline A. Aitkenhead-Peterson, Yu Yvette Zhang. 2021. ***Urban Networks, Micro-agriculture, and Community Food Security***. Texas A&M University, College Station. TX, USA.

PROJECT EVALUATIONS

MICRO-URBAN AGRICULTURE 3 votes

Shayan Baranian Kasir, Nazanin Ommi

• Alessandra De Cesaris 1 vote

Gardens and green courtyards have played a significant role in shaping the identity of Iranian cities, not only aesthetically but also as a primary source of food production in cities such as Isfahan, Shiraz, Kerman, and others. Unfortunately, these gardens have been replaced by roads and buildings.

This lucid analysis is grounded in Eugenio Galdieri's description of Isfahan as a city of water: "A lagoon Isfahan, an Isfahan in which water plays a leading role, to further highlight its monuments, the city of two centuries ago. It lent itself marvelously to the purpose, and the Zayanderud had enough water to feed the innumerable madi, the canals that furrowed the city in all directions, with their well-squared banks and rustic, wooded banks." Isfahan was once a city of water and gardens, but today, water is scarce and gardens are disappearing. Thus, the idea of reintroducing green spaces with the use of productive gardens with an eco-sustainable value within the building fabric, which now has a predominantly vertical dimension, seems excellent to me. However, the design solution appears somewhat harsh. It should be refined by combining productive and aesthetic aspects, technical solutions, and comfort. After all, if I remember correctly, the Persian garden was born as a productive garden, a productive place integrating the pleasantness of being and fruit and vegetable production

• Marsia Marino 1 vote

The project aims to preserve and enhance the historical and identity-bound courtyard system typical of the city of Isfahan by repurposing some of the urban fabric areas now used for parking for micro-urban farming. The goal is to realize the urban and social potential of areas lacking quality while contributing to local fruit and vegetable production, a theme for the city.

The result highlights a comprehensive urban vision and sensitivity in combining sustainability themes with those of tradition.

• Emma Tagliacollo 1 vote

Memory

The project tells us about the memory of a city that has changed rapidly over time and that in the past was characterized by gardens and courtyards. It is precisely through the design of a garden, democratically intended for the community, that memory is also worked into this project. A garden is not only a place of delight but is transformed in a modern (and perhaps Western?) key into a place that wants to be polyphonic and layered. It is also part of a strategy for sustainability.

Urban gardens and courtyards, defined by the tall façades of last century's buildings, are now often leftover spaces, as we call them now, like parking lots, for example. If we let memory guide us, we can get back to the concept of courtyard and garden, even if it's in a completely different urban context.