THE MYTHOPOIETICS OF SPACE

A Dissertation

by

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ABSTRACT

This dissertation provides a brief survey of architectural space within the context of *nomadism* that intersects with Deleuze and Guattari's *A Thousand Plateaus (1987).* This approach toward space rethinks the presence of improvisational space in relationship with human beings. This research analyzes improvisational space in the domain of forces that spontaneously generate liminal spaces. These impromptu spaces go beyond fixed spaces toward uncertainty, instability, and indeterminacy. This dissertation argues that, although often ignored, space organizes the world *mythopoietically*. This research examines the foundations of space as a central architectural concept by exploring the mythopoietics of Persian architectural spaces through myth and poetry found in Persian philosophy. This revived notion of space suggests that space is not organized three-dimensionally by length, breadth, and depth, but is also derived from uncertainty, instability, and indeterminacy along improvisational, autopoietic, and mythological lines. In order to elucidate a form of architectural space as autopoietic, improvisational and mythological space, I turn to the theoretical discussion of nomadism as a source of such a thought in both Persian mythologies and Deleuze's philosophy. Deleuze's concept of nomadism as a theoretical ground gives way to the actualization of architectural spaces in numerous forms of improvisation and/or autopoiesis. This process, according to Deleuze, comes through territorialization, deterritorialization, and reterritorialization (TDR). In-between and liminal spaces are the result of the intersection of TDR. In this research, I argue that evidence of TDR can be clearly seen in

Persian architectural spaces, which derive more from the nomadic Pre-Islamic tradition than from the sedentism of permanent Islamic settlements. Additionally, based on theoretical and historical considerations of Deleuze's notion of nomadism, I show through case studies how Persian architectural spaces both challenge indeterminate boundaries to their surrounding territories and offer an alternative approach within buildings: the liminality within space rather than its relation with exterior space.

DEDICATION

To my beloved parents, Hassan and Khanum,

To my dear sisters and brothers; Shahnaz, Mehdi, Mahmood, Shamsi, and Samaneh

To my darling Afsaneh

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GLOSSARY

Ayvan	A loggia
Shahneshin	The seat of the king
Talar	A columned porch
Vay	The God of space
Zurvan	The God of time

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CHAPTER I

INTRODUCTION

SPACE AS AN ARCHITECTURAL CONCEPT

Unlike ancient Persian architecture[1] that has been admired and studied thoroughly, the architectural space before permanent settlement in Iran has largely not been studied or appreciated.[2] During an ancient period of semi-nomadism,[3] some early or Proto-Indo-European peoples—known as 'Aryan tribes' in Persian literature—arguably migrated from north of the Caspian Sea to what is now ancient Iran in the late second-millennium B.C.E. (1800–1600 B.C.E).[4] Some scholars address the continuous nomadic infiltration on features of Persian history down to the present day.[5] In this dissertation, I take up questions of space not only in the context of this settled architecture but also with reference to nomadic experience. I argue that in the settled

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[1] Persian architecture is the architecture employed by builders and craftsmen in the cultural Greater Iran and the surrounding regions to construct vernacular buildings.
At the beginning, I should establish what is meant by "Iran" and "Persia." Reza Shah Pahlavi(1935) ordered foreign governments to use the name Iran instead of Persian. The name "Iran" was ancient and was the native name for the country. It is derived from the ancient designation "Aryan." Richard N. Frye, "Iranian Identity in Ancient Times," *Iranian Studies* 26, no. 1–2 (1993): 143, https://doi.org/10.1080/00210869308701792.

[2] Margaret Cool Root, *The King and Kingship in Achaemenid Art: Essays on the Creation of an Iconography of Empire*, vol. IX (Diffusion, E.J. Brill, 1979), 31.

[3] E. Sunderland suggests there was less nomadism in the Iron Age than there has been in recent years in Iran. See Ibid., 29.

[4] Sherwin Vakili, *Gahan va Zand-e Gahan* (Tehran: ShourAfarin, 2012), 21. See also John R. Hinnells, *Persian Mythology* (London, New York: Hamlyn, 1973), 8.

[5] Arthur Upham Pope and Phyllis Ackerman, *A Survey of Persian Art from Prehistoric Times to the Present* (London & New York: Oxford University Press, 1939), 1412.

architectural space, one can still trace the practices of the semi-nomadic culture. This trace gives voice to the meanings from the poetry, songs, mythologies, traditions of culture, and, more importantly, in the uniqueness of its architectural space remaining from the pre-Islamic period.

In the west, Persepolis—the ceremonial capital of the Achaemenid Empire (ca. 550–330 B.C.E.)—is mentioned as a memorial of ancient Persian architecture. The Achaemenid civilization appears as a combination of a small community of settled farmers with a large population of semi-nomadic pastoralists.[6] While Persepolis, as a magnificent site along with other scattered architecture throughout Persian territory, represents ancient settlements in Iran.[7] One conventional notion exists that ancient Persia is confined to the settlement period.[8] Yet, this ancient time period includes the semi-nomadic experience before settlements became the formal civilization in Iran. Accordingly, then, the Persian culture extends to more than the ancient settlement civilization in Iran to include nomadic experience. Obviously, no permanent architecture exists from the nomadic time and milieu.[9] Therefore, this study examines the transitional time when nomadism intersected with the sedentism of permanent settlements. In this

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[6] Tobin Montgomery Hartnell, "Persepolis in Context: A Landscape Study of Political Economy in Ancient Persia" (The University of Chicago, 2012), 256.
[7] Ibid.
[8] Root, *The King and Kingship in Achaemenid Art*, 28.
[9] Matthew W. Waters, "The Earliest Persians in Southwestern Iran: The Textual Evidence," *Iranian Studies* 32, no. 1 (1999): 99, https://doi.org/10.1080/00210869908701947.

way, the trace of nomadism can be tracked in architectural space as an observable phenomenon.

From the remaining inscriptions and archival texts, it appears that different mythologies were common in the world of nomadic people. These mythologies, I contend, were the embryos of Persian architectural space. They are, as I also believe, now evident in the cultural narratives that are transferred from generation to generation. From my experience and knowledge regarding Persian architecture, Persian architectural space reflects centuries of myths' infusion through significant spatial transfiguration, as is evident in historical accounts, first influenced by the belief in multiple supernatural powers and deities, and then influenced by just one God.[10] The centuries of embodied thoughts and beliefs are perpetuated by ancient Persian philosophy, whose unique essence is layered onto the blueprints of spaces. I argue that this unique spirit not only exposes the current impressions developed in response to the current circumstances, but also represents the profound ongoing structural forces of religion, culture, and society throughout the centuries. Most mysterious ancient scriptures as examples of ongoing structural forces can be demystified through remaining ancient texts. In this way, for

[10] Vakili, *Gahan va Zand-e Gahan*, 9-21.

example, scriptures in Bisotun Inscription,[11] Naqsh-e Rostam[12] and Achaemenid reliefs are understandable through ancient philosophical Holy Songs of Zoroaster, *Gahan*.[13]

To reflect the ongoing influence of these united structural forces, this study challenges the conventional notion that architectural space is the result solely of settled civilizations' adoption of monotheism. Rather, this dissertation addresses the question surrounding how nomadic mythologies directly intersected with architectural settlement space in ancient Iran. It tries to elevate the meaning of space in relation to human beings. Permanent settlements did not take hold in Iran until the first whisperings of monotheism began. The Zoroastrian and post-Islamic responses to architectural space within a religious context hold the worldview of creation by God as the principle meaning of space. By the first whispering of monotheism by Zoroaster in old Iran, the status of space has been changed from the active creator to being a passive creation.

Zoroaster, a Greek term for Persian *Zarathushtra*, was the great prophet of Persia, whose time of life is under debate. [14] Western scholars have dated his life as 628–551 B.C.E., but some further research shows he lived somewhere between 1400–1200 B.C.E.[15] Zoroaster is the agent of a transitional time; he is a warrior for nomads and, on the other hand, a priest for settled people who promises a new society and encourages

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[11] The Bisotun Inscription is a multilingual inscription and large rock relief on a cliff at Mount Bisotun in the Kermanshah Province in the west of Iran, established by Darius the Great.
[12] Naqsh-e Rostam is an ancient archeological site and necropolis located about 12 km northwest of Persepolis, in Fars Province, Iran.
[13] Ibid., 12
[14] Hinnells, *Persian Mythology*, 9.
[15] Ibid., 13.

the transition to an agricultural system/settled society.[16] According to Zoroaster's thought, the civilized system needs theological thoughts and a spiritual leader.[17] Therefore, He destroys old nomadic orders to establish foundations for a settled civilization.[18] As a nomadic warrior and a priest, Zoroaster was heir to a rich tradition, much of which he reformed.[19] Zoroaster negated the existence of all deities and created a network of angels.[20] Zoroaster alluded to mythologies and drew out what he considered to be the significant moral or personal lesson.[21] Therefore, there is a substantial degree of continuity of myth between pre-Zoroastrian, Zoroastrian, and post-Zoroastrian traditions.[22]

The myth of creation, for example, as John Hinnells, a Zoroastrian studies scholar, states, is more important for its reflections on the nature of the world, human beings or God, than as a rival to Darwin's theories concerning evolution.[23] In the tri-partite pattern of society in Indo-Iranian belief, "gods create society with a three-fold structure: some men were created priests, others warriors and a third group were created productive workers, so that all men owed their station in life to the will of the gods."[24] In

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[16] Sherwin Vakili, *Gahan va Zand-e Gahan*, 61. See also Mary Boyce, *Zoroastrianism: Its Antiquity and Constant Vigour*, ed. Homayun Sanatizadeh (Tehran: Seyf-Ali-Shah, 1998), 46.
[17] Ibid., 61.
[18] Ibid., 61.
[19] Hinnells, *Persian Mythology*.
[20] Vakili, *Gahan va Zand-e Gahan*, 41.
[21] Hinnells, *Persian Mythology*, 9.
[22] Ibid.
[23] Ibid., 20.
[24] Ibid.

the continuum of Indo-Iranian thoughts, human beings were the agents of a singular God on the earth during the transitional Zoroastrian times. The world, space, even the human being himself were subjugated to pre-given roles.

This research avoids any perceived heretical approach toward settled architectural space. Instead, this study seeks to underline the previously disregarded forces in space, including myth and poetry that come from the settled and nomadic time periods in Iran. Moreover, modern ideas of space found in Western philosophy can be used as the next step to reveal the result of the interaction between nomadic and settled architectural space. The principal proponent of the figure of nomadic space, Gilles Deleuze, clarifies the notion of nomadic space through a distinction between what he calls *smooth* and *striated* space. Nomadic architectural space, according to Deleuze's notion of smooth space, followed by mobility, becoming, and making, becomes an improvisational space. Motion and movement are the roots of not only architectural space but also other arts, such as music, dance, handicraft, etc. The metaphor of nomadism points to the ontological aspect of space, whereas settlement points to the epistemological concept of space, where the role of the human being, as the agent of the God, is elevated. According to architectural literature derived from a settled context and approach, the qualities of space are experimentally perceived and identified and quantitative characters of limited space, usually by human beings, are measured.[25]

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[25] Mohammad Mansour Falamki, *Roots and Theoretical Trends of Architecture* (Tehran: Faza Publishing, 2002), 2.

But as I argue in this dissertation, unlike most current studies that seek to understand space and time through quantifiable dimensions and geometry rooted in settled culture, the present research reveals disregarded views toward space. By contrasting the experience of nomadic with the experience of space in the sedentism of permanent settlement, this study pursues the mythic features of space through the interaction of nomadic and settled cultures where the factors of improvisation and autopoiesis became highlighted in a transitional time, before the degrading of the meaning of space. The nomadic time of Indo-European tribes in Iran deserves to be highlighted in future research, a trend that has already begun. It is a good starting point for future research to explore nomadic culture and architecture and disentangle nomadism from settled civilization.

The improvisational autopoietic spaces that make up this study are localized and temporalized in Persian pre-Islamic architecture, which, as I argue in this dissertation, derive more from the nomadic Pre-Islamic tradition than from the sedentism of permanent Islamic settlements. Mapping these mechanisms of improvisation and autopoiesis can help us understand how Persian architectural spaces elicit evocative experiences. This mapping will help to translate the striated architectural spaces that reflect Persian mythologies. The conversation between spontaneous and fixed spaces creates the sense of movement, lightness, and tranquility. Moving toward a destination, slivers and shards of light piercing dark pathways, soothing wind blowing through labyrinthine spaces, eyes capturing the play of colors, patterns, and textures, shimmering

pool surfaces mirroring the sky, and the sounds of flowing water pull humans toward places of arrival. The mapping of such spontaneous feelings that are prompted by external space could represent the transition within the spectrum of striated and smooth space that Gilles Deleuze and Felix Guattari use to redefine the concept of fixed spaces. Accordingly, smooth space is defined as a nomadic space and striated space as a settled space. The Persian spontaneous and improvisational spaces go beyond fixed spaces; space traverses within a transitional domain between fixed striated space and smooth space, as found in nomadic life.

My personal experience with the mythical vibrations within Persian architectural spaces triggered the motivation for this research. Persian architectural spaces resonate within my spirit. These spaces include gardens, cultural and spiritual places, and family settlements. Persian architectural spaces were the seed for this research. Persian architectural spaces exert cultural, societal, political, and economical forces that are layered onto the blueprints of spaces. Specific Persian characteristics are what differentiates Persian art and architecture. Eternal archetypes are reflected in temporal forms. For example, the varying patterns that emerge from integrating shapes throughout the world of colors and patterns point to hidden shadows and layers of space, and their variations define styles of different historical periods. The unique patterning of color is a

distinctly Persian characteristic of architectural spaces, observable also in weaving, dance, painting, and gardens.[26]

The exclusive and authentic feelings of experiencing such architectural spaces cannot be attributed to any established laws, or thought lines, or intellectual policies. They emanate from just space itself. Various intangible attributes of space associate with features of Persian architectural space. These associations have been elaborated on through myth, autopoiesis, and improvisation in this dissertation, *The Mythopoietics of Space*. This dissertation argues that, although often ignored, space organizes the world *mythopoietically,* through unfolding mythologies. This dissertation examines the foundations of this central architectural concept, space, by exploring the *mythopoietics* of Persian architectural space. This approach considers insights from myth and poetry found in the Persian tradition to expand the concept of space.

Poetries and mythological texts indicate the neglected aspects of space in the philosophical theories of space. The early post-Islamic Persian poetries, including *Shahnameh*—the Book of Kings (c. 934–1020 C.E.), represent a diversity of different terms, for example, about one specific architectural space that oscillates between a permanent architectural space and temporary architectural space.[27] The use of this

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[26] Donald N. Wilber, "The Role of Color in Architecture," *The Journal of the American Society of Architectural Historians* 2, no. 1 (1942): 17–22, https://doi.org/10.2307/901200.

[27] "For example, in Farsi the following terms have been used to describe a pavilion in a natural setting: *kushk*, *emarat*, *khaneh*, *qasr*, *talar*, *kakh*, *Khaimeh*, *sardaq*, and *khargah*. Depending on the context, these words refer to the use of the pavilions as kiosks, palaces, houses, or simply as places for relaxation. While some of these terms (*emarat*, *khaneh*, *qasr*, *moshkuy*, *sarai*, *shabistan*, *tagh*, *iwan*, and *kakh*) refer to the pavilion as a permanent structure, the other terms (*kushk*, *khaimeh*, *sardaq*, and *khargah*) refer to

complex vocabulary in different occasions and places illustrate the nomadic-settled spectrum of architectural spaces in Persian architecture. These interpreted insights will decipher the distanciations by applying, as I argue, inherited myth from the nomadic and settlement time periods instead of describing space using a monotheistic narrative. Decoding space in this manner shows that space is not only organized three-dimensionally by length, breadth and depth, but, more originally, also along *mythological*, *autopoietic*, and even *improvisational* lines.

The purpose of *The Mythopoietics of Space* is to consider space as a myth and its transliteration into Persian architecture, which accentuates Persian mythologies and poetical culture. No archival texts exist from the time of transition between nomadic and settled life, except for the Zoroaster's songs.[28] At a historical time when nomadism and the sedentism of permanent settlement were colliding, [29] Zoroaster strove to take ancient mythologies into the realm of philosophical theories. Moreover, Zoroaster was a great poet.[30] His philosophical songs, Gahan/Gathas,[31] reveal that this long mythological time is transferred by the memory, which is also the feature of nomads who traveled with

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temporary structures in gardens." See Mohammad Gharipour, "Pavilion Structure In Persianate Gardens Reflections in the Textual And Visual Media" (Georgia Institute of Technology, 2009), 50. See also David Durand-Guédy, "Khargāh and Other Terms for Tents in Firdawsī's Shāh-Nāmah," *Iranian Studies* 51, no. 6 (2018): 819–49, https://doi.org/10.1080/00210862.2018.1528866.

[28] Zoroaster is an ancient Iranian prophet valued for his moral religiosity, but this dissertation renews his school of thought philosophically not religiously.

[29] Vakili, *Gahan va Zand-e Gahan*, 60.

[30] Ernst Herzfeld, *Zoroaster and His World* (New York: Octagon Books, 1974), 238.

[31] Firouz Azargoshasb, *Gathas: The Holy Songs of Zarathushtra* (Council of Iranian Mobeds of North America, 1999).

light loads. They transferred their shared experiences through their memories. Therefore, spontaneous improvisation was necessary to relay their cultural histories. This improvisation originated from spaces as well as human beings and contributed to the transliteration of cultural histories into mythologies. Improvisation transferred mythologies for more than ten thousand years. Mythologies have been autopoieticized into human experiences.

I pursue two ultimate goals with this dissertation. First, I acknowledge nomadic ancient Persia in pre-Zoroastrian and pre-Islamic times to disentangle the modern concept of religion from the architectural concept of space. Then, I look toward nomadism and the sedentism of permanent settlements in order to map the mechanisms of *improvisation* and *autopoiesis* by using *mythologies*. Consequently, I can build a theoretical and critical framework to look beyond tangible space dimensions that unearth the forgotten forces in architectural space. I will provide a nexus of concepts to enrich the meaning of space, including myth and autopoiesis. I borrow from different thoughts reflected in architectural spaces.

This new approach to the architectural interpretation allows a deeper understanding of architecture to develop that is more relevant than a quantifiable definition of space, not only in theory but also in design and practice.

Mythopoietics: An Autopoietic Improvisation of Space

To understand the meaning of space and expand it beyond the quantifiable dimensions, I refer to major modern articulations of space in the works of Martin

Heidegger (1889 – 1976) and Gilles Deleuze (1925 – 1995). Accordingly, modern definitions of space involve various interpretations about how space comes to life and begins to flourish. Space is defined in the system of polarized meanings, for example, ontology-phenomenology/epistemology. The varying characteristics of space force human beings to negotiate their surrounding world, which is what I call "improvisation."[32] As I shall argue, improvisation not only inspires variable relations and effects among human beings, spaces, and the world but also makes new "possibilities" and "discoveries" in architectural space. In Persian architecture, improvisation originates from spaces as well as human beings and leads the transliteration of cultural experiences into mythologies. This empowerment through improvisation allows space to develop when human beings traverse new territories, contexts, and relations, such as the interactions between nomadism and the sedentism of permanent settlements.

Improvisation, from the perspective of the Russian painter and art theorist, Vasily Kandinsky, is one of the steps for approaching reality through the creation of artwork. In this context, improvisation is an expression of inner nature and the product of an internal and mostly unconscious process.[33] The artwork has some additional quality that differentiates it from merely a production. It is a nuanced creation. Heidegger maintains

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[32] Improvise, etymologically, from Latin improvises, literally, means unforeseen. See "Merriam-Webster's Collegiate Dictionary, Eleventh Edition," accessed May 11, 2020, https://www.merriam-webster.com/shop-dictionaries/dictionaries/collegiate-dictionary-eleventh-edition.
[33] Philippe Sers, *Kandinsky: The Elements of Art* (New York: Thames & Hudson Ltd, 2016), 106.

that creation is fundamentally a knowing of what is present, not a making.[34] Similarly, architectural space has some qualitative features that differentiate it from being merely a container. It is more of an interpretative mode of relationship. Its reality is variation and alteration; it is comprised of variable relations and effects among human beings, space, and the world; Improvisation allows and encourages conditions conducive to unseen possibilities in architectural space. Contextually, architectural improvisation is made manifest in spatial fabrication.

When human beings negotiate their world, this negotiation develops the concept of improvisation, which is along the axis of "autopoiesis" as well. The twenty-first-century biologists, Humberto Maturana and Francisco Varela, introduced the concept of autopoiesis within biology to emphasize the self-producing nature of living systems.[35] They defined an autopoietic mechanism that continuously generates its own organization through its operation as a system of production.

Autopoiesis has been attributed to space as well. Space can be the architecture of interactions that includes a "network of dynamic processes"[36] whose effects and affects[37] do not leave the network. This feature refers to the self-making of space that points to

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[34] Patricia Altenbernd Johnson, *On Heidegger* (Belmont: Wadsworth/Thomson Learning, 2000), 52.
[35] Patrik Schumacher, *The Autopoiesis of Architecture: A New Framework for Architecture*, vol. I (Chichester: Wiley & Sons Ltd, 2011), xi.
[36] Maturana and Varela refer to autopoietic machines as living objects, and to allopoietic machines as non-living objects. See Levi R. Bryant, *The Democracy of Objects* (Ann Arbor: Open Humanities Press, 2011), 137.
[37] Gilles Deleuze and Felix Guattari, *What Is Philosophy?*, trans. Hugh Tomlinson and Graham Burchell (New York: Columbia University, 1994), 164.

poiesis.[38] Poiesis is a manifestation of acting, producing, and doing[39] rather than a manifestation of things themselves. The concept of poiesis can be extended to the concept of self through the autopoietics of space. Autopoietic space is not an irreducible space into itself, but it generates and strengthens itself from the interactions of different spaces. Space in interaction and communication with a human being "overdetermines"[40] movement and becomings of other spaces. This "overdetermining" means that space determines a variety of causes and meanings.

Improvisational and autopoietic spaces, the core point of this dissertation, originate and evolve by perpetuated myth. Myth is borrowed from Greek mýthos and typically describes a "narrative of obscure origin."[41] However, myth can be defined by different meanings that converge to communicate a message and a mode of signification, a form.[42] For example, Roland Barthes, a French semiotician, considers everything potential to be or become a myth. When he compares 20th-century cars to great Gothic Cathedrals,[43] he describes both of them as messengers of their eras. Past and present contexts of those objects dynamically confront each other, and out of this confrontation,

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[38] "-poiesis:" Production; formation. See "Merriam-Webster's Collegiate Dictionary, Eleventh Edition."
[39] Martin Heidegger, *An Introduction to Metaphysics*, trans. Gregory Fried and Richard Polt (New Haven & London: Yale University Press, 2014), 61.
[40] Levi Bryant introduces overdetermination. "A phenomenon is overdetermined not when it is determined by one cause or meaning, but rather when it is determined by a variety of causes or meanings." See Levi R. Bryant, *Onto-Cartography: An Ontology of Machines and Media* (Edinburgh: Edinburgh University Press, 2014), 175.
[41] "Myth": "Merriam-Webster's Collegiate Dictionary, Eleventh Edition."
[42] Roland Barthes, *Mythologies*, ed. Annette Lavers (New York: Hill & Wang, 1972), 109.
[43] Ibid., 88.

myth appears. Here, cars become a myth as the symbol of advanced technologies of its time, and Cathedrals become a myth as the embodiment of the spirit of its time. Using this paradigm, my research articulates how ancient nomadic Persian myths are perpetuated throughout the modern world.

In the same non-hierarchical process, just as space is an object and a human being is an object, myth is an object as well. Additionally, mythologists mostly consider myth referring to the account of the original act of creation of the universe or the origin of some sacred reality.[44] Myth narrates how a reality has come into existence. Therefore, the nature of myth is involved in creation. In this dissertation, the term myth helps to show how space began to be space. Then, myth imagines reality. Myth is a realm of unconcealedness; myth conceals nothing, yet it exposes everything. What it exposes is the distortion of representation and reverberation of architectural archetypes from the past.[45] Temporally and spatially, myth resonates with the historical milieus into which it appears, producing a new result. Myth is inscribed and preserved in space that reflects

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[44] Myth narrates a sacred history; it relates an event that took place in primordial Time, the fabled time of the beginning. In other words, myth tells how, through the deeds of Supernatural Beings, a reality came into existence, be it the whole of reality, the Cosmos, or only a fragment of reality—an island, a species of plant, a particular kind of human behavior, an institution. Myth, then is always an account of a creation; it relates how something was produced, began to be. Myth tells only of that which really happened, which manifested itself completely. The actors in myths are Supernatural Beings. They are known primarily by what they did in the transcendent times of the beginnings. Hence, myth disclose their creative activity and reveal the sacredness of their works. In short, myths describe the various and sometimes dramatic breakthroughs of the sacred into the world. It is this sudden breakthrough of the sacred that really establishes the world and makes it what it is today. John Daniel Dadosky, *The Structure of Religious Knowing: Encountering the Sacred in Eliade and Lonergan* (Albany: State University of New York Press, 2004), 102.

[45] Barthes, *Mythologies*, 121.

the remote past in the immediate present. While retaining its identity, myth perpetuates itself through centuries by the transfiguration of objects in space.

Each of these discussed terms, such as improvisation, autopoiesis, and myth, share a collective act of creation, which is the reason that space can organize and interact with its environment. The concept of *The Mythopoietics of Space* is applied to show a system of mechanisms within which there are shadows of forgotten forces autopoieticized in space through improvisation. Therefore, space can be torn away from its quantitative elements and lie in the domain of intangible attributions. The central project of *mythopoietics* consists of the analysis or cartography of spaces.

A vagueness and a certain suspended nature characterize space and allow space to traverse culture and history. Myth shapes the stable part of this mapping, while autopoiesis shapes the variable and changing role of this mapping. Space is the flow of myth along the axes of autopoiesis and improvisation. The mythopoietics of space, like a DNA molecule, consists of two strands that wind around each other. Each strand is made of autopoiesis and improvisation. The two strands are held together by binders, perpetuating myth. *The mythopoietics of space* has a pattern, but it is in a constant state of motion.

The Theoretical Concepts of Space Generation

As previously stated, this dissertation focuses primarily on the cartography of space through the mechanisms of improvisation and autopoiesis by using mythologies, which is what I call *the mythopoietics of space*. A particular interest in mythical

vibrations within space has further limited the corpus to mostly my personal experience of Persian architectural spaces, especially nomadic ancient Persian architecture. In my original proposal, I planned to define *the mythopoietics of space* through three concepts of existentialism, politics, and democracy introduced by two contemporary western philosophers: Martin Heidegger, and Gilles Deleuze, respectively. But as I began to research about Persian architectural space, other perspectives developed, elicited directly from Persian architectural space, such as improvisation, autopoiesis, and myth derived from studying nomadism and the sedentism of permanent settlements in ancient Iran. Therefore, I will examine the spatial and temporal theories of Heidegger, and Gilles Deleuze about improvisational, autopoietic, and mythological axes to develop these terms that will describe the *mythopoietics* of Persian architectural space.

This dissertation elaborates upon *the mythopoietics of space* through the improvisation and autopoiesis that myth forms from dynamic connections of space with a definite time and milieu. The concepts of improvisation, autopoiesis, and mythology are critical for understanding the essence of Persian architectural space. Understanding these basic concepts provides the clearest guidance to understanding Persian architectural space. These conceptions represent Persian architectural space within the ground of nomadism and settlement.

This research extracts and defines improvisational space by examining the existence of space in relationship with human beings. Additionally, this research analyzes improvisational space in the domain of forces that spontaneously generate

liminal spaces. These impromptu spaces go beyond fixed spaces. In this domain, space exists in the manner of instability and mobility, as found in the peripatetic nature of nomadism. These spaces are autopoieticized and self-generating. Therefore, they are studied beyond the confines of the typical three dimensions, length, breadth, and depth. These spaces are free from institutionalized regulations and are self-governing.

The history of architectural space has been divergently told but this sparse story can introduce greater ideas about space with divergent texts and voices from different parts of history. Following this introduction, thus this dissertation surveys the concept of space, as found in temporal theories developed by Martin Heidegger (1889–1976), and Gilles Deleuze (1925–1995). The texts I focus on are Heidegger's *Being and Time* (1927), and Deleuze's *A Thousand Plateaus* (1987). In the first section of chapter two, *the Heideggerian and Deleuzian Discourses of Space*, my focal point is on the way each philosopher advances themes around space concerning a "dwelling" and "voyage." For Heidegger, the concept of dwelling is understood through de-distancing, which is pointing to the spatiality of space. For Deleuze, a voyage entails a distinction between smooth and striated space, which is pointing to variability and mobility of space which resonates with this research topic. Heidegger challenges the notion of space by the existential spatiality of *Dasein*. *Dasein*, from the perspective of Martin Heidegger, refers both to the human being and to the type of being that humans have.[46]

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[46] Michael Inwood, *Heidegger: A Very Short Introduction* (Oxford ; New York: Oxford University Press, 2019).

Gilles Deleuze and Felix Guattari challenge space across the smooth and striated spectrum. Smooth space is defined as a nomadic space and also where war machines develop. On the contrary, striated space is defined as a sedentary space instituted by the State apparatus.[47] Then I explore the connection of Deleuze's respective perspectives of the nomadic notion to the notions of autopoiesis, and improvisation. This chapter theorizes autopoietic and improvisational architectural space in the nomadic context, where it is opposed to the state, because the ever-changing aspect of nomadic contexts makes space to be generated, to be regenerated as well as to do negotiation within territorialization, deterritorialization, and reterritorialization.

Chapter three, *The Mythopoietics of Persian Architectural Space*, offers insights into the mythological discourse of spaces to expand the concept of nomadic architectural spaces. Using this background, my research articulates how ancient nomadic Persian mythologies are perpetuated improvisationally up to the modern world. The first part of chapter three elaborates on Persian philosophical insights introduced by mythologies of nomadism-the sedentism of permanent settlements in Iran. In remaining texts from pre-Zoroastrian, *Zurvan* and *Vay* represented the God of time and space.[48] In some parts, Vay is called Vay-e Zurvan-dad; essentially, it means space of time; space is associated with time. This interpretation shows the interaction of time and space. Therefore, in pre-

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[47] Gilles Deleuze and Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, trans. Brian Massumi (Minneapolis: University of Minnesota Press, 1987), 474.
[48] Sherwin Vakili, *About Time: Zorvan the Unlimited* (Tehran: ShourAfarin, 2012).

Zoroastrian, space and time had a philosophical structure. Both of them have the role of maker of something.

Having defined how space as the mythology of creator in ancient Persian nomadism, the second part of chapter three moves on to discuss how such nomadic Persian architectural space can be improvisational and autopoietic. Chapter three will use the *mythopoietics of space*, as a framework, to describe, define, and document ancient Persian spatial thoughts through reflecting disregarded influences in Persian architectural space, often revered as Islamic architectural spaces. Therefore, this chapter studies a brief history of Persian architectural space as well as its contexts, including society. This chapter aims to extract Persian improvisational space in the interaction of nomadic and settled societies in Iran. Space in Persian architecture is the intersection of three folds: improvisation, autopoiesis, and mythology. Improvisation provides a degree of unseen possibilities in architectural space. Autopoiesis, alongside the improvisation, makes the possibility of interaction with other spaces. And myth perpetuates in space by reflecting the remote past in the immediate present. This section, *Nomadic Persian Architectural spaces,* lays the groundwork for the following chapter, *Persian Architectural Spaces; Case Studies*.

In chapter four, I illustrate these keywords, myth, autopoiesis, and improvisation, through an analysis of three Persian architectural spaces that vary in scope, scale, and time. Each case offers a different view of nomadism that allows for a new understanding/interpretation of their natures that up to now has not been studied in the

scholarship. In the first case, the Pasargadae Garden, I will argue that a transition exists from temporary nomadic tents or a primitive settled architecture to a tent-like nomadic architecture made permanent. In the second case, the Chehel Sotun Garden, I trace autopoietic spaces from nomadic tent-like spaces. In the third case, I argue that a continuous negotiation between nomadic smooth spaces and human beings has been reflected in the new trend of architectural spaces in Iran. The Consulate Office of Iran, as one of the examples of this new trend, shows the uncertainty, unpredictability, and indeterminacy based on improvisation that is rooted in nomadic smooth spaces. This continuous renegotiation and regeneration equal the concepts of territorialization, deterritorialization, and reterritorialization mentioned by Gilles Deleuze and Felix Guattari.

This research concludes in chapter five with an epilogue, *Toward Spaces that Improvise*, which reviews the central arguments of the dissertation, focusing on the three key themes of myth, autopoiesis, and improvisation and reflects critically on uncertainty, unpredictability, and indeterminacy that root from nomadism within smooth spaces. This chapter goes on to show an interdisciplinary approach derived from philosophy, literature, and architecture to spatial discourses in this dissertation. Finally, a theory of the subjectivity of space and time for future work is presented because my studies on Persian mythologies within nomadic smooth spaces showed that the mythology of space intertwined with the mythology of time played an important role in pre-Zoroastrian mythologies.

The spatial attributions diagrammed in this research do not construct linear causality and cultural hierarchies between the west and the non-west. Similarly, this work does not address Western hegemony. The popularity of the West architectural treatises afforded a direct intellectual route to access the past. This possibility has led to the marginalization of research on Persian architectural space in Western philosophical and architectural education. Additionally, Persian architecture is studied in an isolated manner from its global context.[49] Therefore, this dissertation can move one step forward to ensuring that Persian architecture is explored as it deserves. Furthermore, this dissertation's redefinition of Persian architectural space can be applied to research on any contrasting space in different lands not only in connection to local traditions and practices but also beyond borders.

[49] Mohammad Gharipour, "Introduction: Shifting the Historiography of Persian Architecture," in *The Historiography of Persian Architecture*, ed. Mohammad Gharipour (London & New York: Routledge, 2016), 5.

CHAPTER II

TEMPORAL THEORIES OF SPACE

This chapter provides a brief survey of the current scholarship within the context of architecture on the nomadic tradition, and, in turn, rethinks the presence of improvisational space in the context of nomadism, in particular. The present study thus challenges customary approaches within architecture to nomadism by asking how space evolves in a territory that encourages human beings to discover new possibilities and to liberate themselves from any enduring ties to their local circumstances, including intellectual policies. These possibilities lead to dwelling in tune with the divergent character of each territory. This revived notion of space suggests that space is not organized three-dimensionally by length, breadth, and depth, but, more originally, also along improvisational, autopoietic, and mythological lines. Other important issues have to do with how nomadic architectural spaces crossed by their boundaries are defined; how are boundaries marked in nomadic architectural spaces; How do we define the boundaries of nomadic architectural spaces? How do nomadic architectural spaces constitute a whole? The selection of books and papers for this section is based on each text's contribution in bringing up new questions and issues in the study of space and the contextual factors behind their theoretical concepts.

Humankind has revisited the notion of space for centuries. This notion has persevered in myth for centuries and is reflected in present architectural spaces. For

example, pre-Zoroastrian schools of thought called into question the concept of space and time, and, almost three thousand years later, Martin Heidegger pioneered concepts of spatiality and temporality. In the early twentieth century, Heidegger proposed a framework for space research in his seminal book *Being and Time*.[50] For Heidegger, the concept of space is understood through dwelling, which points to the spatiality of space. Heidegger challenges the notion of space with his consideration of the spatiality of human existence, or "Dasein." From the perspective of Heidegger, Dasein refers both to the human being and to the manner of being that humans experience.[51] Heidegger applies Dasein's notion to refer to the experience of being, particularly, human beings' involvement in the world. The involvement issues from Dasein's engaging in space through "de-distancing."

In the 1980s, Gilles Deleuze, in collaboration with Felix Guattari, pursued the topic of space in their book *A Thousand Plateaus*[52] by exploring the distinction between smooth and striated spaces deriving from nomadic and settled experiences. These key terms are operative throughout their book. However, Deleuze and Guattari show less interest in the pure difference between the smooth and striated than the interaction between these two kinds of spaces.[53] Regarding the interaction between a human being

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[50] Martin Heidegger, *Being and Time*, trans. Joan Stambaugh, ed. Dennis J. Schmidt (New York: Harper, 2010).
[51] Inwood, *Heidegger: A Very Short Introduction*.
[52] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*.
[53] Brent Adkins, "1440: The Smooth and the Striated," in *Deleuze and Guattari's A Thousand Plateaus: A Critical Introduction and Guide* (Edinburgh: Edinburgh University Press, 2015), 231.

and space, Heidegger points to dwelling while Gilles Deleuze points to voyaging across smooth space. Additionally, Deleuze points to the notion of multiplicities within the spectrum of smooth-striated space deriving from nomadism and sedentism of permanent settlements. In this way, Deleuze's notion of multiplicities is espoused to nomadism.

In what follows, I consider first the Heidegger and Deleuze discourses of space. Then I explore the connection of Deleuze's respective perspectives of the nomadic notion to the notions of improvisation, autopoiesis, and mythology. Alongside, I develop the topic from nomadic space to autopoietic and improvisational space.

Spatiality of Space

The Heideggerian and Deleuzian Discourses of Space

This dissertation examines the concept of space, as found in theories developed by Martin Heidegger (1889–1976) and Gilles Deleuze (1925–1995). My focal points are on the way each philosopher advances an account of space concerning the themes of "dwelling" and "voyage." For Heidegger, the concept of dwelling is understood through de-distancing. For Deleuze, the account of the voyage entails a distinction between smooth and striated space.

Heidegger examines space through the existential spatiality of Dasein. Dasein, from the perspective of Heidegger, refers both to human beings and to the manner of being that humans experience.[54] In defining the spatiality of Dasein, Heidegger defines

[54] Inwood, *Heidegger: A Very Short Introduction*.

ready-to-hand in space within-the-world and then connects this concept with the spatiality of being-in-the-world. Ready-to-hand things such as a tool come into existence when it fits into a meaningful network of functions. "Ready-to-hand" refers to the being of everyday equipment in our daily encounters that signifies the character of nearness.[55] This nearness is not determined by measuring distances, but by the manipulating and use.[56] Heidegger provides an example of a pen. The human being brings the pen near to use it.

Essentially, Dasein discovers relationships with everyday equipment by removing the distance. The removal of distance brings the world near; this tendency is toward spatiality. This spatiality resulting from this nearness emerges with Dasein's circumspective encountering of ready-to-hand things within-the-world leading to being-in-the-world. Heidegger calls the placement of ready-to-hand things' circumspective concern.'[57] This circumspection is an orientation towards other ready-to-hand things. Manipulating and using are circumspective in a practical way and orient our meaningful involvement. Orientation as well as nearness are necessary for human beings' involvement in the world. The concept of involvement can be extended to the topic of this research, nomadism, which will be explained more in the following section. Nomads orient toward resources, for example, springs, through trajectories. These resources act

[55] Heidegger, *Being and Time*, 100.
[56] Ibid., 100.
[57] Ibid., 101.

as points with a gravitational pull but not destinations, which direct nomads. Additionally, nomads bring near these sources through dwelling within a territory as well as voyaging.

In nomadic life, the territory becomes important. The nomad has a territory; he follows customary paths; he goes from one point to another.[58] Territory in nomadism is discernible in Heidegger's concept of region. Region underlies the "positional belonging somewhere of a totality of useful things as the condition of their possibilities."[59] This positional belonging defines relationships among equipment. Regions are the organizational structure of this relationship. Region is a context of useful ready-to-hand things to which space belongs. This relational belongingness makes the possibility of involvement within this region. This kind of involvement is reflected in nomadism as well. When Dasein in the world of nomads involves its territory, it discovers it (not makes it). Through this discovery, Dasein is relevantly and uniquely involved with each region by revealing and bringing close ready-to-hand things.[60]

Dasein interacts through trajectories with its surrounding. These trajectories are in-betweens that are consistent, autonomous, and have a direction of their own.[61] This interaction is de-distancing, according to Heidegger. Additionally, this de-distancing enjoys freeing and letting something involve within this region. The spatiality of Dasein

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[58] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 380.
[59] Heidegger, *Being and Time*, 100.
[60] Ibid., 195.
[61] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 380.

through de-distancing determines this freeness. In this process, the essential "co-discloseness" of space is laid.[62] This co-discloseness is involvement within the domain of a surrounding world remote from Dasein. Despite this remoteness, Dasein and the world are not two distinct entities that can act and change independently of each other. Instead, they are complementary.[63] Heidegger emphasizes that the world is neither static nor separate from Dasein,[64] but still anchored in Dasein. Dasein removes the distance by involvement and puts the thing at hand for circumspection. This nearness is not oriented toward the I-thing saddled with a body, but rather toward an attentive being-in-the-world.[65] The attentive involvement makes co-discloseness between human being and space. Additionally, space, in the context of nomadism, makes the possibility for a human being to interact and dwell within it.

In *Being and Time*, Heidegger concentrates on the notion of Dasein as a way of being-in-the-world. Moreover, in *Building Dwelling Thinking*, he describes the way in which human beings are on the earth:[66] "to be a human being means to be on the earth as a mortal. It means dwelling."[67] Heidegger emphasizes de-distancing through "dwelling." To dwell signifies the manner in which a human being is on the earth, not an activity and a profession.[68] To dwell, or in the German language, *bauen*, means "at the same time to

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[62] Heidegger, *Being and Time*, 107.
[63] Inwood, *Heidegger: A Very Short Introduction*.
[64] Johnson, *On Heidegger*, *50*.
[65] Heidegger, *Being and Time*, 104.
[66] Martin Heidegger, *Poetry, Language, Thought*, ed. Albert Hofstadter (New York: Harper & Row, 2013).
[67] Ibid., 147.
[68] Ibid., 144.

cherish and protect, to preserve and care for, specifically to till the soil, to cultivate the vine."[69] Therefore, dwelling is essentially the manner of being within the world.[70] Both concepts of de-distancing and dwelling connect to each other by the means of care for and involvement in the world. In the course of involvement, Dasein can traverse this distance "by de-distancing and along the de-distance of this distance."[71] This process shows not only the spatiality of Dasein that "opens a realm of concern in which Dasein is involved with things[72]and discovers new possibilities within this de-distance of distance (region) but also "the spatiality of space."[73]

Involvement in the surrounding world is constitutive for being in the world: giving space or making room that means freeing things at hand for their spatiality.[74] The concept of freeing can be traced in the meaning of *Raum*. *Raum* is an ancient word for space and means "a place cleared or freed for settlement and lodging;"[75] room that is cleared and freed within a region. Discovering region and making room are done in the manner of circumspect concern: "space is initially discovered in spatiality with being-in-the-world. On the basis of spatiality thus discovered, space itself becomes accessible to cognition."[76] In contrast, considering space through the lens of non-circumspection,

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[69] Ibid., 145
[70] Ibid., 146.
[71] Heidegger, *Being and Time*, 105.
[72] Johnson, *On Heidegger*, 19.
[73] Heidegger, *Being and Time*, 105.
[74] Ibid., 108.
[75] Heidegger, *Poetry, Language, Thought*, 152.
[76] Heidegger, *Being and Time*, 108.

region reduces to the degree of pure dimensions, causes Dasein to lose its involvement, and becomes meaningless; the places decrease to a multiplicity of positions; the spatiality of what is ready-to-hand within-the-world loses the character of involvement.[77]

The circumspective way of being-in-the-world is in harmony with Dasein's dwelling in its world. Dasein dwells through bringing things near. This process is conducted through de-distancing. Dasein through de-distancing involves in spaces. However, the concept of de-distancing is never understood as a measurable distance through the sense of calculation; it is done relative to the de-distancing in which everyday Dasein is involved.[78] Space "is not something that a human being faces,"[79] but the human being persists and involves within spaces by staying among ready-to-hand things and their contexts: he dwells. The concept of involvement not only draws the relationality of human being and space, but also depicts that space can be a kind of involvement and relation of ready-to-hand things within the world. Human beings, through this involvement that is facilitated by dwelling, discover and experience new possibilities of relations in the world.

Dasein needs to be oriented in order to de-distance. De-distancing and directionality are grounded in being-in-the-world. The dwelling's essence is being in space. Overall, Heidegger states space as the spatiality of human beings, beings, and

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[77] Ibid., 109.
[78] Ibid., 103.
[79] Heidegger, *Poetry, Language, Thought*, 154.

their places interacting with a totality of ready-to-hand things. This totality is the relevance of the co-constitution of interconnected places as the contexts of ready-to-hand things and relevance of ready-to-hand things. Therefore, the spatiality of space is a kind of multiplicity of relations. Dasein dwells within the spatiality resulting from these multiplicities unified through involvement and the relevance of ready-to-hand things to each other in the world.[80]

Unlike Heidegger that says human beings orient within space in order to dwell, Gilles Deleuze argues that space orients human beings. Deleuze considers space as a motivator for relationships in which human beings experience things/objects in the world. Deleuze calls this experience voyaging. He describes nomadism as a paradigmatic example for his considerations of voyaging in space. Deleuze and Guattari's *One Thousand Plateaus* illuminates the development of nomadic architectural settings.[81] The concept of nomadism serves as the foundation for this dissertation's key concepts, including improvisation, autopoiesis, and myth, all of which are derived from the context of nomadism. The concepts of improvisation, autopoiesis, and myth can be traced in Deleuze's thoughts. Because Deleuze employs but does not define myth, ancient Persian culture and philosophy, as one of the cradles of mythologies, can be a supplementary material to redefine the mythological part of space.

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[80] Heidegger, *Being and Time*, 102.
[81] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*.

The value of *One Thousand Plateaus* for the present dissertation lies in Deleuze's systematic way of using nomadic literature. Through different models, Deleuze clarifies the concept of smooth space by using nomadic space and he connects nomadic space to the materialistic evolution of smooth space. Deleuze and Guattari devote one chapter to nomadism, *Treatise on Nomadology*,[82] in which they define the term nomad as a tendency towards *deterritorialization*.[83] They then use it consistently throughout the book, especially in the next chapter, in distinguishing smooth and striated space. They begin with an introduction on "a war machine" and "a state apparatus," which laid the foundation for smooth and striated space. According to Deleuze and Guattari, a war machine is defined as the constitution of smooth space. Here, war machines take the mobile aspect of the term, war, not the violent essence of war. The meaning of war appears when nomadism interacts with states and permanent settlements. Overall, the war machine becomes the fluid constitutive element of smooth space, which is also linked to the fluidity and mobility, and corresponds with human beings within smooth space. Deleuze and Guattari, by contrast, treat striated space through sedentarity and "a State apparatus" as "the assemblage of reterritorialization effectuating the overcoding machine within given limits and under given conditions."[84] In other words, in the sedentism of permanent settlements, the territory is

[82] Ibid.
[83] Ibid., 381.
[84] Ibid., 223.

reterritorialized through “overcoding,” or established codes. In the sedentism of permanent settlements, the war machine of nomadic origin that is exterior to the State apparatus but nevertheless is a piece in State apparatus, as the form of a stable military institution.[85] Therefore, the State apparatus brings "uniformity to the regimes” through “disciplining its armies” that imply “a territorialization of the war machine.”[86] Overall, striated spaces overcode territories; therefore, smooth spaces as war machines play an intrinsic role in striated spaces in a State apparatus.

To further define smooth and striated space, Deleuze and Guattari apply “voyage” in two ways: smooth and striated voyage. According to them, it is possible to live striated on nomadic spaces and to live smooth even in the permanent settlements. This interchangeable and translational voyage is the concept of “voyages in places” that are true for nomads who do not move and migrate;[87] one can be a nomad even without moving. Voyaging in place regards intensities of engaging without moving. [88] For example, we can voyage intensively in thought by reading a book or listening to music.[89] This concept even goes beyond one’s mind and deterritorializes territories and reterritorializes within territories. Now, in-between spaces are sought after. The mode of spatialization and the manner of being in space distinguish the types of voyaging:

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[85] Ibid., 230. See also John Masson Smith Jr, “Turanian Nomadism and Iranian Politics Turanian Nomadism and Iranian Politics” 11, no. 1–4 (1978): 62, https://doi.org/10.1080/00210867808701540.
[86] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia,* 402, 419.
[87] Ibid., 482.
[88] Ibid.
[89] Adkins, “1440: The Smooth and the Striated,” 235.

voyaging smoothly or in striation.[90] Voyage creates a certain kind of space through the interlacement of smooth and striated spaces. The resulting space is non-metric, directional, and intensive that represents smooth space. Voyaging smoothly is a difficult and uncertain becoming[91] because this journey is unmeasurable and indeterminable. This voyage is neither quantifiably measurable nor something that would be only in the mind. Instead, it is a form of spatialization or the manner of being in space, of being for space.[92] The mobile and fluid aspects of nomadism underlie the translation of smooth and striated space to each other.

Deleuze's voyaging smoothly can be aligned with Heidegger's dwelling de-distancingly. Dwelling is a smooth voyage of discovery through de-distancing. In both dwelling and voyaging, space plays a key role. In the former, a human being dwells within space, and in the latter, space as a totality/motivator of relationships makes human being voyage and experience the world. What differentiates Heidegger's from Deleuze's is that voyage is being of 'becoming,' and dwelling is being of 'being.' Becoming is elicited from the dynamic notion of nomadism that is the theme of this study.

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[90] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 482.
[91] Ibid., 482.
[92] Ibid., 482.

Smooth Space of Nomadism

The Deleuzian Discourse of Smooth Space/Nomadism

Nomad found its way into Deleuze's language as a way of being in the middle of points for the understanding of dwelling as a smooth voyage of discovery through de-distancing. The nomad follows a trajectory when voyaging. A trajectory runs in relation to points, not from one point to another (Figure 1).[93] These points serve as control points. Control points, for example, in designing software such as Rhinoceros are used as grips on objects such as curves, surfaces, and dimensions and cannot be separated from their objects; sometimes, also called control vertex or node. In the software, these points can be turned on and off whenever changes are necessary and they are not visible in the final version of the model. In a similar way, the presence of points in nomadic contexts is intangible.

[93] Brent Adkins, "1227: Treatise on Nomadology: The War Machine Book," in *Deleuze and Guattari's A Thousand Plateaus: A Critical Introduction and Guide* (Edinburgh University Press, 2015), 204.

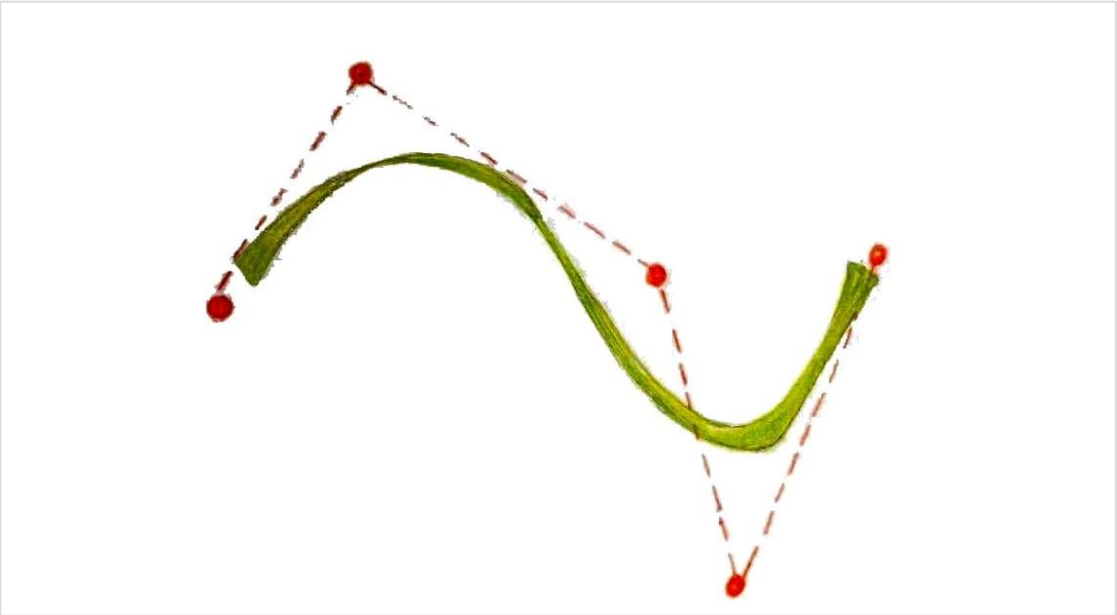

Figure 1 Points as the pull of gravitation are control points in nomadic paths.

The essence of dwelling in nomadic spaces is according to trajectories and paths that are influenced by points. Dwelling in the nomadic smooth space is based on mobility that in turn is based on control points that function like the pull of gravitation. They are considered as guidance but not as destinations. Although the points determine paths, they are strictly subordinated to the paths they determine, the reverse of what happens with the sedentary,[94] where paths are subordinated to the points and destinations (Figure 2).

[94] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 380.

Figure 2 Changeable trajectories are aligned with points that are the pull of gravitation.

Nomadic paths make territory accessible. Paths work in-between spaces in contrast to the settled architectural space.[95] The path in nomadic life designates a different feature. It does not fulfil the function of the settled road that assigns a trajectory and regulates the communication between points.[96] Paths as in-between spaces are effaced and displaced. Then, there is no stability but there is a consistency. In-between spaces are defined in the distinction between smooth and striated space. Gilles Deleuze

[95] Ibid., 380.
[96] Ibid., 380.

and Felix Guattari highlight the relation of paths and points in a model to distinguish smooth and striated space.

Deleuze and Guattari attempt to probe the meaning of smooth space in contrast to striated space by attributing qualitative features of nomadic societies and, consequently, war machines. The nomad-oriented view toward space is what Deleuze calls smooth space. The fundamental concerns of Deleuze about the existence and nature of smooth space initially clarify the character of nomadic space. Furthermore, the existential dimension of the nomad makes the possibility of dwelling in a territory align with the differential nature of each territory. This possibility will culminate in the discovery of the new that opens up other possibilities of dwelling. Nomadic space "sustains a process where life reconstitutes its stakes, confronts new obstacles, invents new paces, [and] switches adversaries."[97] According to Deleuze, this discovery is within *deterritorialization and reterritorialization.* Territorialization, deterritorialization and reterritorialization offer a resource for improvisation, autopoiesis, and mythology within the context of nomadic smooth space.

For Deleuze, smooth space develops a fluid character/manner that is moving, translating, and transferring alongside the domain of striated space. For Deleuze, in *One Thousand Plateaus*, the smooth space rests upon its coexistence with striated space. As

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[97] John Archer, "Social Theory of Space: Architecture and the Production of Self, Culture, and Society," *Journal of the Society of Architectural Historians* 64, no. 4 (2005): 4302. See also Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 500.

Deleuze maintains, this is not an encountering between smooth and striated space: smooth space is manifested in striated space and striated space is manifested in smooth space. In fact, Deleuze maintains that the being of smooth space is only to be disclosed through striated space.

Deleuze and Guattari show an amorphous and non-formal feature of smooth space[98] through the technological, the physical, the musical, the maritime, the mathematical, and the aesthetic models. Regarding the technological model, they exemplify textiles to show how technology and the method of weaving create different features. For example, felt and fabric designate smooth and striated space, respectively. Fabric is dependent on stable vertical striations and variable horizontal striations. In fact, fabric is defined by a closed space.[99] In contrast to fabric, felt is not homogenous and it is composed of the heterogeneous.[100] Felt is an aggregate of materials that is not limited in length or width that contribute to the heterogeneous feature (Figure 3).

[98] Ibid., 476.
[99] Adkins, "1440: The Smooth and the Striated," 231.
[100] Ibid., 232.

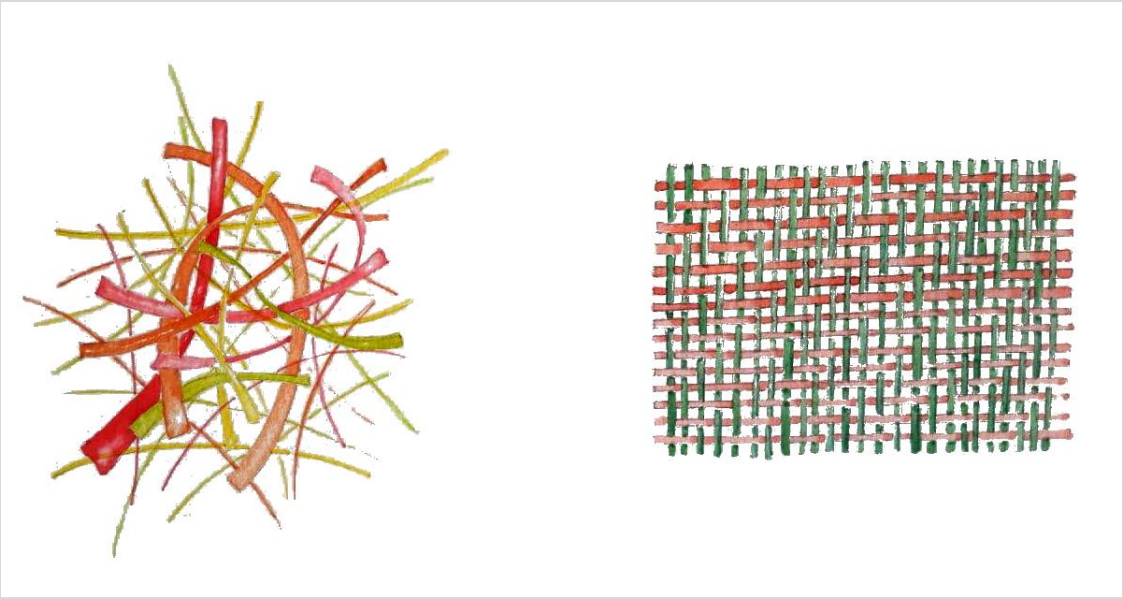

Figure 3 Felt (right) and woven fabric (left) designate smooth and striated space.

Deleuze and Guattari discuss the heterogeneity of smooth space by the physical model as well. Analogically speaking, smooth and striated spaces are considered in a grid of parallels intersected perpendicularly.[101] Verticals play the role of fixed elements, and horizontals are in the role of variables. If this model becomes more regular, the striation becomes tighter and space becomes more homogenous. When a continuous variation exceeds any distribution of constants and variables, smooth space appears to be more heterogeneous;[102] lines free themselves from being between two points, and planes do not proceed by parallels and perpendiculars.

[101] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 488.
[102] Ibid., 488.

Connecting music and the two kinds of space, Deleuze and Guattari rely on the work of Pierre Boulez (a French composer and conductor). According to Boulez, a reciprocal nonsymmetrical correlation exists between smooth and striated spaces.[103] These spaces in the music model are differentiated based on counting. *Counting* in music refers to the process by which the musician internally counts the beat while playing, conducting, and even composing. In smooth space-time, counting is stopped while its pulse continues. This nonsymmetrical correlation can be observed in nomadic contexts. Nomadic inhabitants occupy/voyage smooth space-time without counting, while settled inhabitants count to occupy striated space-time.[104] This nomadic encounter with space adumbrates the concept of improvisation that will be more elaborated on in coming sections. Boulez identifies "smooth space with rhythm and striated space with melody and harmony."[105] As illustrated in figure four, horizontal and vertical lines represent melody and harmony. Rhythm as the "continuous variation"[106] draws a diagonal that traverses harmony and melody, and opens it into something new (Figure 4).[107]

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[103] Ibid., 477.
[104] Ibid.
[105] Adkins, "1440: The Smooth and the Striated," 232.
[106] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 478.
[107] Adkins, "1440: The Smooth and the Striated," 233.

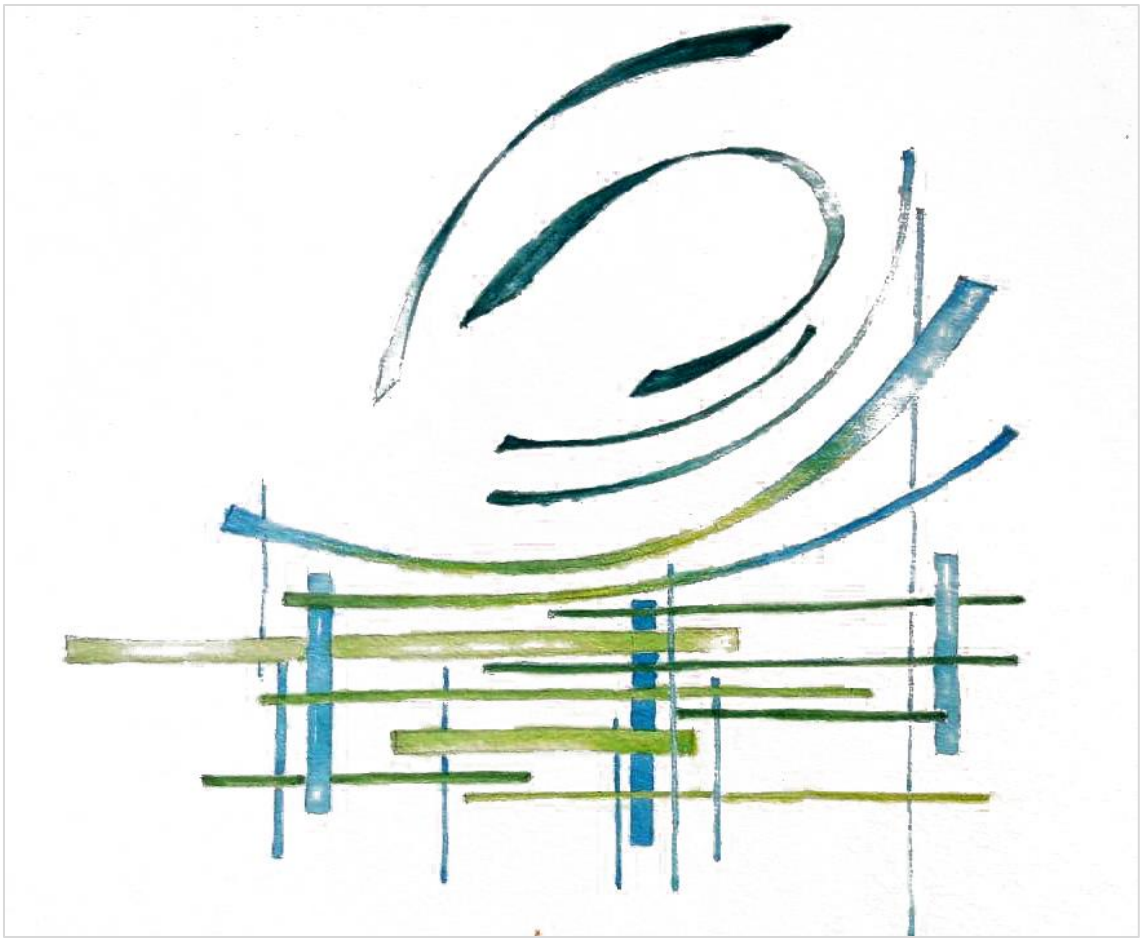

Figure 4 Rhythm traverses harmony and melody diagonally.

The relation of trajectories and points are shown in the maritime model. According to this model, lines or trajectories are subordinated to points in striated space, while in smooth space, the points are subordinated to the trajectories, as discussed previously. These trajectory lines are vectors.[108] For example, in nomadic lifestyles, a

[108] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 478.

journey, as a trajectory in smooth space, is prioritized over settlements, as points in striated space. The journey makes a vector and a direction, not a dimension or metric determination.[109] The essence of the journey is ever-changing.

Mathematically, multiplicities are applied in opposing pairs as units to define striated and smooth spaces: metric-nonmetric, extensive- qualitative, centered-acentered, arborescent-rhizomatic, numerical-flat, dimensional-directional, masses-packs, etc. It is important to consider how each pair correlates. The mathematical model shows that smooth space is continued by an accumulation of proximities,[110] where "each accumulation defines 'a zone of indiscernibility' proper to 'becoming.'"[111] In smooth space, an intensity is not the result of addable and displaceable magnitudes.[112] For example, in the color spectrum, the entire spectrum is nothing but a series of becomings. Colors bleed into one another forming zones of indiscernibility.

And finally, the aesthetic model defined as nomad art is organized around three distinctions: between close-range and long-distance vision, between haptic and optical space, and between abstract and concrete lines.[113] Painting is done at close range while it is seen from a distance; composers have a close-range hearing, whereas listeners hear from a distance. In haptic space, the eye fulfills its non-optical function and it can feel instead of seeing. Eyes are not always sufficient on their own; orientations, landmarks,

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[109] Ibid., 478.
[110] Adkins, "1440: The Smooth and the Striated," 238.
[111] Ibid., 238.
[112] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 478.
[113] Adkins, "1440: The Smooth and the Striated," 240.

and linkages vary continuously in haptic nomadic smooth space. No constant point of reference exists in haptic smooth space; it is interchangeable at the same time that unites the variations in an inertial class.[114] Desert, steppe, ice, and local spaces of pure connections attest to this variation. Here, a human being is within haptic smooth space and perceives this variation from within as a series of local motions and flowing action. This ever-changing nomadic existence motivates multiple orientations between points; the nomad line that passes between points, and figures.[115] Deleuze and Guattari consider the abstract line the nomad line not the rectilinear line. The abstract line is one of the first elements for the creation of artwork. Deleuze and Guattari consider modern art in the continuation of the nomadic jewelry. They correlate jewelry with weapons.[116] Jewelry does not function as jewelry for nomads, but as a weapon. For nomads, jewelry is at the same level as weapons, while for the states, it functions as signs and tools. The pieces of jewelry are attached to small movable objects such as horses' harnesses, weapons' handles, or as an ornament on arrowheads. The nomadic jewelry corresponding to weapons has "the power of abstraction"[117] and is equal to the art of writing linguistically. Jewelry attached to weapons plays a semiotic role; it constitutes a text that is ornamental rather than scriptural.[118] This expressional power as an abstract line in nomadic weapons is taken up in modern art.

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[114] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 493.
[115] Ibid., 496.
[116] Ibid., 401
[117] Ibid.
[118] Ibid., 402.

Overall, all these models are associated with change and alteration in the spectrum of smooth-striated spaces. Nomadic notions are aligned with the principal features of smooth space, including becoming, and continuous variation. By Contrast, the striated space adumbrates the principal features of the sedentism of permanent settlement, including civil, static, and ordinal rules.[119] Moreover, smooth space resembles/ designates chaos, and striated space does order.[120] But what is essential is that smooth space associates with change on the continuum between stasis and change.[121] Accordingly, the formed must have its origins in unformed,[122] or according to the older cosmogony, the order must arise out of chaos.

However, the perpetuation of smooth space signifies disorder and chaos, but also order and arrangement. The causes of the arrangement of trajectories are vectors. Vectors do not have an external existence, but they influence trajectories and consequent smooth spaces. Deleuze speaks of space with regards to nomads alongside fluidity and change lines.[123] This fluid concept is based on "the hydraulic model of nomad science and war machines."[124] Deleuze exemplifies the work of Anne Querrien about the construction of Gothic cathedrals in the twelfth century.[125] Gothic cathedrals mark a

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[119] Ibid., 363.
[120] Adkins, "1440: The Smooth and the Striated," 242.
[121] Ibid., 242.
[122] Ibid.
[123] Shima Baradaran Mohajeri, "On the Dialectic of Silence: Klee, Kahn, and the Space of Transversal Modernity in Iran" (Texas A&M, 2013), 45.
[124] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 363.
[125] Ibid., 364.

qualitative change in contrast to the Romanesque: “the static relation, form-matter, tends to fade into the background in favor of a dynamic relation, material forces.” It is the cutting of the stone that turns it into material capable of holding and coordinating thrust forces. The vault does not signify a form anymore, but the line of continuous variation of the stones: “Gothic conquered a smooth space, while Romanesque remained partially within a striated space, in which the vault depends on the juxtaposition of parallel pillars,”[126] the space of pillars. Such pillar-like spaces, as striated spaces, are distributed through horizontal points. The romanesque juxtaposition of parallel pillars in a static system recalls the concept of gestalt that signifies the form as the whole. While Gothic vaults represent the continuous variations of forces in stones (Figure 5).

[126] Ibid.

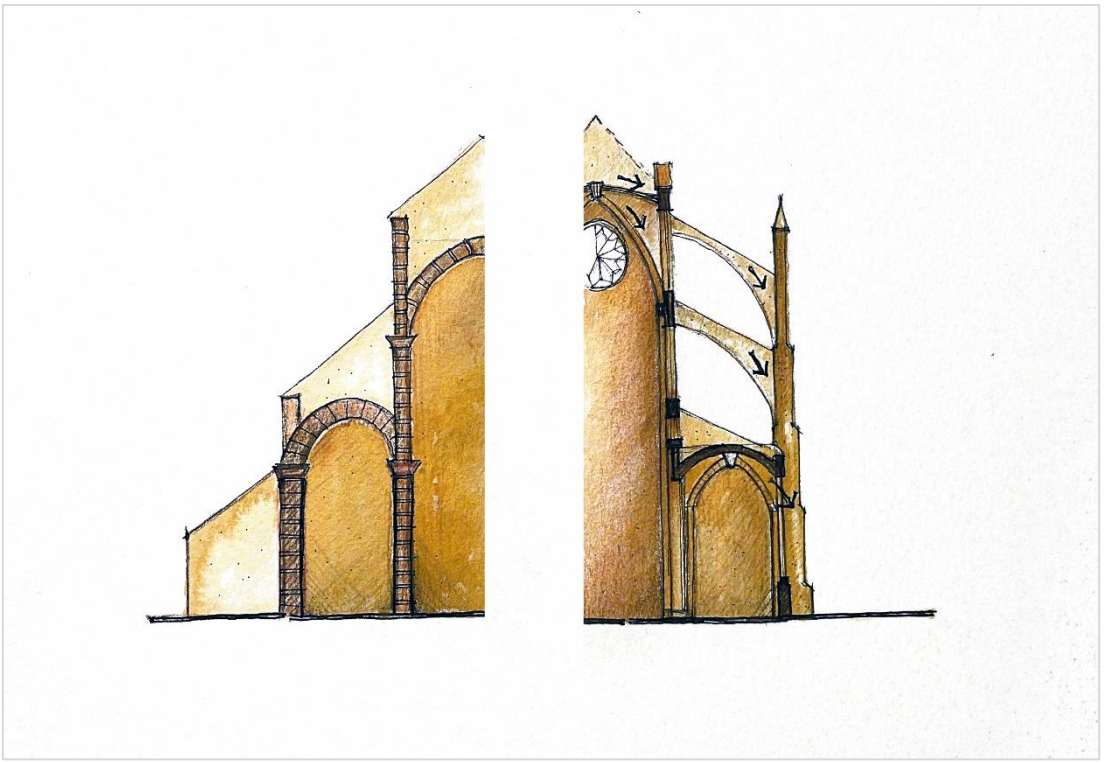

Figure 5 Left: Romanesque Vault; Right: Gothic Vault

Regarding Gothic vaults, nomadic smooth spaces overlay themselves upon each point of another flows or vectors. The hydraulic model of nomad life develops in "the field of vectors."[127] Trajectories among known and unknown territories appear in the vector field. A vector field results from spontaneous changes and alterations that come along with trajectories; therefore, it is a totality of variations and relations whose essence is change and alteration. The vector field requires more consideration than a single fixed curve as a trajectory.

[127] Ibid., 372.

However, vectors are changing, but they are under the influence of points as the pull of gravitation. Vectors are directions, not a dimension or metric dimension. Vector is defined as "the point of application of a force moving through a space at a given velocity in a given direction."[128] Vectors define the direction of voyaging human beings in smooth space, but this kind of relationship requires more considerations. Through vectors, nomads unfold the condition of territoriality toward deterritorialization and reterritorialization. Deterritorialization is a term created by Deleuze and Guattari to depict the variation of smooth spaces as they move through vectors. Deterritorialization is the restructuring of a territory, and reterritorialization is the result of this deterritorialization. Deleuze and Guattari's territoriality account engages the subject as the nomadic inhabitant of space, while bestowing upon him the immanent power in a horizontal relationship with things with no hierarchy.[129] Deleuzian territoriality engages nomadic inhabitants of space with a dynamic, persistent power within a horizontal system. This power is the force that territorializes within relative movements, deterritorializes along with or against other deterritorializing vectors of territories, and reterritorializes complementarily with other territories.

Smooth space is accompanied with a vectorial field that is always translatable in comparison to striated metric space. Each smooth space repeatedly overlays upon each

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[128] Brian Massumi, "Pleasures of Philosophy," in *A Thousand Plateaus: Capitalism and Schizophrenia*, ed. B Massumi (Minneapolis: University of Minnesota Press, 1987), xiii.
[129] Baradaran Mohajeri, "On the Dialectic of Silence," 47.

point of smooth space a tangent Euclidean space "endowed with a sufficient number of dimensions, by which one introduces parallelism between two vectors, treating multiplicity as though it were immersed in this homogenous and striated space of reproduction."[130] Smooth spaces resulting from these local vectors grow in all directions through these vectors. What lies beyond these vectors is not a nomadic realm of freedom but a historically overdetermined, turbulent space in which linear forces of deterritorialization and reterritorialization do battle.[131] These vectors of deterritorialization "add desert to desert, steppe to steppe by a series of local operations whose orientation and direction endlessly vary."[132] These smooth vectorial spaces make places for nomads to inhabit. Nomads occupy these vectorial spaces with a vector of deterritorialization in perpetual motion (Figure 6).[133] Every smooth space is the beginning of another voyage for nomads.

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[130] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 373.
[131] Eric C.H. De Bruyn, "Beyond the Line, or a Political Geometry of Contemporary Art," *Grey Room*, no. 57 (2014): 33.
[132] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 382.
[133] Ibid., 387.

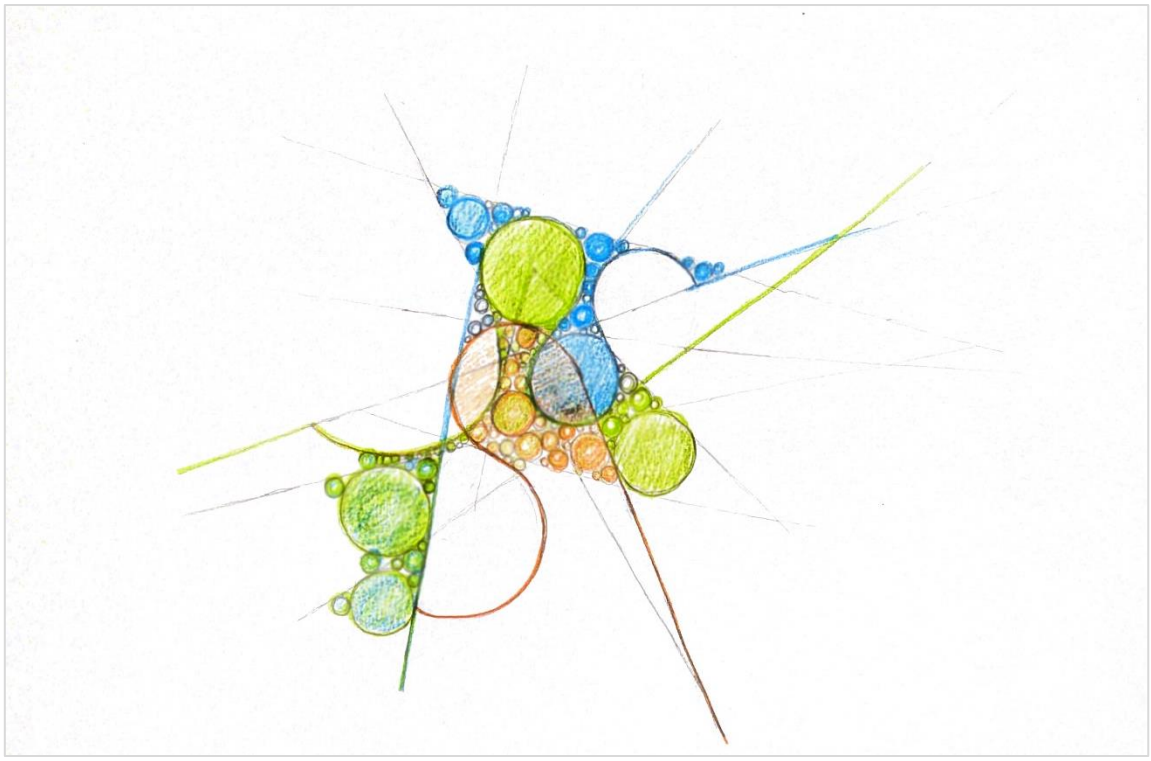

Figure 6 In an assumed territory, the deterritorializing vectors assure the consistency of the territory.

Smooth space establishes a back-and-forth conversation between a nomadic human being and his world that produces a continual interplay of differences; this back-and-forth conversation falls in line with territorialization and deterritorialization. The known territories become nomads' homes. He deterritorializes these known territories and voyages. Nomadic movement is a journey between known territories and unknown destinations. A type of territorialization and deterritorialization exists in those particular

milieus.[134] Smooth space mediates between inward and outward home, and oscillates between a known territory as an inward home and an unknown territory as an outward home. The concept of oscillating connects to the idea of the voyage.

In the nomadic smooth context, space territorializes and deterritorializes itself through voyaging; it traverses the current territory to the outside territory. Space consolidates these two territories by constructing consecutive adjacent territories. Smooth space motivates nomads to traverse and voyage these consecutive indeterminate spaces and connect them through dwelling within them. In parallel, it deterritorializes itself through renouncing; "another justice, another movement, another space-time."[135] Nomadic smooth space disregards the known territory, and weakens its ties to the known territories through voyaging. Space deterritorializes the outside by shattering its territory from within; at the same time that nomads voyages from the known to the unknown territories and discover new possibilities, smooth spaces disappear (shatter) and are reborn in a new version. Space cyclically regenerates itself from the current situation and generates a new one of itself toward the new adjacent territory. Now, in-between liminal spaces are sought after within adjacent territory.

The term liminal stems from anthropology introduced by Van Gennep. The notion of liminal is embodied in the three-part structure of a passage writing: separation,

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[134] Ibid.
[135] Ibid., 353.

liminal period, and reassimilation.[136] Etymologically, the root of liminal derives from limen, the Latin word for "threshold."[137] Liminality means "the state of being on a threshold in space or time."[138] The liminal space in architectural contexts means in-between spaces or a transitional space between fixed constants. These liminal spaces appear through voyaging within smooth spaces. The essence of in-between/liminal spaces that derives from smooth spaces is indeterminate. Liminal smooth spaces are indeterminate, but at the same time, in harmony with the differential nature of each territory. Qualities of permanence, certainty, and determinacy are thought to be retrograded in validating architectural spaces anymore. By contrast, qualities of uncertainty, instability, and indeterminacy are taken as desired attributes of nomadic smooth spaces.[139]

This is a significant instance of critical liminality: the boundary between territorialization and deterritorialization disintegrates, and territorialization and deterritorialization collapse into one. Liminality represents an in-between state in the transition from being an outsider to becoming an insider.[140] The practice of liminality occupies in-between spaces.[141] Liminal spaces appear to inhabit a new place of being.

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[136] Leif M. Hokstad et al., "Transformative Learning in Architectural Education: Re-Thinking Architecture and Education of Architecture," in *Threshold Concepts in Practice*, ed. Ray Land, Jan H.F. Meyer, and Michael T. Flanagan (Rottterdam: Sense Publishers, 2016), 326.
[137] Latin *limin-*, *limen* threshold. See "Merriam-Webster's Collegiate Dictionary, Eleventh Edition."
[138] William Harmon and C. Hugh Holman, *A Handbook to Literature*, 8th ed. (Prentice Hall, 2000), 291.
[139] Miwon Kwon, "The Wrong Place," *Art Journal* 59, no. 1 (2000): 34.
[140] Hokstad et al., "Transformative Learning in Architectural Education," 326.
[141] Cherise Smith, *Enacting Others: Politics of Identity in Eleanor Antin, Nikki S. Lee, Adrian Piper, and Anna Deavere Smith* (Durham: Duke University Press, 2011).

Liminal space can be both self and other at the same time through territorialization and deterritorialization.

The concept of territorialization and deterritorialization in tune with generation and regeneration recalls the notion of autopoiesis. The concept of autopoiesis was first introduced within biology by the twenty-first-century biologists, Humberto Maturana and Francisco Varela, to "emphasize the self-producing nature of living systems."[142] They define autopoiesis as "an autopoietic machine [that] continuously generates and specifies its own organization through its operation as a system of production of its components."[143]

Although the notion of autopoiesis is at the core of a shift in perspective about biological phenomena, it can be connected to the architectural space, in general, and the concept of nomadic smooth space in terms of meaning, in particular. Deleuze and Guattari not only agree with the autopoietic notion of the organism "as an instance of synchronic emergence dedicated to homeostatic stability," but also extend this concept to the notion of "non-organic life."[144] The concept of non-organic life would open the way for inorganic self-organization.[145] Production and reproduction show the concept of self-organization through the process of evolution. Evolution is not confined to the living

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[142] Schumacher, *The Autopoiesis of Architecture*. It is quoted by Patrik Schumacher. See also Humberto R Maturana and Francisco J Varela, *The Realization of the Living* (Dordrecht: D Reidel Publishing Company, 1980).
[143] Schumacher, *The Autopoiesis of Architecture*, xi.
[144] John Protevi, "Deleuze, Guattari and Emergence," *Paragraph* 29, no. 2 (2006): 30.
[145] Ibid., 30.

organs, but it is "the production of a historical network in which the unities successively produced embody an invariant organization in a changing structure."[146] Nomadic smooth space symbolizes the ever-changing structure.

Pratik Schumacher (an architect and architectural theorist) binds the concept of autopoiesis from biology and the evolution of non-organic life to architecture; autopoiesis of architecture addresses the evolution of architecture through a network of organic and non-organic life. The autopoiesis of architecture refers to "the overall discursive self-making of architecture."[147] Schumacher studies architectural autopoiesis explicating architecture as a distinct subsystem of society. Therefore, architecture's primary inspirational theoretical sources lie outside architecture.[148] Throughout the history of architecture, architecture has been theorized within a theory of society.[149] Architecture as a system of communications and negotiations allows the development of a theory of architecture within a fertile theoretical societal context. Therefore, architecture evolves in a self-referential network of communications. This network defines the autopoiesis of architecture.[150] This dissertation develops more the concept of autopoiesis within nomadic architectural space since the self-making/self-generation of nomadic smooth space recalls the definition of autopoiesis. Furthermore, this

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[146] Humberto R. Maturana and Francisco J. Varela, *Autopoiesis and Cognition: The Realization of the Living* (Dordrecht: D. Reidel, 1980), 42.
[147] Schumacher, *The Autopoiesis of Architecture*, xi.
[148] Ibid., 9.
[149] Ibid.
[150] Ibid., 2.

dissertation looks beyond the fixed properties of a society and highlights the nomadic aspects of a society. Therefore, this dissertation theorizes autopoietic architectural space in the nomadic context, where it is opposed to the state, because the ever-changing aspect of nomadic contexts makes space to be generated and to be regenerated within territorialization and deterritorialization.

From Nomadic Smooth Space to Autopoietic Space

The consistent negotiation between territorialization and deterritorialization develops/evolves nomadic smooth spaces in general, and smooth in-between/ liminal spaces, in particular. The cartography of this negotiation among spaces as well as human beings makes a network of dynamic variations that they are continuously producing and generating. This feature of production refers to the concept of poiesis. Poiesis is defined as production and formation.[151] When production in space originates from the spatial organization and relations of space itself, this independent poiesis is defined as autopoiesis. Autopoietic space continually regenerates itself from the current territory and generates a new one of itself toward the new adjacent territory. As previously mentioned, the whole process of generation and regeneration is nothing but a series of becomings. Nomadism, and the nomadic experience of space, epitomize such dynamic becoming.

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[151] "Merriam-Webster's Collegiate Dictionary, Eleventh Edition," s.v. "-poiesis, " accessed December 2, 2020, https://www.merriam-webster.com/dictionary/-poiesis.

The expectation of continued becomings correlates with consistency in nomadic societies, which differentiates them from settled ones. The nomadic societies recall consistency and composition, while settled societies do organization and formation.[152] Consistency ties together ever-changing variations and heterogeneous elements. Continuous variations that go beyond constants and variables in the medium of a series of becomings underlie the production and reproduction of autopoietic spaces/nomadic smooth spaces. Production and reproduction within the context of nomadism lead to the conservation of autopoietic spaces because territorialization and deterritorialization both result in the destruction of existing spaces while simultaneously re-establishing known and static spaces.

The essence of autopoietic spaces relates to abstract powers, which originate from within, instead of concrete elements, which originate from *without*. These abstract powers define the concept of *body without organs* by Deleuze and Guattari.[153] Deterritorialization becomes possible through consistency and *body without organs*.[154] According to Deleuze and Guattari, "body without organ" is a zone or structure without imposed organization but with consistency. Although the organization of the organs composes an organism,[155] the body without organs/nomadic smooth space is a body

[152] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 368.
[153] Ibid., 3.
[154] Ibid., 134.
[155] Ibid.

populated by the multiplicity of elements and relations within which nomads voyage. These elements and relations vary and alter ceaselessly.

The concept of *body without organs* adumbrates an argument for the opposition of composition in nomadism and formation/organization in the sedentism of permanent settlements. Organization concerns form and substance; as form develops, substance is organized.[156] In contrast to organization, in nomadic contexts, a composition of becomings exists, and beyond that, a mode of individuation exists for each becoming. Deleuze and Guattari name this individuation *haecceity*.[157] Haecceity is typically defined as "the status of being an individual or a particular nature."[158] In this, the emphasis is on the idea that the individuation of a composition of becomings is irreducible to any principles that would govern a specific class or category of entities; instead, as a haecceity, a composition of becomings remains unique, singularly unrepeatable. Nomadic ever-changing contexts are *the composition of haecceities*[159] that designate consistent negotiation between territorialization and deterritorialization.[160] Unformed and unstable elements have discrete haecceities; for example, autopoietic space/nomadic smooth space is a composition of in-between/liminal smooth spaces with their own haecceities.[161]

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[156] Ibid., 507.
[157] Ibid., 261.
[158] "Merriam-Webster's Collegiate Dictionary, Eleventh Edition," s.v. "haecceity," accessed December 2, 2020, https://www.merriam-webster.com/dictionary/haecceity.
[159] Deleuze and Guattari, *A Thousand Plateaus : Capitalism and Schizophrenia*, 262.
[160] Ibid., 507.
[161] Ibid.

These unformed elements are under the influence of invisible forces and powers that make the "body without organs." The body without organs is under the influence of a plurality of invisible forces and powers.[162] The body without organs regarding its haecceities is permeated by unformed, unstable matters, and by flows, free powers and intensities in all directions.[163] For example, in the desert or on the steppe, organic paths/lines exist under the influence of the flow of water and the intensity of wind. When this power is imprisoned and form is given to matters, striated spaces come into being through autopoietic spaces/nomadic smooth spaces. Additionally, the abstract powers and the concept of *body without organs* intimate an argument for the myth that will be discussed in coming sections. Myth perpetuates itself through centuries by the transfiguration of things under the influence of abstract powers within space.

The infusion of abstract powers with matter and form engages the nomadic inhabitant as well. The negotiation between nomadic smooth space and nomadic inhabitants bestow upon them the immanent power in a horizontal relationship with no hierarchy.[164] As previously discussed in defining territorialization, deterritorialization, and reterritorialization, this bestowing immanent power within a horizontal system deterritorializes along with or against other deterritorializing vectors of territories and reterritorialization within this territory. Therefore, a continuous production of power is

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[162] Gilles Deleuze, *Francis Bacon: The Logic of Sensation*, trans. Daniel W. Smith (Minneapolis: University of Minnesota Press, 2003), xxii.
[163] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 4.
[164] Baradaran Mohajeri, "On the Dialectic of Silence," 47.

flowing through a network of deterritorializing and reterritorializing vectors of territories within a horizontal system localized in nomadic contexts.

While nomadic societies are defined or recognized by the continuous production of power, according to Deleuze, settled societies are defined by the perpetuation or conservation of organs of power; their concern is to conserve.[165] Furthermore, the perpetuation of organs of powers is in hierarchy. Nomadic societies are formed by heterogeneous people, including masons, carpenters, smith, etc. In contrast, a settled society makes sedentary and regularizes labor power; everybody is working and incorporating in the sense of a body *with* organs, an organism.

In the Deleuzian notion of space, the power of smooth space is originating from internal and heterogeneous forces, visible or invisible, material or immaterial, as they form and reform the world. In contrast, striated space gets power from external and homogeneous forces, including existing social, cultural, and political structures. The positive attitude toward heterogeneity in Deleuzian smooth space unburdens space from the heavy loads of history and culture with which space is often characterized. The power of smooth space originates from itself as well as its territory. Moreover, with the experience of heterogeneity, human beings are not the sole producer of space. Heterogeneity produces a continuous negotiation between space and human beings. Because of this ever-producing negotiation, the world, space, even the human being

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[165] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 357.

himself are not subjugated to fixed states/objects anymore. Additionally, autopoietic space is irreducible into itself; instead it strengthens itself from the interactions of different spaces as well as communication with human beings. This co-production of nomadic smooth space, human beings, and their non-hierarchical negotiation is what I call autopoiesis, which can be further clarified as a matter of "improvisation."

From Autopoietic Space to Improvisational Space

The varying characters of nomadic or smooth space's potential to 'becoming' forces human beings to negotiate their surrounding world. This negotiation, derived from variable relations and effects among human beings, spaces, and the world, makes the possibility of indiscernible alternatives for a nomadic voyager. This negotiation within nomadic smooth space develops the concept of improvisation, which is along the autopoiesis axis. This empowerment through improvisation leads to new possibilities and discoveries in space when the nomad voyages new territories and contexts. Since the necessity of the territorialization and deterritorialization process originates from variation, voyaging new territories leads to the process of discovery and being discovered. The necessity of discovery through marking an unmarked space is not the act of creation but rather about ensuring "an openness toward a process of ongoing creation."[166] Improvisation is not an act of doing something, instead, it is, as Kristian Kloecki defines, "the emergence of dynamic structures that continue to feed into the

[166] Kristian Kloeckl, *The Urban Improvise; Improvisation-Based Design for Hybrid Cities* (New Haven & London: Yale University Press, 2020), 106, https://doi.org/10.2307/j.ctvt1sg6k.

action itself."[167] Therefore, the continuous discoveries lead to in-between/liminal spaces to be chosen out of several possible in-between/liminal smooth spaces. In-between/liminal spaces grow and flourish through the process of improvisation.

Since smooth space is chosen out of several possible in-between/liminal smooth spaces, smooth space avoids normative rules and predetermined institutions. Therefore, space is not built, rather it is chosen improvisationally in the nomadic context because no rules or norms exist in the act of improvising. Etymologically, the Latin root of improvisation, *proviso*, indicates "a condition attached to an agreement, a stimulation made beforehand."[168] As a result, improvisation indicates the situation that has not been planned, and therefore, "presents itself as unforeseen and unexpected."[169] Improvisation means the act or art of improvising.[170] Since Improvising means to make, or arrange offhand,[171] improvisation grants new prototypes, while it subverts the notion of a normative paradigm against which to evaluate possible solutions.[172] Improvisational self-producing nomadic space is opposed to this improvised normative paradigmatic striated space produced solely by human beings. The self-producing/self-generation of nomadic smooth space not only recalls the definition of autopoiesis but the essence of

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[167] Ibid., 7.
[168] Ibid., 14.
[169] Ibid.
[170] "Merriam-Webster's Collegiate Dictionary, Eleventh Edition," s.v. "improvisation," accessed December 2, 2020, https://www.merriam-webster.com/dictionary/improvisation.
[171] Ibid., s.v. "improvise," accessed December 2, 2020, https://www.merriam-webster.com/dictionary/improvise.
[172] Curtis L Carter, "Improvisation in Dance," *The Journal of Aesthetics and Art Criticism* 58, no. 2 (2000): 182.

improvisation. The concept of improvisation entails creating and generating, which intertwines with the generative characters of nomadism. According to Deleuzian notion, when nomadic smooth space is viewed through the lens of mobility, becoming, and making, it can be considered as improvisational space. Motion and movement are the roots of not only architectural space but also other arts, such as music, dance, handicraft, etc. For example, dancing is the result of offhand motions. These improvised motions originate from the plurality of invisible forces and powers in all directions. Dance can be an example of *body without organs* under the influence of a plurality of invisible forces and powers. In a nomadic dance, a human being negotiates continuously with nomadic in-between/liminal smooth space/improvisational space. The lingering sensations of such improvisational spatial transitions can create an aura that gives the sense of movement, lightness, and tranquility (Figure 7).

Figure 7 Improvisational space inspires movement and lightness.

The characteristics of improvisational space are animated in the process of becoming and not becoming; they do not reside in pre-existing spaces.[173] Then, space in the nomadic movement is not a pre-given thing but an improvisational one. Improvisation is a discovery of a "constant source of fresh materials and avoiding stagnation,"[174] which is a nomadic trait. Improvisational space requires the power to generate new liminal spaces spontaneously. This power originates from the non-hierarchical co-constitution of spaces and human beings. Improvisation cannot have a place in merely sedentary (striated) space since it does not belong to a systematic and ordered organization. Instead, improvisation emanates from self-governing constitutions and compositions. On the other hand, compositions are generating about the axis of improvisation. The back-and-forth relationship between improvisation and composition is feeding from the co-constitution of spaces and human beings.

Vasily Kandinsky attributes the place of improvisation and composition to the human being. From his perspective, composition is the accumulation of human inner nature and external world of nature. Kandinsky classifies the process of creating his artworks into impressions, improvisations, and compositions. According to this scheme, works are not differentiated by their subjects, but according to the approach to the reality that led to their creation.[175] An impression is an observation of the world; the painting

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[173] "As Foucault has suggested, the structural characteristics of improvisational expression reside in the act of formation and not in a preexisting model." Ibid., 182.
[174] Ibid.
[175] Sers, *Kandinsky: The Elements of Art*, 106.

represents a sight that has left an impression on the artist. It is the spectacle of the external world of nature that has made the impression; it may be a country landscape or cityscape, a street scene, a posture, or a specific character. An impression is a quickly rendered sketch with an identifiable external subject. [176] An improvisation, on the other hand, is an expression of inner nature. It is the product of internal and mostly unconscious processes. These may be dreams or visions.[177] Composition refers to the fusion of the conscious and the unconscious, of external vision and inner vision[178] that are emanating from human beings and spaces, respectively. In nomadic contexts, self-governing compositions are the accumulation of the non-hierarchical co-constitution of spaces and human beings. Therefore, improvisation is embodied in nomadic smooth spaces.

To depict the non-hierarchical co-constitution of spaces and human beings architecturally, we can apply the term "plane" from the philosophical language of Deleuze and Guattari to translate these ordered organizations and self-governing compositions. Architecturally, the plane exists in both the architectural language of settled and nomadic societies. But the dialect differs: the plane of consistency or composition of the nomad journeyman is opposed to the institutionalized plane of the settled architect.[179] In nomadic contexts, liminal spaces/improvisational spaces are

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[176] Ibid., 106.
[177] Ibid., 108.
[178] Ibid.
[179] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 368.

transformative thresholds between ever-changing smooth spaces. Therefore, the nomadic plane originating from variations designates improvisational compositions of haecceities.[180] Improvisational autopoietic compositions of haecceities are consistent negotiations between territorialization and deterritorialization. The nomadic plane designates liminality and consistency when voyaging through deterritorializing vectors of territories. In settled societies, liminal spaces are transformative thresholds between distinct striated spaces. Therefore, the settled plane as the result of a pre-existent and well-defined plan designates organization and formation.[181] The organization and formation will bring pre-givenness and establishment and subjugate human beings. This priority of pre-givenness can be seen in the reproduction process, from a micro to a macro scale. The way, in which materials are dressed in nomadic-spaces implies improvisation is opposed to using a template in striated spaces that implies the necessity of a model for reproduction.[182] Settled societies involve iterative and reiterative reproduction, while nomadic societies are the accumulation of improvisational autopoietic peripatetic experiences.

The ever-changing structure of variant smooth nomadic organizations depicts a modulation that is composed of variant strands that are united by perpetuating a historical evolution. This variation, on the one hand, points to production and

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[180] Ibid., 262.
[181] Ibid., 368.
[182] Ibid.

organization and, on the other hand, to self-production and self-organization of smooth nomadic spaces/improvisational autopoietic spaces. The stable part of this structure that perpetuates and evolves depicts the mythological part (Figure 8). As a whole, this ever-changing structure, in this dissertation, is called the mythopoietics of space; space organizes the world mythopoietically, through unfolding mythologies. This dissertation examines the foundations of smooth nomadic space by exploring the mythopoietics of Persian architectural space. This approach considers insights from myth and poetry found in Persian philosophy.

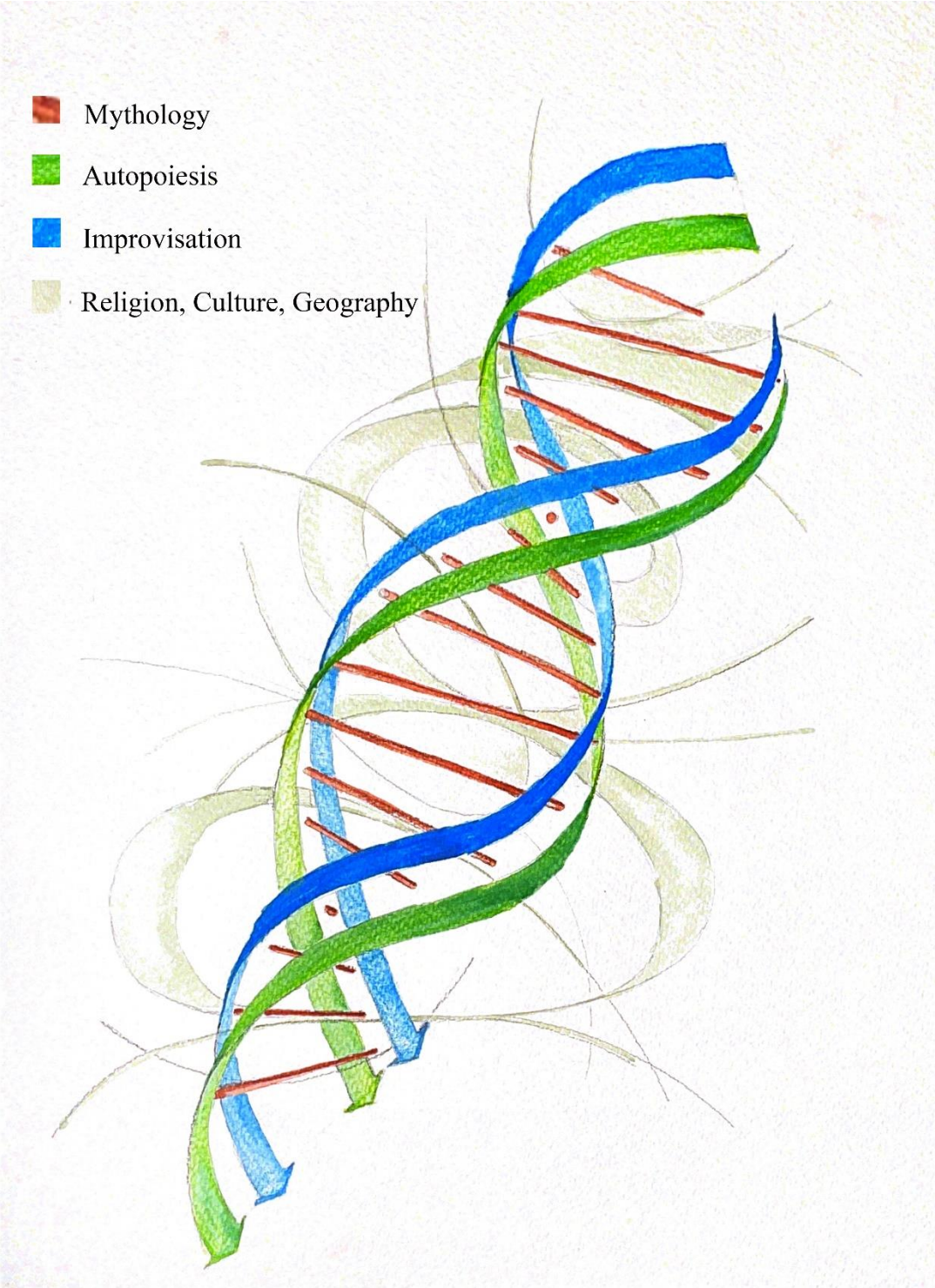

Figure 8 The ever-changing structure of variant nomadic smooth spaces

CHAPTER III

THE MYTHOPOIETICS OF PERSIAN ARCHITECTURAL SPACE

Since the exclusive features and ever-changing characteristics of liminal architectural spaces are rooted in nomadic contexts, it is necessary to study how architectural space's structure develops in relation to its cultural settings. In order to uncover the evolution of nomadic cultural views, this section examines Persian philosophies based on mythologies and poetries common in the world of semi-nomadic people. The nomadic view toward space can be tracked in pre-Zoroastrian mythologies that point to the multiplicity of space and time through the interaction of nomadic and settled cultures during the transitional time from one to the other.[183] It will prove helpful to consider these ancient mythologies, as I shall argue them here, as the embryos of Persian architectural spaces.

Two significant literary resources of the Persianate world that depict the semi-nomadic context of Iran (Persia) through ancient Persian myths are *The Holy Songs of Zoroaster* (*The Gahan)* [184] and *Book of Kings* of Abu'l-Qasem Ferdowsi (The *Shahnameh*).[185] The Gahan were the first and oldest remaining texts from the part of the Indo-European tribes, who, according to ubiquitous scholarship, migrated to Persia

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[183] Vakili, *Gahan va Zand-e Gahan*, 60.
[184] In Avestan language, *Gahan* was called *Gatha* that means song. Ibid., 27. See also Azargoshasb, *Gathas: The Holy Songs of Zarathushtra*.
[185] Abul-Qâsem Ferdowsi, *The Shahnameh: Book of Kings*, ed. Djalal Khaleghi-Motlagh (New York: Bibliotheca Persica, 1988).

(Ancient Iran) in the late second-millennium B.C.E. [186] These tribes exerted considerable and determinative influences over Persian identity and culture.[187] *Shahnameh* was composed about 400 years after the entrance of Islam to Iran. *Shahnameh* is a verse reconstruction of Persian history from the day of creation to the Islamic conquest.[188] However, its epic stories originated as historical narratives from ancient pre-Islamic mythologies[189] as well as from the current nomadic tribes, as this research argues, in those times of Iran. *Shahnameh* indicates beautifully the spirit of the Zoroastrian texts.[190] Due to the schematic, symbolic, and abstract nature of the literary genres, it is not expected for these two religious/philosophical and literal works to have concrete examples of Persian architectural spaces. Still, these documents offer insights into the philosophical theories of Persian architectural spaces to expand the concept of space. Using this background, my research articulates how ancient nomadic Persian mythologies are perpetuated improvisationally up to the modern world.

Due to the complexity of the literary documents and the cultural context behind these Persian architectural spaces, this chapter will concentrate on relatively abstract portraits of architectural spaces in literature in the first part. In the second part of this chapter, in turn, I will provide a brief introduction to the Western and Iranian discourse of Persian architectural space that examines the appearance of Persian architectural space in academic scholarship. So, in the first part, the evolution of Persian mythologies

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[186] Vakili, *Gahan va Zand-e Gahan*, 21.
[187] Ibid.
[188] Hinnells, *Persian Mythology*, 18.
[189] Ibid., 18.
[190] Ibid.

is studied, while the second part is mostly focused on the studies done on Persian art and architecture.

As I will observe, despite the fact that the semi-nomadic context of ancient Iran is a key feature of Iranian culture, prevailing discourse on Persian architectural space nevertheless neglects it in comparison to the settled context of ancient Iran. Therefore, the dissertation research in this chapter studies this context and how notions of space from the ancient mythologies that resembled the semi-nomadic context of old Iran came to be effective in architectural spaces. Through this efficacy, as I argue, Persian nomadic smooth spaces as the observable phenomena of ancient mythological time are drawn out to help us to define and decode Persian architectural spaces.

Persian Space Deity/ Mythology

The Pre-Zoroastrian and Zoroastrian Discourse of Mythology of Space

This dissertation exalts the meaning of space surrounding how mythologies intersected with architectural spaces in ancient Iran. The reason that mythologies are applied for this process is that there have been mythologies that have dignified the meaning of space as a god of creation. In pre-Zoroastrian time, mythologies in the role of creators, for instance, the God of Space, Vay, and the God of Time, Zurvan,[191] existed that supported and protected Ahura Mazdã—the Avestan name with the title of a great divinity of the Old Iranian religion, who was subsequently proclaimed by Zoroaster as God. Then, the Gods of Space and Time in pre-Zoroastrian time were superior to the

[191] This Avestan term, *zrvân*—in the book Pahlavi, *Zurvân* or *Zarvân*—means time. See Hashem Razi, *Zarvan and Zarvanism* (Tehran: Sazman-e-Farvahar, 1980), 4.

God of the settled time. Zoroaster negated the existence of all deities and created a network of angels.[192] By this first whispering of monotheism in old Iran, the meaning of space has been extenuated. The monotheistic religious structure holds the worldview of creation by a God, for example, Ahura Mazdã in the school of Zoroastrian thought.[193] Consequently, human beings became agents of God on earth. The world, space, and even human beings themselves were subjugated to pre-given objects. Ahura Mazdã, which originated from these exemplified gods, Vay and Zurvan, became the only god in the monotheism of Zoroastrian theologies. Despite the obvious differences between polytheism and monotheism, the common thing between these two ancient thought lines of pre-Zoroastrian and Zoroastrian times has been the concept of creation.[194] In reference to contemporary Iranian literature, whose important parts are lexicons, and dictionaries, the definition of space does not indicate any clues to associate the understanding of time.[195] Instead, Persian poems and proses, especially of the eleventh and twelfth centuries, folklore and myth constituted much of the faith of ancient Persia and gave considerable attention to the association of space and time.[196] In the following paragraphs, I trace the ancient importance of space and time in terms of Vay and Zurvan and I indicate how space and time are intertwined.

Ancient Iranians, like their Vedic counterparts (Indians) with whom they shared linguistic ancestry, entertained a variety of conceptions regarding the creation and the

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[192] Vakili, *Gahan va Zand-e Gahan*, 41.
[193] Ibid., 21.
[194] Razi, *Zarvan and Zarvanism,* 5.
[195] Falamki, *Roots and Theoretical Trends of Architecture*, 4.
[196] Ibid.,4. See also Hinnells, *Persian Mythology*, 6.

formation of the cosmos. According to one scenario, a primordial condition of infinite space (*Vayu*) and infinite time (*Zurvan*) existed, from which the dualities of finite space and time evolved as the requisites of the creation of the world.[197] *Vay* (Persian) or *Vayu* (Indian) is one of the oldest Iranian- Indian deities that designates the god of space within the concept of creation.[198] These two names refer to different aspects of this deity at different times and in different regions. In the time that these two deities were united, it was a deity that ruled the space between the earth and the sky dome.[199] In archival Persian texts, *Vay* is both a deity and the natural phenomenon.[200] Vay derives from the Pahlavi verb *vâ-*, meaning, "to blow."[201] In *Visperad*—an ancient Persian text as a passage collection within Avesta—*vay* was called Andarva[202] [*Indra*], which means Space, Atmosphere, and Wind.[203]

Vayu and Indra both represent the Vay deity.[204] Despite the duality and difference between them, in the later texts, Vayu and Indra were interchangeable, although infrequently. In the old form of Vay Deity in Iranian- Indian mythologies, Vay is distinguished by the Good Vay—Vay-e Beh—and the Bad Vay—Vay-e Bad—that

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[197] William W. Malandra, "VĀYU," Encyclopædia Iranica, 2014, http://www.iranicaonline.org/articles/vayu.
[198] Sherwin Vakili, *Mythology of Persian Deities [Ostureh-Shenasi Izadan-e Irani]* (Tehran: ShourAfarin, 2016).
[199] Ibid., 56
[200] Ibid., 59.
[201] Malandra, "VĀYU."
[202] اندروا [Andarva], اندروای [Andarvay] in the book Pahlavi, Vayu in Avesta, consists of Andar + Vay. In the book Pahlavi, Vay means wind, and air. In Farsi dictionaries, Vay means suspended. Mohammad H. Khalaf, *Borhan-e Qate; Persian Dictionary*, ed. Mohammad Moin (Tehran: Amir Kabir, 1983), 170.
[203] Vakili, *Mythology of Persian Deities*, 56.
[204] Ibid., 57.

represented different attitudes and characters of Vay.[205] In order to distinguish between the beneficent and baleful aspects of Vay, in the Pahlavi books,[206] a very clear distinction is made between the Good Vay and the Bad Vay. The Good Vay was known as Vayu and represented the beneficial, useful, and mild spirit of Vay.[207] In contrast, the Bad Vay, known as the furious and warrior Indra, represented the destroyer and vicious typhoon.[208]

Aspects of Good Vay, Vay-e Beh, represent the association of space and time. Vay-e Beh is associated with Vay-e Zurvan-dad as they bear similar titles. Vay-e Zurvan-dad means space of time; space is associated with time. This interpretation shows the interaction of time and space defined by two categories that originate from two regions of Iran. One category is related to Zurvan that came out from the east of Iran.[209] In the east of Iran, the title of Zurvan-dad for the deity of Vay was common and was known as the creator and the guard of the Chinvat Bridge[210]— the sifting bridge in Zoroastrianism, which separates the world of the living from the world of dead. His location between earth and sky resulted in the role of a creator and a guard.[211] In the west of Iran, Vay-e Beh is an agent of space and place.[212] Here, Vay-e Beh is related to

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[205] Robert Charles Zaehner, *Zurvan, a Zoroastrian Dilemma* (New York: Biblo and Tannen, 1972), 84.
[206] Inscriptional Pahlavi the name given to a variant of the Pahlavi script as used to render the 3rd-6th-century Middle Persian Language inscriptions of the Sassanid kings and other notables.
[207] Sherwin Vakili, *Mythology of Persian Deities, 62*.
[208] Ibid., 64.
[209] Ibid., 62.
[210] Ibid.
[211] Ibid.
[212] Ibid., 63.

finite Vay and connects to *Thvasha*.[213] *Thvasha* means space and place.[214] This term is derived from an Indo-European term *Svar* that means hasten and move.[215] Mobility and transformation/movement overemphasize the material nature of *Vay. Thvasha* has changed to Spash in the old Anglo-Saxon and *space* in nowadays English.[216] In the Persian language, Sepehr has derived from the same root that means sky and celestial space.[217]

The variety of terms defining Vay, as I argue, shows the enduring relationship between Vay and sky in Persian culture. The setting of Vay, the god of space, attests to his association not only with the earth but also with the sky. The association of Persian deities with celestial mythologies reflects the prevailing way of life, nomadism, in those times. Vay traverses between the domains of earth and sky. This traverse elaborates on his nomadic character. Vay's association to the sky, as the means of tracking the passage of time, shows the collaboration of Vay as the symbol of space with Zurvan as the symbol of time and acquires the essence of space-time in pre-Zoroastrian time. Despite the highlighting of Vay in pre-Zoroastrian times, it was marginalized by Zoroastrian thoughts probably due to its moral duality.[218]

However, although the Vay deity was marginalized in Zoroastrian thoughts, he reappeared in the post-Zoroastrian texts such as Avesta and Vendidad.[219] With the aid of

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[213] Ibid.
[214] Ibid.
[215] Ibid.
[216] Ibid.
[217] Ibid.
[218] Ibid., 62. See also Robert Charles Zaehner, *Zurvan, a Zoroastrian Dilemma*, 82.
[219] Sherwin Vakili, *Mythology of Persian Deities*, 58.

Vay of the Long-dominion—infinite Vay— Ahura Mazdã fashioned forth creation. Therefore, Vay was necessary as an instrument that Ahura Mazdã needed for the deed.[220] Vay has dominion over both creations: Ahura Mazdã and Ahriman—the middle Persian equivalent of *Aŋra Mainyu,* the Avestan-language name of the destructive/evil spirit in Zoroastrianism.[221] This research, in considering Vay either as a god or as a facilitator, emphasizes the influential meaning of the creational aspect of the binary God of Vay in Persian mythologies.

Vay is recalled as a mediator between opposite pairs due to his location between the earth and the sky. Vay's location of his domination and sovereignty, and his essence as a destroyer and a maker, represent an ambiguous entity in the spectrum of opposite pairs.[222] *Yt*. 15 (Yasht 15 dedicated to the deity of Vay or Vayu and bears the Pahlavi title Ram Yasht[223]), stanzas of 43-44, shows this ambiguity through Vayu's explanation of the meaning of his name with a formula:[224]

> "avat vanô-vîspå nãma ahmi ýat va dãma vanãmi ýasca dathat speñtô mainyush ýasca dathat angrô mainyush"
>
> The reason that I am called Vayu is that I pursue both creations, both that which *Spənta Mainyu* created and that which *Aŋra Mainyu* created.

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[220] Malandra, "VĀYU."
[221] Vakili, *Mythology of Persian Deities*, 75. See also Zaehner, *Zurvan, a Zoroastrian Dilemma*, 83.
[222] Vakili, *Mythology of Persian Deities*, 73.
[223] The *Yasht*s are a collection of twenty-one hymns, each of which invokes a specific Zoroastrian divinity or concept. Yasht chapter and verse pointers are traditionally abbreviated as Yt.
[224] Ibid., 73.

Therefore, Vay is a multifaceted deity that bespeaks two sides of creation; creator of goodness and creator of badness. While Vay protects the creation of *Spənta Mainyu*, elsewhere in the Avesta, he appears as *Aŋra Mainyu* as a feared god of death. *Spənta Mainyu* is an Avestan term for beneficent divinity, meaning literally "Holy/Bounteous Immortal,"[225] and *Aŋra Mainyu* is an Avestan term for Ahriman, meaning demon and God's adversary in the Zoroastrian religion.[226] Because of the necessity of Vay for creation, Vay's dominion encompasses even Ahura Mazdã. In the Avesta, Vay is superior not only to both *Spənta Mainyu*, the Beneficent Spirit, and *Aŋra Mainyu*, the Evil Spirit, but also to Ahura Mazdã who must entreat him for aid.[227] In one part of *Vendidad*,[228] Zoroaster receives from Ahura Mazdã that he should invoke self-created Thvasha (Space), which connects to the Good Vay; Zaravana Akarana (Zurvan, infinite/boundless time); and Vayu (the god of Wind).[229]

> Zarathushtra asked Ahura Mazdã: … 'How shall I free the world from … that evil-doer, Angra Mainyu? …'

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[225] Mary Boyce, "AMƎŠA SPƎNTA," Encyclopædia Iranica, 1989, http://www.iranicaonline.org/articles/amesa-spenta-beneficent-divinity.
[226] Jacques Duchesne-Guillemin, "Ahriman," Encyclopædia Iranica, 1984, http://www.iranicaonline.org/articles/ahriman.
[227] Malandra, "VĀYU."
[228] The Vendidad is an ancient collection of Zoroastrian myths, prayers, and religious observances, intended to defend against sources of infection and evil.
[229] James Darmesteter, "Fargard 19.," in *Avesta: Vendidad*, ed. Joseph H. Peterson (American Edition, 1898), 156.

> Ahura Mazdã answered: … 'Invoke, O Zarathushtra! the sovereign Heaven, the boundless Time,[230] and Vayu, whose action is most high.'[231]

In another part, Zoroaster invokes these three deities: Thvasha, Zurvan, and Vayu.

> Zarathushtra imitated my words from me: 'I invoke the sovereign Heaven, the boundless Time, and Vayu, whose action is most high.'[232]

Space in ancient Persian texts has been indicated through Thvasha, which, according to recent scholars of architectural space, points to space (atmosphere) in the middle of sky and earth; [233] Zurvan, Zarvana-Akarana, which means infinite Zurvan, or Time;[234] and Vay or Vat[235] that is associated with the god of Wind, [236] which embodies and creates movement.[237] Therefore, space in ancient thoughts is associated with atmosphere, time, and wind. Furthermore, space, as the multifaceted deity of Vay, has appeared in different terms and levels of significance throughout different sources in pre-Zoroastrian, Zoroastrian, and post-Zoroastrian time periods.

The multifaceted deity of Vay establishes a back-and-forth conversation between goodness and badness. His dominion over goodness and badness results in adventures between earth and sky, atmosphere.[238] The atmosphere is the realm of his dominion that

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[230] By contradistinction to the duration of the world, which is limited to 12,000 years. Ibid., 156.
[231] Ibid., 156.
[232] Ibid., 157.
[233] Falamki, *Roots and Theoretical Trends of Architecture*, 10.
[234] Marjan Keyvanpour, "A Study on the Philosophy and the Mythology of Zurvān and Zurvānite Cosmology Based on Three Pahlavi Texts: Bundahišn , Gozīdahā-Ye Zādsparam and Mēnōg-i Xrad," *Ancien Culture and Languages* 1, no. 2 (2019): 100, http://www.aclr.ir/article_38148.html.
[235] Vay in the book Pahlavi appeared in the term of Vat or Vad that in the current Persian language is the term Bod, wind. Vakili, *Mythology of Persian Deities*, 59.
[236] Falamki, *Roots and Theoretical Trends of Architecture*, 10.
[237] Ibid., 10.
[238] Vakili, *Mythology of Persian Deities*, 62.

adumbrates, in this dissertation, the concept of in-between space or liminal space. This deity is recalled as the threshold of the sky as well.[239] He rides toward the sky on a speedy chariot and creates lightning or gallops toward the earth and creates dust. The instability and indeterminacy of Vay associate his attributions to that of a warrior. In Zoroastrian scriptures, Vay is the patron of the warrior or noble caste.[240] In Yt. 15, a picture of a warrior Vay can be imagined based on his various epithets; he has superior skills; he is strong, swift, and agile;[241] he has a golden chariot with golden wheels; he has a sharp spear.[242] Additionally, the varying adventurous interpretation of Vay, his war-like attribute, and the realm of his dominion present Vay's association with the deity of Wind which is also known as the god of war. According to the influential role of Wind on the fate of earth's fertility, apart from Vay and Zurvan that are intrinsically strong, Wind, as discussed, embodies and creates movement.[243] The unification of features of movement makes the atmosphere that is repeated in post-Zoroastrian texts, for example, *Bundahishn*,[244] parts of *Vendidad*,[245] and *Yasht*s.[246] The deity of Wind and the god of Vay are intertwined and applied interchangeably. *Shahnameh* is a proof of

[239] Ibid., 62.
[240] Malandra, "VĀYU."
[241] Ibid.
[242] Ibid.
[243] Falamki, *Roots and Theoretical Trends of Architecture*, 10.
[244] Bundahishn is the name traditionally given to an encyclopedic collection of Zoroastrian cosmogony and cosmology written using the script Book Pahlavi. "The Bundahishn is a collection of translations of Avestan texts on the act, nature and goal of creation." Hinnells, *Persian Mythology*, 18.
[245] The *Vendidad* is a collection of texts within the greater compendium of the Avesta.
[246] Falamki, *Roots and Theoretical Trends of Architecture*, 10.

this claim. In *Shahnameh*, the deity of Wind as the god of war supports divine and legendary heroes in the mythological part of *Shahnameh*.[247]

The idea of goodness and badness can also be extended to the god of Wind. The god of Wind has two characters: A Good Wind—Bod-e Beh—and a Bad Wind—Bod-e Bad. Due to this duality, there is a sense of the neutrality for the god of Wind, *Vayu*, for there is both a good and evil Vayu.[248] The Good Wind is the constructive spirit, while the Bad Wind is the destructive spirit, sinister and lethal. Vay-e Beh, the Good Vay, is the beneficent aspect of Bod-e Beh, the Good Wind. Examples of Bod-e Beh are illustrated in *Shahnameh*. However, the god of Wind has not been mentioned and referred to directly in *Shahnameh*, but this god can be justified in association with Vay in terms of numerous clues and evidence that have been so far collected. For example, in *Shahnameh*:

مهان شاه را خواندند آفرین که ای نامور شهریار زمین
ز چرخ فلک بر سرت باد سرد نیارد گذشتن به روز نبرد[249]

In these above verses, Bod-e Sard (باد سرد) as an allusion to the wind represents the Vay deity that in wars supported mythological heroes against Ahrimanic powers.[250] The association of the god of space, Vay, and the god of Wind depicts the unstable feature of their nomadic context. Being a multifaceted deity, Vay resembles change and movement that correlates, as I contend, with its nomadic context.

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[247] Abdolah V. Abbasi, Mohammad A. Mashhadi, and Roya Rezaei, "Mythic Structure Analysis Wind in the Shahnameh," *Journal of Boostan Adab* 7, no. 3 (2015): 153, https://doi.org/10.22099/JBA.2015.3032.
[248] Hinnells, *Persian Mythology*, 25.
[249] Ferdowsi, *The Shahnameh: Book of Kings*, 68.
[250] Abbasi, Mashhadi, and Rezaei, "Mythic Structure Analysis Wind in the Shahnameh," 153.

The study of Vay depicts the concept of nomadism through its character and the process of creation. First, the god of space, Vay, represents the characters of war and warriors that while Vay is the benefactor, simultaneously, he is a destroyer. His essence is changing, and it is not fixed. It is fluctuating between good and bad. Therefore, it is not surprising why the context of this school of thought is not fixed and stable. This god brings forth a nomadic society. Secondly, Vay is the god of creation, and it is worshiped by the title of *xvadâta*—self-created.[251] In Ram Yasht, Ahura Mazdã prays to *Vay* and wants him to defeat Ahriman, and Vay accepts his requests and helps him to conquer Ahriman.[252] This document shows that Vay was worshiped in pre-Zoroastrian Iran. Therefore, in the Persian school of thought, Vay, the god of space, has been beyond Ahura Mazdã, and he was the cause of creation as well as itself.

Based on this reading, I submit that the concept of the causality of Vay, in pre-Zoroastrian thought, as the creator and self-creator can architecturally adumbrate the meaning of space. In view of this mythological background, architectural space can become a creator of in-between spaces/liminal spaces as well as a self-creator. Here, space not only creates adjacent spaces as in-between spaces, but it also is created from itself. Indeed, it is not difficult to speculate that this mythic sensibility about the creation and self-creation of space continues to be in effect through centuries, and perhaps even has an influence that informs and transforms along the way into other schools of thought and theologies. Accordingly, the context of pre-Zoroastrian mythologies suggests the

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[251] Vakili, *Mythology of Persian Deities*, 68.
[252] Ibid.

intertwining context of mythologies that defines ‘a zone of indiscernibility’—a Deleuzian notion—between nomadism and the sedentism of permanent settlements. Consequently, I argue that a continuous variation exists within ancient Persian society.

In a mostly nomadic society, in which different mythologies, including mythologies of space and time, Vay and Zurvan, were interwoven, Zoroaster strove to unite and take ancient mythologies into the realm of philosophical theories. Zoroaster’s thoughts were formed, as I posit, in a transitional period between nomadism and the sedentism of permanent settlement. The holy songs of Zoroaster reflect evident concepts and meanings from this transitional time. Alongside the transitions of Persian nomadism into the sedentism of permanent settlements, the essence of Persian architectural spaces is perpetuating as well despite the existence of transformations in different time periods. These concepts have been perpetuated through centuries in the history of Persian civilization. Various mythologies represented not only the nomadic culture and context but also the nomadic aspects/essences of the society. They have transformed from the world of various mythologies to monotheism through a transitional time, the time of the Zoroastrian school of thought.

At a historical and transitional time, the late second millennium, nomadism intersected the minor established sedentism of permanent settlements in the west of Iran. During this time, Zoroaster philosophically structured ancient mythologies and incorporated them into the realm of theologies. Zoroaster’s thoughts and their interpretations help us to understand the spatiality of Persian nomadic architectural space. The Gahan, Zoroaster’s Holy Songs, can decipher, decrypt, and criticize these

conceptions. For example, although the concept of Vay deity is marginalized throughout the Zoroastrian and post-Zoroastrian periods, its essence has evolved and transformed into the blueprints of Persian architectural spaces.

Although Vay and Zurvan were marginalized throughout the Zoroastrian and post-Zoroastrian schools of thought,[253] these pairs were permeated and transformed into developing thoughts. They were united and interpreted in another way in conjunction with new thought lines and intellectual policies. The process of the new interpretation of old mythologies was common in the post-Zoroastrian period. Throughout Persian culture and history, Zoroastrian priests reread and rethought the Gahan/Gathas and Avesta in critical situations, for example, after wars and triumphs.[254] The resulting reconsiderations and reinterpretation of holy texts are called *Zand* in Avestan language.[255] The method of Zand-writing also was applied in the post-Islamic period and has continued up to now.

Apart from Zoroastrian priests' interpretations about Zoroaster's philosophy, some scholars have written about Zoroaster, for example, *Thus Spoke Zarathustra* (*Also sprach Zarathustra*) by Friedrich Nietzsche (1883-1885). Sherwin Vakili, a recent scholar in sociology, biology, mythology, and history, has written many books deriving from Zoroaster's thoughts. Vakili's publication in the field of Persian mythologies and his theories about nomadism made him as the main reference throughout this research.

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[253] In post-Zoroastrian time, called Avestan time, Zurvan appears as a minor deity. Razi, *Zarvan and Zarvanism*, 4.
[254] Vakili, *Gahan va Zand-e Gahan*, 26.
[255] Ibid.

Gahan va Zand-e Gahan[256] [Gahan and Interpretation of Gahan] is Vakili's leading publication and stands as a new interpretation of Gahan. This book investigates not only Zoroaster's thought-lines but also the roots of his thoughts that mostly originated from existing current mythologies of creation, *Vay* and *Zurvan*.

To accomplish his goal in interpreting Zoroaster's philosophical thoughts, Vakili has extracted pairs of opposites from the Gahan/Gathas and applied them in *Gahan va Zand-e Gahan*. Then, he has reconstructed the pattern of their connections. This process is done in a semantic and symbolic context that is sometimes derived from other sciences, including linguistics, history, sociology, religion, etc. Accordingly, he has deciphered Zoroaster's worldview.[257] Zoroaster's innovative philosophy lies in distinguishing between *getik* (material, corporeal) and *menok* (immaterial, incorporeal) worlds.[258] Ontologically, Zoroaster introduced this new opposite pair in the Gahan and territorialized these two worlds. These worlds, Zoroaster argues, exist simultaneously within each other. Vakili, in *the Holy Grail of Zorvan*,[259] specifically, extracts opposite pairs as a kind of interpretation of Zoroaster's holy songs, for example, absence-presence, finiteness-infinity, time-space, being-becoming, etc. His Deleuzian duality interpretation of a religious book has been another reason for choosing Sherwin Vakili as the main reference for this research.

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[256] Ibid.
[257] Ibid., 24
[258] Ibid., 153.
[259] Sherwin Vakili, *The Holy Grail of Zorvan* (Tehran: ShourAfarin, 2014).

Additionally, Sherwin Vakili exemplifies nomadism-settlement (sedentism)—as the main Deleuzian theme—as another pair of opposites.[260] He states that the purpose of nomadism is a release from normative rules and pressures of regularizing institutions to achieve creativity and self-governing.[261] Vakili, as Deleuze, maintains that no stability and stagnancy exist in nomadism; no specific point exists that can be the destiny of a journey in nomadism. Instead, the path becomes important to guide and orient human beings. Nomadic movement is a journey between known territories and unknown destinations. A type of territorialization and deterritorialization exists in that particular milieu.[262] The known territories become striated spaces. The unknown territories remain smooth spaces. Territories, in the nomadic journey, translate and transform to each other in a way that no distinct boundary exists between them. According to Vakili's Deleuzian approach, his view is nurtured within a nomadic context, which is another reason to mention him in this research.

Vakili's pair of opposites can be tracked throughout the trajectories of Persian history. These meaningful couples and pairs, including nomadic-sedentism, smooth-striated, territorialization-deterritorialization, etc., are, as I wish to suggest, extended and reflected in the blueprints of Persian architectural space, and they have led to nomadic Persian architectural spaces; they have cultivated and nurtured evocative experiences.

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[260] Ibid. Regarding nomadism-sedentism, he states that the foundations of civilization are based on two types of lived experience of society. One of them rests on movement. It connects to a pastoral society that is not settling in the same place, and move cyclically or periodically. This pattern of life is nomadic. The other one is related to an agricultural society. Earth becomes important for this group. This pattern of life is sedentary.
[261] Ibid., 213.
[262] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*.

The aura deriving from Persian architectural spaces is fluctuating in the spectrum of these dual pairs, for example, the spectrum of smooth-striated space. This fluctuation is accompanied by unfolding territoriality toward deterritorialization. Deterritorialization, as treated by Deleuze and Guattari, involves the variation of smooth spaces as they move through vectors. Deterritorialization is the restructuring of a territory. However, as a result, Persian architectural spaces are understood conventionally in the domain of striated territories. Furthermore, territorializing, deterritorializing, and reterritorializing of a territory that define nomadic smooth space stay relatively untouched in the literature.

Persian architectural space symbolizes the notion of multiplicities as well. Persian historical artifacts and texts applied a cross-cultural view, for example, Zoroaster's Gathas, revealing this multiplicity in Persian philosophy and architectural space. In ancient mythologies, opposite extremes prevailed that represented conflicting meanings, such as the good and the evil, the obscure and clear, etc. But their opposition was complementary, and being of one where each was dependent on its opposite; they function as a pair. For example, the myth of space, Vay, has engaged with the myth of time, Zurvan, in Persian mythology, which laid the foundation for Persian architecture in ancient Persia. Persian mythologies are derived from ancient nomadic-settled societies.

Nomadic Persian Architectural Spaces

The Iranian and Western Discourse of Nomadic Persian Architectural Space

Having defined how space plays the mythological/mythical role of a creator in ancient Persian nomadism, I will now move on to discuss how such nomadic Persian

architectural space can be improvisational and autopoietic. Up until now, the study of Persian architectural spaces has focused too exclusively on the context of striated architectural spaces to the neglect of the nomadic history of Persian civilization, and consequently, of its nomadic architectural spaces.

The main book of the Iranian literature and culture, *Shahnameh*—Book of Kings—a long epic poem composed in the post-Islamic period, ca. 977–1010 C.E., illustrates the nomadic context of the Persian architectural spaces indirectly through its mythological characters and heroes of ancient Persian times. The reflection of the nomadic context in Persian architectural spaces continues in Persian literature of the next centuries, for example, the great romantic epic poet, Nizami Ganjavi (c.1141–1209).

For the first time, Persian art and architecture were explored and studied academically about a hundred years ago, however, the nomadic context of such phenomenon has been mostly neglected. Therefore, in the second part of this section, the modern scholarship about Persian architectural spaces, mostly done by Western scholars, are investigated to decipher the nomadic context of Persian architectural spaces.

Ferdowsi's *Shahnameh*[263] witnesses the presence of nomads in old Iran throughout the pre-historic and historic times with epic stories. *Shahnameh* depicts mainly the mythical and historical past of Persian culture from the creation of the world, and the time of the first king, Keyumars, up to the conquest of Persia by the Muslim

[263] Ferdowsi, *The Shahnameh: Book of Kings*.

Arab invasions of the early seventh century C.E.[264] "Ferdowsi's *Shahnameh* is a work of mythology, history, literature and propaganda, a living epic poem that pervades and expresses many aspects of Persian culture,"[265] including nomadic traditions. Some scholars have interpreted *Shahnameh* as an oral composition "by arguing that Ferdowsi not only inherited the older Iranian tradition, but also recreated new Persian oral poetry in the manner of the oral poet."[266] Although *Shahnameh* is a written work, it seems that indirectly influenced by oral traditions derived from nomadism. Its influence can be followed in the present main sources of storytelling and performances of Iranian nomadic tribes. For example, Bakhtiari tribes have kept alive the traditions of bravery and manliness, the moral wisdom conveyed in each story of *Shahnameh*, through reading of *Shahnameh*. The Bakhtiari are one of the important nomadic people in Iran.[267] They have had a long history as well as influence on the political life of the country during the last three centuries.[268] In the mythological stories of *Shahnameh*, the Bakhtiari are considered to be the descendants of a legendary hero, Fereydun. Therefore, these oral performances encourage the acknowledgment that "Bakhtiari tribesmen are descendants of great warriors, the likes of whom no longer exist."[269] Since nomadic tribes in Iran are applying *Shahnameh* in their specific ceremonies, therefore, it can be

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[264] Pedram Khosronejad, "The Shāhnāmeh in Bakhtiāri Nomadic Society: Anthropological Aspects of Hero and Heroism," *Iran* 44 (2006): 321.
[265] Ibid.
[266] Ibid.
[267] Ibid., 322
[268] Ibid.
[269] Ibid., 324.

concluded there are some commonalities between nomadic oral traditions and *Shahnameh*'s context.

Shahnameh applies different keywords to depict architectural spaces as the settings of mythological, epic, and historical scenes originating in different domains of geographical borders but in the spectrum of the same meanings. Although these architectural terms point to the same family of structures, they resemble different architectural forms and different contexts. For example, David Durand-Guedy *in Khargah and other terms for Tents in Ferdowsi's Shahnameh*[270] studies the trellis tent as the standard dwelling of Turkic-speaking pastoral nomads (Turanians).[271] The development of Mongol tentage was accustomed to the domed Central Asian trellis tents.[272] Durand-Guedy shows that tents are used in different terms that any of them depicts a way of life at a particular point of place and time. These keywords in this historical, poetic book attest to nomad groups' presence in different periods of time in Iran, especially in the post-Islamic period.

This princely tradition was accepted by the new dynasty, the Timurid Empire—a clan of Turco-Mongol origin—in Iran (1370–1507) that maintained the nomadic tradition embodied in the trellis tents, albeit in an elegant, Persianized form called *khargah*.[273] In Iran, a khargah is a status symbol,[274] which is reflected in the components

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[270] Durand-Guédy, "Khargāh and Other Terms for Tents."
[271] Ibid., 819. See also P. A. Andrews and Mark Dike Delancey, "Tent," *Grove Art Online*, September (2003): 2.
[272] Peter A. Andrews, "The Generous Heart or the Mass of Clouds: The Court Tents of Shah Jahan," *Muqarnas* 4, no. 1987 (1987): 149.
[273] Ibid.
[274] Durand-Guédy, "Khargāh and Other Terms," 835.

of the word; khargah consists of *khar*- and –gah. *Khar* means big and magnificent.[275] *Gah* means place. As a whole, khargah means a big place.[276]

همه دشت پر خرگه و خیمه بود از انبوه آهو سراسیمه بود [277]

The plain was filled with khargahs and khaymahs; they were astonished by the great number of deer.[278]

Khargah was introduced as early as the eleventh century by the Ghaznavid and Saljuq dynasties, both of Turkish stock.[279] Khargah contributes to the historicity of nomadism in Iran. Durand-Guedy investigates the definition of khargah and its origin in his essay.[280] Tent structures such as the khargah first appeared in Central Asia at the time of the Turk Qaghanate (Sixth century C.E.) and were the mobile dwelling used by Turkic-speaking pastoral nomads. At this time, the combination of tent types became standard for royal camps in Iran, according to the juxtaposition of the terms khargah and *pardasaray*/ *sarapardah* throughout Ferdowsi's epic *Shahnameh*. In contrast to self-contained Central Asian tents, tent-like structures such as sarapardah in Iran

[275] Ali A. Dehkhoda, *Loghat Nameh Dehkhoda* (Tehran: Tehran University Press, 1958), 458.
[276] Khalaf, *Borhan-e Qate; Persian Dictionary*, 736.
[277] Ferdowsi, *The Shahnameh: Book of Kings*, 68.
[278] Durand-Guédy, "Khargāh and Other Terms," 823.
[279] Andrews and Delancey, "Tent." See also David Durand-Guédy, "Khargāh and Other Terms for Tents," 831.
[280] Durand-Guédy, "Khargāh and Other Terms," 819.

encompasses their territories and surroundings. Sarapardah refers to a cloth enclosure in which tents such as khargah can be erected.

بدو گفت کای شاه خورشید چهر — تو موشیل را چون نپرسی ز مهر
که تا تو ز ایران شده ستی به روم — نخفته ست هرگز به آبادبوم
سراپرده و دشت جای وی ست — ز خرگاه و خیمه سرای وی ست [281]

> He told him [Kay-Khusraw]: "O sun-face king, why don't you benevolently ask Mushil?
> Because since you left Iran for Rum, he has not slept in a place inhabited and cultivated
> The *sarapardah* and the plain have become his abode, the *khargah* and *khaymah* his palace.[282]

Khargah is the equivalent of the Turko-Mongolian tent structure known in the West as "yurt."[283] In Western scholarship, a yurt constitutes "a class of domed, felt-covered tents,"[284] yet rigid dwelling. Although this term is applied in the west in this way, "none of the major nomadic groups use it in this sense."[285] Yurt means territory, campsite, homeland, or land of residence, it should refer to a home/house, but it never

[281] Ferdowsi, *The Shahnameh: Book of Kings*, 68.
[282] Durand-Guédy, "Khargāh and Other Terms," 836.
[283] Peter A. Andrews, "The White House of Khurasan: The Felt Tents of the Iranian Yomut and Gökleñ," *Iran* 11 (1973): 93, https://doi.org/10.1080/05786967.1973.11834170.
[284] Ibid.
[285] Ibid., 93.

means a specific kind of tent.[286] In general, it means "camping place, camp, or native county."[287] What comes out from the definition of 'yurt' is the aspect of territoriality that is reflected in this term. The definition of the home extends and expands to the surrounding territory; it overlaps with other territories or includes/excludes other territories.

Therefore, the meaning of settlement and housing becomes different in the nomadic culture. It is not confined to a specific point; it expands to connecting more points; it makes journeys among points. As we discussed previously, the territory of smooth nomadic space is in the threshold of changing and movement at each moment. The nomadic tent maintains a consistent exchange within its territory. It does not block our exchange, but it extends dwelling through territorialization and deterritorialization. Therefore, tents such as yurts encompass their surroundings. This meaning of tent-like architecture as a domain connects to the next settled architectures as well.

Persian tents were applied for court and ceremonies.[288] These princely tents were established in Achaemenid times. They were represented as a model of the heavens, as a setting for the cosmic ruler.[289] Additionally, such tents were called "heavens."[290] The heaven described in Zoroastrian texts pointed to its spatial and conceptual qualities, not to the existence of any gardens.[291] The concept of heaven as a garden emphasized and

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[286] Durand-Guédy, "Khargāh and Other Terms," 845. See also Andrews, "The White House of Khurasan," 93.
[287] Ibid., 93.
[288] Andrews and Delancey, "Tent," 11.
[289] Ibid.
[290] Ibid.
[291] Gharipour, "Pavilion Structure," 40.

developed in the worldview that came with the next conquest of this region, Islam.[292] In ancient times, princely tents representing the heavens were translated into stone monuments, including palaces in Persia. Achaemenids held festivals in domical tents derived from the nomadic traditions of central Asia. Palaces reproduced the form of tent architecture, for example, the Palace of Darius in Susa (465–428 B.C.E).[293] By comparing nomadic tents and ancient palaces in Iran, it seems evident that nomadism's timeless tradition is recast in how these two architectural spaces have encountered and encompassed their surroundings through territorializing, deterritorializing, and reterritorializing. The territorializing, deterritorializing, and reterritorializing in such architectural spaces can be seen in liminal/in-between smooth spaces, which show the qualities of uncertainty, instability, and indeterminacy as intrinsic characteristics of nomadic smooth spaces. Liminal spaces are the extension of inside to outside or outside into inside. The structure of tents and their reproductions in permanent tent-like settlements make this possibility of this extension or expansion and creating liminal/in-between spaces.

Ancient traditions of royal tents representing heavens were reflected into permanent stone and brick domes due to architectural evolutions and innovations such as the invention of the squinch—a technique of supporting a circular base for a heavy dome upon the walls of a square chamber. The simplest domical structure is represented in *chartaghi*s, *chartaqi*s, *chartaq*s, *chartagh*s, literally "four arches," and gradually in new

[292] Ibid., 40.
[293] Andrews and Delancey, "Tent," 11.

royal palaces and temples (ca. 2nd–5th C.E). Chartaq, etymologically, means a room established on top of big houses or commercial warehouses, *saray*; a vault that is established on four bases; or a kind of small quadrangular tent.[294] An Indian scholar, Ashfaque Ali, writing in reference to Tek Chand Bahar's comprehensive dictionary of Persian, *Bahar-I 'Ajam* (1739),[295] has collected commercial and craft terms that are held in common between Hindi and Persian lexicons. Ali classified the data under the following headings: commerce, craft and products, textiles and jewelry.[296] Ali has mentioned chartaq as a kind of small quadrangular tent in the category of craft and craft products.[297] Accordingly, this tracking of the definition of chartaq/chartaqi suggests the trace of the history of the fabric tent set in stone in the subsequently settled architectures.

Architecturally, achieving a chartaqi on top of a hill evokes the sense of a spiral movement. Therefore, the diagram of access to the chartaqi goes beyond a plane. The model of movement in chartaqi is a vortical one that conveys a whirling motion.[298] This

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[294] Dehkhoda, *Loghat Nameh Dehkhoda*. Chartaq, چارطاق, is defined as "four columns, i.e. a principal room on the top of Eeastern houses, open in front, and supported by four pillars. A kind of quadrangular tent. The elments." Francis Johnson, John Richardson, and Franciszek Meniński, *A Dictionary, Persian, Arabic, and English* (London: W. H. Allen and co., 1852), 449, file://catalog.hathitrust.org/Record/012468785.

[295] The *Bahar-i 'Ajam* is a comprehensive dictionary of Persian, prepared by Tek Chand Bahar in 1739. For this work, he spent twenty years to consult over a hundred sources and to draw on many Persian scholars and poets like Shaikh AbulKhair Khair-Ullah Wafai and the Lexicographer Siraj-uddin Ali Khan Arzu. He noted various Arabic and Hindi words used by the classical as well as more recent poets. His practice of including idioms and giving extensive citations from recognized poets and writers is particularly noteworthy. 'Bahar' has cited in this work many Hindi words, terms, phrases, etc., often quoting verses of poets in support. Ashfaque Ali and Ashafaque Aligarh, "Hindi Commercial and Craft Terms in Persian Lexicon , the 'Bahar-i- ' Ajam,'" *Proceedings of the Indian History Congress* 63 (2002): 378–82.

[296] Ibid., 378.

[297] Ibid., 379.

[298] I have borrowed the term "vortical" from Deleuze and Guitarri's *Thousand Plateaus*, where they define a voritical model in distigusighing a nomad science and State science. Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*.

model operates in an open space throughout which fluid things such as human beings turn, rather than plotting a closed space for linear and solid things. As it is discussed, the early architectural spaces such as chartaqi, etymologically as well as architecturally, reflect the context of nomadism in Iran.

Although nomadic culture is comprised in Persian architecture, this context is not given the attention it deserves in scholarship. The scholarly study of Persian architecture is initiated by western art historians, archeologists, and other western Iranologists in the early decades of the twentieth century, but these studies largely disregard the nomadic aspect of Persian architectural spaces. These studies produced primarily in Europe and the United States were based on the early twentieth century's archeological explorations.[299] The aggrandizing of Iranian history was achieved through works of archeologists such as Ernst Herzfeld, architects such as Andre Godard, and scholars such as Arthur Upham Pope.[300] Arthur Pope and Phyllis Ackerman's *A Survey of Persian Art*[301] on Persian architecture and Islamic art and architecture was probably the first published work dedicated to cultural and historical Persian territory beyond its geographical boundaries on an encyclopedic scale. *A Survey of Persian Art*'s drawings and extensive photography documented the architectural legacy from the earliest Zoroastrian fire temples to the grand mosques of the Safavid period (1600–1700 C.E.).[302] Pope and Ackerman began their research focused on Persian architectural space in the

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[299] Kishwar Rizvi, "Art History and the Nation: Arthur Upham Pope and the Discourse on 'Persian Art' in the Early Twentieth Century," *Muqarnas* 24 (2007): 45, https://www.jstor.org/stable/25482454.
[300] Ibid., 48.
[301] Pope and Ackerman, *A Survey of Persian Art from Prehistoric Times to the Present*.
[302] Rizvi, "Art History and the Nation," 57.

pre-Islamic period but avoided analyzing the influence of predecessors in the pre-Islamic period, let alone the pre-Zoroastrian one. The section on Islamic architecture runs most of the work. This publication represented the greatest advance in the knowledge of the post-Islamic architecture of Persian ever accomplished in one work; therefore, it played a significant role in shaping subsequent studies on Persian architecture, for example, Donald Wilber (who will be discussed later). The value of this work lies in the systematic way of using Islamic literature to clarify the evolution of Persian art and architecture.

The early scholars on Persian art and architecture reference Islamic literature, then, and not the pre-Islamic literature that contains insight into the semi-nomadic context of Persian architectural spaces, let alone to the study of nomadism in Iran. Nevertheless, Pope drew attention to the tent as a form of architecture in his *Survey of Persian Art*.[303] He addressed the definition of architecture "as construction for beauty and use" challenging the magnificent structures of Western Asia for thousands of years, fabrications huge in size, very costly, and, even if not permanent, often of extraordinary beauty.[304]

While scholars have undertaken detailed studies of urban and agrarian institutions, they have ignored nomadism as a factor in Iranian culture and history.[305] Among the early few scholars who mention the semi-nomadic context of ancient Iran,

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[303] Andrews, "The White House of Khurasan."
[304] Pope and Ackerman, *A Survey of Persian Art from Prehistoric Times to the Present*, 1411.
[305] Leonard M Helfgott, "Tribalism as a Socioeconomic Formation in Iranian History," *Iranian Studies* 1–2 (1977): 36, https://doi.org/10.1080/00210867708701524.

Roman Ghirshman (a French archeologist) refers to continuous friction between nomadic tribes and settled populations of Persian antiquity.[306] Intimately familiar with most of the major excavations in Iran, Ghirshman depicts the history and archeology of Iran from prehistoric and ancient times to the fall of the Sassanian dynasty in the seventh century C.E.

Despite the huge studies done on Persian art, architecture, and archeology by western scholars, most modern Iranian archeologists did not envisage nomadism as a key feature of Iranian culture either.[307] However, the evidence and surveys show the existence of semi-nomadism in Iran from ancient times. For example, an Achaemenid community in the territory of Takht-e Jamshid—known in the West as Persepolis—appears to have been a combination of small communities of settled farmers and a large population of semi-nomadic pastoralists.[308] Given the possible role of the ancient mobile pastoralists in the development of complex societies in Iran, Abbas Alizadeh conducts a regional survey in the locus of Takht-e Jamshid and its surroundings in 1995.[309] Alizadeh indicates that the mobile population based a durable political foundation that institutionalized political developments in Iran to a considerable degree. This base has perpetuated for various dynasties and even up to the eighteenth century C.E.[310]

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[306] Roman Ghirshman, *Iran: From the Earliest Times to the Islamic Conquest* (Harmondsworth & Middlesex: Penguin Books, 1954), 56.
[307] Daniel T. Potts, *Nomadism in Iran: From Antiquity to the Modern Era* (New York: Oxford University Press, 2014).
[308] Hartnell, "Persepolis in Context," 256.
[309] Abbas Alizadeh, "Some Observations Based on the Nomadic Character of Fars Prehistoric Cultural Development," in *Yeki Bud, Yeki Nabud: Essays on the Archaeology of Iran in Honor of William M. Sumner*, ed. Naomi F. Miller and Kamyar Abdi (Los Angeles: University of California, 2003), 83.
[310] Ibid., 92

Additionally, some scholars in other fields than art, architecture, and history, for example, economy and politics, have studied the ancient Persian context and attested to the presence of some minor settlements in Old Iran. Homa Katouzian, in his theory of arbitrary state and society in Iran, points to isolated villages exploited by an external force: the invading nomadic tribes,[311] which attests to the presence of settled societies in Iran on the one hand, and the interaction between nomads and settlers on the other hand. Additionally, he says about setting up various urban states at different historical stages by existing and incoming nomads.[312] This clarification about ancient Persia underpins a fluid model of society in ancient Persia. Haideh Salehi-Esfahani, in his essay *A Comparison between Ancient Persia and Ancient Greece*,[313] analyzes some of the geographical and environmental underpinnings of the existence of the rule of law in the city-states of ancient Greece and its absence in Persia. In one part of his study, he mentions "the presence of nomadic lifestyle and the constant struggle between nomads, semi-settled and settled populations"[314] as one reason for establishing one arbitrary regime after another in Persia. This study attests to the presence of settled communities in ancient Persia. Therefore, this research assumes that Persian society encompasses a semi-nomadic community.

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[311] Homa Katouzian, *Iranian History and Politics: The Dialectic of State and Society* (Katouzian, 2007), 73.
[312] Ibid., 73.
[313] Haideh Salehi-Esfahani, "Rule of Law: A Comparison between Ancient Persia and Ancient Greece," *Iranian Studies* 41, no. 5 (2008): 629–44, https://doi.org/10.1080/00210860802518285.
[314] Ibid., 640.

Given this possible existence of semi-nomadism in Iran, the more recent scholarship that addresses this possibility has developed. Daniel Potts (Archeologist and historian) in *Nomadism in Iran: From Antiquity to the Modern Era* (2014) recasts this timeless tradition of nomadism. Pott illustrates "the spurious nature of the evidence underpinning the claim that Iranian nomadism was a phenomenon of great antiquity."[315] Pott makes the argument about the sedentism of the permanent communities before the arrival of Indo-European tribes. A nuance of a semi-nomadic society exists in old Iran, according to Pott, since agricultural societies in Iran kept herds of sheep and goats, and only some of the family members moved with their herds seasonally. This interaction of nomadic and settled communities became more widespread in post-Islamic periods. Archeological evidence from many western parts of Iran, particularly southwestern Iran, consistently paints a picture of sedentary societies with a mixed agro-pastoral economy. Small numbers of tribes are responsible for moving village-based herds between higher and lower elevations on a seasonal basis. However, the relationships between sedentary populations and nomadic groups and the degree to which nomads were attached to sedentary communities are left relatively in uncharted waters.

What is evident in *Nomadism in Iran: From Antiquity to the Modern Era* is a consensus of opinion that the Persian Plateau has interacted with diverse nomadic populations from the surrounding regions at various points throughout its history, particularly in the post-Islamic period. In the post-Islamic time, the nomadic culture

[315] Potts, *Nomadism in Iran: From Antiquity to the Modern Era*, 419.

disappeared among the settled peoples, but one of its traditions survived in the way rulers chose to move with their courts to enjoy favorable climates and pleasant places, especially, in the time of Mongol dynasty in Iran.[316] Contemporary scholars such as Donald N . Wilber and Bernard O'Kane have applied fragments of historical documents in their research to reconstruct the images of post-Islamic gardens in the time of Mongol dynasty in Iran. Indirectly, the scholars have depicted the nomadic culture of the Iranian lifestyle reflected in the newly-arrived dynasty, Mongol, in Iran. In 1962, Donald Wilber (architectural historian) published the first academic monograph *Persian Gardens and Pavilions*[317] devoted exclusively to Persian gardens.[318] Although his book is basically focused on gardens, it discusses neither pavilions in Persian gardens nor the origins of Persian gardens or their development in history. Wilber mostly focuses on Ilkhanid[319] Architecture and its monuments in Iran and Central Asia through the lens of the nomadic culture of Mongols encountering semi-nomadic Iranian plateaus.

Following Wilber, Bernard O'Kane (Islamic art historian)'s *From Tents to Pavilions: Royal Mobility and Persian Palace Design* (1993), however, also like Wilber does not focus on the design of Persian gardens, it opens an issue on the deep cultural tradition which has directly affected the design of gardens and pavilions. It explores the influence of pastoral nomadism on court life in Iran, especially, after Islam.[320] O'Kane

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[316] Donald N. Wilber, "The Timurid Court: Life in Gardens and Tents," *Iran* 17 (1979): 128.
[317] Donald N. Wilber, *Persian Gardens and Garden Pavilions*, ed. Donald N. Wilber, 2nd ed. (Washington: Dumbarton Oaks, 1979).
[318] Gharipour, "Pavilion Structure," 7.
[319] The Ilkhanate was a khanate established from the southwestern sector of the Mongol Empire.
[320] Ibid., 18.

mentions that "the rhythms of pastoral nomadism dominated court life in Iran until the twentieth century. Seasonal migrations were not only a way to provide the grazing lands essential to the nomads' flocks; they also served as a means to escape the extremes of heat and cold which characterize most of the Iranian plateau."[321] Additionally, O'Kane's article indicates the hybrid nature of the Mongol courts in Iran and Central Asia. However, although Mongols—late thirteen century in Iran—built permanent architectural compounds such as mosques and *madrasa*s (schools), they also kept their lifestyle and erected their tents that were traditional to the steppe culture from which they originated; they did not inhibit their semi-nomadic lifestyle. For example, "the garden complexes with pavilions, verdure, numerous canals, and open spaces with the flexibility to accommodate a multitude and variety of tents represented the ideal compromise between nomadic and urban life."[322] Because gardens accommodated royal families in those times, they were vulnerable to attack. Due to this threat, nomadic dynasties had the ability to move the court and its entourage quickly out of danger.[323] Therefore, Mongol dynasties in Iran can be considered as the creator of "a mobile city,"[324] and their tents can be considered as mobile palaces. Additionally, mosques and bazaars—markets—were to be found in each imperial encampment. Peter Andrews, who has training as an architect, has shown in a masterly fashion that the Turk and Turko-Mongol's tent-approach architecture does not derive solely from the tents of the pastoral

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[321] Bernard O'Kane, "From Tents to Pavilions : Royal Mobility and Persian Palace," *Ars Orientalis* 23 (1993): 249.
[322] Ibid., 256.
[323] Ibid.
[324] Ibid., 249.

nomads, but rather their architecture merges nomadic, royal, and urban traditions.[325] Moreover, the spatial approach enables O'Kane to conclude that as far as the location of the rule was concerned in the Mongols dynasty, it did not ban Mongols from the ideal compromise between nomadic and urban life.

Even though the study of Persian architecture, in general, was initially triggered by Arthur Pope and Phyllis Ackerman, Elizabeth Moynihan seriously began discussing pre-Islamic texts' influence on Persian gardens, in particular.[326] She studied how historical and mythological texts formed the idea of what she called "Paradise Gardens."[327] The modern world, "paradise" goes back to the ancient Avestan word pairidaeza, meaning "walled," as in a walled garden. In Middle Persian, this term became 'pardes' and in Ancient Greek 'paradeisos.' The Paradise Garden is in parallel with the territorializing, deterritorializing, and reterritorializing yurt that encompasses campsite, homeland, or land of residence. Studying the development of Persian gardens from the sixth through the seventeenth century, Moynihan explored the relations between Paradise Gardens and Paradise myth and ancient nature worship. She traced the origins of Paradise Gardens to the Achaemenid period. The oldest Persian garden is located in Pasargadae in the province of Fars, Iran. Its current layout suggests elements of the Paradise Garden. The pattern of the Paradise Garden perpetuates in the post-

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[325] Michael R. Drompp and Devin DeWeese, *Turko-Mongol Rulers, Cities and City Life*, ed. David Durand-Guédy (Leiden ; Boston: Brill, 2013), 4.
[326] Gharipour, "Pavilion Structure," 13.
[327] Elizabeth B Moynihan, *Paradise as a Garden in Persian and Mughal India* (New York: George Braziller, 1978).

Islamic times, especially in the Safavid era (17th century), for example, in the Chehel Sotun Garden which will be discussed in the next chapter.

What Moynihan says is in contrast with Nader Ardalan and Laleh Bakhtiar's *Sense of Unity,*[328] in which these Persian scholars and architects analyze Persian architecture as the product of Islam, and specifically, Sufism, which is defined as Islamic mysticism.[329] Examining Persian architecture, Ardalan and Bakhtiar illustrate the synthesis of traditional thought and form within the context of Islamic theology.

As a result, most contemporary scholars have written based on personal observations and oral histories and experiences of western travelers, and archeologists. Few attempts have been made to dig and explore their interpretations, prejudices, or the extent of their understanding of Persian society.[330] But what remains stable and fixed is Persian architectural spaces, literature texts and poems that can be referenced.

From Nomadic Persian Architectural Space to Improvisational, Autopoietic, and Mythological space/ Mythopoietic Space

Blueprints of nomadism can be seen in Persian architecture through the passage of time. Everything coexists in a perpetual state of movement and interaction. This research focuses on the dynamics of nomadic smooth spaces as constituted on the temporal and spatial scales across architectural history. In the nomadic smooth context, space territorializes and deterritorializes itself through voyaging; it traverses the current

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[328] Nader Ardalan and Laleh Bakhtiar, *The Sense of Unity: The Sufi Tradition in Persian Architecture* (Chicago & London: University of Chicago Press, 1973).
[329] Gharipour, "Pavilion Structure," 16.
[330] Ibid., 271.

territory to the outside territory. Space consolidates these two territories by constructing consecutive adjacent territories that are called in this research liminal spaces. Smooth space motivates nomads to traverse and voyage these consecutive indeterminate/uncertain spaces and connect them through dwelling within them. In parallel, it deterritorializes itself through renouncing; "another justice, another movement, another space-time."[331] Nomadic smooth space disregards the known territory and weakens its ties to the known territories through voyaging. Space deterritorializes the outside by shattering its territory from within; at the same time that nomads voyages from the known to the unknown territories and discover new possibilities, smooth spaces disappear (shatter) and are reborn in a new version. Through its negotiation with nomads, space continually regenerates itself from the current situation and generates a new one of itself toward the new adjacent territory. Now, in-between liminal spaces are sought after within adjacent territory. The structure of negotiation and discovery through smooth spaces bases the notion of improvisation. Additionally, this structure that is accompanied with generation and regeneration adumbrates on autopoiesis in nomadic smooth spaces.

Through the interaction of nomadic and settled cultures in ancient Persia, the factors of improvisation and autopoiesis became highlighted in this transitional time. The ancient Persian mythologies were maintained through centuries by oral memories of journeymen, so-called nomads, who traveled with light loads. Therefore, spontaneous

[331] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 353.

improvisation was necessary to relay their cultural histories, contributed to histories' transliteration into mythologies, and originated from spaces as well as human beings. Semi-nomadic habitants involved dynamic territories through voyaging that necessitates dynamic choices. This dynamic territory opens up the possibility of nomadic smooth spaces that can act without a script, and can thus instead be based on improvisation.

Spontaneous improvisation was necessary for nomads to relay their cultural histories, contributed to histories' reflection into mythologies, and originated from spaces as well as human beings. Mythologies have been perpetuated based on their improvisational self-governing and self-generation. This process defines the concept of autopoiesis that shares a collective act of creation with the mythology of space, which is the reason that space can organize and interact with its environment. The mythologies of space and time were the philosophical embryos of Persian architectural space. Particularly, the mythology of space conditions the possibility of generation in its simultaneous growth with time and milieu.

The cartography of improvisation and autopoiesis help to translate the settled architectural spaces that reflect Persian mythologies. The conversation between spontaneous smooth and striated spaces elicits evocative sensations through the sense of movement, lightness, and tranquility. The Persian spontaneous and improvisational space traverses within a transitional domain between settled space and nomadic space.

Since Persian architecture lies on the ground of nomadism, contextually and theoretically, the concept of architectural space carries the structure of expectation, negotiation, and improvisation. In fact, improvisation can be considered the result of this

process, and this process can be considered voyaging within nomadic smooth spaces. Such theoretical concepts appear as spatial liminality that has an external aspect in Persian architectural spaces.

The question of liminal space in Persian architecture is arraying one space in an open or within space. Space, through the lens of expectation, maintains the possibility of springing up at any point; circulation and movement within space is not from one point to another, instead, movement is through negotiation between space and human beings. This indeterminate movement within indeterminate space, even though perpetual, without aim or destination, without departure or arrival, is based on improvisation. Nomadic smooth Persian space continues outside, territorializes, deterritorializes, and finally reterritorializes. The result of the process of territorialization, deterritorialization, and reterritorialization is liminal/in-between spaces. Liminal smooth spaces, as further discussed, make outside a territory in space, consolidates the territory by the construction of another smooth adjacent territory, and deterritorializes the other space by shattering the previous resulting liminal space from within.

The following chapter tries to show this liminality in some cases of Persian architecture that carries uncertainty, unpredictability, and indeterminacy as the result of nomadic improvisational spaces. Three architectural spaces are selected from different Persian architectural histories: the ancient, almost late medieval, and modern times. The study of these cases shows how ancient nomadic Persian mythologies are perpetuated improvisationally up to the modern world.

CHAPTER IV

PERSIAN ARCHITECTURAL SPACES: CASE STUDIES OF PASARGADAE GARDEN, CHEHEL SOTUN GARDEN, AND THE CONSULATE OFFICE OF IRAN IN FRANKFURT

In order to elucidate a form of architectural space as improvisational and autopoietic space, I turned to the theoretical discussion of nomadism as a source of such a thought in Deleuze's philosophy. His thought about nomadism resonates with architectural thinking. Nomadism as a theoretical ground gives way to the actualization of smooth architectural spaces in numerous forms of improvisation and/or autopoiesis. This process, according to Deleuze, comes through territorialization, deterritorialization, and reterritorialization (TDR). In-between and liminal spaces are the result of the intersection of TDR. Deleuze designates a place for the projection and coming together of TDR in their dynamism: the plane of consistency or composition,[332] which designates the zone of indiscernibility. In this chapter, I will argue that this indiscernibility and indeterminacy within the presence of absent human beings give rise to an array of qualitative changes and transformations in architectural spaces. The results show the domain of this indeterminacy within and outside architectural spaces to their surrounding territories.

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[332] Shima Baradaran Mohajeri, "The Predicament of Diversity through the Architectural Pedagogy of Beginning," in *100th ACSA Annual Meeting Proceedings, Digital Aptitudes*, ed. Amy Murphy and Mark Goulthorpe (Boston, 2012), 522–28, https://www.acsa-arch.org/proceedings/Annual Meeting Proceedings/ACSA.AM.100/ACSA.AM.100.62.pdf. See also Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*.

The theoretical reflection on the notion of nomadism, as opposed to the sedentism of permanent settlement, and my sketches and diagrams derived from Deleuze's theories pave the way for an analysis of Persian architectural spaces. In this chapter, I study Persian architecture as examples of nomadic architectural spaces and the synthesis of a multiplicity of smooth spaces. This chapter reflects on architectural spaces that reach out to uncertainty, unpredictability, and indeterminacy as intrinsic characteristics of improvisation in architecture. I will argue that Persian architectural spaces have challenged indeterminate boundaries to their surrounding territories, but also offered an alternative approach within buildings.

I argue that evidence of TDR can be clearly seen in the cases of the Pasargadae Garden, the Chehel Sotun Garden, and the Consulate Office of Iran in Frankfurt. These cases characterize and situate smooth nomadic spaces in the process of architectural space shaping. The first two places, the Pasargadae Garden and the Chehel Sotun Garden, lie within Iran's borders, and the third one, the Consulate Office, is in another country but is a part of Iran. I selected the third case outside of Iran's borders intentionally to show the manifestation of Persian architecture in communication with advanced German technologies. In the first case study, the Pasargadae Garden, I pursue the trace of nomadism in columned stone halls that resemble mostly nomadic tent-like architectural spaces. In the second case, I pursue the evolving columned halls, *talar*, as the phenomenon of the Safavid era, which play the role of in-between/liminal spaces. Then, in the last case, I show this liminality within space rather than its relation with exterior space.

Tent-like Architectural Spaces in Pasargadae; Setting Nomadic Smooth Spaces in Stone

Situated on the plain called Dasht-e Morghab, Pasargadae is described as early Achaemenid art.[333] Pasargadae is one of the few early remaining settlements in Iran, though in ruins, and is described as a "formative," or "experimental" site that is perpetuated in the blueprints of succeeding buildings as well as in Islamic architecture.[334] Specifically, the scattered ruins of Pasargadae constitute possibly the oldest evidence of Persian gardens. The history of Pasargadae dates back to the organization of a social landscape in the homeland of the Persian Achaemenids. The built landscape of the Kur River Basin,[335] in modern-day Fars Province, as a site for interaction between nomads and settled communities, begins with the migration of some tribes that comprise the Achaemenid Empire around the early first millennium B.C.E.[336] Unifying different tribes, Kourosh-e Kabir (Cyrus the Great) founded the Achaemenid Empire in Pasargadae at 529 B.C.E. (Figure 9).[337] As the first imperial capital of ancient Persia, the Pasargadae complex and its palaces, as the target of this study, represent the birth of a new world political power in time. The tomb of Cyrus the Great that stands apart from the other major monuments, though in ruins, and some other monuments beyond the boundary of Pasargadae Garden are not the focus of this study.

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[333] Jacob Marc Stavis, "The Formation of Achaemenid Art: Beyond Iconography and Attribution" (Columbia University, 2020), 15.
[334] Ibid., 11.
[335] The Kur River Basin served for millennia as an important zone of interaction between the pastoral nomads and settled, farming communities. See Hartnell, "Persepolis in Context," 2.
[336] Ibid., 1.
[337] Ibid., 19. See also Hassan Talebian, "Persian Gardens World Heritage Document," 38.

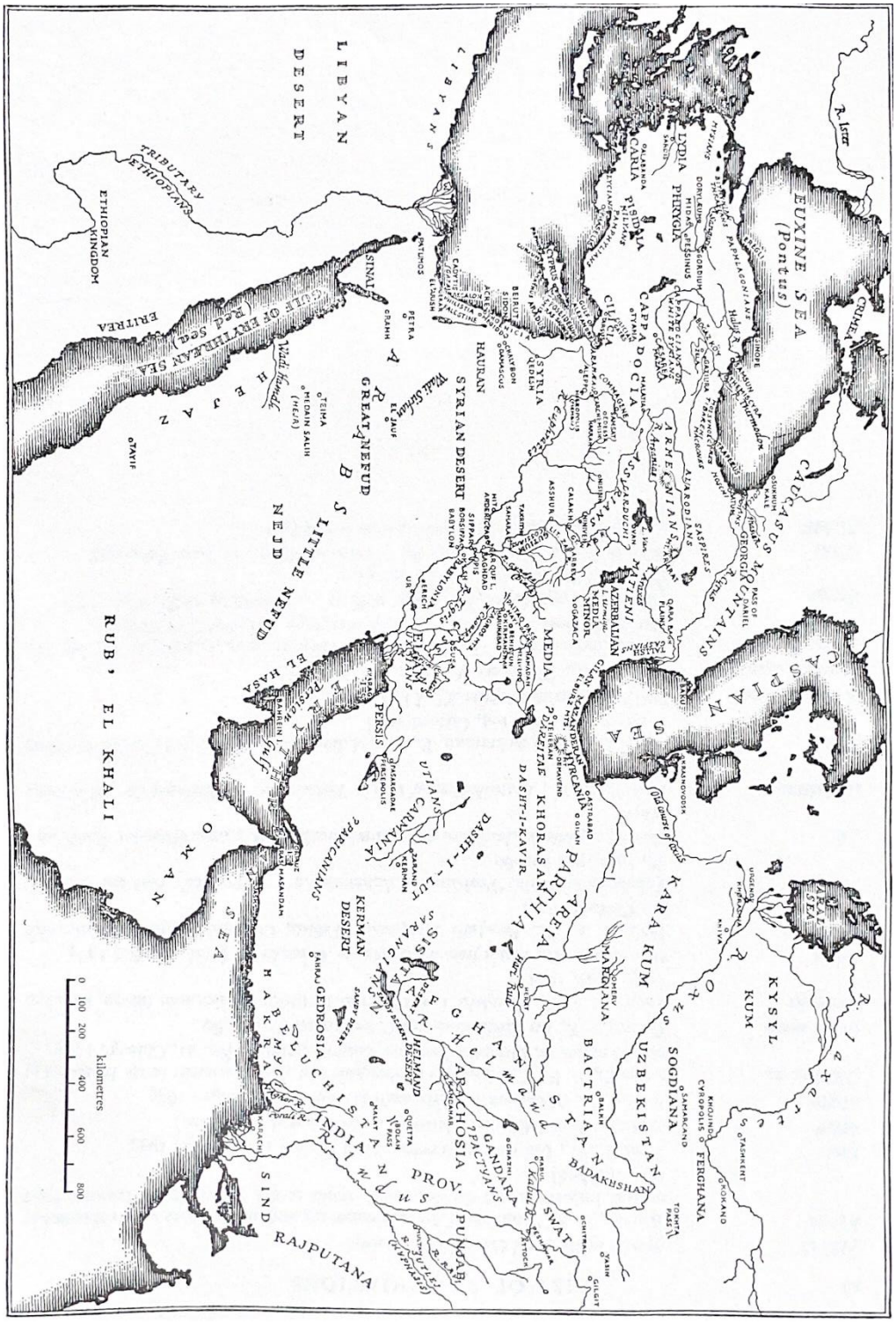

Figure 9 Map of the Achaemenid Empire, Image courtesy David Stronach, *Pasargadae*, p.1 fig. 1.

In the Pasargadae case study, I argue that Pasargadae Garden, and its palaces, in particular, can be considered as a revolutionary phenomenon that transitions from temporary nomadic smooth tents or a primitive settled architecture to a tent-like nomadic smooth architecture made permanent. The study's argument regarding Pasargadae is different from others in the way it views Achaemenid columned halls as temporal-spatial transitions. This study seeks the roots of this settled tent-like architecture not in predecessor spaces but instead in its nomadic culture. It is probably mistaken to think of columned-halls as having evolved from preceding settled architectural spaces in other regions; instead, Achaemenid columned-halls should be considered temporal and spatial transitions from the tent-like structures of nomadism to the sedentism of permanent settlement in ancient Iran. As evidence of this transition, the chartaqi buildings in succeeding times bear a name associated with the transient woven cultural tents of nomadism. With the concretizing/permanentizing of nomadic spaces as the main argument for this case, ancient mythologies exerted a powerful influence on the design of the Pasargadae garden. Pasargadae can be considered as the materialization of four sacred elements, Water, Wind, Soil, and Fire, in the Zoroastrian worldview.

Scattered ruins of the Dasht-e-Morghab were a point of controversy and dispute for centuries. Because the prevalence of Islam in Iran cast a long silent shadow over former ideologies, and even buildings and rituals that were reminders of these former ideologies, the location of Pasargadae and its monuments were thus forgotten for centuries. Through more connections with the West in the eighteenth century, several Western travelers, architects, and archeologists surveyed and concluded based upon their

own observations that the scattered ruins of Dasht-e Morghab were, in fact, those of Pasargadae.[338] Jacob Stavis, as a contemporary scholar regarding these scattered excavations, furthers this thread of discovery from the nineteenth century in his dissertation *The Formation of Achaemenid Art: Beyond Iconography and Attribution.*

Jacob Stavis studied Pasargadae and mentions descriptions and drawings of the observations by George Nathaniel Curzon (1892) and Ernst Herzfeld (1928) as the first foreigners to excavate in Persia.[339] As one of the founding fathers of Iranian Archeology, Ernst Herzfeld carried out systematic excavations in 1928.[340] Later archeologists uncovered a series of stone watercourses as an irrigation system that helped to complete more precise layouts of the Pasargadae complex.[341] In the early1960s, David Stronach, under the auspices of the British Institute of Persian Studies from 1961 to 1963, conducted the most comprehensive excavation at Pasargadae (published in 1978) and offered "a detailed examination of the site's topography and monuments as well as a catalog of objects" (Figure 10).[342] Additionally, David Stronach's report became a major reference for scholars working on Persian gardens and pavilions. Accordingly, Jacob Stavis' studies about the formation of Achaemenid art and David Stronach's drawings shape the most important references of this section.

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[338] Stavis, "The Formation of Achaemenid Art: Beyond Iconography and Attribution." 16.
[339] Ibid., 16.
[340] David Stronach, *Pasargadae: A Report on the Excavations Conducted by the British Institute of Persian Studies from 1961 to 1963* (Oxford: Clarendon Press, 1978), v.
[341] Stavis, "The Formation of Achaemenid Art: Beyond Iconography and Attribution," 17. See also Stronach, *Pasargadae*.
[342] Stavis, "The Formation of Achaemenid Art: Beyond Iconography and Attribution," 17.

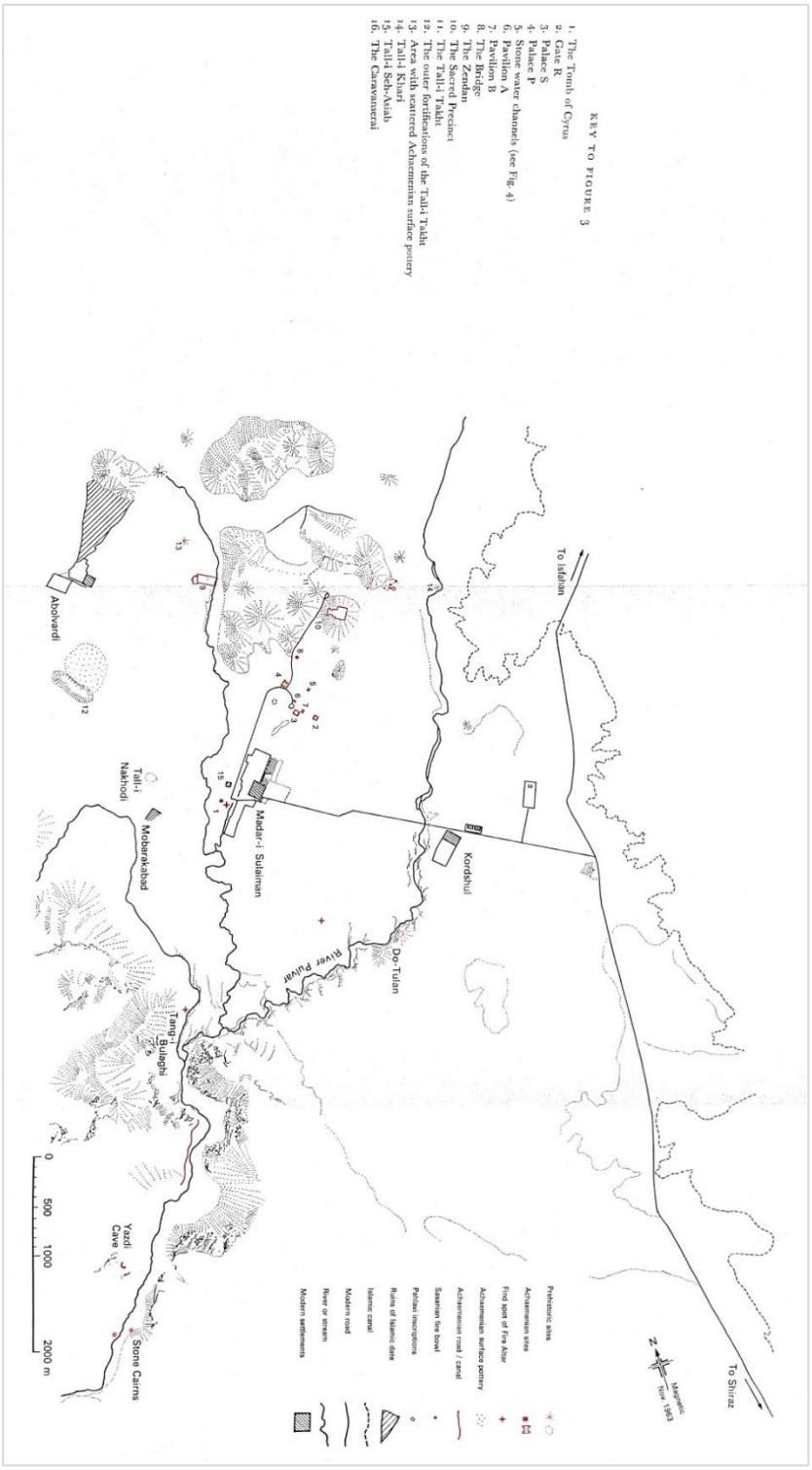

Figure 10 Pasargadae and its surrounding, 1961. Image courtesy David Stronach, *Pasargadae*, p.5, fig. 3.

As Stavis mentions in his dissertation, "three palatial structures have been excavated within the Pasargadae precinct, conventionally referred to as Gate R, Palace S, and Palace P."[343] Scholars have given the ruins at Pasargadae utilitarian designations, Gate R, Palace S, and Palace P, or conventional nicknames, such as the Zendan (*prison*).[344] According to the early layouts of Pasargadae drawn by David Stronach, the the Royal Garden shows a series of pavilions (A and B) and palaces (P and S) arranged around a rectilinear garden (Figure11).[345] Aligned to the geometric plan of palaces, "the gatehouse (Structure R) and the Bridge"[346] play a connective role with the complex's territory. Since orderliness and arrangement prevail as the main characteristics of Achaemenid complexes, this character appears as an essential part of the Achaemenid royal design.[347] For example, Stronach stresses formal links between the gardens, pavilions, and palaces within the boundaries of the garden.[348] Simultaneously, some scholars, as well as this study, interpret this striated arrangement as the apparently random distribution of these geometrical units, symbolizing Pasargadae as a nod to the Persians' nomadic culture.[349]

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[343] Ibid.
[344] Ibid., 18.
[345] Stronach, *Pasargadae*, 78.
[346] Hartnell, "Persepolis in Context," 227.
[347] Ibid.
[348] David Stronach, *Pasargadae*, quoted in Stavis, "The Formation of Achaemenid Art: Beyond Iconography and Attribution." 36.
[349] Ibid., 36.

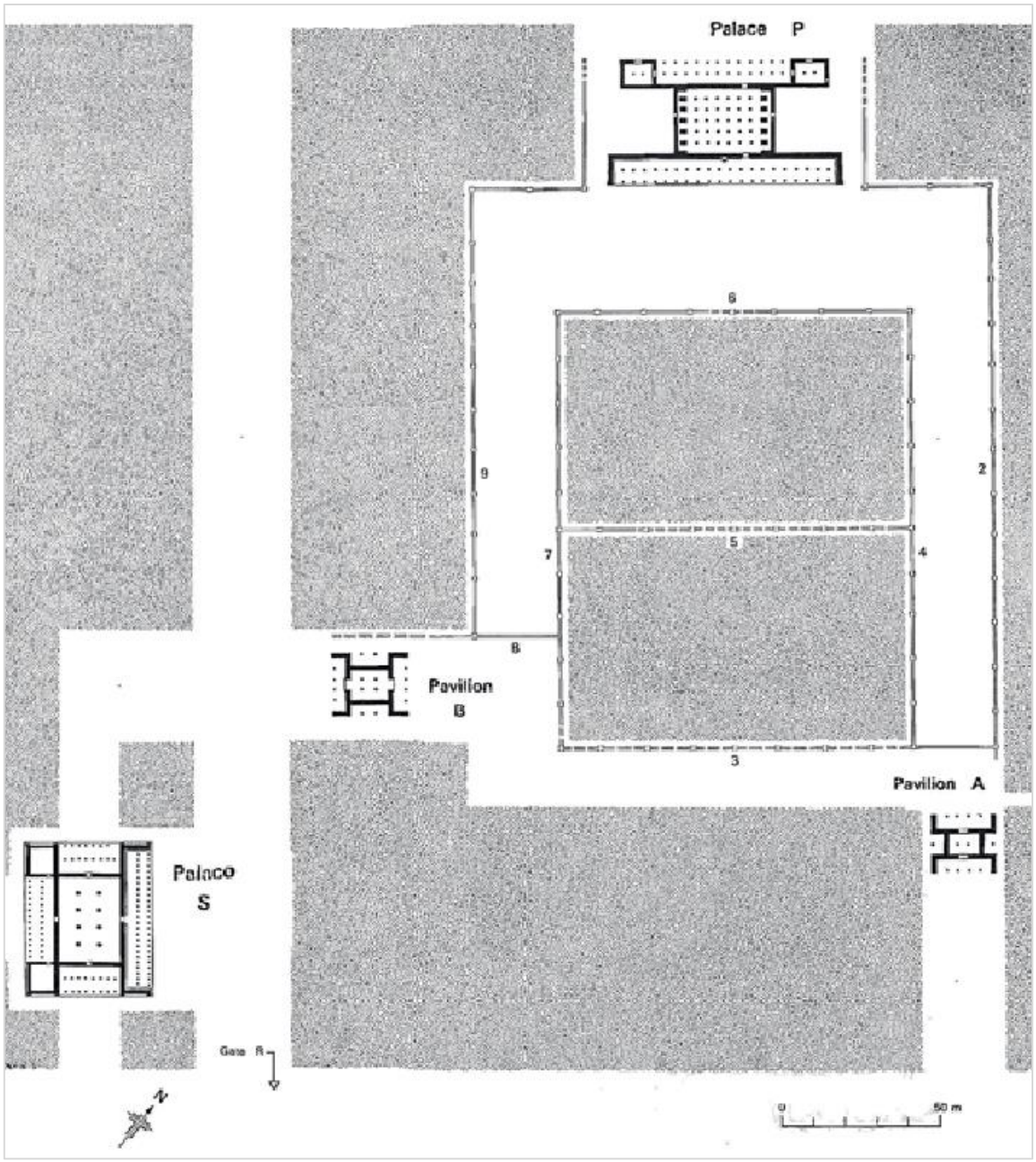

Figure 11 Sketch plan of the Royal Garden, 1961. The lines of the path are conjectural. Image courtesy David Stronach, *Pasargadae*, p.108, fig. 48.

The Pasargadae Garden, uniting official and residential palaces, consists of two main palatial buildings, Palaces P and S, set around Royal Gardens. Achieving Palace P

via an elaborate gateway, at the far end of the southern side, a visitor passed through the shadows of tall trees and over a bridge crossing a stream that led parallel to Palace S as the main Audience Hall. Palace S is located in the longitudinal axis of a smaller royal garden, according to the remaining ruins and simulated drawings and models. Honored guests proceeded onward, turning right at Pavilion B to enter the grand garden. Following the pathways accompanied by streams, based on remaining irrigation infrastructure, honored guests would be received at Palace P as the Residential Palace of Cyrus the Great.[350] The Royal Garden was an important element in the blueprints of Pasargadae that Cyrus drew up for his new capital.[351]

Situated near the eastern limit of the Pasargadae garden, Gate R, a freestanding hypostyle hall, measuring c. 28.50 x 25.50 meters, opens onto the Royal Garden, mediating between inside and outside.[352] The bases of the columns mark the gate's layout and still exist among the ruins.[353] Additionally, this gatehouse combines a wide variety of iconographic motifs in a relief accompanied with a carved inscription whose date is a point of controversy regarding whether this inscription was carved under Cyrus the Great or added later by Darius.[354] These sorts of carvings appear throughout the complex but are not the focus of this study.

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[350] David Stronach called Palace P "the Residential Palace of Cyrus the Great." Stronach, *Pasargadae*, 78.
[351] David Stronach, "Parterres and Stone Watercourses at Pasargadae: Notes on the Achaemenid Contribution to Garden Design," *Journal of Garden History* 14, no. 1 (1994): 5, https://doi.org/10.1080/01445170.1994.10412493.
[352] "Pasargadae; Capital of Cyrus the Great," 15.
[353] Stavis, "The Formation of Achaemenid Art: Beyond Iconography and Attribution," 36.
[354] Ibid., 37.

Palace S, also called the audience hall, with one column still standing among displaced fragments that sprout from the ground, lies at the edge of a canal almost midway between Gate R and Palace P (Figure 12). The monument, as a forerunner of the later Apadana Palace at Persepolis, consists of a rectangular hypostyle hall that is surrounded by four columned porticos (Figure 13).[355] The hypostyle hall, which runs from northwest to southwest, measuring 32.35 x 22.14 meters, consists of two rows of four columns.[356] The larger portico with two rows of twenty-four columns, measuring 53.65 x 9.60 meters, lies on the northeast of the palace facing the first garden.[357] The southwestern portico has two rows of fourteen stone columns. This hypostyle hall represents "the symmetry and balance typical of Achaemenid architecture."[358] The fragments of the palace's black capitals resemble bulls, lions and horses.[359] On the entrance gate of Palace S, reliefs are carved that are elaborated with fish tails, bull's legs, and a person with bird's claws.

[355] Ibid., 38.
[356] "Pasargadae; Capital of Cyrus the Great," 11.
[357] Ibid.
[358] Stavis, "The Formation of Achaemenid Art: Beyond Iconography and Attribution," 39.
[359] Ibid., 38.

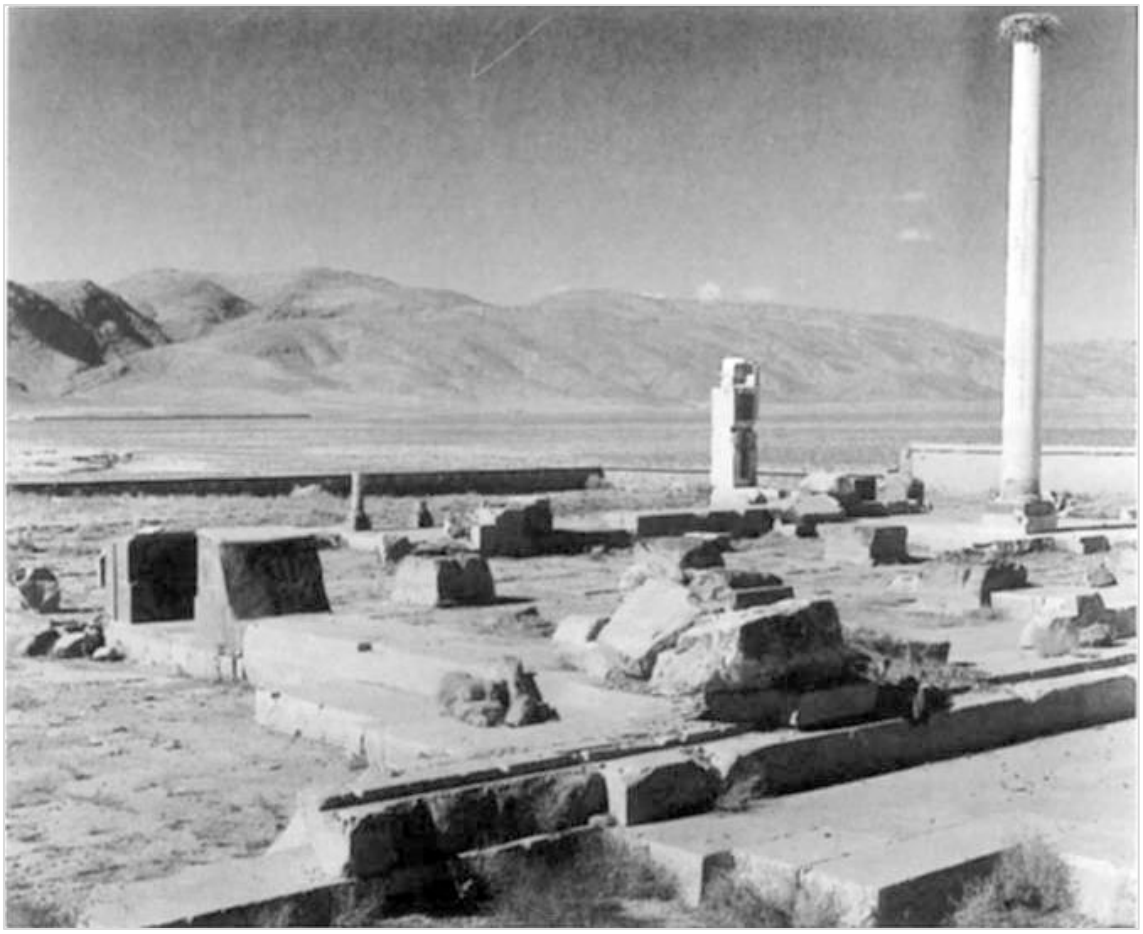

Figure 12 Palace S from the east, 1961. Photograph courtesy David Stronach, "Parterres and Stone Watercourses at Pasargadae," p.6, fig. 4.

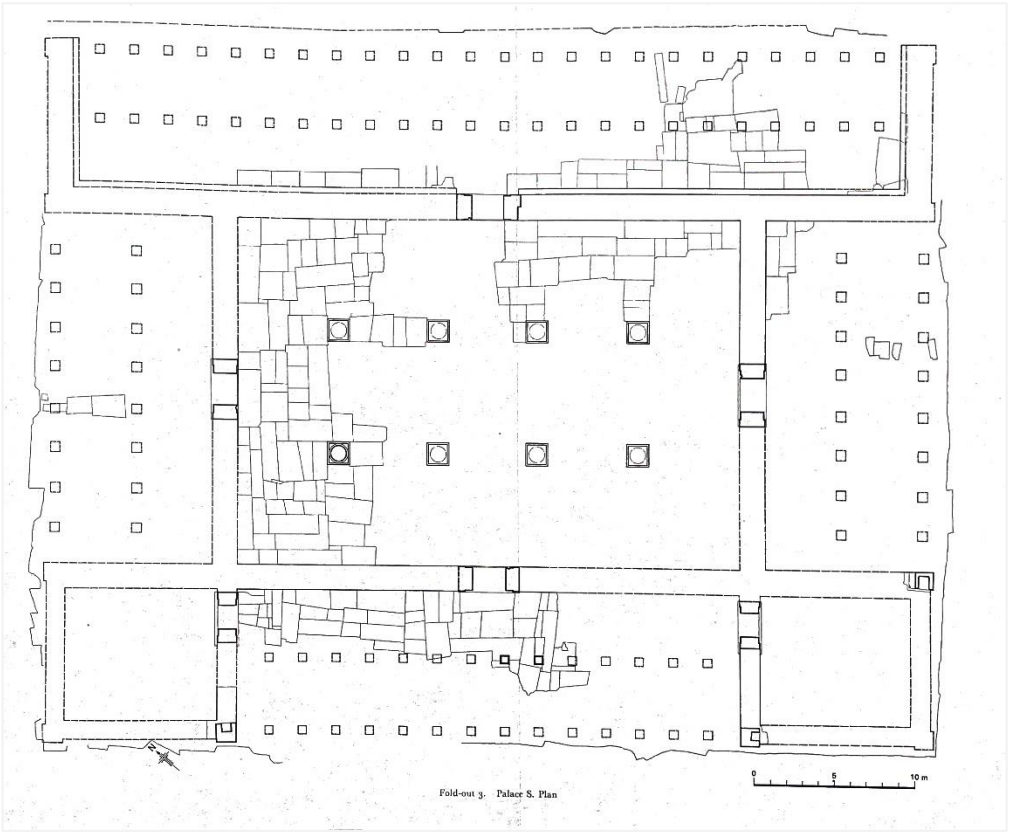

Figure 13 Palace S, Plan, 1961. Image courtesy David Stronach, *Pasargadae*, p.58, fold-out 3.

Palace P, called the Residential Palace, is situated at the far northern end of the bordered garden. Although, like Palace S, Palace P stands on the main longitudinal axis of the garden, Palace P lacks Achaemenid architecture's symmetry in its four sides (Figure 14). The central hall, measuring 31.10 x 22.10 meters, with five rows of six columns, is surrounded by two large columned porticos on its long side.[360] On the southeastern side facing the private garden, the larger portico, called the "Throne

[360] Ibid. See also "Pasargadae; Capital of Cyrus the Great." 13.

Portico" by Stronach, has two rows of twenty columns.[361] The shorter portico lies on the northwestern side of the garden and is flanked by two rooms. In simulated drawings and models, the central halls in Palaces S and P are higher than their flanking porticos.

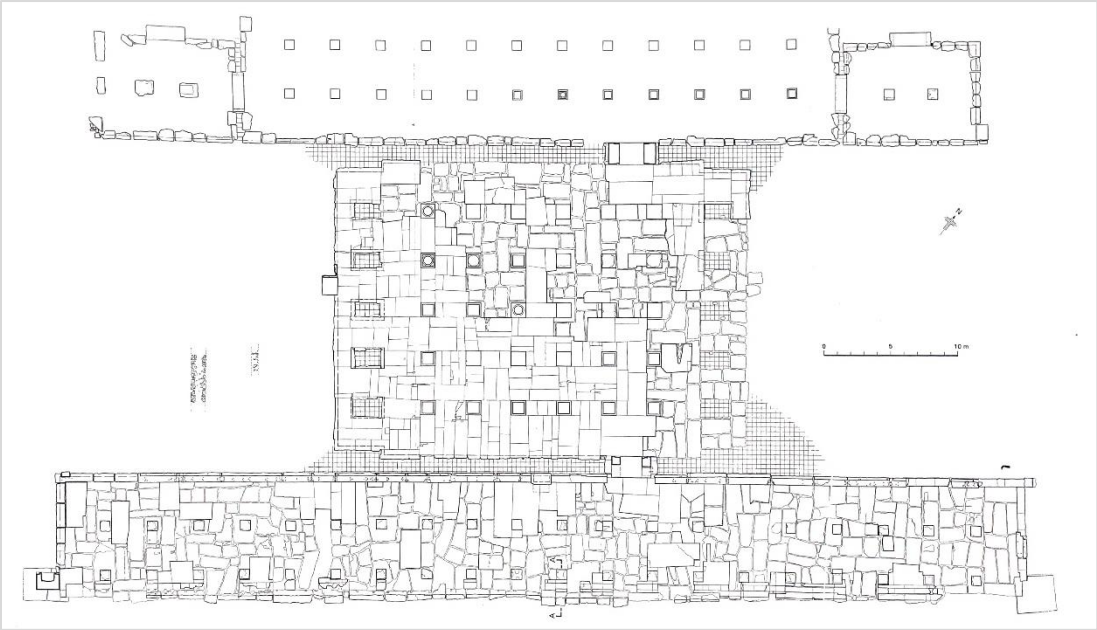

Figure 14 Palace P, Plan, 1961. Image courtesy David Stronach, *Pasargadae*, p.82, fold-out 5.

Pavilions A and B lie on the eastern and southern edges of the Royral Grand Garden. These two pavilions, aligned with Palace P, form the rectangle of the Royal Garden measuring 330 x 250 meters in size. The central room of poorly preserved Pavilion A, of which few traces exist, measures 10.45 x 7.90 meters (Figure 15).[362] In earlier reports, Pavilion B, designated as the Garden Pavilion, consists of a rectangular

[361] Ibid.
[362] Talebian, "Persian Gardens World Heritage Document," 92.

platform and dressed stones measuring 11.70 x 10.15 meters that probably formed the foundations of opposed columned porticos (Figure 16).[363]

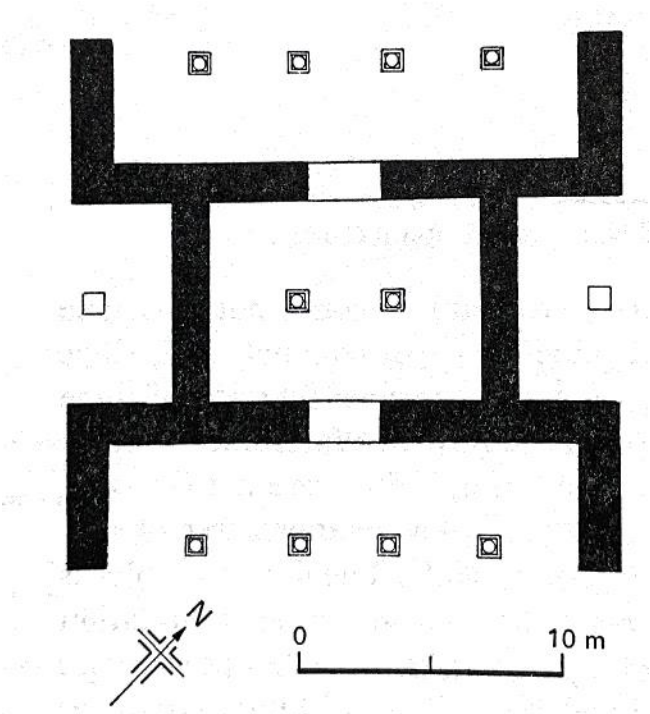

Figure 15 Pavilion A, a partial reconstruction of the plan, 1961. Image courtesy David Stronach, *Pasargadae*, p.110, fig.50.

[363] "Pasargadae; Capital of Cyrus the Great," 18.

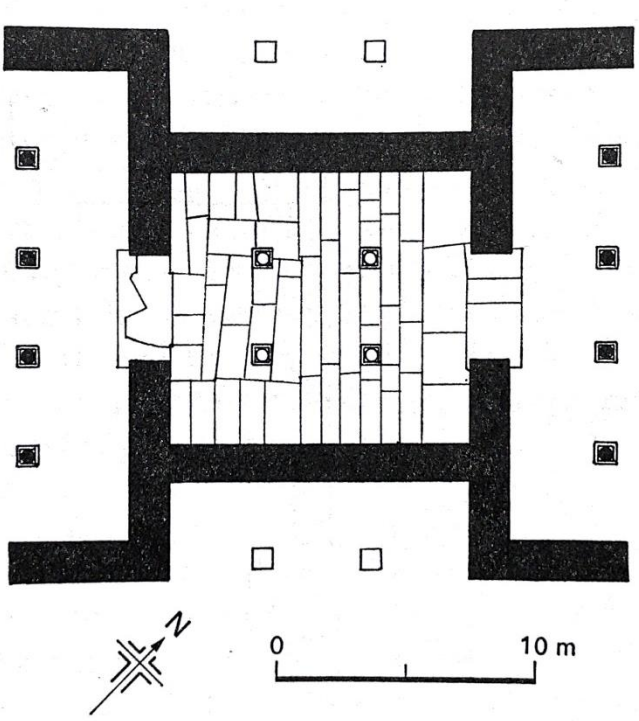

Figure 16 Pavilion B, a partial reconstruction of the plan, 1961. Image courtesy David Stronach, *Pasargadae*, p.112, fig.52.

As is evident in Pasargadae, based on ruined outlines, pavilion structures have been an integral part of Persianate gardens. The palaces and pavilions are thrust outward and into the garden by in-between/liminal columned porticos either on both opposite sides or all four sides. The columned spaces that recall ancestral tents mediate between inside and outside. These spaces succeed in the format of a columned porch known as *talar*. The double-porch pavilions of Pasargadae evolve into four-porch pavilions during the rule of the Safavid and Zand eras.[364] Liminality in columned halls is highlighted in successor columned halls in post-Islamic architecture, such as Chehel Sotun Palace. In

[364] Talebian, "Persian Gardens World Heritage Document." 50.

the case of Pasargadae Garden, the garden not only serves as an incubator for evolving a tradition of pavilion spaces with groves of columns, but the garden also projects the nomadic character of the region. Indeed according to the descriptions of this site left from ancient historians, such as Strabo (a Greek geographer around the first century B.C.E. and the first century C.E.) and Arrian (a Greek historian around the first and the second centuries C.E.), southwestern parts of Persia were accompanied by various tribes and peoples living in the region. Similarly, in current times, these parts are characterized by tribal structures involving various Bakhtiari and Boyrahmadi tribes.[365] In ancient times, this region was inhabited by several peoples, including Uxii, Mardi, Elymaei, Cyrtii, Pateischoreis and Achaemenids.[366]

The nomadization of the Achaemenid sites occurs through the spread of columned tent-like spaces inspired by these nomadic ancestors. As in Hilary Gopnik's study of the history of columned halls, the fundamental notion of a columned hall was widespread in ancient western Iran by the ninth-seventh centuries, certainly before Cyrus founded Palace P at Pasargadae.[367] The earliest stone-built, columned halls in the Achaemenid Empire played a role of a transitory tent-like architecture. "The technical

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[365] "The Bakhtiari are one of the important nomadic tribal groups in Iran, and they have had a long connection eith and influence on the political life of the countryduring the last three centuries." Khosronejad, "The Shāhnāmeh in Bakhtiāri Nomadic Society," 322. See also Gene R. Garthwaite, *Khans and Shahs: A Documentary Analysis of the Bakhtiyari in Iran* (Cambridge; New York: Cambridge University Press, 1983).

[366] Ali Bahadori, "Achaemenid Empire, Tribal Confederations of Southwestern Persia and Seven Families" 0862 (2017), 179, https://doi.org/10.1080/00210862.2016.1243986.

[367] Hilary Gopnik, "Why Columned Halls?," in *The World of Acchaemenid Persia; History, Art and Society in Iran and the Ancient Near East: Proceedings of a Conference at the British Museum 29th September-1st October 2005*, ed. John Curtis and St John Simpson (London: I.B.Tauris & Co Ltd, 2010):199.

skill involved in masonry visible at the Achaemenid palaces of Pasargadae," as Hartnell discusses in his dissertation, "is striking."[368]

Some scholars, including Hilary Gopnik, call the "columned halls" of the Achaemenid Empire "iconic of Persian artistic accomplishment."[369] The stone materiality of ancient columned halls functions as "a tangible reminder of Achaemenid political power,"[370] as Tobin Hartnell observes in his study of the economic, cultural and military landscapes of Achaemenid monuments. The ubiquitous presence of stone column-bases throughout the site, Pasargadae, as Hartnell suggests, operates as a symbol of Achaemenid royal power on a regional level.[371] Furthermore, columned halls perpetuated the blueprints of temporary tent-like architectures of nomadic predecessors. In the words of David Stronach, Pasargadae reflects unique characteristics of ancient Persian art, which simultaneously combines various architectural features of ancient civilizations.[372]

Apart from columned halls that reflect Achaemenid political power, establishing the palace in an area exceptionally bare of fortifications shows that the Achaemenid Empire was iconic of Persian artistic accomplishment. Because of the peace throughout Cyrus's rule, Cyrus could focus on developing easier access to resources. Due to his widespread conquest, Cyrus acquired the skill in the use of stone that applied not only for palace construction, but also for creating "water courses and ponds of carefully

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[368] Hartnell, "Persepolis in Context," 166.
[369] Gopnik, "Why Columned Halls?," 195.
[370] Hartnell, "Persepolis in Context,"166.
[371] Ibid,. 248.
[372] Talebian, "Persian Gardens World Heritage Document." 74.

carved stone."[373] Throughout the walled garden in Pasargadae, some water-control irrigation structures appear to regulate the water flow, prevent sudden flooding, and apply water to the royal complex (Figure 17).[374] This achievement concretized the Persian mythologies by leading to the "creation of the prototype of chaharbagh," the four gardens, as the symbol of paradise on the earth.[375]

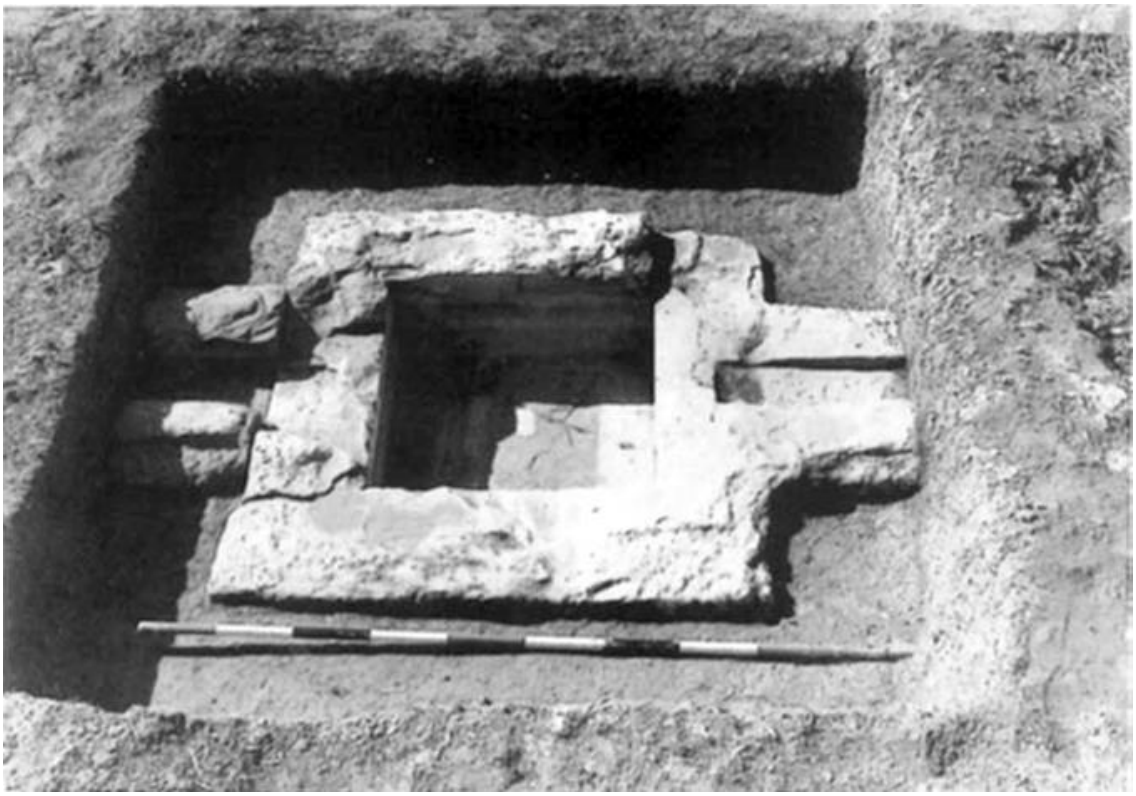

Figure 17 A stone basin located at the junction of three water channels in the Royal Garden. Photograph courtesy David Stronach, "Parterres and Stone Watercourses at Pasargadae," p.7, fig. 6.

[373] Ibid., 40.
[374] Hartnell, "Persepolis in Context," 248.
[375] Talebian, "Persian Gardens World Heritage Document." 40.

As Stronach states, the early Achaemenids "deserves to be credited with the first known of a charharbagh." [376] Stronach reveals a strong integration between palaces and pavilions through using "the fourfold layout in plan."[377] Chaharbagh, as Sussan Babaie states in her studies which are elaborated more in the next section, is the symbol of the Persian garden type that carries more considerable significance in Islamic times. As Babaie explains, chaharbagh "comprises a four-quadrant subdivision of a lot, usually enclosed, in which all the arts of the garden—horticulture, agriculture, aquaculture, and architecture—are synthesized to create an artful contrivance of nature."[378] Therefore, chaharbagh carries the notion of territory, which intersects with the nomadic culture that simultaneously territorializes, deterritorializes and then reterritorializes its surroundings to reflect the celestial world on the earth.

As Moynihan states in her book's introduction, *Paradise as a Garden*, "the reverence for water, the mystical feeling for trees, the symbolic division of the earth into quarters by the four rivers of life and the significance of a mountain are among the most ancient and enduring traditions of the Near East."[379] The aim of the royal construction project, Pasargadae Gardens, is compatible with the role of Ahura Mazdã as the patron god of the Achaemenid dynasty.[380] Persian gardens, in Persian ancient thoughts, are praised "as that a garden in which the pavilions, trees and flowers, represent the

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[376] Gharipour, "Pavilion Structure," 8.
[377] Ibid, 10.
[378] Sussan Babaie, *Isfahan and Its Palaces* (Edinburgh: Edinburgh University Press, 2018), 67, https://doi.org/10.3366/j.ctvxcrfqs.
[379] Moynihan, *Paradise as a Garden in Persian and Mughal India*, 2.
[380] Hartnell, "Persepolis in Context," 67.

elements of the created nature."[381] The Paradise myth, the vision of Paradise as a garden, is reflected in the design of Pasargadae Garden.[382] Pasargadae Royal Gardens are considered as the ancient mythological division of the universe into four parts, four seasons or four elements: water, wind, soil and fire.[383] Therefore, according to displaced fragments, this garden reverberates the mythical perception of nature, and "the cosmic orders."[384] Since Ahura Mazdã is referred to as living in the *Minavi*,[385] Heavenly Garden or the celestial world, Cyrus's garden in Pasargadae in the form of chaharbagh has reflected these sacred and mythical concepts, as well as "the cosmic orders in the eyes of the ancient Iranian peoples." [386]

The concepts of columned halls and chaharbagh that are in resonance with the art of the Achaemenid Empire delineate and characterize a nomadic subjectivity and sensibility. Formally and architecturally, stone columned halls, and even the current ubiquitous presence of stone column-bases throughout the site, reflect Achaemenid royal power. The chaharbagh prototype reflected in Persian gardens indicates the celestial world on the earth that provides a ground for nomads to territorialize, deterritorialize, and reterritorialize. Therefore, chaharbagh as a transitional space represents nomadic smooth space set in stone. In Pasargadae, nomadic smooth spaces translate into stone

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[381] Mahvash Alemi, "Chahar Bagh," *Environmental Design: Journal of the Islamic Environmental Design Research Centre* 1 (1986): 41.
[382] Moynihan, *Paradise as a Garden in Persian and Mughal India*, 2.
[383] Leila Mahmoudi Farahani, Bahareh Motamed, and Elmira Jamei, "Persian Gardens: Meanings, Symbolism, and Design," *Landscape Online* 46, no. 1 (2016): 2, https://doi.org/10.3097/LO.201646.
[384] Talebian, "Persian Gardens World Heritage Document," 407.
[385] Zoroaster introduces and distinguished between the two worlds of *Gitavi* or the material world, and *Minavi* or the celestial world.
[386] Talebian, "Persian Gardens World Heritage Document." 407.

striated spaces exemplified in columned halls. As a result, chaharbagh as a teritorry functions as the organizational structure to interlace smooth and striated spaces that signifies the mobile and fluid aspects of nomadism.

As I experienced this site in ruins, remnant scattered stone column-bases and pavements hold an ambiguous position out of place and out of time and manifest spatial and temporal liminality. The scattered ruins of the columned halls not only reflect the notion of liminality between spatial inside and outside but also indicate temporal liminality between nomadism and sedentism, between past and present, between this world and the other world. This consideration of liminal space-time extends to the succeeding times that will be exemplified in the next case study, the Chehel Sotun Garden.

Toward Autopoietic/Improvisational Liminal Spaces in Chehel Sotun Palace (Palace of Forty Columns); from nomadic tent-like spaces to autopoietic spaces

Sited on the royal gardens on the west side of Naqsh-e Jahan Square, Image of the World—situated in the heart of the royal gardens in Isfahan[387]—Chehel Sotun, built in the 1640s, is one link of a chain of gardens newly-established in the Safavid era (1501–1736) (Figure 18). Abbas the Great established the first nucleus of the pavilion as a kiosk, which consisted of three *khalwat*[388] rooms on the sides of a loggia, *ayvan*.[389] This garden acquired its name, Chehel Sotun, only after Shah Abbas II (1642–1666 C.E.) added a columned porch, *talar*, in front of the pre-existing masonry building in 1647.[390] However, the construction of the first nucleus of the pavilion as a kiosk prior to the reign of Shah Abbas II has been a point of controversy.[391] According to the two contemporary historians of Shah Abbas II, Tahir-I Vahid and Vali Quli Shamlu, Chehel Sotun was constructed in the year 1056–1057 AH (1647 C.E.).[392] Regardless, under Shah Abbas II's patronage, according to the time poems, the Chehel Sotun palace was

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[387] Isfahan is a city in central Iran and capital of Isfahan province. Located within the basin of the Zaindeh River, Isfahan was the capital of Iran under the Saljuq (r. 1038–1194) and Safavid (r. 1501–1732) dynasties and has preserved an almost uninterrupted series of important buildings dating from the Sasanian period to the present day. Jonathan M. Bloom and Sheila S. Blair, eds., "Isfahan," in *The Grove Encyclopedia of Islamic Art and Architecture* (Oxford Islamic Studies Online), accessed August 18, 2021, http://www.oxfordislamicstudies.com/print/opr/t276/e425.

[388] Khalwatkhane, خلوتخانه, the women's apartment; Khalwatsara,خلوتسرا, the women's apartment; also a solitary house where one lives; khalwatgah, خلوتگاه, a solitary place. See Johnson, Richardson, and Meniński, *A Dictionary, Persian, Arabic, and English*, 533.

[389] Mahvash Alemi, "Persian Gardens in Safavid Times," 13. Mahvash Alemi, "A Catalogue of Known Gardens in Safavid Iran," 2007, 5, www.middleeastgarden.com.

[390] Ibid., 13.

[391] Sussan Babaie, "Safavid Palaces at Isfahan: Continuity and Change (1590-1666)," *ProQuest Dissertations Publishing* (New York University, 1993), 158, https://search-proquest-com.srv-proxy1.library.tamu.edu/pqdtglobal/docview/304144338/previewPDF/BC9035EF8DC24FBFPQ/2?accountid=7082.

[392] Ibid., 158.

"linked to a 'new world' (*jahan*-e *nau*) that has 'made Isfahan the envy of the eternal Paradise' (*Ghayrat afza*-ye *behesht- javdan*)."[393] The Chehel Sotun Palace represented the principal Safavid setting for "the stagecraft of kingship."[394] In addition, the Chehel Sotun Palace was the site of royal ceremonies and official receptions in Safavid Isfahan, including New Year receptions in 1668, 1671, and 1672.[395] In modern times, the Chehel Sotun Garden is open to visitors as a cultural site.

Figure 18 Naqsh-e Jahan Square and Chaharbagh Street, Isfahan, Iran, 17th century. From Abarkuh engineering consultants in 1976 – 1978 and completed by Naghshe Jahan Pars engineering consultants in 2003. Reprinted in "Persian Gardens and Landscapes," *Architectural Design* 82, p. 41. © John Wiley and Sons.

[393] Babaie, *Isfahan and Its Palaces*, 186.
[394] Ibid.
[395] Alemi, "Persian Gardens in Safavid Times," 14.

In the Chehel Sotun case study, I argue that although the blueprints of the Chehel Sotun Garden have been interpreted as influenced by the Achaemenid palaces, the Chehel Sotun has a unique impact on its visitors through an extraordinary visual and spatial experience. This enduring experience results from the lightness of the palace's groves of wooden columns in the exterior porch and the continuity between inside and outside. Rather than emphasizing the pavilion building among the garden as a strange object, exterior spaces and the pavilion are merged in sequences of adjacent spaces. As one of the few extant buildings of royal Safavid gardens, the Chehel Sotun shows the extent of complexity and variety of spaces in the scheme.[396] I elaborate on the autopoiesis of space that generates continuous liminal spaces and overlaps with their surrounding territories. Unlike the current theory of the interior approach of Persian architecture, this case shows its relation with the outside, meaning surrounding territory here. Intertwining of space and its territory marks many routes through the pavilion that involve many possibilities and unfolding spaces.

Some scholars, including Mahvash Alemi (Iranian landscape architect) and Sussan Babaie (Iranian-born art historian and curator), explore the Persian Gardens, especially the Safavid gardens in Iran. The reason why I have selected Alemi and Babaie as the main references for this case is their multifaceted approaches toward Safavid-era Persian gardens. Alemi has mainly devoted her studies to reconstructing the physical

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[396] Mahvash Alemi, "The Royal Gardens of the Safavid Period: Types and Models," in *Gardens in the Time of the Great Muslim Empires: Theory and Design*, ed. Attilio Petruccioli (Leiden; New York: E.J. Brill, 1997), 77.

features of Safavid garden cities according to the Safavid chronicles as well as the accounts and the drawings of European and Ottoman travelers. Babaie's studies mainly focus on Persian art and Islamic art of the early modern Safavid period through a multidisciplinary approach exploring topics, including urbanism, empire studies, and transcultural visuality. Sussan Babaie studies the Safavid palaces in her dissertation *Safavid Palaces at Isfahan: Continuity and Change (1590–1666)* in the context of the Safavid Empire and politics that embodied change in taste, the political mood, and evolving court feastings. To highlight the continuities and changes attributed to the architecture of region, Sussan Babaie analyzes the Safavid palaces in conjunction with monuments in the contemporaneous and neighboring courts of Ottoman Turkey and Mughal India. Although Alemi and Babaie have studied mostly Persian architecture, especially gardens in the context of the Safavid Empire, they have not considered Safavid Empire's nomadic structure of which is the origin of tent-like architectural spaces as well as smooth spaces as this research does.

The Chehel Sotun Garden was part of a new movement in palace/garden construction in the Safavid era that reflects ancient Persian gardens and palaces. Scholars have studied Safavid palaces and investigated their patterns in ancient Iran since the seventeenth century.[397] For example, "as the Perso-Armenian Petrus Bedik (17th century) describes the palace of Cyrus at Persepolis[398] [Takht-e Jamshid] as '*theatrum*

[397] Ibid., 72.
[398] The Palace of Cyrus is located at Pasargadae.

qaudraginta columnarum,'[399] he seems to identify it with the Chehel Sotun pavilion in Isfahan," as Mahvash Alemi states. This association follows in the next western travelers, including Pietro della Valle.[400] In the nineteenth century, Charles Texier asserts that the Chehel Sotun palace, the favorite residence of Shah Abbas II, represents "the great hypostyle hall of Persepolis."[401] This reflection is evident in the Chehel Sotun columned- ayvans facing toward surrounding gardens.

What differentiates the Chehel Sotun from preceding palaces in Persia and its contemporaneous palaces in other regions is the appearance of ayvans and *talar*s as indiscernible zones in Safavid palaces. In Persian architecture, ayvan (iwan) is defined as a pointed-arch frame containing a vaulted space.[402] Accordingly, *talar* is defined as a flat-roofed pillared hall that abuts the front of the building of a palace and uses that building façade as the backdrop to the otherwise completely open area.[403] Sussan Babaie mentions that talar etymologically roots in the Mazandaran region, north of Iran, and its prevalence in surrounding vernacular architecture.[404] According to Babaie and on the evidence of actual talars, "older Persian dictionaries have defined the talar as a kiosk or house built on four or more columns, all of wood."[405] However, the vernacularity of this

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[399] Ibid.
[400] Ibid.
[401] Ibid. See also Ebba Koch, "Diwan-i ʿAmm and Chihil Sutun: The Audience Halls of Shah Jahan," *Muqarnas* 11, no. 1994 (2009): 152.
[402] Babaie, *Isfahan and Its Palaces*, 37.
[403] Ibid., 118. Talar is defined as "a bedchmber or saloon, built of wood and supported by four colums." Johnson, Richardson, and Meniński, *A Dictionary, Persian, Arabic, and English*, 300.
[404] Babaie, *Isfahan and Its Palaces*, 178.
[405] Ibid. See also Dehkhoda, *Loghat Nameh Dehkhoda*, 224.

term and space, talar, has been ignored by scholars who favor a Central Asia link.[406] Sussan Babaie represents talar in her studies as one of the architectural Safavid novelties suited to performing the ritual of feasting.[407] Babaie depicts a columned porch or talar as one link of Persian architectural chain that evolves in the Safavid era to signify the symbolic and functional specificities of Safavid identity.[408] To narrow this analysis, pseudo-talar-ayvan depicts and concretizes the specificities of indiscernible zones that will be discussed more in the description of different parts of the Chehel Sotun Palace later in this section.

Although the blueprints of the Chehel Sotun Garden have been interpreted as influenced by the Achaemenid palaces, the groves of wooden columns "have a different visual impact owing to the lightness of the whole structure,"[409] in contrast to the heavy stone structures of Achaemenids.[410] Furthermore, George Perrot (French architect and architectural historian) suggests that the timber architecture in Ecbatana—an ancient city in Media in western Iran, late 8th century B.C.E.—was the model for Achaemenid hypostyle halls.[411] Thus, pillared spaces are indeed universal— Persian hypostyles or the classical Greek of ancient times, and the loggias and balconies of medieval architecture—yet they do not generate the same experience, as Babaie says, of

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[406] Babaie, *Isfahan and Its Palaces*, 178.
[407] Ibid., 118.
[408] Ibid.
[409] Alemi, "The Royal Gardens of the Safavid Period," 76.
[410] Ibid. The purpose of Polybius, here, is his house. He was a Greek Historian of the Hellenistic period.
[411] Georges Perrot and Charles Chipiez, *History of Art in Persia* (London & New York: Chapman and Hall; Armstrong and Son, 1892), 102. Alemi, "Persian Gardens in Safavid Times." 76.

"simultaneous lightness and solidity as to the Chehel Sotun Palace and its talar."[412] Such an experience from Safavid palaces distinguishes the talar palaces from the predecessors.

The Chehel Sotun Garden stretches to a square shape with a pavilion located at the intersection of the primary axis defined by two large pools and a secondary asymmetrical axis with a smaller pool on the western side (Figure 19).[413] Achieving the pavilion via the entrance gate, at the far end of the garden, a visitor passes through the shadows of tall trees, perpendicular to the pavilion and parallel to the large rectangular pool in front of the east-facing eyvan, glimpsing the shimmering-surface pool that doubles the number of columns, and arrives at an empty space flooded by columns. Therefore, the visitor could grasp the magnificence of the columned talar reflected in the pool in front of the pavilion. The columned talar appears as a vision of the "Eternal Paradise," behesht-e javdan.[414] The groves of columns, opening both to the garden and the heavy part of the building, becomes the asymmetrical center of two sequences of open and closed spaces. As Babaie describes, the pillars of talar can be perceived "as the continuation of the march of the tress in the surrounding gardens."[415] The wooden columned talar marks of aging and carries the messages of time. Here, space is associated with time.

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[412] Babaie, *Isfahan and Its Palaces*, 188.
[413] Farahani, Motamed, and Jamei, "Persian Gardens: Meanings, Symbolism, and Design," 4.
[414] Babaie, *Isfahan and Its Palaces*, 195.
[415] Ibid., 188.

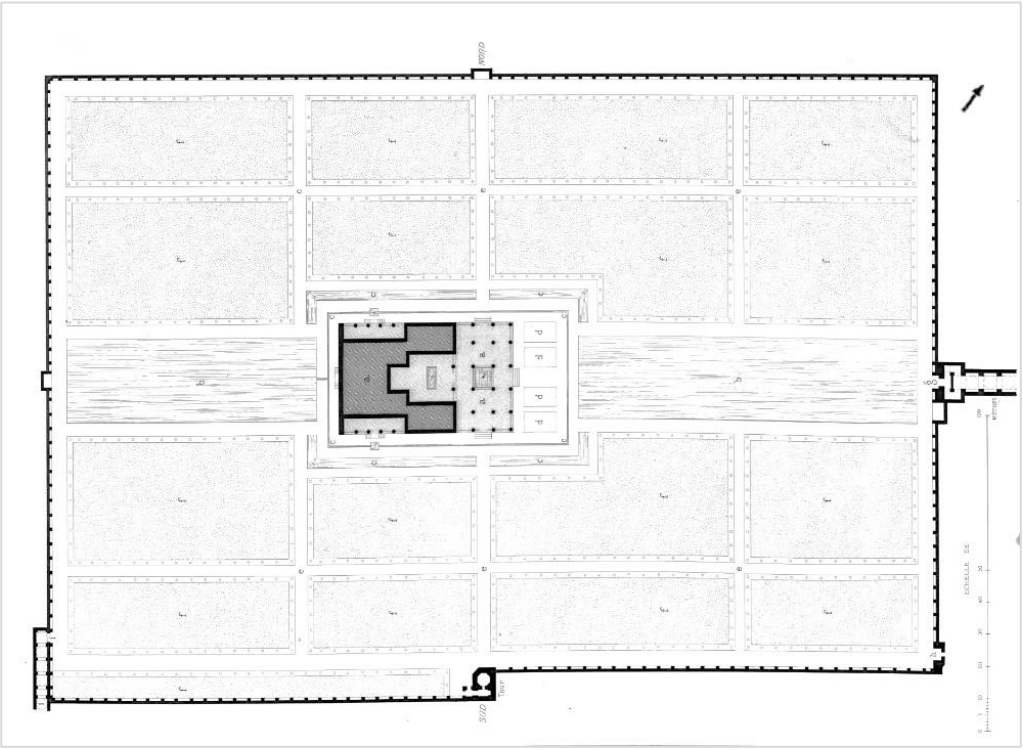

Figure 19 The Chehel Sotun Garden plan, Isfahan. Drawing by Pascal Coste, Monuments modernes de la Perse mesurés, dessinés et décrits, éd. Morel, 1867.

The pavilion, a rectangular building, 57.80 x 37 meters, is oriented on an east-west axis with an open talar that articulates the Chehel Sotun's main façade (Figure 20).[416] As mentioned earlier, talar in Persian architecture is defined as "a hypostyle wooden construction open on three sides set before a masonry wall with a seat for the shah in the center."[417] The pavilion is composed of three spatially, formally, and functionally interrelated and indiscernible zones: the talar front, the pseudo-talar-ayvan and its

[416] Ibid., 186.
[417] Koch, "Diwan-i ʿAmm and Chihil Sutun," 147.

flanking rooms, and the cluster of the throne ayvan-audience hall accompanied by closed and open units.[418]

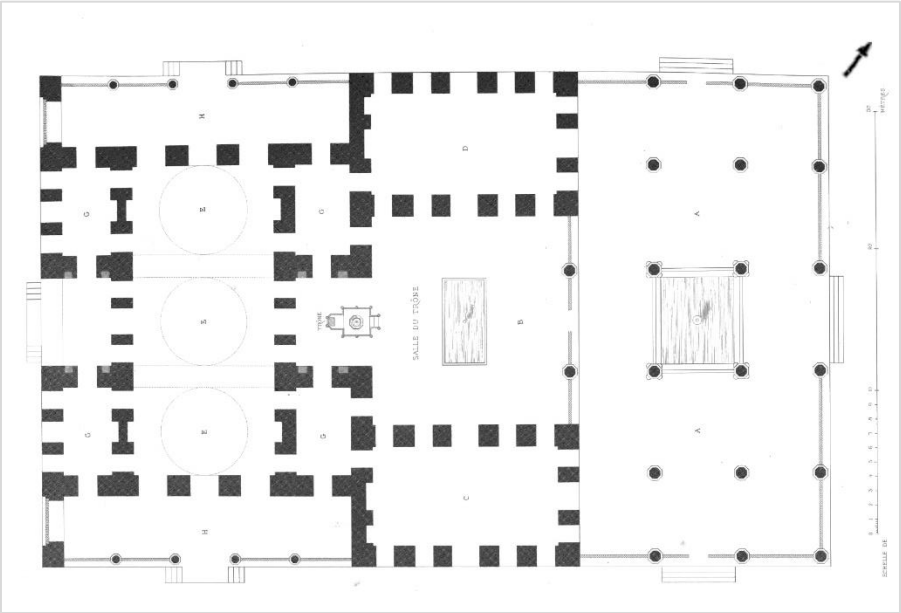

Figure 20 The Chehel Sotun Palace plan, Isfahan. Drawing by Pascal Coste, Monuments modernes de la Perse mesurés, *dessinés et décrits*, éd. Morel, 1867.

The talar shapes the widest and loftiest space in the pavilion.[419] The entire peaceful east-facing void interlocks with columns to bring the sense of lightness, movement, and tranquility. The talar is flooded with light and reflected in the pool to intensify its emptiness. The shimmering surfaces of pools in front of the ayvans have phenomenal properties of rippling and reflection. Despite the water's unstable nature, these affects have a powerful stimulus. Lines and surfaces reflected in the front pools

[418] Babaie, *Isfahan and Its Palaces*, 186.
[419] Ibid.

appear more intense. Its massive ceiling is off the ground by "eighteen painted, tall and slender wooden columns (height 13.05 meters, diameter from the base 60 centimeters, from the top 40 centimeters) that rise from heavy stone bases to delicately faceted and painted wooden capitals."[420] The wooden columns have "octagonal shafts covered with glass and muqarnas capitals."[421] Mahvash Alemi describes the bases of the central rows of columns in the porch (talar) as lions with their heads turning in different directions, which recalls the oldest traditions of Persia.[422] The talar was used as a spacious audience hall, *divankhaneh*, painted with figures.[423] In talar, a great basin outfitted with fountains stands close to the longitudinal lake in the garden.[424]The talar portion of the Chehel Sotun palace burned down in 1706, when Shah Soltan Hossayn was hosting a feast in the talar, but it was replaced "similar in everything to that burnt and destroyed."[425]

Another liminal space or transitional space with a smaller footprint was required to connect the main talar to the (possibly) pre-existing masonry building. This pseudo-talar-ayvan plays the role of a liminal space that is articulated with two wooden columns in front, two long and narrow rooms on either side and a shahneshin—the seat of the king—in the center facing the talar. The pseudo-talar-ayvan marks the transition from the talar to the interior through shrinking of space. Additionally, such shrinking space concentrates attention on the throne of Shah.[426] The two flanking rooms appear to have

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[420] Ibid., 187; and Babaie, "Safavid Palaces at Isfahan: Continuity and Change (1590-1666)," 138.
[421] Alemi, "The Royal Gardens of the Safavid Period," 76.
[422] Ibid., 76.
[423] Alemi, "Persian Gardens in Safavid Times," 14.
[424] Ibid.
[425] Babaie, *Isfahan and Its Palaces*, 189, 196.
[426] Ibid., 191.

served as additional spaces for ceremonies.[427] These flanking rooms, named *murvarid*, are gilded and elaborated with *muqarnas*, a form of ornamented vaulting, works.[428]

The pseudo-talar-ayvan leads to the third part of the palace building, the audience hall, stretching perpendicularly to the main axis of the pavilion and appearing as a magnificent triple-vaulted space (c. 25 x 15 meters).[429] Glazed openings in the upper zones of the north and south walls of the hall make the audience hall bright and airy.[430] The north and south doors below theses glazed openings open onto ayvans (verandas) with four slender wooden columns. These columns integrate the ayvans to the surrounding gardens. The audience hall is covered with materials ranging from murals to tile panels.[431] Four vaulted rooms are located on each corner of the audience hall.[432] According to Babaie, the corner flanking rooms' mural decoration—"of scenes recalling episodes from well-known romance poetry, or intimate princely gatherings and leisure activities"—and their location near to "the public-ceremonial zones of the palace" indicate their private role as "an auxiliary space for the harem [women's apartment][433] women."[434] These rooms were constructed in two levels. Each room's upper level opens onto a small wooden balcony in the verandas, either looking north or south. These

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[427] Ibid., 190.
[428] Alemi, "Persian Gardens in Safavid Times," 14.
[429] Babaie, *Isfahan and Its Palaces*, 191.
[430] Ibid.
[431] Ibid.
[432] Ibid.
[433] The haram or women's apartment, حرم, Johnson, Richardson, and Meniński, *A Dictionary, Persian, Arabic, and English*, 475.
[434] Babaie, *Isfahan and Its Palaces*, 191.

balconies command views over gardens.[435] The second-floor rooms can be reached through narrow staircases fitted into the thick walls.[436]

Indiscernible zones smooth the transition between heavy (vaulted parts) and light (pillared ayvans) spaces. These zones not only resemble and recall the strings of nomadic tent-like structures, but also permeate their grounds and territory. The talar serves "visually and spatially" to mediate between inside and outside (Figure 21).[437] The concept of talar as the liminal space, as Babaie says, "between the space within and the space without" employs all kinds of natural potentialities.[438] Additionally, the grand talar mimics the encircling gardens by the pattern of its slender tree-like columns and places in its heart a body of water imitating the front great pool on a smaller scale (Figure 22).[439]

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[435] Ibid.
[436] Babaie, "Safavid Palaces at Isfahan: Continuity and Change (1590-1666)." 139.
[437] Babaie, *Isfahan and Its Palaces*, 187.
[438] Ibid., 190.
[439] Babaie, "Safavid Palaces at Isfahan: Continuity and Change (1590-1666)." 140.

Figure 21 Chehel Sotun, Isfahan, 1925. View from talar toward the garden. Photograph by Wlater Mittelholzer, *ETH-Bibliothek Zurich, Image Archive*, http://doi.org/10.3932/ethz-a-000274600

Figure 22 Chehel Sotun, Isfahan, 1925. Photograph by Wlater Mittelholzer, *ETH-Bibliothek Zurich, Image Archive*, http://doi.org/10.3932/ethz-a-000012899.

Episodic spatial varying through indiscernible spaces allows an expansion of the surrounding territory/field into interior spaces. The experience of passing through space in the Chehel Sotun is emphasized by decreasing the height of the roofs and shortening the breadth and depth of spaces. This alteration is accompanied by the rising of "the ground level from 0.80 meters in height at the talar platform, to 1.00 meter at the throne-ayvan cluster, to 1.45 meters at the audience hall section."[440] Sussan Babaie analogizes this variation to the tapering of the building, which signals "the telescoped effect of space" and leads one subtly to experience the lingering sensations of improvisational/ autopoieticized spatial transitions. Such an experience is the result of the continuity of adjacent smooth spaces. The entire sequence of smooth spaces—all trapping some degree of natural light within themselves—ends like a musical sequence in a grand central space that seems to billow out. This continuous variation establishes depth and a pensive mood. All spaces as a whole shape an all-encompassing package of qualities, from the optic-haptic realm of material and detail to the connections of space developed in the light of foreground, middle ground, and distant view.

Beyond the quantifiable dimensions of different spaces in Chehel Sotun in the spectrum of open-close, enmeshed spaces/liminal spaces appear from the continuous unfolding of overlapping spaces. This liminality is analogous to the 'zone of indiscernibility'—a Deleuzian notation—between inside and outside. This is the moment that space merges with its territory and also simultaneously remains separate from its

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[440] Babaie, *Isfahan and Its Palaces*, 186.

territory which intensifies indeterminacy and indiscernibility. Consequently, a continuous variation exists within this space as a whole. The edges and contours of the main building that define interior space are indicated in the dynamic model of nomadic smooth spaces, as discussed in chapter two. The groves of columns are demarcations of space, not the delimitations of space. In fact, the spatial definitions of space in Chehel Sotun have interlocked in a web of variations. In Chehel Sotun, space is occupied without being counted or quantified, rather than counted in order to be occupied, the Deleuzian notation regarding ‘occupying smooth-striated space-time.’ The indeterminacy and indiscernibility open space to the possibility of autopoiesis and improvisation.

The consistent negotiation among smooth spaces in the Chehel Sotun garden as well as interaction with human beings makes a network of dynamic variations that are continuously producing and generating. This feature of production refers to the concept of poiesis and autopoiesis. Passing from the garden toward the audience hall, autopoietic spaces cyclically regenerate themselves from the current territory and generate a new one of themselves toward the new adjacent territory. As discussed in Chapter two, space consolidate these two territories by constructing consecutive adjacent territories. In the Chehel Sotun garden, the Talar and the consecutive pseudo-talar-ayvan appear to connect the garden and the pavilion. Smooth space motivates human beings to traverse and voyage these consecutive indeterminate spaces. Additionally, the cyclical reproduction as enmeshed spaces that entangle with each other leads to new possibilities and discoveries of new spaces when human beings pass through the garden and the

pavilion. The possibility of new discoveries through marking indiscernible zones for inhabitants opens, as Kristian Kloeckl states, "an openness toward a process of ongoing creation."[441] The continuous discoveries lead to in-between/liminal spaces that develop the concept of improvisation, which is along the autopoietic axis.

Toward Improvisation within Liminal Spaces in the Consulate Office of Iran in Frankfurt; improvisation based on uncertainty, unpredictability, and indeterminacy

Extending Persian architectural spaces outside of Iran's borders, the Consulate office in Frankfurt, through its public pathway among its heart, connects Raimund Street to a park in the back with a view toward the Europaturm, a Frankfurt telecommunications tower (Figure 23).[442] The architect of the consulate office called this public pathway "Dialogue among Civilizations Corridor,"[443] which invites public passengers to the building to become familiar with Iran and Iranians. Diplomatic buildings, such as embassies, represent foreign countries in the capital or principal cities of the host nation.[444] Therefore, the most important factor in the design of diplomatic buildings is the image that the guest country seeks to present in the host environment. Embassies and consulate offices present a good opportunity to fulfill this purpose.

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[441] Kristian Kloeckl, "An Improvisation-Based Model for Urban Interaction Design," in *The Urban Improvise; Improvisation-Based Design for Hybrid Cities*, ed. Kristian Kloeckl (New Haven: Yale University Press, 2020), 106, https://doi.org/10.2307/j.ctvt1sg6k.9.
[442] Iraj Etesam, *Contemporary Architecture of Iran- 20 Years of Public Experience; Vol 3* (Tehran: University of Tehran, 2018), 947.
[443] Former Iranian president Mohammad Khatami introduced the idea of Dialogue Among Civilizations as a response to Samuel P. Huntington's theory of a Clash of Civilizations.
[444] Kamran Afshar Naderi, "Diplomatic Spaces," *Memar; Iranian Bimonthly on Architecture and Urban Design*, no. 55 (2009): 7.

Additionally, countries try to show and develop their architectural spaces in terms of design, technical features, and construction management processes.

Figure 23 Hadi Mirmiran, Consulate office of Iran, Frankfurt, Germany, 2002-2004. North view from Raimund Street. © Courtesy of Naqsh-e Jahan Pars Consulting Engineers/ Achim Reissner (Photographer). Source: Aga Khan Trust for Culture.

Responding to the notion of "Dialogue among Civilizations" introduced by former Iranian president Mohammad Khatami, Iranian architects' creation of unique and distinctive diplomatic spaces beyond Iran's borders flourished and intensified. The Iranian authorities began commissioning well-known architectural firms to design new

diplomatic buildings.[445] This trend was the result of the evolving political face of Iran in the world in the late 1990s as the result of 1979's Islamic republic revolution in Iran and "the eight years of stagnation caused by the Iran-Iraq war."[446] This architectural and diplomatic trend resulted in a huge number of valuable and distinctive works in Tokyo, Frankfurt, Berlin, Seoul, and other parts of the world.[447] Most of the architects employed enduring Persian culture to show its significance. They aimed to translate Iran's perennial heritage into a contemporary vocabularies.[448] Reconciling contemporary design with traditional Iranian architecture, the Consulate Office of Iran in Frankfurt marked a continuation of this new trend and movement through the influence of a German context that enabled the use of new technology.

Unlike the Chehel Sotun Palace that shows its relationship with the outside through the surrounding garden, the Consulate Office of Iran in Frankfurt shows its relation with the inside through the intersection of smooth spaces within striated space. For example, the "Dialogue among Civilizations Corridor" intersects the heart of the Consulate Office. The heterogeneity of resulting smooth spaces made of different material produces a continuous negotiation between architectural spaces and human beings as nomadic smooth spaces (Figure 24). This continuous negotiation within these nomadic smooth spaces develops the concept of improvisation along the axis of

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[445] Ibid., 9
[446] Saman Sayar, "Assimilating the Authentic with the Contemporary: The Work of Hadi Mirmiran 1945-2006," *Architectural Design* 82, no. 3 (2012): 81, https://doi.org/10.1002/ad.1407. See also Farrokh Derakhshani, "Iran in the Regional Context," *Architectural Design* 82, no. 3 (2012): 128–34, https://doi.org/10.1002/ad.1411.
[447] Afshar Naderi, "Diplomatic Spaces."
[448] Darab Diba, "Contemporary Architecture 70," *Architectural Design*, 2012, 75.

autopoiesis that I further elaborated on in chapter three. In this case, I argue that this uncertain, unpredictable, and indeterminate negotiation between this nomadic smooth space and human beings through improvisation leads to new possibilities and discoveries in space when human beings voyage through new territories and contexts. The continuous discoveries lead to particular in-between/liminal spaces being chosen out of several possible in-between/liminal smooth spaces. In-between/liminal spaces flourish out through the process of improvisation as exemplified within the Consulate Office. In this case, the concept of territorialization, deterritorialization, and reterritorialization extends from in-between spaces to within spaces; from between inside and outside to within inside.

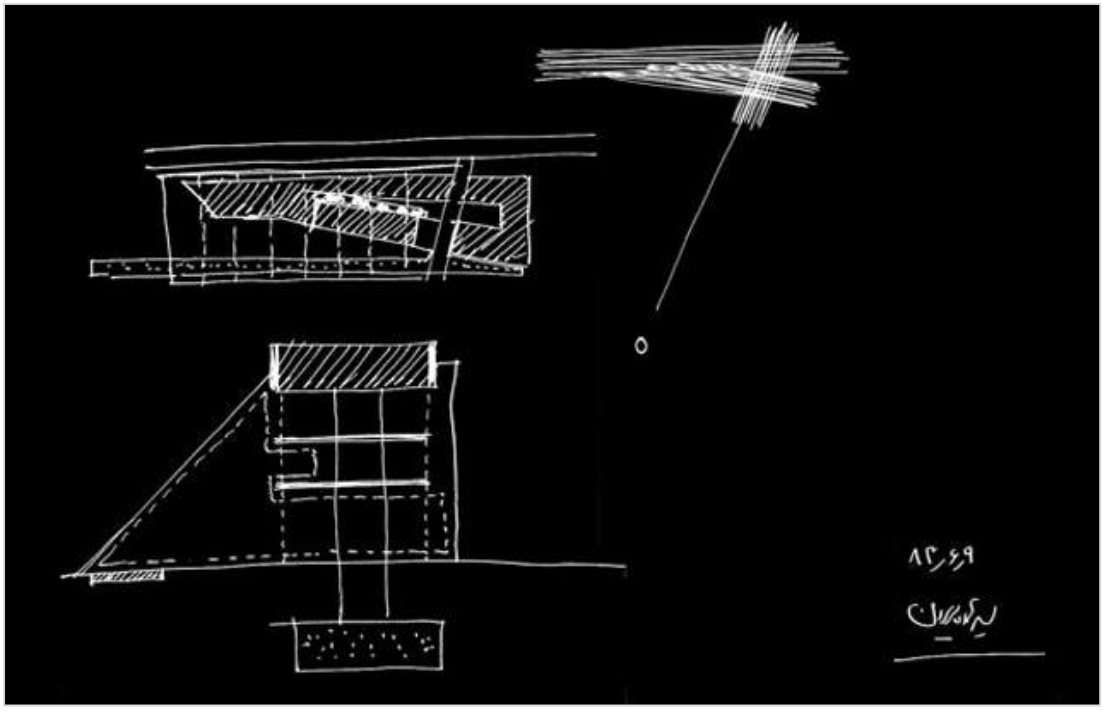

Figure 24 Hadi Mirmiran, Sketch of Consulate office of Iran. Structure system. © Courtesy of Naqsh-e Jahan Pars Consulting Engineers. Source: Aga Khan Trust for Culture.

In order to illustrate the significance of liminality within space, I reflect upon Hadi Mirmiran, an Iranian Architect and the designer of the Consulate Office in Frankfurt. I selected Mirmiran from among other Iranian designers because he explores the architectural production, space. Mirmiran emphasizes the consistent evolution of increasing space through reducing substance/matter as one of the features of Persian architecture that results in transparency and lightness.[449] The major theme of his work is that of transparency and lightness that originate from historical examples of Iranian architecture.[450] Mirmiran is one of the architects who emphasizes the important role of spaces in architecture and aims to improve architecture upon space that history has represented to us with.[451] In the Consulate Office, he arranges spaces around the concept of transparency that is the character of his designs, which he has repeated in other buildings with the aim of merging architectural spaces and urban spaces. I selected him not due to the concept of transparency that resonates with this research topic, liminality, but due to his approach toward traditional Iranian architecture. Mirmiran founded Naqsh-e-Jahan-Pars (NJP) consulting engineers (1989-2006) "to study Iranian culture and integrate its concepts within the modern architectural movement."[452] He emphasizes the spirit of Persian architecture not through solely imitating the traditional forms. Instead, he tries to reflect Persian culture and history in new architecture through modern

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[449] Nader Ardalan, "Iranian Architecture According to Four Generations of Experts," *Abadi Magazine* 5, no. 19 (1995): 28.
[450] Sayar, "Assimilating the Authentic with the Contemporary: The Work of Hadi Mirmiran 1945-2006." 85.
[451] Ibid., 83. See also Iraj Etesam, *Contemporary Architecture*, 950.
[452] Saman Sayar, "Assimilating the Authentic with the Contemporary," 83.

technologies.[453] For example, the Consulate office designates the cultural aspect of Iran not in the form but in its spirit.

The Iran Consulate Office, famous for its high glazed wall, lies beside Raimund Street on the northeast longitudinally, public green spaces on the west and south sides, and a residential complex on the east. Its site is a rectangle of 48 x 94 meters.[454] Envisaging the street and the green spaces as two public spaces, the Consulate site as a liminal space connects them through a pathway called "Gallery of Iran,"[455] which carries the idea of "Dialogue among Civilizations." Through this transitory cultural exhibition space perpendicular to the street, visitors can move about freely and be in touch with different aspects of Iranian culture via posters, books, and artworks (Figure 25).[456] Additionally, this transitory space divides the Consulate Office into two main parts: one part is allocated to daily activities such as visa processing/issuing, and the other part is devoted to formal diplomatic activities.[457]

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[453] Hadi Mirmiran, "Public Buildings in Iran: 1920 to the Present," *Architecture for Changing Societies*, 2004, 41, https://archnet.org/publications/4749.
[454] "Portfolio; General Information and Selection of Expereinces" (Isfahan: Naqsh,e,Jahan-Pars Counsulting Engineers, 2016).
[455] Ibid.
[456] Ibid.
[457] Ibid.

Figure 25 Hadi Mirmiran, Consulate office of Iran, Frankfurt, Germany, 2002-2004. Entrance from Raimund Street. © Courtesy of Naqsh-e Jahan Pars Consulting Engineers/ Achim Reissner (Photographer). Source: Aga Khan Trust for Culture.

The daily activities part as the public part is located on the east side of the pathway, and the formal diplomatic part as a counselor section lies on the western side of the building. The visa processing section consists of a grand visitor hall, three meeting rooms, and eight counters.[458] Across from the visa processing section sits a private unit used as the counselor's section consisting of a counselor office, an acting counselor office, meeting rooms, and financial and administrative departments.[459] The guest section consists of an amphitheater with the capacity of sixty-three seats, a banquet hall, and guest rooms.[460]

The daily activities part through "an opaque glazed surface" is in connection with the gallery.[461] The visa processing section has a visual and spatial connection to the gallery. Spaces devoted to diplomatic activities and personnel, divided in the ground floor by the gallery, unite to each other on the first floor through a red stone volume that serves as a background for the glazed walls encompassing the building (Figure 26). The stone is transported from the stone mines of Iran to Germany to reflect the aura of Persian architectural spaces.[462] One oblique glazed roof that receives the south light connects the back garden to the front glazed wall of the building.[463] This connection is one of the characters of Mirmiran's spatial discussions, in which he seeks to reduce the amount of substance/matter or interior mass to increase space in a way that borrows

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[458] Etesam, *Contemporary Architecture of Iran*, 946.
[459] Ibid., 946.
[460] Ibid.
[461] "Portfolio; General Information and Selection of Expereinces."
[462] Etesam, *Contemporary Architecture of Iran*, 950.
[463] Ibid., 951.

from traditional architectural spaces. This transparent skin unifies the elements of the project. This idea of unification is rooted in the architect's proposal for the National Library of Iran, where the glazed roof rises from the ground level, and unifies the elements of the project.[464] As a part of the stone volume, the diplomatic sector hides behind the high glazed wall facing the street. The resulting space of the intersection among the oblique glazed wall and the stone volume provides an open space on the ground floor used in special ceremonies.[465] The stone volume acts as space inside the other space that goes beyond liminality and being in-between and makes indeterminacy depending on where the visitor stands. Below the transparent glazed oblique roof, the visitor feels inside compared to the surrounding gardens but outside compared to the stone volume.

[464] Sayar, "Assimilating the Authentic with the Contemporary," 85.
[465] "Portfolio." See also Etesam, *Contemporary Architecture of Iran*, 947.

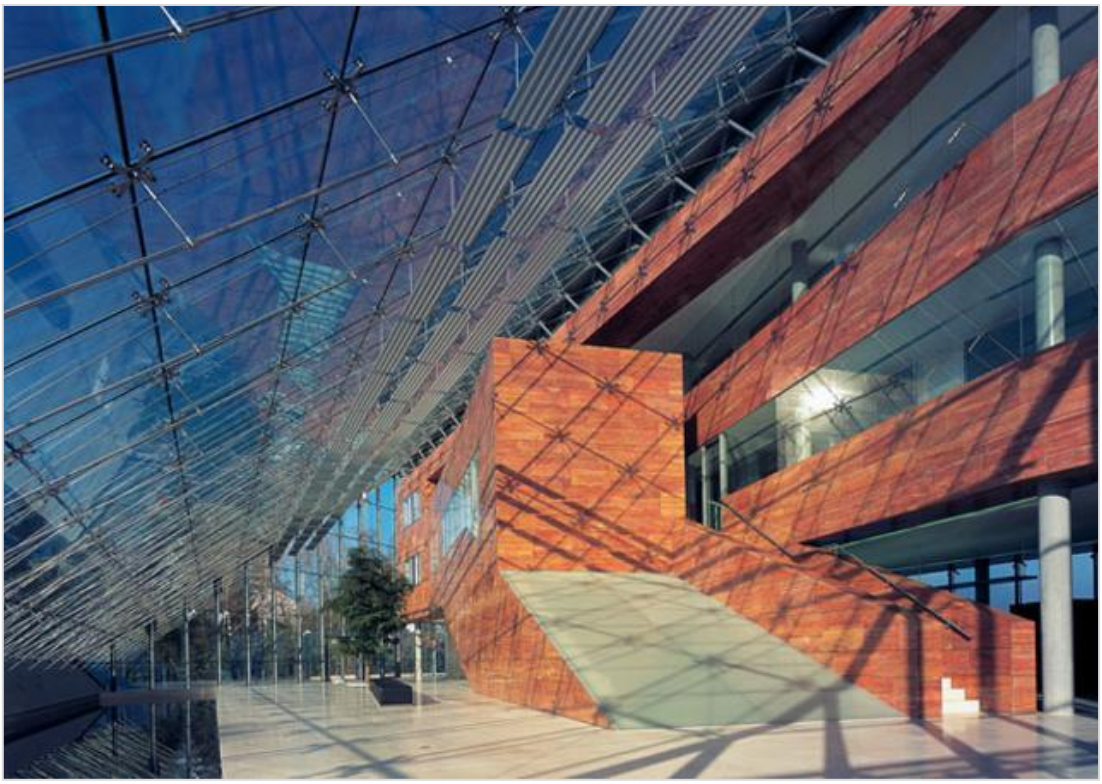

Figure 26 Hadi Mirmiran, Consulate office of Iran, Frankfurt, Germany, 2002-2004. Multi-functional hall. © Courtesy of Naqsh-e Jahan Pars Consulting Engineers/ Madjid Asghari (Photographer). Source: Aga Khan Trust for Culture.

On both the north and the south sides of the site, as mentioned previously, two green spaces are located. The site's shape has forced the use of an oblique line on the west part of the building whose obliquity is intensified further through the building's oblique roof (Figure 27). A narrow, shallow pool of water passes on the south side and parallel to the building, tears through the glazed wall, and penetrates inside the building. The glazed oblique wall sprouts from this body of water and covers the stone volume.[466] Continuity of a line of water through the building turns the interior space into a

[466] Sayar, "Assimilating the Authentic with the Contemporary," 87.

continuation of the exterior. The appearance of water and a single tree in the continuum of surrounding gardens reflect the main tradition of Persian architecture, which hosts natural elements within striated architectural space.[467] Additionally, the appearance of water through its reflection increases the transparency of space. The south side of the site was designed according to the pattern of a Persian garden, Fin Garden,[468] but remained unfortunately on the drawing board.[469]

[467] Etesam, *Contemporary Architecture of Iran*, 947.
[468] Fin Garden, a historical Persian garden, is located in Kashan, Iran, that is built in the late sixteenth century.
[469] Faryar Javaherian, "Iranian Embassies in Foreign Countries," *Memar; Iranian Bimonthly on Architecture and Urban Design*, no. 55 (2009): 58.

Figure 26 Hadi Mirmiran, Consulate office of Iran, Frankfurt, Germany, 2002-2004. South view from Persian garden. © Courtesy of Naqsh-e Jahan Pars Consulting Engineers/ Madjid Asghari (Photographer). Source: Aga Khan Trust for Culture.

In the diplomatic category, this building manifests Iranian culture and architecture. Each diplomatic building is an example of not only political affairs but also cultural issues. Therefore, its design should show a sense of invitation to different nations' audiences. As the continuity of the Persian culture, the Consulate Office in Frankfurt indicates, far from the formal aspect of liminality, the continuity of nomadic smooth space inwardly. Additionally, the concept of liminality is reflected not only in the building's function, as a diplomatic bridge between nations, but also in the idea of

the design, as a "Dialogue among Civilizations Corridor," and in the arrangement of spaces. This liminality results in indeterminacy of representation of Iran or Germany, due to its applied construction technology and in indeterminacy between inside and outside due to its glazed wall that has further strengthened the feeling of uncertainty.

When the visitor moves along the exhibition transitory corridor between the two parts of the building, when they least expect it, a doorway extends the view into the glass enclosed space; a different space with a different color and height appears. This is the moment when the stone material of the volume laying behind the glazed wall is revealed to the unsuspecting visitor. This transitory pathway as an unexpected openness in the building is continuously renegotiated between its nomadic smoothness and the visitor. This unpredictability bases improvisational space in the Consulate Office. Here, space cannot be controlled; rather, space divides, directs or facilitates the flow. The result of the production through negotiation cannot be said, as Deleuze mentions regarding the settled-nomadic plan, to be "the result of a pre-existent and well-defined plan,"[470] but is instead comprised of variable relations and effects negotiating among space, human beings, and the world. This continuous negotiation and renegotiation, and generation and regeneration, are equivalent to the concepts of TDR mentioned by Gilles Deleuze and Felix Guattari. As is evident, a structure of expectation, negotiation, and improvisation exist within these nomadic smooth spaces of the Consulate Office.

[470] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 368.

The structure of expectation, negotiation, and improvisation relative to the process of TDR continues within this glazed floating transparent roof, where mass reduces, and smooth interior space expands from the floor to the ceiling. This process flows through the architectural elements as well, for example, from the floor to the wall and the roof. Additionally, this surrounding glazed wall through its transparency and translucency evokes a garden that negotiates and surrounds the suspended stone red volume (Figure 28).

Figure 27 Hadi Mirmiran, Consulate office of Iran, Frankfurt, Germany, 2002-2004. Multi-functional hall. © Courtesy of Naqsh-e Jahan Pars Consulting Engineers/ Achim Reissner (Photographer). Source: Aga Khan Trust for Culture.

Through the case studies studied in this chapter, Pasargadae Garden, Chehel Sotun Garden, and the Consulate Office of Iran in Frankfurt, the continuity and evolution of Persian architectural spaces originating from nomadic smooth spaces can be traced. The discussed architectural spaces, as argued in this research as nomadic architectural spaces, challenged indeterminate boundaries through shaking the

boundaries of TDR and offered liminal spaces within the buildings. These cases showed that liminal smooth spaces challenge territories not only between inside and outside, but also within smooth spaces. This challenge and negotiation within these nomadic smooth spaces meet the concept of improvisation along the axis of autopoiesis and offer uncertainty, unpredictability, and indeterminacy as desired attributes of nomadic smooth spaces.

CHAPTER V

CONCLUSION

TOWARD SPACES THAT IMPROVISE

This dissertation set out to describe, define, and document ancient Persian spatial thoughts through reflecting on disregarded influences in Persian architectural space, often revered as Islamic architectural spaces. This study has addressed how nomadic mythologies are reflected in architectural settled spaces in ancient Iran and perpetuated/continued in the post-Islamic times and modern Persian world. The second aim of this study was to determine the structure of nomadic smooth spaces through three concepts of mythology, autopoiesis, and improvisation. This study proposed nomadic smooth space as a condition of mythological, autopoietic, and improvisational space through providing an overview of the existing scholarship on nomadic tradition as a context for architecture, in general, and rethinking the presence of improvisational space in the context of nomadism, in particular.

One of the significant findings to emerge from this study is that improvisational spaces focus critically on uncertainty, unpredictability, and indeterminacy. Persian architectural spaces have challenged indeterminate boundaries through liminal spaces within their surrounding territories and offered an alternative approach within spaces. Such qualities as uncertainty, unpredictability, and indeterminacy are taken as desired attributes of nomadic smooth spaces within which liminal spaces are sought after and

autopoieticized. In this dissertation, the improvisational autopoietic spaces were localized and temporalized in Persian pre-Islamic myths.

In remaining Persian ancient texts from the pre-Islamic time, the mythologies of Zurvan and Vay represented the God of time and space, respectively, who were influential in the world of nomads. These mythologies were maintained through centuries by oral memories of journeymen, so-called nomads, who traveled with light loads. Therefore, spontaneous improvisation was necessary to relay their cultural histories, contributed to histories' transliteration into mythologies, and originated from spaces as well as human beings. Mythologies have been perpetuated based on their improvisational self-governing and self-generation. This process defines the concept of autopoiesis that shares a collective act of creation with the mythology of space, which is the reason that space can organize and interact with its environment. The mythologies of space and time were the philosophical embryos of Persian architectural space. Particularly, the mythology of space conditions the possibility of generation in its simultaneous growth with time and milieu.

Based on analyzing three Persian architectural spaces from the ancient, medieval, and contemporary eras, this research has also shown that the conversation and negotiation between improvisational and fixed settled spaces elicit evocative sensations through the sense of movement, lightness, and tranquility. To move toward a destination, slivers and shards of light piercing dark pathways; soothing breeze blowing through labyrinthine spaces; eyes capturing the play of colors, patterns, and textures; shimmering pool surfaces mirroring the sky; and the sounds of water flowing in streams or pools pull

humans toward places of arrival. Thus, the Persian spontaneous and improvisational space traverses within a transitional domain between fixed, settled spaces and nomadic spaces. The transitional domains have called in this dissertation in-between/ liminal spaces.

This dissertation, *The Mythopoietics of Space*, elaborates on this liminality and transitional domain through myth, autopoiesis, and improvisation. The concept of *The Mythopoietics of Space* is applied to show a system of mechanisms within which there are shadows of forgotten forces autopoieticized in space through improvisation. These forces are flowing within the domains of uncertainty, unpredictability, and indeterminacy. Therefore, space can be torn away from its quantitative elements and lie in the domain of intangible attributions. Decoding space in this manner shows that space is not only organized three-dimensionally by length, breadth and depth, but, more originally, also along *mythological*, *autopoietic*, and even *improvisational* lines.

Although this study focuses on nomadic smooth spaces, the findings may well have a bearing on improvisation. The collectivity embedded in the notion of nomadic smooth space leads to contingent forms of uncertainty, unpredictability, and indeterminacy that develop the concept of improvisational space. In most scholarship, improvisation is tied with performances, therefore, improvisation is studied in other works that approach the concept from epistemology. The current view toward improvisation tends to think first of improvised space, music, theater, or dance, which attribute them to the presence of human beings. In contrast, in this study, the notion of improvisation extended to the domain of ontology, within the presence of absent human

beings. In this research, improvisation has been attributed to space. This research analyzed improvisational space in the domain of forces that spontaneously generate liminal spaces. These impromptu spaces go beyond fixed striated spaces. In this domain, space exists in the manner of uncertainty, unpredictability, and indeterminacy, as found in the peripatetic nature of nomadism. These spaces are autopoieticized and self-generating. Therefore, they are studied beyond the confines of the typical three dimensions, length, breadth, and depth. These spaces are free from institutionalized regulations; instead, these nomadic smooth spaces improvise.

Toward an Interdisciplinary Approach to Spatial Discourses

The concept of this dissertation centered on the intersection of human beings and architectural space in equity. Unlike most current studies in spatial and temporal fields that seek to understand space and time through quantifiable dimensions and geometry rooted in the settled culture that centers human beings, my research sought to reveal disregarded views about space. I employed interdisciplinary methods and theories from philosophy, literature, and architecture to define and refine the concept of architectural space. My research agenda was grounded in a uniquely personal and professional experience that combined humanities and social science methods and theories to advance architectural space understanding and design.

In this dissertation, I sought to trace different mythologies that have contributed to architectural spaces in different regions. Specifically, I was interested in understanding how nomadism and the sedentism of permanent settlement facilitated the integration of spaces, human beings, and the world. My dissertation acknowledged

nomadic Persian culture in the pre-Islamic era. This research examined nomadism and sedentism in Persian culture to disentangle the concept of modern religion from the concept of architectural space.

I brought an international perspective acquired through education and professional experience in Asia and Iran to the study of architectural space in the Western architecture. I drew on ancient Persian literature and philosophy to interpret Persian architectural spaces embedded with cultural and societal influences. The unique essence of ancient Persian philosophy is layered onto the design of Persian architectural spaces. This unique spirit not only exposes current impressions developed in response to current circumstances, but it also represents the profound ongoing structural forces of culture, religion, and society through the centuries. This view toward the integration of Persian philosophy and mythology incorporates elements from Western philosophical theories of space, notably, those of Heidegger and Deleuze. This could inform a different lens for future research that seeks to disentangle Western philosophy from the exploration of architectural space and focuses solely on the influence of Persian philosophy.

I developed a novel theoretical and critical framework that looks beyond tangible space dimensions to unearth forgotten forces in architectural space. I integrated concepts and features that enrich the meaning of space and share a collective act of creation, such as mythology, improvisation, and autopoiesis. The concept of my dissertation, The *Mythopoietics of Space*, was applied to reveal a system of mechanisms within which there are shadows of forgotten forces autopoieticized in space through improvisation.

This new approach to architectural interpretation will allow a much deeper understanding of architecture to develop that is more relevant than quantifiable definitions of space, not only in theory but also in design and practice. This exploration and study also have the potential to enhance the quality of architectural space through the dynamic model of nomadic smooth spaces. Through the incorporation of liminal spaces, future architectural elements can emphasize demarcations of space rather than delimitations of space.

Through my research, space could be disentangled from its quantitative constraints and exist in the domain of intangible/qualitative attributions. This project thus proposed a philosophical approach to the creation of a theoretical and critical framework through which art historians, architects, and philosophers may see beyond tangible space dimensions and unearth forgotten forces applied to the creation of architectural space. The popularity of western philosophical treatises afforded a direct intellectual route to access the past, but research on the east and Persian philosophy has been marginalized. Therefore, my research took a vital first step in ensuring that Persian philosophy is recognized and elevated to the status that it once, and should again enjoy. Additionally, as this research borrowed from philosophy and art rather than just architecture, it reflects theoretical, philosophical, and artistic points in architecture.

Toward a Theory of the Subjectivity of Space and Time

The present study has gone some way towards enriching our understanding of architectural space through nomadic smooth spaces that foreshadow the mythopoietics of space, including myth, autopoiesis, and improvisation. In pre-Zoroastrian thought, the

causality of the myth of space, Vay, as the creator and self-creator, adumbrates the meaning of space. The enduring influence of pre-Zoroastrian *mythopoietics* that flourished in nomadic milieu on later Persian architectural space imbues these later spaces with a distinctive interpretive openness. As dicussed previously, building on the foundation of nomadism, I have emphasized space in a non-hierarchical relation with human beings. This new understanding and interpretation of architectural space lays the groundwork for future studies into *subjectivity* of space. Some scholars, including Simone Brott, explore "space" surrounding the overarching theme of Deleuze's theory of *subjectivity*.[471] Brott (an architect, writer and critic) considers subjectivity as a "self-mobilizing agency, at once producer and produced."[472] According to her, subjectivity is "a nomadic field because the potential drives toward any given connections are variable and the singularities mobile."[473] Thus, Brott's studies of subjectivity anchor in the context of nomadism as a concept.

Emphasizing subjectivity of space in a way that can be exemplified for future studies, Simone Brott has studied several architectural works through the Deleuzian perspective, for example, Villa Savoye, designed by Le Corbusier. To analyze the architectural spaces of Villa Savoye, Brott brings *the surface-effect* concept that overlaps with Le Corbusier's concept of the *promenade architecture*.[474] According to Simone Brott, "promenade architecture was Le Corbusier's phrase for the spiral trajectory of the

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[471] Simone Brott, "Toward a Theory of the Architectural Subject," in *Deleuze and Architecture,* ed. Hélène Frichot and Stephen Loo. (Edinburgh: Edinburgh University Press, 2013), 151–67.
[472] Ibid., 152.
[473] Ibid.
[474] Ibid., 156.

perambulating architectural spectator from the ground floor to the roof-top garden of the Villa Savoy (1931) dictated by the ramp and spiral plan."[475] In Villa Savoye, as the icon of modern architecture, the succession of glimpses, according to Brott, are extracted from the surrounding environment while walking through the diagonal ramp that creates promenade architecture as a sequence of spatial continuity. Regarding promenade architecture in Brott's discourse of subjectivity, Deleuzian "arrangement" is substituted by "an unmistakable *agencement* that pre-exists all personal agents navigating space."[476] In Villa Savoye, the glimpse-effect of the roof garden shatters the effect of the spiral stair. In other words, the succession of glimpses offers pre-existing roof garden spaces by shattering and destroying the effects of all voyaged spaces within the promenade architecture. This procedural negotiation among spaces, conventionally understood as discoveries by human beings, lies within territorialization, deterritorialization and reterritorialization. TDR offers resources for improvisation and autopoiesis that is the concept of this study.

Additionally, as Brott mentions, the architectural theory of effects rejects the concept of gestalt that signifies the form as the whole.[477] For example, the layout of Villa Savoye represents a nomadic distribution of columns as points that are subordinated to the walls. These striated points set a dynamic relation and develop a smooth space instead of remaining within a striated space. Visitors follow trajectories in relation to the

[475] Ibid., 166.
[476] Ibid., 156.
[477] Ibid. 157.

columns when voyaging. Walls are independent of columns in Villa Savoye and they are the result of effects that mobilize dynamic events in experiencing smooth spaces. Simone Brott shows the refusal of the Cartesian subject through nomadic smooth spaces of Villa Savoye. This dynamic view toward space recalls the Gothic cathedrals' dynamic relations and material forces exemplified by Deleuze in chapter two in contrast to the Romanesque striated spaces.

The issue of subjectivity of space is an intriguing one that could be usefully explored in further research. This study has shed light on space in a non-hierarchical negotiation with human beings. The result of this negotiation cannot be said to be "the result of a pre-existent and well-defined plan,"[478] but is instead comprised of variable relations and effects among space, human beings, and the world. For future studies, I reflect on scholars who have extended Deleuzian notions of the subjectivity of space into the architectural theories of space, such Simone Brott, as well as architects who have reached out to the subjectivity of space in practice. Although the research presented a concept that roots from Persian mythologies, in the future, the interrelation of glimpse-effects as a Brottian term, TDR as a Deleuzian concept, and improvisation as the resulting concept of this study can be further elaborated on in other architectural spaces. For future studies, Persian myth in the context of nomadism is a good starting point to disentangle exploring architectural space beyond western philosophy's geographical borders.

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[478] Deleuze and Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, 368.

If the debate is to be moved forward, a better understanding of space needs to be developed with discourses of time. This research evolved around spatial discourses that originated from Persian mythologies of space. However, my deep dive into Persian mythologies within nomadic smooth spaces showed that the mythology of space is intertwined with the mythology of time. To better understand nomadic smooth space, future studies could address the way that space integrates and intertwines with time. Therefore, the future analysis could characterize the meaning of time in philosophy. Additionally, this research studied Persian architectural spaces through the lens of liminality, while the case studies highlighted temporal liminality that can be considered for future studies. As defined previously, the term *liminal* roots from *limen*, the Latin word for "threshold." Therefore, liminality means "the state of being on a threshold in space or time."[479] For example, the scattered ruins of the columned-halls of the Pasargadae Garden offer temporal liminality between nomadism and sedentism as well as past and present times. Therefore, first architectural spaces could be considered as temporal and spatial thresholds between the tent-like structures of nomadism to the sedentism of permanent settlements.

[479] Harmon and Holman, *A Handbook to Literature*, 291.

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