

Introduction

This book is about an ontological shift in the conceptualization and representation of the spatiality of Tehran, the capital of Iran, as the outcome of the formation and establishment of a novel spatial discourse. Between the mid-nineteenth and the mid-twentieth centuries, this novel discourse sidelined the indigenous knowledge of Iranian urban society and the state and became the legitimate sources of imagining and producing the spatiality of Iranian cities. It transformed the spaces of the social, political, and economic processes in Tehran and elsewhere in the country.

This shift was ontological and spatial, meaning that it brought about novel frameworks for urban society and the state to produce the spaces of their daily practices and strategies. This shift was discursive, leading to the abandonment of the traditional and indigenous spatial understanding in a long process of knowledge production; society and the state internalized a novel form of knowledge as the authentic source of producing the spatiality of social, economic, and political relations. This shift targeted both the state and society; it was top-down and bottom-up simultaneously. As the book suggests, since the mid-nineteenth century, this new spatial discourse has reproduced Tehran; the contours of the current city should be read through the analysis of this discursive transformation. An example helps to clarify these opening arguments.

Between April 21 and 26, 1962, a large group of university professors, researchers, state representatives, urban activists, architects, planners, and investors gathered in Tehran, the capital of Iran, for a six-day seminar on the social problems of the city. The participants presented more than seventy talks covering a wide range of topics including infrastructure, pollution, poverty, crime, living conditions, history, and so forth.¹ The seminar proceedings provide a valuable

¹ Two years later, the University of Tehran published the seminar proceedings as a book. Mu'assissih-ye Mutali'at va Tahqiqat-i Ijtima'i, *Sukhanrani-ha va*

window into people's living conditions and the various social problems of mid-century Tehran.

A handful of talks focus on the southern and old neighborhoods of the city. The picture that they depict resembles Friedrich Engels's description of the working class's living conditions in the UK in the mid-nineteenth century.² These neighborhoods are illustrated as dilapidated areas with high crime rates, lacking sanitary facilities, and with lots of social and hygienic problems. At the time, the old and southern sections of Tehran had the highest population densities compared to the rest of the city,³ as well as the lowest quality of life in Tehran.

Banu Faqiyyih, an activist and social worker in southern Tehran, provided a detailed description of the living conditions in the neighborhoods north and south of Shush Street in southern Tehran. Based on people's housing conditions, she divided the population of these neighborhoods into three groups: those who lived in houses on the streets and alleyways; those who lived in abandoned brick burners and their adjacent pits; and those who lived in the old caravanserais.⁴ The pits, as she described them, were the remnants of the lands used for excavating clay for the brick burners. They were as small as 2,000 m² and as large as 40,000 m². These pits were 20–30 steps lower than their adjacent street level. Inside, there were many small houses built from mud and clay. These dwellings were mostly around 40–50 m²,

Guzarish-ha dar Nakhustin Siminar-i Barrasi-yi Masa'il-i Ijtima'i-yi Shahr-i Tehran [Talks and Reports of the First Seminar for Discussing the Social Problems of the City of Tehran] (Tehran: University of Tehran, 1343 [1964]).

² Friedrich Engels, *The Condition of the Working Class in England* (Harmondsworth: Penguin Books, 1987).

³ For example, the section between Shush Street on the south and Muwlati Street on the north accommodated 59,920 people in an area of sixty-five hectares (160 acres): M. H. Amani, "Masa'il-i Dimugrafic-i (Jam'iyati-yi) Shahr-i Tehran [The Demographic Problems of the City of Tehran]," in *Sukhanrani-ha va Guzarish-ha dar Nakhustin Siminar-i Barrasi-yi Masa'il-i Ijtima'i-yi Shahr-i Tehran* [Talks and Reports of the First Seminar for Discussing the Social Problems of the City of Tehran] (Tehran: University of Tehran, 1343 [1964]), 47.

⁴ In Iranian cities and on land routes, caravanserais were fortified rest houses providing accommodation for travelers. Banu Faqiyyih, "Kuy-ha-yi Faqirnishin-i Junub-i Shahr [The Poor Neighborhoods of the Southern City]," in *Sukhanrani-ha va Guzarish-ha dar Nakhustin Siminar-i Barrasi-yi Masa'il-i Ijtima'i-yi Shahr-i Tehran* [Talks and Reports of the First Seminar for Discussing the Social Problems of the City of Tehran] (Tehran: University of Tehran, 1343 [1964]), 337.

and each accommodated 6–12 families. After these general descriptions, Banu Faqiyih continued:

Each family has a bucket at the corner of the courtyard in which they collect their wastewater. Whenever it is full, they have to carry it outside the pit and dump it in the creeks alongside the streets [...] there is no fresh fruit or vegetable available in the pits [...] during the day, only women and small kids or old and sick men remain there and others leave to work [...] Only eight percent of the kids go to primary school [...] most of the kids, as small as seven years old, have to work in glass and crystal factories, dealing with the hot and burning furnaces receiving wages as low as fifteen to thirty rīāls.⁵

The living conditions of other groups were pretty much the same. Even those with houses on the streets and alleyways did not have much access to sanitary water:

In the creeks of these alleyways, there is a dark and thick liquid that goes into water reservoirs [*āanbār*] and small pools [*ḥuwẓ*] in the courtyards, and this water, which in fact is the wastewater of the northern city, is used by residents for cooking and washing their dishes.⁶

Similar descriptions are available for all of the old neighborhoods of Tehran and the southern sections of the city.⁷ Mehdi Mu'tamini, a social scientist from the University of Tehran, went as far as suggesting a correlation between the degeneration of these neighborhoods and an

⁵ Banu Faqiyih, “Kuy-ha-yi Faqirnishin-i Junub-i Shahr,” 340–2.

⁶ Banu Faqiyih, “Kuy-ha-yi Faqirnishin-i Junub-i Shahr,” 338.

⁷ Mehdi Mu'tamini, “Inhitat-i Bakhsh-i Qadimi-yi Shahr-i Tehran va Rabitih-yi An ba Bimari-ha-yi Ravani [The Degeneration of the Old Section of Tehran and Its Relationship with Mental Illnesses],” in *Sukhanrāni-ha va Guzarish-ha dar Nakhustin Siminar-i Barrasi-yi Masa'il-i Ijtima'i-yi Shahr-i Tehran* [Talks and Reports of the First Seminar for Discussing the Social Problems of the City of Tehran] (Tehran: University of Tehran, 1343 [1964]), 331–6; Azhdari, “Puruzhih-yi Shahrsazi-yi Yek Bakhsh-i Qadimi-yi Udlajan [Urban Planning Project in an Old Section of Udlajan],” in *Sukhanrāni-ha va Guzarish-ha dar Nakhustin Siminar-i Barrasi-yi Masa'il-i Ijtima'i-yi Shahr-i Tehran* [Talks and Reports of the First Seminar for Discussing the Social Problems of the City of Tehran] (Tehran: University of Tehran, 1343 [1964]), 198–201; Minuchihr, “Bakhsh-i Javaddiyyih-yi Tehran [The Javaddiyyih District of Tehran],” in *Sukhanrāni-ha va Guzarish-ha dar Nakhustin Siminar-i Barrasi-yi Masa'il-i Ijtima'i-yi Shahr-i Tehran* [Talks and Reports of the First Seminar for Discussing the Social Problems of the City of Tehran] (Tehran: University of Tehran, 1343 [1964]), 452–64; Banu Faqiyih, “Kuy-ha-yi Faqirnishin-i Junub-i Shahr,” 337–47.

increase in mental illnesses in the city. Blaming the high density of the population in southern Tehran, he talked about various houses where hundreds of people lived together in a shared space. As an example, he described a single house that accommodated as many as 207 residents constituting forty-two families. He concluded that this high density was the main reason for the increase in mental illnesses, moral corruption, and crime rates. He suggested that the government was responsible for providing better accommodation and living conditions for the residents of these neighborhoods.⁸

The state-sponsored responses to these social problems and the decline of the living standards in the southern neighborhoods were part of a bigger problem. Rather than providing a long-term strategy for the improvement of these neighborhoods, the state representatives, architects, and planners mostly suggested the complete destruction of the old city and the construction of new high-rises, green spaces, shopping malls, and offices. In his talk, the head of the Housing Bank of Iran, *Bānk-i Rahnī*, proposed a project designed for the *Ūdlājān* neighborhood. By tearing down the entire *Ūdlājān* neighborhood, the bank envisioned a modern district with a huge public market, 4,700 apartment units, a central mosque, a cinema, a theater, some recreational centers and clubs, a central park with cafés and restaurants, eight schools and kindergartens, a technical school, three public and private bathhouses, a hotel with 300 rooms, a motel with the capacity for 100 cars, and finally a block for government offices.⁹ Despite these detailed and extensive plans for the destruction of the old neighborhoods and the construction of new ones from scratch, there was no comprehensive plan for the revitalization of Tehran's southern section. Instead of focusing on the social problems of these neighborhoods and improving people's living conditions, the state's proposal for the complete destruction of these neighborhoods was just a rudimentary solution for displacing those who demanded the most support.

The dilapidated neighborhoods of southern Tehran aligned, for the most part, with the historic section of the city formed in the sixteenth century, which flourished in the nineteenth century during the rule of the Qajar dynasty (1796–1925). In contrast to the impoverished

⁸ Mu'tamini, "Inhitat-i Bakhsh-i Qadimi-yi Shahr-i Tehran," 331–6.

⁹ Azhdari, "Puruzhih-yi Shahrsazi-yi Yek Bakhsh-i Qadimi-yi Udlajan," 199–200.

southern district, mid-twentieth-century Tehran enjoyed upper- and middle-class neighborhoods in the north. The northern neighborhoods, with their wide streets and squares and European-style buildings, accommodated many boutiques, cinemas, theaters, cafés, restaurants, hotels, and sport clubs. These spaces structured the social lives of the middle- and upper-class residents of the city. In his memoir, Parviz Dava'i describes the first time his parents took him to a cinema in northern Tehran:

The cinema was on the other side of the universe in the bright and charming neighborhoods [of Tehran]. The buildings, shops, streets, and people of these neighborhoods were totally different from ours [...] People called their shops *maghāzih*.¹⁰ Rows after rows, there were many bright and beautiful *maghāzihs*, which sold colorful and shiny stuff and new clothes [...] Similar to festival nights, everywhere was bright and full of light. Our neighborhood had long, narrow, and dark alleyways, creeks full of sludge, and mud walls. Most of its houses and stores did not have electricity and the night was totally black. But here, in these neighborhoods of cinemas, everywhere was bright. People were cheerful wearing new clothes, as if they were celebrating New Year's Eve. They were strolling and window shopping alongside the streets.¹¹

These descriptions demonstrate the contrast between the two poles of Tehran around the mid-twentieth century. Northern Tehran was European, modern, alive, rich, and enchanting, while the southern district was poor, dilapidated, filthy, dark, and unsafe.

The contrast between the south and north of the city has reproduced itself continuously up to the present time. Northern Tehran, with its high-end residential apartments, skyscrapers, shopping centers, boutiques, restaurants, and cafés, stands in stark contrast to the southern city, with its labyrinthine network of dark, unsafe, and sometimes dirty alleyways. This geographical contrast has bold economic manifestations. Based on a study by the Plan and Budget Organization of Iran, in spring 2015 the maximum price for 1 m² of residential space in Tehran was more than thirty-six times its minimum price.¹² With

¹⁰ From the French *magasin*.

¹¹ Parviz Dava'i, *Bazgasht-i Yikkīh Savar [The Return of the Solo-Rider]* (Tehran: Ruwzanihkar, 1380 [2001]), 8.

¹² Markaz-i Amar-i Iran, *Ittilā'at-i Qiymat va Ijarah Maskan dar Shahr-i Tehran [Data on Housing Price and Rent in the City of Tehran]* (Tehran: Sazman-i Mudiriyat va Barnamihrizi-yi Kishvar, 1394 [2015]), 20.

no surprise, these maximum and minimum prices matched the north and south poles of the city. In other words, hypothetically one could sell just 2 m² of an apartment in northern Tehran and have enough to purchase a mid-size apartment of 72 m² in the south of the city. Moreover, this geographical polarity has expanded beyond the official boundaries of the city. The marginalized population of Tehran cannot even afford the housing prices of the southern city and are forced to move further south to the outskirts of Tehran.

This polarity has become a well-established socio-spatial discourse. Northern Tehran is a symbol of wealth and prosperity, while the southern city stands for poverty and insecurity. This spatial dichotomy has even entered into people's day-to-day language; the term *junūb shahrī* (the one from the southern city) is usually used as a derogatory term to humiliate uncultured or poor people. In contrast, *bachih-yi bālā shahr* refers to a wealthy and high-class kid from the northern city. The geographical distribution of wealth based on a north–south axis has become part of the daily socio-spatial experience of people and shapes people's everyday lives across the city.

However, the examination of Tehran in the mid-nineteenth century does not reveal meaningful economic differences between the neighborhoods of the city. Tehran was historically constrained in size due to it being a walled city. While it has grown far beyond that original footprint, the walled area now aligns with its contemporary historic district. In the nineteenth century, this section contained several neighborhoods. The spatial configuration of these neighborhoods was not primarily based on the economic status of their residents, but rather geographical differences had bold non-economic attributes. An interesting piece of evidence in this regard is the 1858 map of Tehran, known as Kriziz's map. This map records the location of the houses of the wealthy people, high-ranking officials, and foreign ambassadors. These buildings were scattered more or less evenly throughout the city. Even at that time, the location of the British ambassador's house was within walking distance of the same neighborhood that Banu Faqiyyih described in her 1962 talk. This contrast shows that Tehran went through a dramatic socio-spatial transformation between the mid-nineteenth and mid-twentieth centuries. This shift reproduced the spatiality of the city based on the distribution of wealth.

Beyond these descriptive historical examinations, significant questions come to mind that demand an analytical framework. Why did

the socio-spatial contours of Tehran transform so dramatically from the mid-nineteenth century? Why, how, and when did people's economic status become so determinative in the production of the spatiality of the city? What were the political and cultural ramifications of these transformations? How did these transformations change Tehran's public spaces? What were the roles of the state and society in the (re)production of the spatiality of Tehran?

By answering these questions, I argue that between the mid-nineteenth and the mid-twentieth century, Iranian urban society and the state went through an ontological spatial shift, meaning that they gradually abandoned their long-lived spatial knowledge and re-conceptualized and re-represented the notion of space and spatial relationships from a novel ontological perspective that had no historical precedence in Iran. To comprehend the current contours of Tehran and other Iranian cities, one needs to take this shift into account. Moreover, I argue that this ontological shift was the outcome of a powerful socio-spatial discourse with vast social, economic, and political underpinnings. From the late eighteenth century and through various means of knowledge production, certain sections of Iranian society fostered a new spatial knowledge based on the spatiality and sociality of European cities, particularly Western Europe and Russia. This knowledge incubated in Iranian society for more than a century and developed into a powerful discourse. Initially manifested in the 1870s expansion of Tehran, this discourse strengthened after the 1905–6 Constitutional Revolution and reached its apex in the 1920s and 1930s during the reign of Reza Shah. In this discourse, the West, particularly Western Europe, became a model for the social and spatial practices of the state and certain sections of Iranian urban society. In Tehran, it created a power relationship with vast spatial manifestations, which dichotomized the city and society into two poles. This new way of imagining, talking about, and building the city changed the physical fabric of Tehran and shaped its social, economic, and political landscapes as well.

Based on the understanding developed in recent urban inquiry that social processes and spatial forms are deeply interrelated, and by using an array of archival sources – newspapers, magazines, administrative files, diaries, travelogues, and maps – I conduct an analysis of the impact of the socio-spatial discourse mentioned above in terms of four spatial relationships: (1) the spatiality of ordinary people's social practices; (2) the spatiality of the contested relationship between society

and the state; (3) the relationship between the state and the city and the production, commodification, bureaucratization, and abstraction of spaces; and (4) the spatial strategies of the state for legitimation and social control.

For the first relationship, I look into the spatiality of ordinary people's daily lives or, in other words, the relationship between society and the city. I demonstrate how people's social spaces were the products of the particular social relationships of Iranian urban society. For example, Chapter 1 demonstrates that, in nineteenth-century Tehran, the production of various traditional social spaces – coffeehouses, bathhouses, *zūrkhānihs*,¹³ and *takṭyyihs*¹⁴ – was closely related to the particular configuration of Iranian urban society. The transformation of these spaces to European-style social spaces – cafés, theaters, cinemas, hotels, restaurants, and sports clubs – was closely related to the transformation of Iranian urban society from the nineteenth to the mid-twentieth century.

For the second relationship mentioned above, I study the contested relationship between society and the state, the formation of the public sphere, and the production of political public spaces. I investigate the reciprocity of the public sphere and political public spaces and how people's political activities transformed spaces of daily life into stages of political action. Chapters 2 and 6 demonstrate why, how, and when the spatiality of social movements transformed from the sacred spaces of the city – mosques and holy shrines – to streets and squares. In other words, I suggest that alongside the transformation of the spatiality of people's daily lives, the geographical manifestation of their political movements transformed as well.

For the third socio-spatial relationship, the relationship between the state and the city, I turn to the study of the abstraction of Tehran through the examination of the state's process of spatial commodification and demonstrate that from the mid-nineteenth century the state adopted specific spatial policies in order to transform the spatiality of the city into an economic capital. Based on a new vocabulary of urban design similar to European cities, the massive state-sponsored urban projects in Tehran were a means for the production of space as

¹³ *Zūrkhānihs* were traditional gymnasiums in Iranian cities.

¹⁴ *Takṭyyihs* were places for holding mourning ceremonies and passion plays during the month of Muharram.

a lucrative commodity for a minority in power. These undertakings played a significant role in the reconfiguration of the neighborhoods of Tehran based on people's economic status.

Finally, I look into the spatial strategies of the state for social control and the legitimation of its power and examine the state's systematic use of the spatiality of the city for subjugating people's daily lives and establishing its particular spatial definitions. Chapters 4 and 5 demonstrate how these strategies transformed from holding religious ceremonies to sponsoring carnivals and parades. European-style streets and squares of Tehran changed into spectacles for holding various commemorative ceremonies similar to imperial models of legitimation in Europe. Moreover, Chapter 5 examines how the state developed a complex system to transform and monitor social spaces by utilizing spatial guidelines. These guidelines regulated various socio-spatial relations.

As the chapters unfold, the reader will find that each chapter investigates these socio-spatial relationships in various stages of history. Beginning from the early nineteenth century and concluding in the mid-twentieth century, this book investigates the transformations of all these relationships under the influence of a powerful discourse that looked into European cities and established them as vital examples for the future to come. I adopted this timeframe based on the transformation of the quadruple spatial relationships mentioned earlier. By the mid-twentieth century, the ontological shift and the consequent transformations of the spatial relationships were fully established. The last spatial relationship that witnessed its full transformation was the contested relationship between society and the state, or better to say, people's repertoires of contention and the spatiality of social movements. This final transformation manifested in numerous episodes of protests, political meetings, and parades between 1941 and 1953. Prior to this transformation, the other three relationships had undergone fundamental changes, starting from the relationship between the state and the city and followed by the relationship between the state and society and the spatiality of ordinary people's daily lives. It is important to note that this chronological sequence and succession does not imply a causal link between these four spatial transformations; rather, they were all the byproducts of the spatial discourse that underpinned the ontological spatial shift of Iranian urban society and the state.

The future spatial reforms in Tehran and other Iranian cities subsequent to the timeframe depicted in this book can be analyzed based

on the framework discussed here. Muhammad Reza Shah's massive reforms of 1963, Tehran's first Master Plan of 1965, the 1979 revolution, and Tehran's transformations after the revolution should be studied based on the ontological shift presented in this book. Following the full establishment of this novel spatial discourse, it has been changing the contours of Iranian cities and has not yet been challenged by an alternative form of spatial knowledge.

Although the timeframe begins in the early nineteenth century and ends around the mid-twentieth century, the chapters do not follow a strict chronological order. Instead, they are primarily arranged based on the four spatial relationships. Each chapter focuses on a particular historical period. These temporal divisions help to facilitate the structure of the book. However, the social, spatial, economic, and political relations that each chapter examines are not limited to the timeframe of that chapter; socio-spatial relationships are fluid and do not conform to manmade historical eras.

Each chapter begins with a theoretical discussion, which defines its analytical framework. Through these frameworks, the chapters develop their arguments and examine their empirical data. The theoretical deliberations of the first two chapters are more extensive. These two build the foundation for the entire book, and the following chapters will refer to this foundation repeatedly. The goal is to establish a dialog between the current body of social theories of space, developed based on the sociality and spatiality of Western European and North American cities, and the specific context of this research. As the forthcoming chapters demonstrate, on many occasions this dialog suggests the necessity of the re-examination and reformulation of these theories.

Chapter 1 begins in the coffeehouses, traditional gymnasiums (*zūrkhānihs*), bathhouses, and *takrīyyihs* (places for religious mourning ceremonies during the month of Muharram) of pre-1870s Tehran. This focus on the spaces of the daily lives of ordinary people yields the concept of the communal sphere and its relationship to the spatiality of daily life. It shows that the segmented urban society consisted of numerous smaller communities. This segmentation is clearly discernible in the daily communal spaces of the city that were studied via diaries, travelogues, newspapers, archival materials, maps, and so forth. These communal spaces were both the products and the reproducers of the communal sphere. The chapter also includes an examination of women's daily social lives in the nineteenth century. This analysis

reveals the interior sections of Iranian houses, *andarūnīs*, to be lively all-women social spaces and incubators of women's social and political mobilization.

By examining the 1905–6 Constitutional Revolution, Chapter 2 investigates the formation of the public sphere and the production of political public spaces in the context of the segmented Iranian urban society. The public sphere was the outcome of the coming together of various communal spheres through the binding force of religion and political activities of certain social groups. Also, the religious discourse played a crucial role in the transformation of primary sacred spaces of the city into political public spaces. However, the chapter suggests that the success of the revolution initiated a process that resulted in the transformation of the public sphere and political public spaces through their secularization and gender diversification. Finally, the chapter turns to women's political activities during and after the Constitutional Revolution and their role in the transformation of the public sphere and political public spaces.

After portraying the socio-spatial context of traditional Iranian cities in the first two chapters, the third chapter investigates the production of a new spatial knowledge in nineteenth-century Iran. This investigation is crucial for the examination of the transformation of Tehran in the next three chapters. Through the analysis of the accounts of eight Iranian travelers to Europe, this chapter finds that Iranian travelogues, in addition to other means of knowledge production, played a significant role in fostering a novel spatial knowledge. I show that the exposure to alternative forms of urban organization and political and social spectacles contributed to the formation of this knowledge that later played a great role in the transformation of Tehran, its spatiality, and its sociality. The next three chapters examine the impact of this spatial knowledge on Tehran and the physical manifestation of these common themes in the city during the next eight decades.

Chapter 4 focuses on the 1870s expansion of Tehran and examines the spatial strategies of the state for spatial commodification and bureaucratization before and after this expansion. It shows that the incorporation of the new spatial knowledge discussed in Chapter 3 resulted in the implementation of a new vocabulary of urban design for the expansion of the city. Through the 1870s expansion of Tehran, the state followed a rigorous process of spatial commodification. However, as the chapter demonstrates, the more significant change

was the transformation of the spatiality of the relationship between the state and society. After the expansion, the state developed new ceremonies similar to the imperial models of legitimation in European countries and redesigned the city as a spectacle for the demonstration of royal power in squares, plazas, and streets.

Chapter 5 focuses on Tehran after the Constitutional Revolution, particularly in the period between the two World Wars. It examines how urban society transformed the state spaces of the 1870s expansion into a lively social scene. The Iranian modern middle class's desire for a new lifestyle led to the production of spaces that had no precedent in Iranian cities, such as cafés, restaurants, theaters, cinemas, hotels, and sports clubs. At the same time, the state's spatial bureaucratization expanded dramatically and the state managed to transform the old types of communal life and spaces and monitor the new ones. The combination of these measures resulted in the dichotomization of the city and society into two poles: old and new, traditional and modern, and south and north. A socio-spatial discourse created a strong power relationship between the two poles of society, with vast spatial manifestations.

The last chapter focuses on the turbulent years after World War II, up to the 1953 military coup, and examines the formation of political public spaces and the public sphere in this era. In part through comparisons with the period of the Constitutional Revolution, the chapter demonstrates how and why political public spaces, the public sphere, and the traditional repertoires of contention transformed in less than four decades. The secularization and gender diversification of political public spaces that had begun after the Constitutional Revolution became fully established norms in the 1940s and the early 1950s. Moreover, the political practices of the modern middle class and urban working class contributed to the transformation of the segmented configuration of political public spaces into a class-based entity. This chapter finds that the political public spaces of Tehran transformed alongside the transformations of urban society, the city, and the state.

In the Conclusion I bring together different threads of this study and continue by discussing my overarching arguments and brief final theoretical and methodological remarks for possible future investigations.