Describing the Spatial Organization of Bishapur City based on Archeological Findings

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Abstract
The ancient city of Bishapur was one of the first cities that were built by Shapour after Darabgard and Ardeshirkhoreh (Gour or Firouzabad). It is among the few cities from ancient Persia that have partly remained and can therefore be used to introduce the common Persian urban structures of its own time. There have been few studies over ancient urban structures in Iran which could be used to identify their functions and the way the cities were built and developed. The scarcity of studies on this issue has been despite the fact that there has been considerable academic attention on ancient Persia. A few studies that architects and scholars of urban development have carried out over the spatial organization of Iran’s ancient cities were mostly based on unreliable documents and were not supported by archeological findings. The purpose of the present article is to introduce and analyze the process of urban development of the Sassanid city of Bishapur based on available documents as well as the archeological findings obtained from 1958 to 1978. In order to arrive at a better analysis, the Theory of Urban Spatial Organization was exploited. The Theory introduces the city as a purposeful entirety with four main elements such as the domain, the structure, the small entireties and the center. Accordingly, after analyzing the above elements in Bishapur, the spatial organization of the city is analyzed by considering the social-cultural conditions in the Sassanid era and a brief comparison is made with the general conditions of the spatial organization of an Iranian-Islamic city.

Keywords
Bishapour, Ancient city, Iranian city, Sassanid city, Spatial organization of the city, Shapour, Historical structure.
The History of Bishapur

Bishapur is an ancient city located in the province of Fars-Kazerun. Although there is evidence of inhabitation related to Achaemenian and Elamite eras in the area, Bishapur was constructed and named as a city in Sassanid Empire. Bishapur stands fifteen kilometers northwest of Kazerun at the geographical coordinates of N: 29°46´, E: 51°34´. It was the center of the empire and Ardashir Khore Koreh (one of the five mains sections of the empire) and was populated up to the seventh century Hijri before falling to collapse. This city is a treasure of Sassanid architecture such as the Shrine of Anahita which it houses.

Bishapour is the first ancient Iranian city with a written history of urban development. This written history is in fact an inscription in both Sassanid and Arsacid scripts on one of the two stone pillar bases at the city center. According to the inscription, the city’s development dates back to year 58 of Ardashir’s reign and year 40 of Shapur’s reign which coincide with 266 AD, exactly 6 years after Shapur’s victory over Valerian in 260 AD. This is the date when the construction of Bishapour finished. According to Abbas Zaryab-Khoyee, “in the city of Bishapour in Fars, an inscription by a certain Apsay the Secretary is discovered besides his statue which also includes the inscription’s date” (Sarafraz, 2002: 262). The year of construction is believed to be 266 AD while the name of the city, which was not mentioned in the inscription, is unknown.

After assuming power, Ardashir Babakan – the founder of the Sassanid dynasty – moved the capital from Estakhr, the city of his ancestors, to Tisfoun and built a new city with the name ‘Veh-Ardeshir’ adjacent to it. Shapur (241-272), Ardashir’s son, later built a different abode and called it Bishapur. The interesting point here is the way the new cities were named – a tradition popular among all Sassanid kings. Examples include Beh-Ardeshir, Beh-Qobad, Beh-Khosrow and Beh-Shapur. The prefix “Veh” or “Beh” means good and appears in many Pahlavid names of the Sassanid era, such as “Veh-Din” which means the good religion, that is, the religion of God and light. “Veh” or “Beh” has also been interpreted to mean “home” and “a dwelling place”, in which case Bishapur could mean “the house of Shapur”. This is while others interpret the name as to mean “good deeds of Shapur” (Ibid: 248).

As Estakhri in his Masalek-al-Mamalek and Ebn-e-Balkhi in his Fars-Nameh write of the name of Bishapur, “the city of Bishapur was built during the reign of Tahmoures, who ruled before Jamshid, and was then called “Din-Doula”. Shapur rebuilt the city after it had been destroyed by Alexander, the Great and named it Bishapur. The city is now called Beshar and Besabour” (Sarafraz, 1987: 37). According to Ebn-e-Balkhi, the city was originally named Bishapur, or shortly called Shapur without the “Bi”. Hence, the title Bishapur was valid up to the end of the 11th century AD and the beginning of the 12th century AD. Nevertheless, the city’s name in times of Shapur seems to have been “Beh az Andiou Shapour” which implied “Better than Antakiyeh, City of Shapur”; this assumption rests on the fact that Bishapur is not mentioned in the inscription of Ka’be-ye-Zartosht among the list of cities, while there is a city named after the ruler “Vehi Antiouk Shapur”. Some theoreticians have assumed that “Beh az Andiou Shapour” must have been the same as the Sassanid “Gondi Shapour”, a not-very-important camp where captive Roman soldiers were taken. But it is far from being likely that the inscription mentioned a captive camp but neglected the royal city and the government headquarters of Shapur: a city famous for its beauty where flocks of people rushed to visit every now and then. The above historical narrative might contribute to our further understanding of the origins of the city’s name. Having occupied Antakiyeh, the beautiful city of Eastern Roman empire, Shapur was so fascinated by its beauties that he ordered to build him a headquarters even better than Antakiyeh. The comparative “Veh”, meaning better, must have been used to compare Antakiyeh – which was
the largest, richest and most beautiful city of Eastern Roman empire, occupied by Shapur in 251 AD – and Shapur’s city with its tall, ornamented porches. (Sarafraz & Firoozmamadi, 2002: 249).

What is significant about the architecture of the city is its difference with the cities raised during the Islamic era. In Sassanid Empire, a city was not a place for collective activities, great populace and numerous houses protected inside fortifications, which would possibly be interpreted as a cultural center for man’s collective mentality. In ancient Iran, a city was a holy place which could not be raised by just any one person. Only kings, who possessed royal grandeur, were allowed to order construction of a city (Barati, 2003). Therefore, cities belonged to a god and his/her delegates on earth not to the inhabitants. A city was a relatively huge body which was constructed by the order of a king to house royal families and servants as well as chosen people such as instructors and high ranking officers. It was a place which represented the royal grandeur of the king and his personal tastes, not a place for trafficking of the different walks of life and manifestation of the popular culture.

Location
The location of the city of Bishapour was cleverly determined in such a way as to employ local geographical features both for security purposes and for benefiting from natural beauties. The city was built adjacent to an ancient royal road which was one of the most important passages at the time; it connected Persepolis and Estakhr and thereon to Shoush during the era of the Achaemenids. The road also connected (Jour) Firouz-Abad and Bishapour to Tisfoun during the Sassanid era. Another major road ran from Bishapour to the coasts of the Persian Gulf, which was not only used for military purposes but also for commercial transportations, along which many merchants used to carry their goods to other regions. This is why it was stretched to as far as the coasts of the Persian Gulf, Khouzestan and Pars (Sarafraz, 1987: 40).

Bishapour was built at the mouth of Bishapour Strait, overlooking the beautiful, green Bishapour plain (or Kazeroun plain) and at the skirt of Kouhmareh heights, where the heights from the one side and the river from the other protect its borders from being violated. Unlike the city of Ardestir-Khordeh (Firouz-Abad) which is located in the middle of a vast plain and protected by Qal’e Dokhtar, a castle located in a quite far distance, Bishapour is located at the mountain-skirt and at the edge of the plain, with minimum distance from the two protective castles i.e Qal’e Dokhtar and Qal’e Ardestir in the mountains surrounding Chowgan Strait. (diagram1)

Diagram1. Location of Bishapour at the mouth of Choqgan strait and at the skirt of mount Shapour, Source: authors.

The Mount Shapur situated the eastern wing of the city was the most prominent feature used for navigation in those days, and the Shapur River had a very significant role in the construction of the city regarding the sanctity of water among ancient Iranians. The four precious Sassanid reliefs on the western mouth of Chowgan Strait, at the breast of mount Shapour and the northern bank of Shapur River, besides the two reliefs at the river’s southern bank which depict a scene of Shapur’s victory, among others, are signs of emphasis put on the holiness of this natural site in the Sassanid period. Shapur River flows through Chowgan Strait on the east of Bishapour towards the west and the deep valley of its bed forms the northern perimeters of the city’s agricultural lands. It seems that the passage across the river, especially during the raining
season, was situated far from Chowgan Strait.

**Review of the Related Literature**

Not much has been publicized about Bishapur. Despite the expanse of the city, the studies and excavations are yet to be furthered. On the other hand, “analysis and study of the spatial organization of Iranian ancient cities are still at rudimentary stages” (Karimian & Seyyedin, 2010). The reason might be the scarcity and age of the remaining cities as well as their changes throughout different eras. However, the remaining cities have not been studied properly and sufficiently, and the ongoing researches and studies majorly rely on historical texts and personal analyses not on objective archaeological evidence.

In general, two hypotheses were elicited from the research conducted on the spatial organization of Iranian ancient cities: the dominant hypothesis was put forth by Seyed Mohsen Habibi in his book entitled “From Tier to City” in which he provides a diagram of the structure of Sassanid cities upon a short analysis of the social, cultural, economical and political situation of the then Iran. Prior to Habibi, Roboubi had presented a similar diagram of a Sassanid city in “Knowing Iranian City and Native Abode” in 1974. This hypothesis proposes that a Sassanid city was consisted of:

1- the castle (Kohandezh”) consisting of palaces, the main fire temple or shrine, balconies, barracks, treasuries and stockrooms. The castle topped the city in the most strategically significant point and was protected by strong bulwark.

2- The middle tier (“shar”) in which royal and prominent families lived in similar houses. This tier was known as “Sharestan”.

3- The outer tier, which included the fire temples and the capital market. With the spread of Islam in Iran, this tier came to be known as “Rabz”.

4- The market, as the main column of the city, expanded from the middle tier (“Sharestan”) to the outer tier (“Rabz”) and constituted the living quarters.

5- The city square, which was constructed in front of the middle and outer tiers. The city square marked the intersection of different markets and was the place for social and economic gatherings.

Despite its popularity among the academia, Habibi’s hypothesis is laden with serious shortcomings. First of all, the presented diagram is not based on archaeological findings or documents. Not even a single Iranian city with such structure has been introduced in his book. Second, Sassanid cities underwent a conspicuous change in their structure in the sense that they were reformed from a tiered circle with its center in the geographical middle (e.g. Ardeshir Khore and Darabgard) into a checked rectangle with its center in the margin (e.g. Bishapur and the cities raised afterwards). Habibi does not specify to which Sassanid era the diagram belongs. Archeologists have another opinion: “It seems that the spatial connection between the castle and the city was not very strong at the beginning, and as was common in those eras, castles were raised in the margin or outside the city rather than in the middle. The same goes for religious monuments. In the historical course of Sassanid Empire, the palace of the king gradually distanced from the city inhabitants” (Hof, 1990). Third, the existence of fire temples, markets and a square—as a place for social and economic gatherings– in the middle and outer tiers is inconsistent with the concept of city in ancient Iran and Sassanid Empire.

The other hypothesis, unlike Habibi’s, rejects the idea of a residential concentrated body and reduces the discovered debris to a collection of palaces or temples. This hypothesis was introduced by Jahanshah Pakzad in an article entitled “A Study of the Concept of City in Iran” in which he proposes that “In Bishapur, only the administrative buildings have been dug out. These building have been introduced as palaces or temples. The residential areas of Sassanid life have not been excavated yet (Hof, 1990: 45). Therefore the checked structure belongs to the Islamic era” (Pakzad, 2005: 98). Consequently, Pakzad considers Bishapur a collection of buildings and protective walls which acted like palaces and temples. He doubts about the assumption that the rest of the city is Sassanid as
well. However, archeological researches preceding those of Hof and Gube, such as the excavations conducted by Dr. Sarfaraz in the early 1960’s as well as clear evidences such as the monumental columns as the center of the city remove any doubt that Bishapur was once a Sassanid city.

**The elements of Spatial Organization of the City of Bishapur**

In this paper, spatial organization refers to “the relations between the elements which introduce a city as a system” (Mansouri, 2007). In order to recognize a city’s spatial organization, it is essential to explore its elemental factors and relations. The order governing the above elements, which is in turn a mental, abstract concept, introduces the city’s spatial organization.

**• The Spatial Organization Hypothesis: Introduction**

The “spatial organization hypothesis” is similar to the “general systems hypothesis” and uses relatively similar indicators to study a city as “a whole”. Unlike the popular belief, it is not possible to comprehensively study a city by studying all of its constituting parts or structural elements (its skeleton or main structure) separately; a city is much more than the collection of its constituting parts and it has a personality distinct from its physical structural components. According to the general systems hypothesis, the quickest way to study a complex system is to study its constituting components and its working organization. Only through study of the structure and organization of a system, would it be possible to control it. Any complex system has some subsystems, and in order to study and control it one must study and control its subsystems. The spatial organization hypothesis which is based on the mental image of city makes it possible to collect all assumptions into a whole and unify the scattered details and information. Also, the spatial organization indicators make it possible to generalize this concept to any scale, and help explain the concept of city as a whole. The principles of the systemic approach to study of a city are (1) the concept of wholeness, (2) the relationship between the constituting components and (3) the structure or the organization of the system (Mansouri, 2003). Based on this, the territory, the structure, the core and the smaller subsystems are the four prominent elements of the spatial organization of a city, and their proper study is far from the sole study of their physical characteristics. These four elements will be analyzed separately for Bishapur.

**• Wholeness of the System: Scope and Territory, Fortifications and Towers**

The necessary condition of the realization of the concept of city as a whole is a group of people’s conception of an enclosed space as belonging to them. Such a conception presupposes a spatial edge or border which differentiates its internal environment from the external one. Specific implications and functions such as security and safety, holiness and un-holiness, superior and inferior, etc can be attributed to the two differentiated environments, which in turn facilitate their perception by the users. Territory is crystallized as an edge which takes up some space (Ibid).

A city’s territory is usually defined in terms of its natural or physical elements or both. The territory of the city of Bishapur is a synthesis of physical (man-made) and natural elements. As stated above, Shapour river at the city’s north and north-west and mount Shapour are the natural elements which delimit the city’s territory. However, mount Shapour can also be assumed to threaten the city’s territory. The man-made borders consisted of stonemasonry walls and battlements:

“More than 270 meters of the city’s northern wall were discovered and repaired during archeological excavations (Fig.1). The wall, which was built on the verge of the river, follows its curved shape. Remains of the wall, which used to enclose the city completely, can be seen as extended towards Qal’e Dokhtar heights, a famous fort and military castle overlooking the city. The wall did not only protect
the palace, but also extended to the suburban areas to embrace lands at the margins of the river, eastern and western protective ditches, skirts of mount Qal’e Dokhtar and margins of Jabri (Gabri) bridge – the only bridge across Shapour river, built along the city’s north-southern street. With a thickness of more than 9 meters, the wall not only played a key role in protecting the city, but it also functioned as a safe stronghold for the guards from where they could keep a regular watch out” (Sarafraz, 1987: 44).

The city’s territory was augmented on southwestern and southeastern sides by ditches dug behind the city wall. Traces of this ditch remain today as a continuous, shallow line parallel to the wall which reaches the heights of Qal’e Dokhtar from the east and Shapour river from the west with a right-angular turn, running along the entire western side of the city from south to north. Hence, the rectangular territory of the city backs the river and the ditch from the three southern, western and northern sides, with the eastern side protected by Qal’e Dokhtar fort. (Plan 1) The “territory” of a city, which is the first indicator of the system, determines its geographical borders through relation with the territorial elements and the shape of the terrain and establishing the frame structure.


Map 1. Natural and terrestrial elements defining the territory of Bishapur. Source: authors.

- Subsystems: Inner Smaller Organization, Royal Castle and Residential Districts

Small entities are independent units in a city’s spatial organization which are differentiated from each other and from the urban fabric based on tasks they are assigned and roles that they play. A small entity (Sub system) is an independent compartment of the large urban system which, as an individual element, has inherent coordinates which help it function as a half-independent system. As the nature of the urban system calls for, half-independent compartments need to be considered as smaller systems in the scale of individual and social functions. Another instance of small entities within the urban system is the functional sets in a city which consist of inter-related elements with different functions. The functional groups of a city, such as Ganjali Khan in Kerman province or Dolat Khaneh in Qazvin province, consisting of interconnected elements with different functions are the small subsystems inside a system (Mansouri, 2003). Physical remains of two independent entities are recognizable in Bishapur today; one is the royal palace located at the heights of mount Shapour north-east of the city and is separated from the main parts of the city by a wall, and another is the residential areas of the city which compose a triangular district west of the royal palace and aligned with the slope of the city’s bed. “Digging operations and archeological excavations in the northern region of the city reveal that this area was a partitioned open
space containing stone-carpeted streets and numerous gardens used by royalties and courtiers as promenade. This indicates that population had not been distributed equally in the city as a huge part of city’s installations, the city square, residential districts, military forces and workshops were located in the southern region. Consequently, it seems that the main core of the city, royal abodes as well as the palaces and the castle were exclusively located in the northern region.” (Sarafraz, 1987: 47). This palace which included the city’s governmental and religious elements such as Valerin’s palace and the temple of Anahita (goddess of water), (Fig. 2) was in fact the most superior and holy space in the city, where only the king and the royal family were allowed to enter and dwell in. This, and security reasons like guarding the heart of the city from possible attacks by either citizens or enemies caused this area to be isolated from the body of the city (Plan 2). “The city’s north-southern street which marginally passed by these private palaces, reception lounges and porches with mosaic ornaments, indirectly linked Acropol with the rest of residential, political, and administrative districts.

A royal person’s dwelling place in the city was determined by his/her social value and class, while the populace dwelled tents or humble adobe huts in suburban areas and guaranteed the welfare of palace-dwellers with their toils. Sassanid regulations were so established that they did not, in any way, allow for those who lived in wrecks to deviate from limits of their class and live as the royal family did. These formal and functional properties of architectural spaces indicate registered systems of Sassanid emperors, designed deliberately based on preplanned foundations, and were meant to demonstrate the conceptual backgrounds of the empire” (Ibid, 1987: 47).

• The city’s structure; main and secondary streets
Structure is the relation between small entities (half-independent elements). The city’s core and main entrances are linked with the structure. Structure may have a main and a secondary organ through which it keeps the whole of the system related to each other. The characteristic element of the structure is, in most cases, the passage (Mansouri, 2003).

Key structural elements of the city of Bishapur are two intersecting straight streets, while its secondary elements include narrower streets either parallel with or intersecting these two which are recognizable from their faint traces left in historical detritions. The main north-southern street runs along the royal road and connects the main gate to the city center and runs down to the southern wall. Another major structural element, which is an east-western street perpendicular to the previous one, connects the residential area to the city center, namely the royal palace, and is in
fact the relating element between these two half-independent subsets of the city. Secondary elements are the streets parallel to the two main streets which define the city’s checkerboard order (Plan3). The interesting point is that these secondary structures are not symmetrical as related to the main structural elements. Intersecting vertical and horizontal streets, alleys and districts with perpendicular angels and promenades and green spaces were so arranged as to facilitate the location of the houses of noblemen and aristocrats in the middle of gardens and green, wooded spaces. Streets, alleys and districts were deliberately developed on a tartan grid compatible with the rectangular outline of the city, which in turn defined the roles of each of the above in satisfying everyday needs and facilitating administration of the city” (Sarafriz, 1987: 40)

Considering the significant role of the city gates in the formation of the structural components, it should be added that the main gate was located in the north-east wing of the city and the road crossed over Shapur River and connected to the ancient Shahi path. Probably there were three other gates in three other wings of the city, but determining their exact location merits further research. Those gates remained until the 10th century. As Moqaddasi says in The Best Atlas in Knowing Regions, the city has four gates which are “the Hormoz Gate, the Mehr Gate, the Bahram Gate and the Shahr Gate”. Moqaddasi also continues that the city “is surrounded by a trench through which a river is running and bridges have been made to cross over it” (Moqaddasi, 1983: 645).

- The core; Shapur’s memorial monument

A core or center is in fact where a city’s development sets out from and gradually extends beyond in collaborative correspondence with different factors. Dependency of different urban elements on the core can be easily distinguished. Furthermore, besides performing as the site for the collective memories of a city, the core also centralizes public activities, a role which undergoes partial transformations during the following epochs.

According to the notion of ancient Iranian cities as holy, royal phenomena, as stated in the introduction, the royal palace or the grand temple must perform the role of the core in the spatial organization of the Sassanid cities and be located on the geometrical-geographical center of the city and at the intersection of its structural elements. This is while, in the city of Bishapur, the royal palace and the temple of Anahita are located in the north-eastern margins of the city, functioning as an independent entity in complete isolation from residential areas. Unlike the city of Firouz-Abad where the throne and fire altar are located at the center of the circular plan, the only urban element discovered at the intersection of the main structures in Bishapur is the

Map 3. The spatial organization of Bishapur. Source: the authors.
memorial monument of Shapur I (Fig. 3).
“The status quo conditions of the building demonstrates its ceremonial significance as a memorial monument erected at the center of the city, at the main entrance and the margins of the east-western street. This is where two 9-meter columns with Corinthian pillars were installed on a stone platform. The settings of the place show that it was allocated to formal rituals, welcoming ceremonies and giving reports immediately after entering the city, and not for making vows” (Sarafraz & Firouzmandi, 2002: 261).

Considering the construction precedence, the royal castle should be the center of the city around which the rest of the city was raised. The castle had no role in the residency of the inhabitants. Therefore, centrality in Bishapur was semantic and not spatial as it represented the spiritual gravity in the city which never amalgamated into the social life flow even considering the hierarchical structure and the shortcomings of a Sassanid society.

Although the ceremonial hall, which was constructed in the intersection of the structural axes of the city, is located on the geometric center, it was not by any means the center of the city since on the one hand it was constructed after other structural components of the city and on the other hand it had a defined special function and did not merge with the city’s social life. We can say that the ceremonial hall was a small inner subsystem. Therefore, Bishapur was a city whose semantic centrality did not carry its functional and social characteristics (diagram2).

Conclusion
Ancient bipolar organization: the special sociopolitical structure of the society at the beginning of Sassanid Empire, which rested on the nobility and holiness of the king, had created a bipolar organization in Bishapur in which the dominant pole was the royal castle and the weaker pole was the residential districts for royalties and chosen strata. These poles constituted the unity and totality of the city and this is visible in structure of Bishapur. The spatial organization of ancient Iranian cities consisted of separate sections each housing people of different ranking. The visage of such city would indicate the social position of its inhabitants and the hierarchical ranking in the mental structure of ancient Iranian societies. The structure of a city was like a pyramid whose constituting components were arranged based on ranking in a way that the inhabitants could easily recognize the social structure of the society and their own place in the collective reality
of the city. Separation of the “divine” section from the residential areas of the mass was the main principle in the spatial organization of the city. The reason of this separation was more than security and protection against the city inhabitants or enemies. The indicators of the spatial organization of Bishapur are as follows: The role of centrality was played by religious components such as the Shrine of Anahita or the castle (the king’s residence as the highest religious rank) and not by the general or functional components. Such centrality indicates the contrast between symbolic existence and functional existence. On the contrary, in early Islamic cities, centrality was defined by the collection of the general and functional components of a city. In Sassanid cities, the structure was a path devoid of any social or civil life which only served to link the different sections of a city. Therefore, the significance of the structure was limited to accessibility of different sections and did not include social communication. In other words, the structure had a functional role (linking different sections to each other). In Islamic cities, in opposite, the structure of the city contained social and economic life flow in addition to having the functional role of interlinking city parts. The structure was the main factor determining the location of smaller inner subsystems. But, in Sassanid cities, the structure passed among and between the established subsystems which had defined roles.

As a result of two separate poles, which the city divided their spatial organization, two independent subsystems were created. In the next step, each subsystem developed its own internal system. The subsystems of Bishapur city had religious functions and housed places for worship of gods or administrative and economical affairs of the high and middle strata of the society. The spatial organization indicators of this city did not represent nobility of the society and the general functions related to social life such as districts or squares. Religious and ritual (religious-royal) elements are the prominent indicators of the spatial organization of the historical city of Bishapur.

Reference list