

Rethinking the Islamic Garden

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ABSTRACT

A broader inquiry into the relationship among the garden's form, structure and meaning should aim to address two crucial issues: (1) the need for common ground in research which will organize the field and foster future scholarly work and (2) the importance of laying out an analytic method capable of shedding new light on the garden's formative process and in informing new urban development. This paper underscores how the garden has always played a crucial role in any anthropic process. It examines how the structural relationships among its components reflect other forms of settlement, such as the encampment, the royal palace, the city as an image of the king, and finally, the larger landscape. It suggests a new direction for further study based on two axioms: that there is a substantial continuity between different cultures in their appropriation of space, and that there are pertinent methodologies to retrace the garden's evolution.

PULLING THREADS

The wonders of Harun al-Rashid's garden described in *A Thousand and One Nights* have never existed. They were fictional hyperbole. But not everything is poetry and imagination. The renowned description recalls many gardens in *Dar al-Islam* from Samarra to Granada, Lahore, and Isfahan. Rather than depicting a single garden, it portrays an attitude toward the environment shared by the entire Islamic world: the taming and glorification of nature enclosed within four walls, juxtaposed with the hostile wilds of the outside world.

What is left of it? What is the impact of this philosophy in today's world? The first question has been answered by a vast scholarly body of work which can be seen as a collective effort to gather the information necessary to address the second, and more important issue.

Attention within European culture to the Islamic garden began in the 17th century, as part of a general discovery of the East. "The taste for Oriental culture and Islamic imagery, already present during the rococo," writes Paolo Portoghesi, "suddenly erupts in Europe. The new fascination for the exotic symbolized the emancipation from an academic classicism, the inspiration of which had, by then, almost completely dried up." The Islamic garden was one of the most seductive symbols of the new, exotic world—the place where the novel taste for space and decoration was most freely expressed.

Its influence can be seen in the Moorish decorations of Villa Torlonia, in Villa Melzi's casino, in the landscaping of the Stibbert garden in Florence and, most strikingly, in the Sezincote villa and in the Royal Pavilion of Brighton, England. By the 19th century, the infatuation with Islamic culture had become a glamorous fashion: it was extensively exhibited in World Fairs, chosen as the "official" architectural style of thermal resorts, and eagerly showed off first by the

bourgeoisie and then by the masses. Its influence continued throughout the 19th and into the beginning of the 20th century, before the Modern Movement's disenchantment with it and its final oblivion.

Alas, much of this oriental contagion was born out of pure excitement for the new and unknown, based on a few exotic-looking objects and the enchanting, passionate accounts of travelers upon their return from the East. As a result, the Islam portrayed in Europe was merely an enthusiastic reinterpretation of a culture heavily filtered by the merchants of the time.

The first pragmatic studies on the Islamic garden didn't attract much attention. They came as late as the first quarter of the 20th century, produced by two researchers to whom much is owed for the diffusion in Europe of the history and form of the Islamic garden. C. M. Villiers-Stuart analyzed all Mughal gardens, although still captured by their exotic atmosphere and botanical species rather than by their spatial and structural layout; her romantic portrayal of ornate details was more reminiscent of Gertrude Jekyll's *Garden Ornament* (1918) and less of a methodological study. A more substantial contribution was offered by *Die Indische Garten* (1923) by the Baroness M. L. Gothein, who had already authored *Geschichte der Gartenkunst* (1913). For the first time, the Indian garden was studied as a structural whole within a specific context, examining it as a product of Indo-Muslim culture.

Overall, these two works laid the foundation for further Islamic garden studies. They were all the more precious for witnessing and reporting information at a time when the Civil Service, with great efficiency but mediocre preparation, restored Mughal gardens according to romantic models rather than according to original features. Also, at that time the possibility of unlimited substitutions of plants and trees had drastically complicated any botanical research on the original species. More than in architecture, where wounds and transformations can't mislead an expert eye, the original character of a garden can be erased: drastic changes often occurred in only one generation's time, completely altering previous forms and meaning. Scientific studies on vegetal fossils and seeds, or on the chemical composition of the terrain (like the ones undertaken in Pompeii) are still far from a reality in the Islamic world. In the end, the original literature, the iconographic archives and the survey of ruins have got to carry the day themselves.¹

Scholarly interest in the Islamic garden has somehow revived in recent years, along with the passion for European gardens, and Italian gardens in particular. In the 1970s, however, the Islamic garden was still considered to be of marginal importance. Its study still showed a general lack of method. In *The landscape of man* (1972), S. Jellicoe dedicated a few superficial paragraphs to it; N. T. Newton (*Design of the land*, 1971) wrote two brief chapters on the Andalusian garden as part

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¹ However, accurate philological research can achieve unexpected results, such as Parpagliolo Shepard's identification and philological reconstruction of the Babur garden in Kabul (1972).

of a general historical introduction; F. Fariello's *Architettura dei Giardini* (1967) didn't reach any further.

A second generation of British scholars (Crowe and Haywood, J. Lehrman, E. B. Moynihan, D. Wilber, and many others) gets the credit for finally doing the dog's job: an unprecedented systematic survey, catalogue, and database of Islamic gardens existing to date, although many publications lack graphic evidence and, perhaps consequently, a careful spatial analysis. We had to wait until 1988 for the renowned work co-authored by C. Moore, W. J. Mitchell, and W. Turbull, Jr. to have an interdisciplinary reading of the most famous gardens and their underlying design ideas—a research approach of great nourishment and crucial importance.

However, it seems that, apart from scholarly research, we are slipping back to 19th-century World Fair trends: today the Islamic garden, perhaps less than Islamic architecture and decoration, is adopted as an easy model of an artificial pan-Islamism, centrifuging all forms and meanings within *Dar al-Islam*, and scattering them around the world with modern mass-media nonchalance. On one side, this process is made easy by the eclectic character of Islamic art, since the laws of Islam discipline daily life but avoid any strict regulation on art and architecture. Its art almost always joins sophisticated concepts with a vernacular tradition that, through a blend of craftsmanship's variations-on-a-theme and popular fantasy, cannot help but be eclectic. On the other side, Islamic art has never produced a precise code like Classical architecture, nor suddenly shifted taste, style, or fashion. Rather, it has always preferred to elaborate on its universal but multifaceted grammar, varying it by minimal changes and adjustments over time.

All these elements further complicate research. In approaching a complex theme such as the Islamic garden, one of the first discoveries is that the idea of unity within diversity is, in reality, multilayered over centuries of seemingly unimportant mutations. The Islamic Garden, then, or gardens of the Islamic world? We can start addressing the question by outlining the archetypes belonging to three different pre-Islamic roots: the Arab, the Persian, and the Turkish—three concepts of nature, and consequently of space.

In Arab geographers' and travelers' reports, we note their excitement about tame and well-ordered nature, but also their lack of enthusiasm for the wilds. *Locus amoenus* coincides with *locus ferax*. But pleasure is possible only through contrast: if green gardens stand for paradise, hell wears the yellow sand of the desert. The concept of space in a culture evolved from the desert is by necessity based on protecting living space, thus transforming the enclosure into an archetypal sign of distinction—not only separation—between the nomadic and the sedentary, between oasis and desert, irrigated and arid land. There can be no

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dialogue between the two: the enclosure almost becomes a fortress under constant attack from the desert's symbolism—thirst, death, and evil spirits. Sheltered by high walls, the Arab can enjoy the perfumes and colors of his paradise in solitary sensual pleasure.

The pursuit of order in the Arab garden is taken to the extreme in Persia. Here a biaxial symmetry—although a third zenithal axis is always implied—is the means of drawing earth and cosmos together. Everything is organized according to this principle: the layout of architectural elements, the hierarchical organization of decorative symbols, even the practice of gardening. Sophisticated and passive, the Persian garden is a place for contemplation: “Persians don't walk in gardens as we do, but look at them from one viewpoint only,” writes the 16th-century traveler and merchant Jean Chardin. Excluding the hectic commercial city by a well-defined enclosure, the geometrical order simultaneously materializes and fosters the dreaming and making of love.

The Turkish world, settled in the high plains, is inspired by the wide open space of the prairies: a landscape to explore rather than contemplate. The garden becomes a resting spot in a never-ending journey. Its types and techniques, foreign to the nomadic world, had been imported from nearby Iran. The fundamental difference between the Arabs and the Turks can be exemplified by their opposite relationship between dwelling and garden—the first based on the introverted patio-house with the garden in the center, the second based on the hall between two gardens, open toward them on both sides.

Things were already intricate enough, but history shuffled the cards even more. The three different cultures influenced each other in a way apparently impossible to retrace. In the Abbasid period, the Persians extended their domain to the whole Mediterranean, all the way to Gibraltar. After 1453, the Turks started dominating the same sea, as still evidenced by the periphery of Algiers and Istanbul, and by the Dalmatian coast of the Republic of Venice. On the other side, they met Iranian culture and, at the time of the Timurids, merged the static and centripetal conception of Iranian space not only with Turkish wide open spaces, but also with its dynamics and centrifugal exploration. What can we say when this synthesis met the Indian world, where the sense of time depended on agricultural seasons, and where traditional architecture had long been born in symbiosis with nature?

In approaching such a complex problem, it seemed legitimate to establish general classes in order to group phenomena. But this call for order led scholars to overgeneralize. Grimal's subdivision into park-garden and courtyard-garden, the first deriving from the Persians and the second from the Romans, is too generic not to be true, but can't be applied much further.² The classification suggested by M. Moynihan in

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² Both types almost always coexist, starting from the Samarra palaces to the imperial cities of Morocco. The second one often prevails, as for example in Grenada, but we can argue for the possible disappearance of the first type, especially during the great territorial transformations of the 19th century.

tomb-garden, palace-garden, and delight-garden is ambiguous and incomplete, the first group being the only one featuring specific characteristics.³ On the contrary, although limited to a much smaller geographical area, M. Alemi's method seems more promising: he identified physical structures behaving according to specific rules under the poetic names of *pairidaeza*, *khiaban-i cahar bagh*, *bagh-i takht*, etc.

Along the lines of this last example, it seems valid to pursue a line of research capable of shedding new light on the evolution and structural organization of Islamic gardens. This study might start from a general inquiry into its perpetual, tangible traces: the mutual, never-ending relationship between garden and urban form.

GARDEN IN CITY FORM

The Islamic garden has always been an area of research essentially pursued by art historians. The obvious consequence is that it has been considered a specific, self-contained entity removed from its context—its surroundings, the city, and the environment. Along the same lines, reading the spatial qualities and structural layout of the garden, as well as the design ideas underlying it, cannot focus on the garden solely as an object, but ought to reach out beyond its boundaries to seek a larger set of relationships, a richer palimpsest where agriculture, garden, encampment, city, and territory recursively and mutually influence one another.

A 1984 conference in Genzano, Rome, entitled “The Garden as City, the City as Garden,” started looking at the topic from that viewpoint. Among many examples from other cultures, the impact of orchards' patterns on urban morphology, or the influence of the garden on medieval city-building—considered an ideal urban laboratory for building with minimal means and methods—suggested how an interdisciplinary approach could widen the perspective of previous studies.

The structural relationship between the garden and its context should be analyzed from all possible viewpoints, both physical (at all scales, from the environment to the city) and metaphorical or allegorical (the relationship between the garden and the city as an image of the king).

THE GARDEN AND POWER

Despite regional differences, Islamic anthropic processes behave according to the same rules underlying governing the culture: on one side, religious imagery and hierarchy; on the other side, the necessity (and vanity) of expressing the power of the dominator.

³ This type is characterized by a mausoleum located at the intersection of a simple or composite *caharbagh*, although the Taj Mahal in Agra is the most famous exception to the rule.

A famous article by Begley on the Taj-Mahal⁴ demonstrates how emblems of power were an everyday Mughal obsession, and shows that the equation between architectural forms and celestial prototypes (always viewed in terms of the celebration of the deified image of the king) was the real spur to any architectural enterprise. What could not be stated by the orthodox Muslim, vicar of Allah, was left to the metaphor of stone. Playing continually on the ambiguity between Divine Throne and royal throne (an unbridled vanity) transformed tombs and monuments into symbols of glory and called for the laying out of gardens, replicas of the Qur'anic paradise, to exalt the figure of the holy demiurge.

The royal city is based on three recurrent key themes: first, gardens and palaces, merged together as places of heterodox pleasure; second, the importance of the court ceremonial; and third, the vast and complex system of gardens and palaces, sometimes taking the form of a labyrinth as if to express the idea of the king's divine and quasi-magical isolation.

The world of the garden persists both in the royal palace and in the city. It endures through the structural relationship between garden and encampment, and by the bottom-up procession from the monumental entrance located at the lower level to the enclosure of the royal palace at the very top (as in the darbar of Agra). In the city, it persists in the pre-existent pattern of fields and orchards, as well as by the ever sought-after relationship between the garden and the city as an image of the king. The latter is best exemplified by the plan of the city of Hyderabad in the Deccan, founded by Sultan Quli Qutb Shah in 1591 on the banks of the river Musi with a cross-shaped plan designed by a Persian architect: as a response to an ideological program which prescribed the creation of a replica of the Paradise of the Qur'an, the archetypal form of the Persian garden (a vegetal metaphor for heaven) appeared as the most adequate solution.

In fact, besides the function of retreat from reality and protection from wild nature, the Islamic garden has generally aimed to represent, in more or less explicit form, the religious paradise. To complicate the play on imagery and metaphor, it also offers an allegorical sequence for the exaltation of royal power. Despite the difference between western and eastern Islam, the theme was always the same: in Spain and in Maghreb, the Sultan, vicar of God, exploited the association between the garden-of-paradise and garden-of-the-king as the aulic representation of their authority. In the east, in the Hellenistic tradition, conferring divine nature on the emperor transforms the garden into a royal hall for the theophany of the king. In both cases, the garden is the favorite symbol for the omnipotence of the king.

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⁴ See W. Begley, The myth of the Taj-Mahal and a new theory of its symbolic meaning, in *Art Bulletin*, March 1979, pp. 7–37.

But it is in Kashmir that the relationship between garden and city as image of the king is not only confirmed, but extended to the scale of the territory. Around Srinagar, Jahangir and his son Shahjahan started transforming the environment in order to mark their territory. It is significant how small the architectural intervention was compared to the great production of gardens which spawned, according to the sources, no fewer than seven hundred throughout the valley. The “royal enclosure” of Kashmir, then, becomes a systematic grand oeuvre of redesign of the landscape—an organic attempt to glorify the sacred image of the king. “The garden is the place of illusions where the king is venerated and where all proofs (though completely imaginary) of his infinite power have accumulated.”⁵ In these gardens, existent water sources are channeled and converge to pass under the throne where the king sits as the “distillate of the emanation of the Divine Being; a ray of sunshine illuminating the Universe; the subject of the book of perfection; the repository of all virtues.”⁶

In Shalimar Bagh, for instance, the first terrace after the entrance built by Jahangir in 1619, dominated by a telar (a pavilion sheltering the throne), was the place reserved for the darbar (the public audience, the representation of the divine origin of the king) where the characteristic theatrical attitude of the Mughals prescribed a precise role for all. “When the king sits on the throne, all those present shall prostrate themselves and then remain standing in the place assigned on the basis of their rank, their arms crossed, receiving the light from the Divine Countenance... The firstborn prince shall be at a distance of one to four gaz from the throne... the second-born... sits a distance of three to twelve.”⁷ The diwan was decorated for the occasion, and illuminated for the king’s solar and lunar birthdays, during various religious festivals, as well as to celebrate military victories.

On these occasions, the scenic venue was extended beyond the garden to embrace the entire lake. The second and third terraces are two typical caharbagh, completed by Shahjahan after 1630. The first is the private garden: again, according to a Kashmiri ritual, the king sits in the center of a square pool of water marked at its corners by four monumental plane trees. The second is the caharbagh of the zahane, featuring the magnificent Black Pavilion. A torrent, diverted into the garden, is a broad channel measuring six meters across, majestically flowing among plane trees and chinar (*Platanus Orientalis*). The enclosures of the terraces of Shalimar represent the correct layout for the performance of daily court life, based on a rigorous ritual yet extremely flexible in the use of space. It represents a model subjected to infinite variations and reinterpretations according to the same underlying principle.

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⁵ Grimal, *Jardin des Hommes, Jardin des Rois*, in Traverses, 5/6, 1976, pp. 71-72.

⁶ Abu'l Fazl 1877–86, vol. 1, p. 18.

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GARDEN AND ENCAMPMENT

Garden and landscape interrelate through the intermediary form of the encampment. In this way they establish a fundamental relationship bound to affect, either consciously or unconsciously, the other acts of appropriation and settlement in the same territory.

The link between garden and encampment derives from the extraordinary mobility of the court, dictated by the need to strengthen the royal image throughout the country, control the political behavior of the population, and discourage possible sources of rebellion. But there were many other occasions for moving the court in grand style, from military campaigns to hunting parties and pilgrimages, as well as seasonal movements toward milder climates.

It is clear that the organization of the royal camp, required the highest level of administrative and logistic ability. The easiest and fastest way to settle in was to refer directly to established ways to lay out, organize, and subdivide areas. The natural way to do it was to rely on archetypal forms of appropriation of the environment in a way that were simultaneously capable of taming nature and expressing the hierarchy of the court. Within this set of parameters, the archetype per excellentia was the garden, because traditionally it addressed both issues. In fact in Mughal culture, according to the Timurid tradition, the garden combined the functions of contemplation and state ritual. It was also a place for feasts and receptions, fitting for celebrating the apotheosis of the King of Kings.

The description of a camp given by Abu'l Fazl demonstrates the existence of a close functional relationship between the layout of the camp (derived from the garden) and that of the royal palace, in a blend of nomadic and sedentary culture. The world of the tent persists, however, in the forms of masonry architecture, the juxtaposition of courts and buildings, the pavilions, skylines, the mouldings and other decorative details, to the extent of justifying for the opulent palaces of the Mughals the description of "a camp in stone."⁸

How does the archetype of the garden evolve into palaces and new cities? And how can we retrace the process? Shalimar Bagh, for example, on the east coast of lake Dal, is a garden to discover step by step, one enclosure after the other. It is a royal garden. Typologically it refers to a scheme that, almost without exception, aligns in sequence the public ambits (*diwan-i 'am*), the semi-public ones reserved to the king and his court intimates (*diwan-i khass*), and the private ones (*harem*). This scheme is repeated in all palaces, and has a clear origin in the model of the Timurid encampment not only in its spatial layout, but also in its architecture and in the nomenclature directly taken from the tents. Even more strikingly, metaphor and reality often exchanged roles: in the long summer seasons, the garden's lawns became the ideal campground for the royal tents, decorated with red drapery, the symbol of the crown.

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GARDEN AND URBAN DESIGN

The idea of the Oriental city as a puzzle of cramped houses around a maze of narrow streets and *cul-de-sacs*, surrounded by an indecent periphery oppressed by deafening traffic, is a misleading one. Before the transformation brought about by a fairly recent immigration process, Islamic cities had always been portrayed as a unique blend of nature and human settlement. Low building density was maintained in order to preserve a strong relationship with greenery. Vegetation prevailed. Even in the humblest house, the courtyard left room for a tree. Wide green spaces functioning as food reserves, orchards, and flower gardens formed a green belt between the city center and the walls. With the usual prosaic emphasis, European travelers described fabulous green oases for cities: Pietro della Valle saw Istanbul and Teheran as garden cities—the first dominated by cypresses, the other by plane trees; the Spanish ambassador Clavijo portrayed Samarkand as “... such an abundance of gardens and vineyards that when a traveler comes within sight thereof, all he sees is a great mass of greenery with the city in the center.”⁹

Of course, emphasizing the symbiotic relationship between gardens and buildings in the urban fabric is almost trite. However, far from being either urban decoration or functional green lung, the garden has always played a generative role in city form. It seems of crucial importance to bring up the structural relationship between the two, where “structure” is viewed as an organic relationship of elements behaving according to a set of rules.

Ever since the last century, instead of interpreting tortuous lanes and *cul de sacs* as an impenetrable blend of the exotic, the unhealthy, and the horrid, a few scholars perceived the Islamic city in a totally different light, namely, as an extremely rational construction. In 1898, Shetalov remarked that the roads of Yazd, Iran, were traced according to a precise orthogonal scheme. The cities of Sabzavar, Kerman, Ardekan and, more confusedly, Tabas, were following the same principle. Along the same lines, Bonine noted how the urban grid of Mehrir (not far from Yazd) continued straight out of town toward the hills to the southeast. Although street networks were later interrupted by *cul de sacs*, the urban grid derived directly from the agricultural fabric, whose orthogonal pattern was generated by the cheapest and simplest irrigation technique: water was channeled at the base of the hills, then diverted to the arable area thus generating long rectangular lots (*kort*).¹⁰

Thus we can deduce that the morphology of Persian towns is linked to the development of a settlement (the original urban nucleus) within an irrigated agricultural system. In fact, we can note how the roads issuing from the urban gates of Yazd continued the

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⁸ See Petruccioli 1987, and in particular the first chapter.

⁹ Translated from R. Gonzales De Clavijo, 1403–406 (1990).

¹⁰ See M. Bonine, The Morphogenesis of Iranian Cities, in *Annals of the Association of American Geographers*, LXII, 9, 1979.

urban alignments and trajectories without any deviation induced by the need to link nearby towns or landmarks. The extramural fabric of fields, orchards and gardens, then, becomes an integral part of the city: it constitutes its original parcel. The relationship is taken to the extreme (and the axiom is best evidenced) in the urban huertas of Spain, and in the kitchen-gardens of suburban Maghreb.¹¹ The list of examples could be much longer, one for all the widespread urban plans conceived according to existent irrigation channels, or those cities whose survival literally depends on the constant flow of underground canals, as in the *foggara* of Gourara.¹²

In the so-called "Classical Islamic" period, before the devastating invasion of the Ilkhanids, the royal city developed through a serial repetition of large monumental complexes laid out according to the above-mentioned regular grid of agricultural origin: at the beginning, palaces were punctual elements within an endless sequence of square and rectangular gardens. We can distinguish three main variants: 1) gardens straddling a central thoroughfare, often continuing or slightly deviating from the axis of symmetry of the residential areas (i.e., the Balkuwara Palace in Samarra); 2) more seldom, gardens aligned in sequence (Ghaznavide of Lashkari Bazaar); and 3) an uninterrupted collage of gardens, adjoining linearly or perpendicularly according to simple symmetries (i.e., in the Alhambra, the Courts of the Myrtle and of the Lions, and the Garden of Linfaraja and of the Partal).

Even after the Ilkhanid invasion of 1256, marking the end of the unity of Islam, the reappropriation of the territory in the image of the new emperor didn't destroy former fabrics, but reinterpreted the existent structural palimpsest of gardens and cities. The Persian *caharbagh* archetype—a square with four sides, four quadrants, four canals and four axes of symmetry—responded adequately to the renewed demand for centrality as symbol of power. Later on, the Tamerlane dynasty took up the same principle: the layout of the capital Herat is a square recalling a gigantic *qual'e* (fortified farm), with four gates giving access to four straight roads splitting the city in four sectors. Herat may be considered the culmination of experimentation with city form (further exemplified by Merw, Termez and Shahr-i Sabz,¹³ and the reference for all following urban developments in the Deccan of India, ending with the layout of Shahjahanabad (Old Delhi) in 1638.¹⁴

But one of the most enlightening processes can be observed in the urban design of the Mughals after the invasion of Northern India (1526). The garden and the camp were the only forms available to the Mughals when they started redesigning Indian cities in the semblance of the new royal image. Refusing to adapt to the

¹¹ See Petruccioli 1985, in particular the chapter *Ambiente, acqua, agricoltura*.

¹² For a detailed study of the hydraulic systems of Saharan oases, see Laureano 1988.

existing fabric and the torrid Indian climate, they created exclusive settlements for themselves. Instinctively, design layouts were drawn from the garden. Neglecting the Indo-Muslim city of Agra on the right bank of the river, Babur decided to settle on the opposite side, building a regular pattern of gardens in the manner of those of Lahore and Dholpur, stretching for more than a kilometer, in which the idea of “monumentality” and “representation” of the new order was entrusted to the high, continuous stone plinth along the river. This pattern ended up establishing a framework for future urban development: Babur’s successors strengthened the previous Mughal fabric by building the Red Fort and the Taj-Mahal, and further pursued the design of gardens along both banks of the Yamuna,¹⁵ among which the outstanding example is the tomb-garden of I’tirnad-al Dawla. Furthermore, starting from the second half of the 16th century, the Mughal “gardens of delights” progressively turned to marble and sandstone palaces, rigorously retaining the order, rhythm and ratios of pre-existent gardens, the typical forms of the original pavilions, the hierarchical arrangement of the enclosures (*baradari*) and, despite the decrease of greenery, all the garden furnishings—fountains, pools, canals, and chadar.

GARDEN AND TERRITORY

To approach the relationship between garden and territory in the Islamic world, we may once more consider the Mughal gardens of Kashmir. They allow us to draw a more precise set of inferences, because the geographic isolation of Kashmir favored the maintenance of the same cultural archetypes over a long period of time. Thus, the Kashmiri garden represents a relatively uncorrupted typological process, one that allows us to draw similar deductions in more complex cultures.

“Kashmir is the garden of eternal spring, a safe (haven) for the palace of the King,”¹⁶ wrote Jahangir about his trip to Srinagar. But what does that really mean? What can we infer from this apparently simple statement? First of all, reading between the lines, we can note how a one-line epithet blends together different, seemingly incompatible scales, and how their metaphors depict a set of peculiar spatial relationships: the 170 x 60 km valley of Kashmir becomes a single “garden,” one of eternal flourishing beauty; then, it suddenly becomes one with the strong, opposite imagery of the safe haven, merging a vast valley and the architecture of a royal palace into a whole—a seemingly all-inclusive organic system. Analyzing the topography and spatial layout of its anthropic elements, we can note how Kashmir was to Hindu eyes a *ksetra*—a complex hierarchical system of holy places linked by pilgrimage circuits (*yatra*).¹⁷ The

¹³ See Pugacenkova 1978, which gives a diagram of the city’s quadripartite layout.

¹⁴ On Herat see Gaube 1979; Brandenburg 1977; Samizay 1989.

¹⁵ See *Memoires* of Zehir-ed-din Muhammad Babur (1826, 1921). The chronology of the gardens along the left bank is still an open debate. Ebba Koch disagrees, for example, that the present Ram Bagh is of the Babur period. See Koch 1986, Notes on the Painted and Sculptured Decoration of Nur Jahan’s Pavilions in the Ram Bagh at Agra, in *Facets of Indian Art* 1986. The same conclusion is reached, after stylistic analysis, for the Zahara Bagh: see Koch 1986, The Zahara Bagh (Bagh-i Jahanara) at Agra, in *Environmental Design*, 2, 1986: 3-37.

whole Indian subcontinent is structured according to a hierarchy of similar landmarks, within which ritual movement generates a hierarchy of pilgrimages to specific places. India is covered by a meshed pattern of these revered sites and the roads necessary to reach them, a pattern further subdivided into secondary systems according to a precise religious hierarchy. Everything, from the larger scale (the four corners of the continent) to the smaller subsystem (the single city) is structurally configured according to ritual movement and symmetrical references. Within such a system, the smaller unit always reflects the principle of the larger scale as an all-inclusive religious and cultural unity.

Returning to our example, the smaller unit—the city of Srinagar—is situated in such a way that the surrounding topography simultaneously suggests and strengthens the holiness of the place. Thus it is a matter of individuating the “sacred area” around Srinagar—those significant points that define its lines.¹⁶ The ideal line connecting temples, linga, villages, orchards, vineyards, water sources, sanctuaries, gardens and tombs, defines the lines of this sacred space. Surprisingly, this line does not coincide with the ridges of the mountains overlooking the Fhelum valley, but marks the edge of the cultivated land, separating the artificial world of orchards, vineyards, floating gardens, and canals from swamps and forests. Mountains, then, are not the ideal walls of the king’s haven! After all, it is not a coincidence that, in Brahman art, the *ksetra* is always represented as an enclosed garden.

The lines mainly contain an aquatic world. “The Gods approach the places which contain water and gardens,” says the Bhavisya Purana (I.CXXX, 10).” The Gods reside close to the forests, rivers and mountains, streams and in the cities which are full of gardens” (I.CXXX, 15). In the 7th century Kadambari of Banabhatt, we find a description of a garden-palace featuring various devices for the collection and transportation of water, and pools for bathing. In the Rajatarangini, Kalhana mentions a garden founded by the king Jaysingh in 1150 in Kashmir (VII, 3360). Although we can’t prove the existence in pre-Islamic times of formal gardens based on water sources instead of simple forests and lawns, everything seems to confirm it. We can imagine a continuous sequence of different gardens blending with the pattern of agricultural fields and orchards, sometimes floating on the lake to ultimately express a perfect synthesis of water and agriculture. Gardens, then, embody and foster that synthesis at the same time. They can be taken as the crystallization of the structural organization of that particular culture.

Extending our overview beyond Kashmir, the gardens of Persia, Central Asia, and India—supported by a philological reading of

¹⁶ Nur ad-Din Muhammad Jahangir, *Tucak-i Jahangiri*, A. Beveridge, ed. (New Delhi: 1968, translated by A. Rogers), pp. 143–144.

¹⁷ A scientific, although partial reconstruction of Srinagar’s tirtha has been attempted by Stein 1899. Abu’l Fazl’Allami, the biographer of Mughal emperor Akbar, lists in the valley 45 shrines dedicated to Mahadeva, 64 to Vishnu, 3 to Brabama, and 22 to Durga; in 700 places he notes carvings of snakes as objects of devotion. See Abu’l Fazl’Allami, *The Ain-i Akbari*, translated by H.S. Jarret (Delhi, Oriental Books, 1978), vol. 2, p. 352. Also, 250 plans representing tirtha are kept in the Srinagar Museum, originally belonging to a manuscript by Pandit Sahibram, who died in 1872.

¹⁸ This is also common to the Islamic world, as for example in the Haram around the Mecca; or to Western countries, as in the sacred hills around Varese, Italy.

their miniature representations—suggest a general process based on a progressive metamorphosis of water from a dynamic to a static state and, similarly, from open to enclosed form in the relationship of garden to environment. The formative process of the typical garden shows the prevalence of a hierarchy based on the longitudinal axis, marked by a waterline, which evolved from a marginal position (such as in Bagh-i Fin of Kashan) to an increasingly prominent location (as in the Babur garden in Kabul, where a line of water runs through fourteen terraces). As in the scenes portrayed in miniature paintings, in reality the original short perspective of the caharbagh is progressively extended, until it reaches outside the enclosure to include part of the surrounding landscape.¹⁹

Thus, the changing nature of the garden progressively marked a crossover from an idea of nature closed within the abstract scheme of the caharbagh to an organic representation of the relation between the garden and the landscape itself. Babur, founder of the Mughal dynasty, aimed to provide the territory with equidistant points of sojourn and recreation at Dholpur, Agra, Fathpur Sikri and even Sheikhpura, close to the site of the Panipat battle: the system was constructed through environmental-scale gardens connected by a welter of roads and hydraulic infrastructures which his successors ceaselessly strengthened and added to. The final aim was always the same: to gaze on the impossible model of a single great garden as large as the whole Empire.²⁰

Symmetry, simplicity, metaphor: a simple canvas of design elements blending landscape and formal gardens pervades the entire modeling of the environment in the encampment, the palace, and the city. We have already discussed how palaces, having been turned into the administrative centers of a bureaucratic empire, were conceived in their layout as gardens through the intermediary stage of the royal encampment. These palaces further built up the structural grid, growing out of all proportion so as to house services, ministries, and the increasingly more complex activities of representation. But it is only in the valley of Kashmir, again, that the Mughal dynasty reached the goal of integrating the design of the garden into a larger territorial structure.

To conclude, Mughal geometric order ascends in a territorial grid capable of reaching beyond the regional scale. Similarly, the concept of the oasis of the Arab world projects the idea of enclosure to the scale of the whole territory. The Indian subcontinent has always been an incomplete system of hydraulic infrastructure and street networks, as well as services and gardens for the stopovers in the king's journeys, where each garden was itself a small-scale territory furrowed by canals and tree-lined paths—a constant set of relationships that has shaped the territory of today.

¹⁹ In reality, the process is more complex. The garden comprises in itself a blend of different schemes, such as the double caharbagh with a central axis cutting through three terraces in the Shalimar of Lahore, or the deliberate acceleration of the water or abrupt level changes according to the existent topography, as in Kabul or in Kashmir. Also, we shouldn't forget how the tomb-garden, by far the most conservative type, persists until the 18th century with the same archetypal features.

²⁰ This territorial framework, based on an infrastructure system extended to all regions of the Empire, was homogeneous in theory but discontinuous in practice. The provincial governors vied with each other to endow the network with caravanserais and resting places, to dig wells, plant gardens, shade main roads by planting endless lines of trees, and cross water courses by building bold stone bridges. An example of Mughal megalomania is the khyaban, the great national boulevards. It seems that the idea of creating shady roads—a continuous oasis for the repose and protection of travelers, or a linear pergola at the scale of the whole nation—came to Jahangir. But khyaban existed at Samarkand, Qazvir, Tabriz, etc., albeit at a local scale. Royal caravanserais (padshahi seray) with a garden where the court could camp out, existed along all the main routes of the Empire. See R. Ch. Kak, *Antiquities of Bhimbar and Rajauri*, in *Memoires of the Archaeological Survey of India* (Calcutta: 1923: 14.

TOWARD INTERDISCIPLINARY RESEARCH

The relationships among garden, encampment, palace, and finally city and territory as the image of the king, open up new insights into the study, still in its infancy, of Islamic town planning. The outline above argues that, throughout Islam, a crucial aspect of the Islamic garden is the complex set of relationships it establishes at various scales, and how it serves as the basis for all human developments. The garden-territory nexus, then, may be seen not only as an aesthetic but, on the contrary, as a complex anthropic reality.

The numerous studies done by geographers, among them the fundamental work of Xavier de Planhol on anthropized landscapes, of Lambton on agriculture in Iran, of Sauvaigo on Mediterranean agriculture, and of Bisson on the oases as production areas, have always skimmed the theme of the garden. In an essay of at least fifteen years ago—*Dar al Islam, Architetture nel Territorio dei Paesi Islamici*—I tried in my turn to link Islamic settlements with the extraordinary infrastructures realized by those cultures for irrigation and agriculture. I also aimed to demonstrate how those functional works had much in common with the garden, aesthetics aside. In that same book, the environment is deliberately left aside (or seldom brought up) in order to focus on a narrower set of relationships. As the former arguments tried to evidence, it deserves a much more ample space. The field remains open for efficient ways to tackle the subject.

In approaching such a complex problem, it seems legitimate to establish certain categories in which to group single phenomena in homogenous classes, to define a chronological order, to examine their variants and how they affected the original categories. Furthermore, synchronic variants will class the differences introduced by the single designer within the general category. The analysis of these variants and their evolution will be referred to herein as the “typological process” whose aim is to retrace the crucial links between the garden and other forms of anthropic appropriation of the environment.

The multi-layered world of Islam seems to allow this approach only by cultural region. On the other hand, typological process may be an efficient way to undertake a study of the complex influences absorbed by Islamic cultures. For example, consider the city of Samarra, Iraq, capital of the Abassid empire from 836 until 892. A boundless city of enormous linear extension (a 35-km strip along the Tigris)²¹ for the exclusive use of the Caliph, Samarra is a juxtaposition of Palatine cities according to typological schemes of various cultural matrixes, such as the Roman, Hellenistic, Byzantine, Sasanian, and Umayyad, dilated to the territorial scale. Typological analysis may show how this extraordinary case is far from being unique, and provide the methodological tools for retracing its apparently impenetrable evolution based on what exists today.

The outline above argues that, throughout Islam, a crucial aspect of the Islamic garden is the complex set of relationships it establishes at various scales, and how it serves as the basis for all human developments. The garden-territory nexus, then, may be seen not only as an aesthetic but, on the contrary, as a complex anthropic reality.

²¹ On Samarra see J.M. Rogers, Samarra. A study in medieval town planning, in *The Islamic City*, A.H. Hourani and S.M. Stern, eds. London: Cassirer, 1970), and T. al-Janabi, Islamic archaeology in Iraq: recent excavations at Samarra, in *World Archaeology*, XIV, 1983: 305–327.

We can lay out a typological approach keeping in mind three fundamental issues: the meaning of type, the search for unity within the complexity of Islam, and finally the garden as the aesthetic distillate of agriculture.

We can define “type” as the ensemble of characteristics and tectonics that are common to a set of buildings, cities, and gardens in a precise geographical area and a precise period of time. But type, according to Saverio Muratori, is also a generative action *a priori*: it already exists in the subconscious of the designer, and it is an integral part of collective imagery, thus anticipating the act of building. In the entire Islamic world there is an archetypal form that has become almost synonymous with the Islamic garden, namely, the *Chahar bagh*, a system composed of two perpendicular axes intersecting and defining four equal quadrants sometimes featuring a monumental landmark (see Walcher, this volume, for a discussion of *Chahar bagh* as manifested in the Safavid capital of Isfahan). It is not important to argue about the origin of the form so much as to underline its universality, and start engaging in research on the process of its evolution.

Typological research could start from regional cultures and expand its overview to the whole Islamic world, as a consequence of the overlap between sacred topography in Hindu and Muslim cultures. In fact, we can argue that the appropriation of territory by the Islamic dynasties from Shams al-Din to Akbar occurred through a ritual refoundation based on the simple resacralization of venerated places and water sources. Thus, in spite of cultural and religious differences, there is a substantial continuity between Hindu and Muslim dynasties, as proved in the territorial management of the valley of Kashmir. Continuity, in any case, is confirmed by the toponymy, conserving an unmistakably Sanskrit origin.²²

The garden is often regarded as a manifestation of refined beauty and intricate symbolism—essentially as an object. In reality, it is but the aesthetic distillate of an agricultural civilization, always playing a decisive role in any anthropic process. Of the three axioms, this last one, because of the continuity of its evolution in all cultures, may be the starting point for future interdisciplinary research.

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²² This is demonstrated by the recurrent ending in -pur, -mar, -khot in villages' names; -sar, -nambal, -nag in the names of lakes and swamps; -kul and -khan in the names of rivers and torrents.

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