

# Geomantic mapping of the human body in Japanese landscape design

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Harmony between the forces of nature and human activity was of great concern throughout the history of Japan. The divination of these important forces were governed through a canon of geomantic landscape design principles that developed significantly during the medieval Heian era (794-1185). In a nutshell, spaces for human occupation – whether at the scale of an entire city or an individual household – are divided into two bilateral symmetrical halves organized around a central longitudinal axis. Spaces are ranked hierarchically along the central axis. This type of physical setting intuitively albeit very loosely resembles human anatomy. One possible interpretation is that the central axis of symmetry typifies the central axis of the body from head to feet, with the highest function placed at one end. We suggest that the resemblance of this mapping to the human body, and its repetition at various spatial scales enable its human inhabitants to more intuitively relate to their surroundings, whether in their own dwellings, neighborhoods or at the level of the city as a whole.

**Key words:** landscape design, Kyoto City, geomancy, human body, Feng-Shui

### Geomantiese kartering van die menslike liggaam in Japanese landskapontwerp

Om harmonie tussen natuurkragte en menslike aktiwiteit te bewerkstelling, was nog altyd vir die Japanese van groot belang. Die toekomsvoorspelling van die uitwerking van hierdie belangrike kragte op landskapontwerp is deur 'n kanon van geomantiese beginsels beheer, wat tydens die middeleeuse Heian-era (794-1185) aansienlik ontwikkel is. Kortliks gestel, word dat ruimtes vir menslike bewoning – hetsy op die skaal van 'n volledige stad of 'n individuele huishouding – verdeel in twee bilaterale simmetriese helftes wat om 'n sentrale lengte-as gerangskik word. Ruimtes word hiërargies langs die sentrale as geplaas. Hierdie soort fisieke rangordelike rangskikking toon 'n losse ooreenkoms met menslike anatomie. Een moontlike interpretasie is dat die sentrale as wat simmetrie bepaal, op die middellyn van die liggaam van kop tot voete dui, met die hoogste funksie aan die een eindpunt. Vandaar ons afleiding dat die ooreenkoms tussen hierdie kartering en die menslike liggaam, asook die herhaling daarvan op verskillende ruimtelike skale, die menslike inwoners in staat stel om hulle meer intuitief met hulle omgewing, hetsy in hulle eie wonings, woonbuurtes of ten opsigte van die stad as geheel, te vereenselwig.

**Slutelwoorde:** landskapontwerp, Kyoto-stad, geomansie, menslike liggaam, Feng-Shui

Geomancy refers to the belief that humans can control the outcome of events by affecting the flow of the forces of nature. In a sense, our modern world is steeply grounded in a form of geomancy, given our preoccupation with the environment, our impact on its ecology, and the consequences for us as a species if our natural environment were to be devastated. The system of geomancy that dictated the organization of the human designed environment in medieval Japan was strongly influenced by Chinese geomancy, the latter arriving from the mainland in various waves of influence. By the 11<sup>th</sup> century ACE, in medieval Japan, these principles are firmly absorbed into a system that attempts to appease and control the flow of the forces in nature by observing various rituals and taboos (see the writings of *Zōen*, 11<sup>th</sup> century, as recounted by *Shingen*). The original Chinese version of geomancy developed into what today still remains as *Feng-Shui* (風水 (*Fūzui*) – literally wind and water), or in Japan as *Fūzei* (風情 – feeling or atmosphere of place). Both systems are mainly characterized by

aligning given elements and forces of nature with the main directions (i.e. north, south, east, west) and as constituted of balanced but opposite aspects, such as negative and positive, or *Yin* and *Yang* (Stein 1990).

Of particular significance in this conception of the world are the gates of heaven and of earth because prosperity would be bestowed on the diviner able to control the access to these gates. The opening of the gate of heaven brings good fortune, while the gate of earth should remain closed to prevent demons from entering this world. By securing the gate of heaven one has a better chance of achieving prosperity. The gate of heaven is an opening in the roof of a dwelling, typically the open courtyard in the centre of a house, and it is secured by tying it via the pillar of heaven to fixed vantage point. The mountain of paradise signifies the pillar, and it ties the gate of heaven to the North Pole Star (Thomas 1948). A north-south axis thus naturally emerges in Chinese geomancy, connecting the centre of a space intended for human occupation with the North Pole Star via a ritualistic device, such as a mountain (Stein 1990). Similarly, devices exist to ensure that the gate of earth remains closed. Other rituals and taboos guides the balancing of *Yin* and *Yang*, that is, the various opposing aspects of natural forces, often embodied by male and female characteristics, opposing directions, such as north-south or east-west and seasonal cycles.

### **From geomancy to city layout**

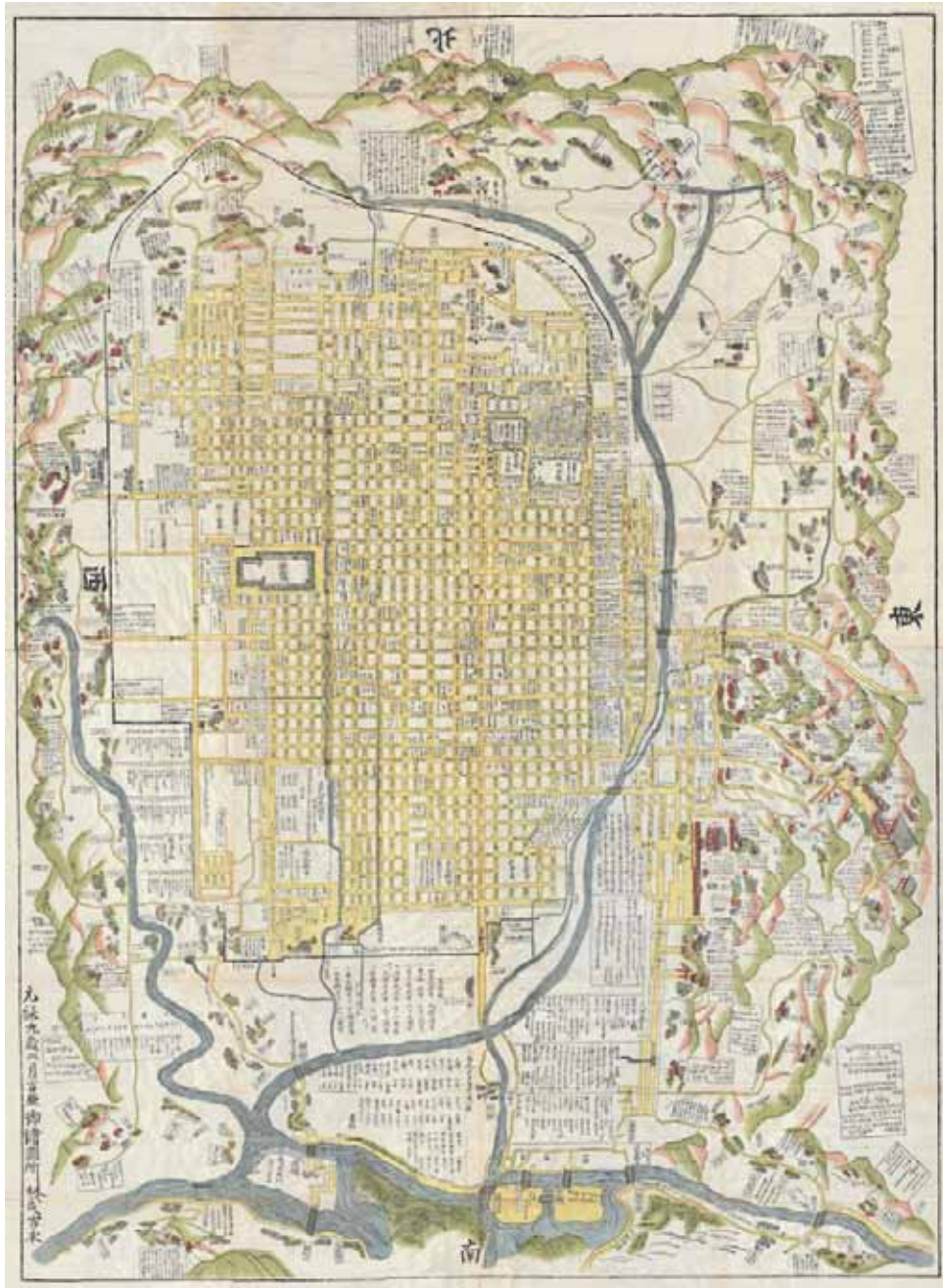
In 794 ACE, Emperor *Kammu* founded the city of Kyoto. It was named Heiankyō (平安京, literally Capital of Tranquil Peace), constructed in emulation of the classical cities of China (see Keane 1996 and Nitschke 1993a, for an overview). In particular, Kyoto was modeled on the Tang period Chinese capital of Chang'an (modern day Xi'an).

These idealized cities were constructed in close observation of the geomantic principles of *Feng-Shui*. It featured a rectangular grid centered on a prominent longitudinal avenue aligned with the north-south axis. The axis had to point towards the North Pole Star and ideally had to terminate at the foothills of a significant mountain or mountain range on the north side. The imperial court, housing the supreme diviner, was situated at the north of this axis within the city perimeter, at the end of a wide central avenue that divided the grid into a right and left capital. The two lateral halves were initially intended to be mirror symmetrical, each with a large guardian Buddhist temple to allow for the performance of rites and ceremonies deemed important to the wellbeing of the city. There were also symmetrically arranged areas designated to various guilds of craftsmen, and marketplaces from which goods brought into the city could be traded among the populace. The temples, artisan workshops and merchant markets, which performed functions such as purification, construction, reconstruction, repair, production and refinement of goods for daily use and consumption, and waste removal, were located towards the south, close to the large central city gate.

The city perimeter was divided into grid cells that constituted an indexing system for addresses. Generally, grid cells decreased in size away from the central avenue, and also decreased in size from north to south. The lower ranks – craftsmen and merchants – were assigned the smallest units in the grid. The size of the property allocated to a household scaled up with increasing social rank, with by far the largest cell assigned to the emperor, in the upper (northern) middle of the rectangle. It was so large that the emperor was able to hunt deer in the garden placed on the south side of the main court. The Imperial Palace grounds resembled the entire city design in miniature. The exact scale of grid cells and the indexing system is discussed in greater detail in many references (see for example Ponsonby-Fane 1931: 14-29). Lateral distance away from the central avenue, and longitudinal placement lower towards the south, signified degrees of separation from the emperor. Grid locations were thus indicators of the rank of its occupants and the degree of the perceived “purity” of its occupants and their occupation. The rank and size of estates were also in line with duties related to the observance of geomantic taboos. For example, the highest ranking nobility after the emperor were assigned to the north-east corner of the city, to prevent evil from entering the city. Landmarks were chosen to agree with these taboos. Water moving through the urban rectangle, for example, had to flow from north to south, and from east to west, to ensure the purity of the natural forces entering the city.

### **Evolution of the city grid over time**

Below is a 1696 map of Kyoto, known as *Genroku 9 Kyoto Daiezu* (元禄九年京都大絵図) held by the International Research Center for Japanese Studies (*Nichibunken*). It shows the city, as reconstructed after being razed during the 1477 *Ōnin* civil war. The southwestern parts of the city were slightly marshy, and were eventually abandoned and used as agricultural fields, a practice not originally permitted within the city boundaries. Instead, the city developed most towards the northeast, up to the banks of the *Kamo* river. The original Imperial Palace and the spacious leading central avenue approaching it from the southern gate had vanished. The Imperial Palace of today is located on what previously was the household estate of the Marquee *Konoe*, a large aristocratic residential unit allocated within the northeastern corner of the original city perimeter. On this map, the silting up of the southern lake is still underway, but the prominent original central south gate no longer exists. Note how the city snugly fits into the “armchair” setting of protective mountains, with two rivers flanking it on both sides. Nitschke (1993a: 35) refers to such a layout, with a tall protective barrier at the back and lower fortifications flanking the sides of a central flat region for occupation, as an “armchair” setting. The northeast corner shows mount Hiei. *Kamigamo* shrine is located in the foothills, north of the city (appearing as a small building painted red, close to the exact middle at the top of the map). It is decorated in colour to indicate its elevated status, and is accompanied by a short description of the illustrious Thunder Deity.



**Figure 1**

**1696 map showing Kyoto 902 years after the founding of the capital .**

**The vertical orientation indicates the north-south axis, with north towards the top.**

**(A high resolution image of the map is available on the Wikipedia page on the history of Kyoto City.)**

### **Left-right, east-west symmetry at smaller scales**

Individual residences of the nobility from the Heian era (794-1185) onwards followed the same geomancy and therefore shared a layout very similar to the city as a whole, with an east-west symmetry around a north-south axis along the central axis of the property (Nitschke 1993a: 34, Schingen 1966). The only remaining example of an original Heian residence built in this style (known as a *shinden* style hall) is the *Byōdōin* (phoenix hall) in Uji, near Kyoto. The north of the estate would be planted with high growing evergreens such as cedar trees, acting as a screen against winter wind and a sun screen in summer. Flowering cherries were planted on the eastern flank to greet the rising sun, and maples to provide cool shade against the afternoon sun or

blazing autumn colours as the seasonal sun went down earlier and earlier as the seasonal cycle matured. The east, west and south were mostly planted with deciduous trees, to ensure access to the winter sun. In strict adherence to geomantic taboo, water was to flow from the northeast corner of each estate, towards the southwest, to purify the residence from evil influences (Shingen 1966). A protective shrine was erected on the northeast corner of the estates – often containing the effigy of a monkey-deity – to prevent evil from entering from this ominous direction. The possible evolutionary origin of the monkey statue, acting as a decoy against real predators, is a tantalizing even if improbable speculation. To the south of the main residential hall, an open plain covered in feldspar gravel opened towards a pond garden further south, while a left and right pavilion flanked the main hall, recreating the armchair setting surrounding a flat plain. The water of the southern pond garden must flow out of the court at the southwest corner of the estate, in agreement with the belief regarding the proper outflow of impurities.

The Zen temple complexes in Kyoto, mostly founded after the end of the Heian period, follow a similar north-south longitudinal axis with east-west symmetry, with the different parts of the complex resembling various stages of spiritual attainment as one moves from south to north. This layout is commonly referred to in the Zen community as the “composition of the seven compounds”, with each main building in the temple complex assigned to a body part. In fact, diagrams showing the names of the various buildings inscribed into a silhouette of a human figure (Masuno 2008: 150~) occur in the so-called *kirigami* annotations to various old texts.

Arriving at a Zen temple complex, entry commences through the main gate at the south, followed by passage along a bridge across a lotus pond. The path then continues through the garden of paradise, a planted grove of old pine trees. This constitutes a set of three gates, associated with the bodily functions related to excretive, sexual and reproductive orifices. Walking up further north, one reaches the first meditation hall and the Dharma hall for teaching, designated as the stomach and chest of the torso. The central avenue is flanked by the more practical components of monastic life, for example, the sleeping bunkers with kitchen on the upper east and storehouse to the west, functioning as the arms. Ablutions on the lower east and a bathing complex on the south-west are assigned to the left and right legs. At the northern most end of the complex is the abbot’s residence.

Inside the main halls of most classical Kyoto Buddhist dwellings and meditation halls, a statue of a Buddhist deity on an altar is usually found centered on the northern wall of the hall and looking out towards the south, over the southern courtyard. In itself, therefore, even the main hall of an estate echoes the armchair setting that is enclosed on the north and open towards the south. As if to echo the valley plain on which Kyoto City is built, the gravel court to the south of the main hall is deliberately built to slope to the south, away from the building. A good example of this arrangement is the Ryoanji temple rock garden. This arrangement has the functional benefit of draining rainwater away from the building, thus protecting the foundations. It also serves a perceptual purpose, creating the impression that the courtyard is more spacious than its actual physical perimeter.

### **North-south axes in the Kamigamo neighbourhood**

The last geomantic aspect discussed here relates to indigenous Japanese beliefs regarding natural deities. The common belief – possibly with neolithic origins – was that deities infused all aspects of life surrounding us, present as a life force flowing through stones, trees, water and so forth. One of the most powerful deities, the God of Thunder, or *Kamo Wake Ikazuchi no Ō-Mikoto*, would

depart from earth in autumn, whereupon the green would wither and the land would turn cold and barren. In early spring, the Thunder Deity could be enticed to return to earth through special divination rites, to reinvigorate the land and restart the natural cycle of growth. As the deity returned, it would alight upon a special rock pedestal (*iwakura*). In the case of Kyoto, a sacred neolithic rock pedestal is found in the northern suburb of Kamigamo, a village with a known history of at least 1500 years, thus predating the founding of Kyoto as capital. In the periods preceding the Heian era, emperors would send for divination at the Kamigamo deity in times of hardship and famine. One such a divination rite, recorded in 567 ACE, has become installed as the oldest festival continuing into the present in Kyoto. It is known as the *Miare* Festival, through which the thunder deity is enticed back into the land through elaborate nocturnal rituals (Nitschke 1993b: 19). (For an intriguing account of the myth and history surrounding the origins of the Kamigamo shrine, see Ponsonby-Fane 1964: 3~ and Nelson 2000: 221~).

Returning to the rock pedestal, it is literally pedestal shaped – a natural rock outcropping with a roughly flat top (Keane 1996). A smaller rock resembling the flat-topped trapezium-shaped pedestal was commonly placed in the gardens flanking the northern side of dwellings of Kamigamo Diviners (*Kannushi*).

The shrine dedicated to the thunder deity is located directly south of the pedestal rock, placed so that the central axis of the shrine (also with east-west bilateral symmetry) and pedestal rock is aligned with the northern North Pole Star. This arrangement is therefore reminiscent of the pillar of heaven, connecting the gate of heaven to the North Pole Star. Similarly, diviners' dwellings are on the south side of the garden pedestal rocks. The entire Kamigamo village is placed south of the shrine, the paddies into which the deity would pour its life force are located directly south of the village, and in turn, at a much larger scale, the entire city of Kyoto is placed directly south of the Kamigamo community (Ponsonby-Fane 1964). A recurrence of the same north-south axial relationship between the seat of the life-giving divinity and the worshipper/good peasant of the land is therefore found at many layers. Bearing witness to the awareness of this relationship, the Kamigamo shrine appears at the top (north) centre of many old maps of the capital. In figure 1, for example, the structure of the shrine at Kamigamo appears coloured in vermillion, with a square text box hailing the thunder deity (directly beneath the script for “north”), at the top centre of the map, above the rectangular city grid.

An interesting feature at the Kamigamo shrine is the construction of two identical sand cones on the south flank of the complex. With tiny pine needles stuck upright into the tips of each cone, the sand symbolizes both the return and departure of the deity, and is a symbol of rebirth. Aligned with the east-west axis, these can be interpreted as symbols of *Yin* and *Yang*. A similar arrangement of male and female – of *Yin* and *Yang* – rocks or rock arrangements can be found on the southern garden courtyard flanking the main halls of Zen sub-temples, such as Ryanji and Rygenin in Kyoto. Here, a rising *Yang* rock is placed on the east of the garden courtyard, and a lower *Yin* rock is placed towards the west. This practice is described in the opening passages of the 1466 garden design manual written by Shingen.

## Discussion

Nowhere except the *kamigiri* annotations (Masuno 2008) do the details presented above prove an undisputable link between classical Japanese geomancy and its embodiment in human anatomy, but we deem the topic worth presenting for various reasons. First, the prevailing inaccessibility of Far East Asian culture in South Africa suggests that the general audience of this journal may

be unfamiliar and thus sufficiently interested in the notion of Japanese geomancy in the spatial layout of anthropocentric landscapes.

Second, we are not aware of any research that conclusively addresses the possibility that geomantic principles in the above in fact lead to a physical environment that materially benefits its human occupants. Speculatively considering the physical implications of the geomantic guidelines, a number of potential advantages for human occupation can be noticed.

For example, the directional associations of “upper” and “lower” with “north” and “south” is still used in Kyoto today, 1200 years after the founding of the city as capital of Japan. One possible religious connotation with this directionality may be the role of the Pole Star as an important deity in medieval Chinese geomancy (Stein 1990, Inoue 1994). In this sense, “north” also had a connotation with “elevated” or “exalted”. However, the up-down connotation with north and south can be a purely pragmatic denotation, directly related to the fact that the longitudinal axis of the city is placed on a valley plain that slopes about 80 meters from its northern end down towards the south.

In fact, the exact location of Kyoto was chosen for this physical feature of the landscape, among others. Chinese geomancy dictates a number of landmark features that denote a prosperous setting, related to the five colours, the five elements, and the five guardians (Shingen 1466.), and determine a complex set of rules and taboos of interaction between the elements that, if the city layout were to ignore or disregard them, would lead to a disastrous outcome. Chief among these features were the presence of a large guardian at the northeast corner of the city, a series of mountains at the north that could act as the Black Turtle guardian, and two rivers flowing alongside the rectangular frame of the city – the Blue Dragon in the east and the White Tiger in the east, with finally, the Red Phoenix guardian to the south, and of course, the Yellow Earth of man in the centre (Shingen 1466, Slawson 1987: 206, Nitschke 1993a, Keane 1996).

The necessity for a guardian against evil in the northeast corner of the city does not yield to rational thought as easily, except that we could reason that at the most challenging time of the year – winter – the direction to go dark first at dusk is the northeast. The probability that a hungry nocturnal predator would attack from this direction may be slightly higher, and hence it would make sense to remain attentive to this direction in winter. In purely pragmatic terms, mount Hiei, the northeast guardian of Kyoto City, functioned as a lookout post that could spy approaching enemies.

The above “guardians” towards each of the principle directions around Kyoto comprises a geological setting that holds various potential advantages for a human settlement in the northern hemisphere. Mountains towards the north provide shelter from the fiercest prevailing winter winds, while shading the settlement against the sharpest summer sun. A slanting central plain keeps water and air flowing, with fresh air and water replenished constantly from mountainous forests and mountain ice. The central part of the valley plain is slightly raised, making it unlikely to succumb to even serious flooding. Households allocated to the northernmost grid cells in the city therefore enjoyed the purest air and water. The central axis of the capital was safeguarded against flooding by virtue of its slightly raised elevation with relation to the major rivers flowing down along the east and west flanks of the valley. The plains consist of a thick layer of feldspar gravel, ideal as a filter against impurities, sweetening the water and acting as water storage layer that ensured that clear wells could be dug virtually anywhere within the city.

The absence of mountains on the south means that the valley receives good sunlight during winter and that airflow is maintained towards the south relatively consistently. Usually, a city

located at low altitudes in a valley can potentially become a smothering heat trap. The opening towards the lower-lying south improves air circulation in the city. Even so, Kyoto can be very hot and humid in summer. Originally, the presence of many huge trees would help ensure that the city remained at a bearable temperature even in summer, although the lack of green space in present day Kyoto has significantly altered this situation. It is easy to forget that above every river of water there is also a stream of cooler air flowing, a vital part of the circulation of airflow.

The above described “armchair” setting of mountains surrounding the north, east and west of the valley (Nitschke 1993a: 35) provides physical shelter against attacks on the city, while the large shallow lake towards the south further restricted access to the city. Access to the city was restricted to a number of narrow mountain trade routes, and a strictly guarded entry point towards the south at the city, where the lake drainage formed a river delta that drained towards the southwest. It was further important that the northeast was properly protected against the inflow of evil, and that water in particular had to leave any setting throughout the southwest, as this was the proper direction through which impurities were supposed to leave. The natural presence of all the various elements required by the geomancy made Kyoto the locale of choice when it was founded as the new capital. The fact that it has endured as a city for so long provides circumstantial evidence that the geomantic principles also bear on the physical environmental settings that shelter humans from the elements and engender material prosperity.

The most sought after neighborhoods in Kyoto City today are the parts inside the city rectangle, or in the valley plain directly north of it, that were occupied throughout the longest span of the history of the city and even before its foundation. Intuitively, or from long experience living in the area, people at different ages knew where the areas most conducive to prosperous living were located. Areas lying outside of these perimeters often suffer from excessive humidity in summer (on the east and west) or prohibitive exposure to the afternoon sun (east), or a lack of clean air or good air circulation (south). Large modern architectural incisions into the landscape – most notably the goliath new Kyoto station - have obstructed the north-south flow of air to the extent that residential areas south of the station have seen a noticeable increase in year-round temperatures. After 1200 years, the lake and delta has silted up, and is now a fully built up suburb towards the south of the city.

The third reason why we deem this presentation as sufficiently interesting is the fact that the resemblance between the layout of classical Chinese cities and the human body has not yet received the attention that we believe it deserves. Even though direct links between geomancy and the human anatomy are admittedly speculative, we believe that at least at a metaphorical level it is of tremendous potential significance. The resemblance between the structure of the city and the human body suggests that there would be an intuitive understanding of the flow and importance of events.

The original mapping of Kyoto corresponded macroscopically to the left and right halves of a bilaterally symmetrical “body” with a central spine. The most important formal messages, carried towards and from the Imperial household, would be carried along the central avenue of the city, thus resembling a spinal chord for communications between senses, body and head. The longitudinal axis with a clear upper and lower end is reminiscent of the relationship between the highest seat of consciousness and its direct connection with divinity, and the body that both sustains and depends on the ‘head’. The body also depends on physical sustenance. The imperial household, allocated in the highest central positions, resembles the nobler bodily functions, such as the heart and seat of consciousness. Just as with a vertebrate body, the fact that it consists of two identical halves with duplicate functions means that there is a latent ability to retain some



form of functionality after sustaining serious unilateral damage. For a city with this layout, we would like to speculate that there should be a greater chance of maintaining the continuation of its usual services even in the event of disaster, such as fire or an earthquake devastating the city partially. The fact that the same functional layout recurs at many spatial scales further increases the chance that functionality would remain even when natural disasters occurred.

In comparison to the human body, the geological features of the setting surrounding the city also resembles a protective skull from which the world can be observed. For the city, the daunting northern mountain range functions like the solid dorsal bone of the cranium, acting as protective barrier against the northern 'back' that is not visually accessible, while providing good visual access towards the south, as if giving the city eyes in the same orientation that a skull would be endowed with vision. The city proper was traditionally also surrounded with rice paddies and agricultural fields that provided the bulk of sustenance for the citizens. The north also functions as the point of intake of fresh water and air flowing into the body. Veins of air and water flow downwards from this entry point, and leave the city - likely in a less pure state - towards the south, the lower end of the city. The mountains flanking the city towards the east and west function like protective arms on the flanks of the city, and the lake towards the south is reminiscent of kidneys and a bladder. The Southern half of the city was allocated to various craft guilds (that can still be discerned today), like woodworking, weaving and metal working, reminiscent of the organs that build up and sustain the body, such as the stomach, intestines, liver, pancreas and so forth. The central spine of the city constituted the major axis of approach towards the Emperor, reminiscent of the spinal chord that carries messages from the far perimeters of the body towards the central seat of consciousness. The two great temples situated symmetrically, close to the southern end of the city, seem like two organs that could guard and purify the spiritual energy of what enters the body along the central axis on its way to the imperial household. Interestingly, the pleasure quarters of the old capital were also situated on the south perimeter of the city.

As with the human body, the left-right symmetry of the city is a clear external feature, yet left and right halves were not assigned equal values. The quarters of highest nobility were assigned to the northeast quarter of the city, closest to the guardian against evil, and in a sense dealing with the more delicate taboos on behalf of the entire city.

The above shows a loose resemblance of embodiment in the organizing principles of landscape in medieval Japan. It is such that in these environments one would find oneself intuitively understanding head and body, up and down, left and right, centre and laterality in a way afforded by our own bodies. The intuitive relation between this geomancy and the body is perhaps more clearly felt when compared to another commonly applied geomantic theme, the mandala. Here, the body and its physical relation to space, e.g. distinctions between left-right, up-down, as the sense of gravity, seasonal cycles, the placement of organs and so forth, seem negated in favour of an all encompassing symmetry, where there is only centre and periphery, as if to intuit a state of pure mental being. That the geomancy of Kyoto does not negate the physical presence of the body bears witness to the fact that it was a pragmatic system intended to engender a prosperous existence for its residents.

Some scholars may argue here that we read a dualism into a system that had no concept of a mind-body dualism, but in all honesty, considering the care with which the communities of divination would purify the body so that it would not have any degrading effect on the purity of spirit, can one honestly claim that there was no concept of dualism? Buddhism is an equally dualist practice, forfeiting the body in favour of the mind, and hence the clear structures of dualism in the cities and temple compounds laid out within the full realm of Sino-Buddhist-

Shint geomancy.

Interestingly, in some of the older Buddhist meditation techniques, breathing is considered a method of renewal where, even though the nose, lungs and body are essentially symmetrical, the cycle of breathing switches so that at one stage one is breathing in through the left half of the nose and later on, the right half. These cycles are thought to coincide with shifts in consciousness. The occurrence of left-right symmetry and duplication of structure in Shint buildings is similar to the same type of symmetry found in Buddhist complexes, and may even have been inspired by Buddhist architecture. In any event, the presence of left-right, east-west symmetry engendered many levels of overlap between Shint and Buddhist concepts of geomancy in the multi-layered structuring of Kyoto as capital. A wealth of additional geomantic beliefs exist that we cannot address here due to limitations of space, but it is nevertheless intriguing. The interested reader can find more in Slawson (1987) and Nitschke (1993a, 1993b), and for those able to read Japanese, Masuno (2008).

It also might be compared to the way much classical Japanese poetry engages in the natural landscape. If the geomantic mapping analogizes the city as a version of the body, the emotional dispositions of the body can be found in sympathy with the landscape. Feelings of melancholy and sadness (far more commonly treated in classical poetry than happiness or optimism) seem to pervade the natural world. Thus, in verses from the celebrated noh play, *Nonomiya*, the lead character is described in the following manner:

*kokoro no iro wa onozukara  
chigusa no hana ni utsuroite  
otorôru mi no narai kana.*

The colors of my heart depart  
And of themselves suffuse the autumn's wildflowers.  
Yes, this is the rule with ruined souls.

Although this is not the place to go into detail about such figuring of human emotions, it is yet another example of a harmony observed between the human subject and the natural world, something long admired in Japanese aesthetics and philosophy.

The observed resonance between landscape geomancy and the human body is reminiscent of the design concept of natural mapping (Norman 1988). Users can intuitively use a design on the first fly, without labels, manuals or prior training, if the physical structure and behavior of the object for use is mirrored in the physical layout and behavior of the controls. A secondary natural mapping is implemented if the controls of the design map intuitively to the physical body of the user. For example, a lever that should be pulled should be shaped in such a way that it is easy to grip by hand while pulling on it. Similarly, a designed landscape that emulates a the experience of viewing the world from within a sheltered skull and where the flow of clean water and air emulates breathing and drinking provides an intuitive mapping to the body. With this mapping repeated at various spatial scales, humans can potentially extend familiarity with the environment any scale to intuit appropriate interaction at any other level. This system of multi-scale human infrastructure organized in bilateral symmetrical halves around a central spine is not unique to the described system of geomancy. An even more strictly fractal system with a suggestive armchair structure is found in the *Ba-ila* villages of southern Zambia (Eglash 1998: 27). Here, the layout recurs over at least four scales, even down to the level of utensils used in the kitchen. The gates to villages, compounds and the entrances to individual dwellings face towards the lower end of the axial structure, while a protective barrier at the back – analogous

to the northern mountains in the geomancy described above – points towards the head of the axis. The directionality of the central spine is indicated by placement of the most important compound – that of the chief – towards the protected back of the village, with the hut of the chief towards the back of his compound, and the most important ancestral deity placed on a small altar towards the closed end of his hut. This pattern shows a startling analogy with the placement of deities in Japanese Shint shrines and Zen Buddhist temples (not to mention the placement of Christ above the altar at the closed end of cathedral buildings). *As* for a natural mapping, it bestows a great advantage on any member in its society, because whether in their own abode, or that of co-inhabitants in their own compound or when visiting other compounds or villages, only a very minimal map is required to successfully navigate the entire infrastructure, strongly underlining the potential benefits of a natural mapping in urban design, generally construed. We would finally like to suggest that if, in addition, such an infrastructure were to resemble key features – a central spine, up, down, left right, symmetry - of our own familiar bodies, it would constitute an especially intuitive natural mapping for human occupation. If this possibility were to be proven as fact, the geomancy behind classical Far East Asian city such as Kyoto could be interpreted as a greater environmental lesson for urban design today, not merely the superstition and taboo of an incidental moment in its long history.

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