Du Din: Architecture's Contact with the Ground through a Theory of the 'Scape'

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Abstract

This article is an investigation into architecture's contact with the ground. What should this relationship prioritise or enable, what architecture do we find when looking down? The study is a short set of questions about the ground discussed around the theory of the 'scape', which describes systems through the arrangement of knowledge rather than individual ideas.

A description of the history and definition of the scape, outlined by Mark Cousins and others, frames questions about the ground, derived from literature reviews and visits to architecture in Thailand. The research results are sorted and approached through three categories. 'Historical ground' discusses the ruins and traces of the past which make up the ground, particularly at Chiang Mai's Chang Peuk Gate. 'Raised ground' considers artificial, manmade floors as a kind of ground at Mrigadayavan Palace in Phetchaburi. 'Phenomenological ground' describes human and animal experiences of the earth and soil, and a visit to Elephant Village in Surin.

These categories both reinforce and contradict each other, they frame and reframe the broad problem of the ground, arguing simply for a greater sensitivity to how we consider the earth beneath us when designing. The act of combination and arrangement itself is presented as a way of looking at architecture.

Keywords: scape, ground, arrangement of knowledge, architecture

Introduction

This article is an investigation into architecture's contact with the ground. The relationship between a building and what it stands on encompasses more than just a single meeting point. Steps, windows, shadows, construction materials, historical foundations, waste pipes and electrical cables all come into focus. One building touches the earth many times. What should this relationship prioritise, what should it enable, what kind of architecture can we make by looking at the ground? This study is a search for approaches, a set of thoughts that could be applied to design.

The starting point of this study is a theory of knowledge, the 'scape', described by Mark Cousins in a series of lectures. The word scape can mean the shaft of a column, the spine of a feather, or a thin stem emerging from a rhizome. As a suffix, it is widely used to describe terms which concern the arrangement of things. In Cousins' lectures and theory, he proposes that the term scape can be used to describe a state in which a subject is more concerned with the arrangement of knowledge than individual ideas themselves. The form of this study follows from Cousins' idea, using it as an approach to take a broad view of what we know about the ground, and how this is arranged across architecture.

The problem of ground in this article is not about the placement of structural load, the soil's salinity, water content, or the ecologies which are disturbed by a building's presence. Rather, it is about looking at what we know about the ground culturally and experientially, and how this affects design. The title of this article, *du din* (ดูดิน, roughly: look at the soil, look for the soil), reflects this. It implies the importance of the act of looking down. As a title it is open-ended and prioritises enquiry over any particular answers.

This article begins with a description of the scape in all its definitions, before applying this term to the ground. The remainder of this study is divided into three questions about the ground, each named after an aspect of how architecture relates to what is beneath it. In each section, a piece of literature by a practicing architect is discussed, and considered alongside a particular site in Thailand which has a uniquely sensitive relationship to the ground. Each pair is presented as a way of thinking about the ground, drawing connections between references and the actual experience of visiting sites.

The research findings and categories are classified as follows. The first, 'historical ground', questions a building's relationship to the structures which occupied the site before it, through a visit to the remains of Chang Peuk Gate in Chiang Mai. 'Raised ground' discusses the relationship between manmade ground and natural ground in Mrigadayavan Palace in Phetchaburi Province. The last, 'phenomenological ground', talks about the importance of soil and earth in our experience of architecture, centring on a visit to the Elephant Study Centre built by Bangkok Project Studio in Surin Province. This section also draws on a discussion with the architect regarding the idea of the scape.

The overall argument of this article is for a greater sensitivity towards the earth in design. The question of the ground is unavoidable and vast, to answer it requires considering it both in its entirety and in individual circumstances. This is the kind of system which Mark Cousins believed could be described by the scape, a theory which prioritises the act of arrangement, of putting one object next to another. In this article, the curation of different travels, references, and questions acts as a structure to this theory, and a way of considering the ground in architecture.

1. The Scape: A Theory of Knowledge

As a concept, the scape as a long history, but its use in this article comes primarily from a series of eight lectures delivered by Mark Cousins from 2004–5. These lectures were recorded and made available digitally at the Mark Cousins Lecture Archive by the Architecture Association. This article quotes from the authors' own transcriptions of his lectures. Cousins' description of the series provides a useful summary of his arguments.:

> *"It is as if the suffix of -scape opens out the various different ways in which objects can be known... This lecture series seeks to show that 'what there is' in a philosophical sense is conditioned by its representability, how they are arranged, displayed and deployed, how they fit and how they repel" (Cousins, 2005).*

More than talking about any particular field, Cousins was talking about knowledge. Cousins' lectures are sprawling, his arguments frequently resting on anecdotes. His style of talking is suitable to his theory of an expansive field on knowledge, and bleeds into this article's writing and structure. He defines the scape through the problem of landscape, and what exactly we mean by this term. Cousins uses one anecdote to show how broad the field of landscape is, recalling how Alvin Boyarsky, the Director of the AA, would be more concerned with what room a lecture should be held in than what that lecturer said. This sensitivity to space and location was very important to Cousins, and he felt it was crucial to understanding the form of the scape:

> *"And in a sense, I'm trying to begin to think about what it is to ask the question about which Alvin had such a resolute and militant answer to – 'where are we?' The question of these lectures is this: where do we situate ourselves topographically, in the present moment" (Cousins, 2004a).*

By asking this quite plain question, 'where are we', Cousins suddenly and obviously reveals the problem of the landscape before exploring the directions we take in answering it. The scape is a theory of "how we think about where we are" (Cousins, 2004a). He is interested in the subjectivity of this question – no two people could answer it the same, it depends on our situation and knowledge.

In his lectures, he describes the theorist Aby Warburg's fears that the telephone would be the end of our society – purely because it collapsed our understanding of long distances. He discusses the English

Landscape Garden movement, and how the practice of landscape is ultimately about rearranging material which exists in the world. He talks about how "Virgil invented the evening," highlighting that the evening is more than a time of day, but a combination of our understanding of feelings of melancholia, returning home, and even aesthetics (Cousins, 2004b). Cousins proposes that landscape can only be defined by considering this broad range of ideas, and that the theory of the scape describes any such field where this is true.

1.1 -scape

The scape has other meanings beyond Cousins' definition. In architecture, the scape means the 'shaft of a column'. In ornithology, a scape is the spine of a feather. In botany it is the stem of a plant which grows directly out of a rhizome. These definitions imply systems of growth and construction and also point to adjacent theories of knowledge. There is a link between these definitions and the content of this article, which covers animal and soil life, as well as architecture and knowledge.

The use of the word as a suffix, and as a concept itself, preoccupied many before Cousins. The terms cityscape, cloudscape, dreamscape, all spread from the word landscape, which itself has had many definitions and uses. Artists were the first to create variations on the word, taking from landscape its use as "a limited or a pictorial representation of such a view" (Aldrich, 1966: 156). The word seascape was first used in the eighteenth century and has a long artistic history. The word scape itself was at the time a noun meaning "a specific view of scenery of any kind." These words gradually took on broader meanings, one of the most poetic examples is the word moonscape, which "acquired a connotation of desolation and lifelessness" (Aldrich, 1966: 156).

In the eighteenth century, the philosopher Gerard M. Hopkins began to use the word scape in place of the word image. Hopkins was interested in the perception of objects, and "realized that the word 'image', with its visual bias, was inadequate for a term to indicate the result of the perception by the other senses" (Zaniello, 1978: 7). To Hopkins, the scape of something meant how you recalled it, in what way you perceived it. There is a relation between this idea, the original artistic definition of the suffix, and Cousins' use of the word. Together, they imply understanding something through more than what is immediately there, it is about looking broadly.

Gordon Cullen's *Townscape* expanded the field into architectural territory. In his idea of Townscape "there is an *art of relationship* just as there is an art of architecture (Cullen, 1961: 10). His own definition of the term presents itself as broadly as possible, "one building is architecture but two buildings is townscape" (Cullen, 1961: 133).

These '-scape' words represent a gap in our language, a desire for breadth and association which authors and artists feel is not contained in the noun itself. As a category these words describe the expansion of limits. The usefulness of the scape in describing more abstract relationships and associations is clear from its prevalence; in Ruth Aldrich's 1966 article on the suffix she wrote, "-scape words offer definite possibilities for the future" (Aldrich, 1966: 157). What can we reveal by applying this term to our

understanding of the ground? The methodology of this study is, mirroring Cousins' own language, to use the scape as a theory of how we think about the ground underneath our feet.

1.2 Groundscape

The scape is a natural fit with the problem of the ground. The ground is complicated; it is difficult to know all of the ways that it affects architecture. It is easy to design in a way which ignores the many relationships between them.

The scape "opens out the various different ways in which objects can be known" (Cousins, 2005). These next sections apply the scape specifically to the ground through three questions about how architecture and humans make contact with it. Each question is explored both through literature reviews of writing by practicing architects and, in parallel, three case studies visited in Thailand. These two objects of study, and the three categories overall, can be considered in combination or as individual pieces of research. They do not represent a total understanding of the ground in architecture, but the curation of key ideas on the subject. They are three parts of the problem which begin to show the extent of the ground's effects in design and discourse.

These categories, historical ground, raised ground, and phenomenological ground, set up conversations about design. The literature discussed was selected from architects who question the assumptions we often make about the ground, for example, that buildings that touch the ground lightly are better than those that land heavily. The choice of case studies was based on the authors' own travel in Thailand. Both by luck and design, connections formed between the ideas found in travel and literature, framing and reframing questions about the ground.

Mark Cousins did not put forward any specific methodology for how a scape is connected but suggests that it is in the study of the arrangement of different pieces of knowledge itself that we will find out about something. The word Cousins frequently returns to on this subject is 'articulation'. To him, discussing the scape is fundamentally about putting one object next to another (Cousins, 2004b). This article's structure, a combination of personal experience, reading, and existing knowledge, is both an investigation into the scape and a way of looking at the ground in architecture, something which is too difficult to approach from one angle.

2. Historical Ground

Throughout architectural history we have intervened in the ground substantially. First building over the soil, and then working again over those buildings, leaving remains. This first question is about the relationship between new buildings, those that came before them, and the ground which holds both. This discussion can be seen in Rafael Moneo's Museum of Roman Art in Mérida. The building has a strong, heavy contact with the earth, which, as Moneo writes, is fundamental to its connection to the historical ground it stands on. Mérida is a city of significant Roman architecture. Archaeologists excavated one urban block in its centre and found many layers of historical ruins. Presumably this is typical of the entire city. This excavated block was the site of a new museum for local artefacts.

2.1 'Museum of Roman Art: Building over what was built', Rafael Moneo

In a text on the project from Moneo's book, *Remarks on 21 Works*, Moneo reflects on his building. He begins by explaining how architecture typically responds to the preservation of ruins, and how distant these buildings seem from the ground they protect. This typical approach tries to "keep ruins intact and build an imposing structure that passes over them," creating something of completely different scale, entirely separate from the ground. To Moneo, this approach treats ruins "as a lifeless element" (Moneo, 2005: 105). Instead, building a new museum necessarily implies "coexisting with the ruins, even touching the remains of the former foundations in order to erect a building that would fuse with and be anchored on the physical reality of the ruins to be preserved" (Moneo, 2005: 107). For this building to have meaning, it had to touch the ground.

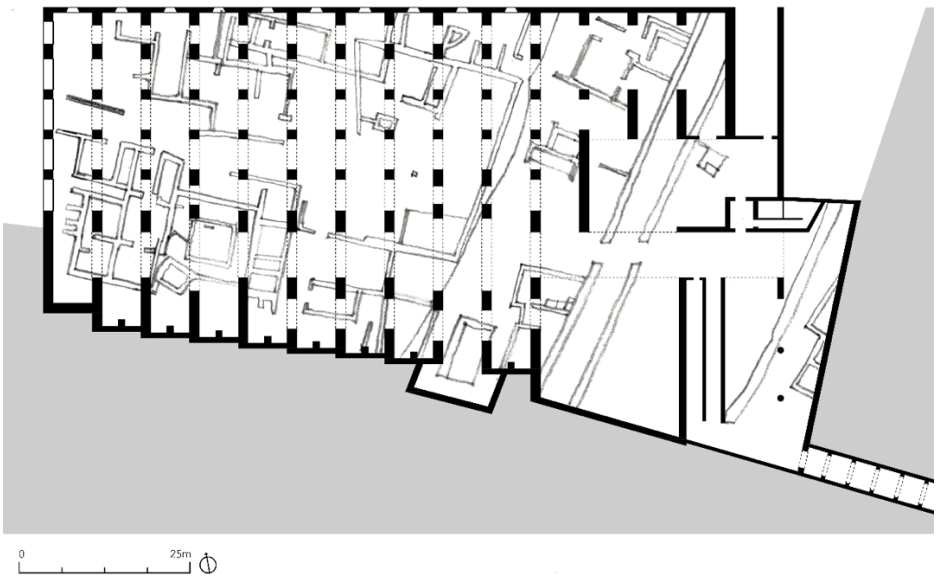

Figure 1 *National Museum of Roman Art, Mérida. Rafael Moneo, basement level plan. The orientation of the new building follows a different grid to the historic walls, each architecture is as important as the other. (Source: Redrawn by the author).*

Figure 2 *National Museum of Roman Art, Mérida. Rafael Moneo. The building's new brick walls come into direct contact with the existing ruins, asking to be considered alongside them.*
(Source: Merida classic/anti-classic – National Museum of Roman Art by Moneo, R., 2014. Area. (https://www.area-arch.it/en/merida-classicanti-classic-national-museum-of-roman-art/))

The foundation plans show the level of intention with which this act was carried out (see Figure 1). The new structure is aligned to the city grid instead of the existing ruins, the moments where they overlap are treated simply as an expression of the passing of time. This building clearly states that it occupies the same ground as the ones before it. Moneo's approach is reinforced by its quasi-Roman construction method involving brick piers filled with concrete, a "way of coexisting with what had been built before" (Moneo, 2005: 109) (see Figure 2).

A site's historical ground is one of cut stone and old concrete as much as natural rock. Past buildings do not lie underground but instead form a part of it. Moneo's museum identifies itself as just the newest part of the buildup. He shows a sensitivity in acknowledging this timeline through the heirarchy of his architecture. All building relies on the events of the past; to lay a foundation means digging to see what has already been there. Even our construction materials themselves once made up the ground – it is natural that we add to it again. The ground is only a small layer of soil and rock on top of the Earth's crust. Architecture is a set of layers which have been added to that. No one building will last forever, they will all become dust or rubble or ruin over which we will continue to build.

2.2 White Elephant Gate: Exposing historical ground

Chang Peuk Gate is the northern gate of Chiang Mai's historic town walls. The English translation is White Elephant Gate. Today, the city walls are mostly demolished, marked only by the canal which still surrounds the old town. Two busy roads run around this canal on either side. The northern gate is still present, at least in a reconstructed form, but it had for a long while been the site of a small vehicle connection over the canal. Rainfall in 2023 caused a part of the reconstructed gate to collapse, due to the soil's inability to handle the quantity of water. In the process of its repairs, the road was dug up, and ruins of the original Chang Peuk Gate were discovered.

The gates are now an archaeological site, stranded across a busy junction. The traffic hides the ruins from view. A narrow metal walkway has been built at street level, passing over the excavated pit, which is only 1.5m deep (see Figure 3). The edges of this hole in the ground show layers of soil, brick, asphalt, and pavement. One of the beautiful things about this site is the lack of hierarchy between the manmade elements on the ground. The remains of a large concrete drain lie next to historic brick foundations. All of these elements are seen in the same view (see Figure 3).

The largest pieces of the ruins are the foundations of two long walls which follow the gate's original, more intricate layout, from when the city was more fortified. It was through these walls that the King once entered the city, on elephant back. Now, walking into the old town across the metal walkway, the site has once again become a narrow gateway into the city.

Figure 3 *The excavation of Chang Peuk Gate revealed both historical foundations of the old gate, and more mundane, obsolete infrastructure.*
(Source: Photograph taken by the author).

There are more ruins than those that have been uncovered. The brick walls continue underneath the paved street, historic stone visibly covered over by layers of asphalt. Historical ground, the remains of the past, can be seen clearly, running underneath a busy traffic junction. Looking at the site's future, either it is covered over again, or reconsidered. The road might be rebuilt, and the walls will continue to be an invisble component of the ground underneath cars and pedestrians, a lifeless element. If the site is left to breathe, and the depth of the city's growth remains exposed, any new paving on this site will be seen alongside an older construction. In this one site you could consider the timeline of the city through the timeline of rocks and stone.

There is already enough in the ground itself to create an architecture. The ground is not one surface, but a volume filled in over time. This temporary excavation asks people to consider what is underneath the road they drive on every day, and how the city is building up over it.

3. Raised Ground

The word ground does not only mean untouched soil. Manmade platforms can be considered as 'raised ground'. What is the limit of what we call the ground in architecture? The plinth of a classical building could be raised ground. The ground we stand on in the city, which feels solid underneath our feet, might be artificial, covering vast air vents or subway tunnels. After all, the first action of building is to alter the ground. The Italian architect Vittorio Gregotti wrote about the significance of this intervention in his book *The Territory of Architecture*. Gregotti proposed a history of architecture that began when we first started to look down:

> *"Before transforming a support into a column, a roof into a tympanum, before placing a stone on a stone, man placed a stone on the ground to recognise the site in the midst of an unknown universe, in order to take account of it and modify it" (Gregotti, 1972, cited in Mollard, 2020: 3).*

To Gregotti, out interventions into the ground represent our attempts to create a richer experience of the landscape, the important word in his writing is "modify." This same interest is explored by the Danish architect Jørn Utzon in a short article he wrote in 1962, titled 'Platforms and Plateaus'. In this writing Utzon considers the merits of the platform, an example of raised ground.

3.1 'Platforms and Plateaus: Ideas of a Danish Architect', Jørn Utzon

Jørn Utzon wrote about the platform during the construction of the Sydney Opera House, looking back to his travels as a younger man. He remembers becoming fascinated by large, raised areas of flat ground, and reflects on how his own work draws from his experience. Utzon describes plateaus in Yucatan which interrupted the natural ground of the jungle. These pieces of architecture were vast, up to 100m in length, and importantly were built at the height of the jungle's trees (see Figure 4). He writes with great admiration for the impact of this architecture on the surrounding landscape:

> *"They had from here the sky, the clouds and the breeze, and suddenly the jungle roof had been converted into a great open plain. By this architectural trick they had completely changed the landscape and supplied their visual life with a greatness corresponding to the greatness of their Gods" (Utzon, 1962: 114).*

Utzon saw these plateaus as an extension of the natural landscape and the variety of what he beautifully calls "visual life." Crucially, he sees this raised platform as no different to natural ground, describing how "the feeling under your feet is the same as the firmness you experience when standing on a large rock" (Utzon, 1962: 114).

In this same article, he links his hopes for the Sydney Opera House with these memories. The rest of his writing asks more detailed questions about the architecture and expression of the platform. Utzon understood that all parts of a building can reinforce and affect its approach to the ground. He discusses the relationship between roof and platform in Chinese Temples, and the floor patterns and sliding doors

of Japanese houses. Ground and building interact with each other, and it is more complicated than inside versus outside.

The platform is only one response to making ground. Other architectural elements, the courtyard, the porch, and the balcony can all be considered through this same question. How does a built form relate to the original ground below it, how does a person move between these two moments? These questions can be addressed in a design or ignored, but they are present.

Figure 4 *Sketch of a Plateau in Yucatan, Mexico, Jørn Utzon.*
The new structure is depicted as an addition to the ground
(Source: Platforms and plateaus by Utzon, J., 1962. Zodiac. 10.)

3.2 Mridagayavan Palace: The floor as raised ground

Mrigadayavan Palace was the summer palace of King Rama VI, located in Phetchaburi Province, on the coast of Thailand. What was once a large estate is now a small compound, run as a museum, with the palace at its centre. The palace is vast and almost entirely open-air.

This building keeps you off the ground. Almost all of the house's rooms are on the first floor, a huge, sprawling surface of wooden floorboards (see Figure 5). However, this floor is different to the interior of an ordinary palace – the floor could be seen as the ground of the palace gardens, simply lifted up higher. It is on this floor that you feel the wind pass through the site, that you see trees and behind them the sea, and that you walk between buildings which are hundreds of metres apart. Could the floor in this building be a kind of raised ground?

Strangely in this house, it is the act of walking which you spend the most time engaged in. Quite far from the British estate of the eighteenth century, where the act of walking is an escape from daily, domestic life, in this palace the 'grounds' flow completely through each space. This first floor is not isolated from the landscape, it is a new surface to stand on while experiencing the environment – far from corridors which act as the edge of spaces. Its corridors are always open on both sides, birds can pass through them. These corridors emphasise movement in the same way that a pathway does. Perhaps they are closer to the original meaning of the word – corridor means 'running space'.

Figure 5 *Mrigadayavan Palace, seen from the coast.*
(Source: Courtesy National Archives of Thailand)

Another etymological root is relevant in this context: the English word for 'floor' originally referred to both a building's raised surfaces and the ground outside (Koolhaas, 2018: 7). The ground then is just what is underneath us, the thing we stand on. To move away from the ground does not mean to lose all contact with it. To sit off of something does not mean to be separated from it. There are other kinds of contact – visual relationships and even individual awareness of something.

Raised ground does not recreate the natural landscape, it does not even have to feel sturdy underneath your feet. The floor in this palace makes you see the environment, it makes you aware of the way you walk, your changes in direction or the length of time you spend in movement. The palace is rooted; this surface cannot be considered separately from the landscape.

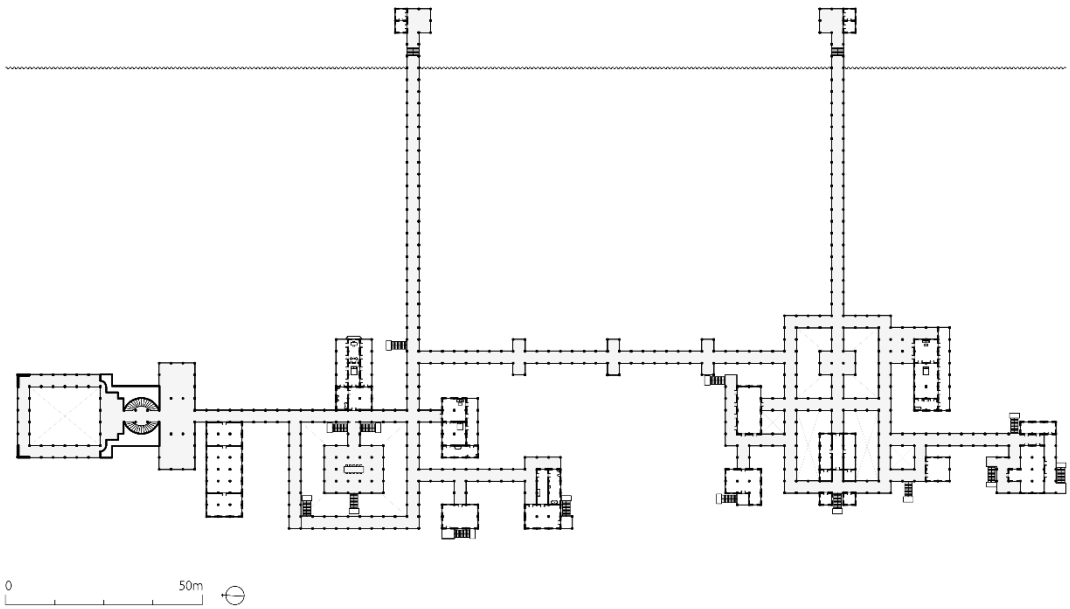

Figure 6 *Mrigadayavan Palace, plan. The intricacy of the building's plan is remarkable when compared to the simplicity of its section. Its corridors are arranged like winding garden paths, lifted very simply off the ground. (Source: Plan drawn by Witinan Watanasap).*

4. Phenomenological Ground

The final category is about our experience of the ground in architecture. By designing the way a building makes contact with the ground, we are also designing our own, human contact with it: through steps, paving stones, driveways, or benches. The starting point for this question is a short article written by the architect Arata Isozaki. Isozaki does not analyse his own substantial body of built work. Instead, he writes a short history of the ground in Japanese architecture, charmingly titled 'Phenomenology of Floors'.

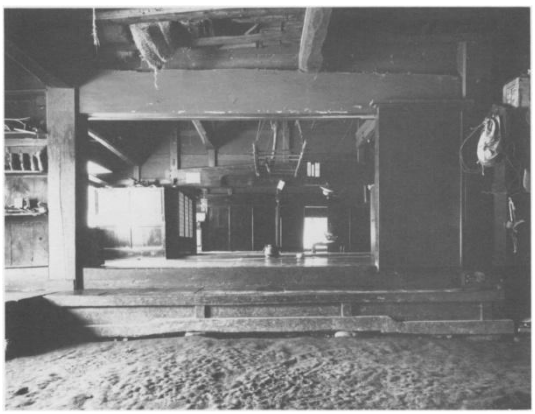

Figure 7 *The kitchen of some Japanese houses has both a raised floor and bare soil. Stepping away from the ground is not the same as the transition between interior and exterior. (Source: Floors and internal spaces in Japanese vernacular architecture: Phenomenology of floors by Isozaki, A., 1986. Anthropology and Aesthetics, (11), 54–77.)*

4.1 'Floors and Internal Spaces in Japanese Vernacular Architecture: Phenomenology of Floors', Arata Isozaki

Isozaki's article is organised around a series of actions. The names of these actions already begin to represent the relationship between humans and ground – they are: "Concealment; Rising; Living on the higher level; Gliding; Squatting; Crouching; Looking out over; Stepping over; Passing over; Low angle of vision" (Isozaki, 1986). Together, this list reads like a close observation of how humans interact with the ground and the landscape, both through their physical movements and with looser kinds of contact, like those associated with sight.

Some of the earliest Japanese dwellings existed in the ground; in their simplest form they were a rectangular pit with a covering for a roof at the surface level. The interior on all sides would be of bare soil. This typology developed solutions for preventing damp and pests, and remained a common form of dwelling even after Japanese culture began to build structures on top of the ground. The first buildings with a raised floor instead of bare soil were religious or for storing food, they were not residential. It took time for people to live in this kind of building, they were reserved them for something deemed more important. When this finally changed, the new *shinden-style* mansion was characterised by what Isozaki called "the establishment of the level for daily life at a height to which one must climb" (Isozaki, 1986: 61).

There was a great importance placed on the act of leaving the ground. The article reveals an intense sensitivity to the surface underneath our feet found in Japanese architecture and culture. The detail of this attitude is incredible: the *tokonoma* (reception room) "represented dignity because it was the thickness of a tatami mat higher than its surroundings" (Isozaki, 1986: 66).

Isozaki is describing a culture's knowledge about what it means to touch the ground. In a Japanese house time is spent on the floor, and the act of stepping is given great importance in design, whether this means stepping from outside to inside, ground to platform, or room to room. Ground and floor are different, but so are dirt and rock. The Japanese house is sacred, lifted off the gorund, but crucially this architecture is still horiztonal, the floor is celebrated. It is easy to fall into describing these houses with metaphors of landscape.

This architecture considers design through our feet and our lower bodies. It has what Frank Lloyd Wright called "a sense of earth (Wright, 1954: 14). The act of building is unavoidably tied to the ground, in the same way that we are as humans. The architect Florian Beigel wrote, "ground is perhaps the most important element of space for architects because we can't escape gravity – we are in constant contact with the ground but not with the ceilings or walls, whatever their scale" (Beigel, 2003: 51). On many buildings the point of contact with the ground is minimised, reduced to one or two lines marking the transition between paving and wall render, or concrete and column. These situations ignore the significance of the transfer of weight to the ground, or the act of stepping up from a street, all of which are inevitable and vital parts of the experience of architecture.

4.2 Elephant Village: Phenomenological ground for elephants

The village of Ban Ta Klang in Surin Province is known for taking care of a large number of elephants. The villagers have a close relationship to the animals. The architect Boonserm Premthada designed a series of buildings in the village, including a museum, shops, entrance gates, and a ceremonial courtyard. Each of these buildings have a certain sensitivity to the ground. One structure is a tall viewing tower that stands in contrast to the province's flat topography, affording a view of the ground which was not possible before. This final case study focuses primarily on his ceremonial courtyard and the relationship which this building encourages its visitors to have with the soil. This building in particular contains more than one idea discussed in this article so far. The design is based on what is at first glance an important gesture of raising ground, but also exhibits a phenomenological concern based on animals' experiences.

Figure 8 *The ground which is built up as part of the arena seating is rough and irregular. It is as much a site for play, getting lost, personal reflection, as it is for viewing an event. (Source: Photograph taken by the author).*

The space is composed of a large, irregularly shaped berm which acts as seating and standing space, with a steel roof above it (see Figure 8). This soil mound is primarily a gesture of practicality. Elephants require a lot of water daily, and a lack of any sizeable lake or river nearby made this difficult in the past. The first action on this project was to dig two water reservoirs at the north of the site. The soil which was taken from these holes in the ground was used for this new raised mound. The architect is insistent that the efficiency of this gesture is more important than its poetry, but as a result, much of the experience of this project is about the proximity to soil: even when sitting on a concrete bench, your feet will still rest on soft ground. During a ceremony, there is no distinction between the kind of ground which the elephants walk on and the ground where people are standing to watch.

The roof consists of a deep steel space frame clad with wooden slats. It's shaped like a long gable, open at the centre, and punctuated throughout with smaller openings. It is orthogonal, based on the form of a traditional building element. The roof and the ground move to and from each other. At some points the roof feels close enough to touch, at other times it is high above you. The roof lands on a grid of concrete columns. Each column is composed of a rectangular shaft of smooth concrete and a wider square footing with a rougher finish. The height of each footing varies quite randomly. Some are only a foot off the ground, some are taller than humans.

The base of a building, its plinth, is one way we understand its scale. In Renaissance architecture, a 'giant order' blew up the scale of a column's base to make peoploe feel small. We expect a column's footing to relate to our own size – the position of our own feet on the ground. The varying heights and dimensions of footings in this courtyard capture the different perceptions of scale for both humans and elephants. When you stand on the top of the earth mound, or climb onto one of these column bases, you are drawn both to the view of the landscape in the distance, the feeling of your feet sinking slightly into soil, or the proximity of the roof above your head. You are aware of your height off the ground, relative to the elephants. When we arrived, a child was stood on a very high column footing looking out towards the

water reservoir, it was not obvious how they had got up there. Soon someone arrived on the back of an elephant and helped them down.

On one level, the ground in this building is just the solution to a problem, a way of making a structure cheaply. But it feels fitting that a structure for elephants minimises the manmade and puts you on common ground with the animals. It makes the courtyard feel less like an arena, more like a playground. Talking to Boonserm, he expresses clearly how difficult it was to get the architecture made this way. The strength of these gestures were obviously very important to him.

When we discussed the idea of the scape with the architect, he suggested that maybe his project could be a kind of "animalscape" (Boonserm Premthada, personal communication, September 7, 2024). This architecture is not anthropocentric. The fact that it is constructed with the byproduct of a piece of infrastructure for the elephants, or the fact that many of the column footings are built to match their height, are signs that it was not designed based on our own experiences, but those of an elephant.

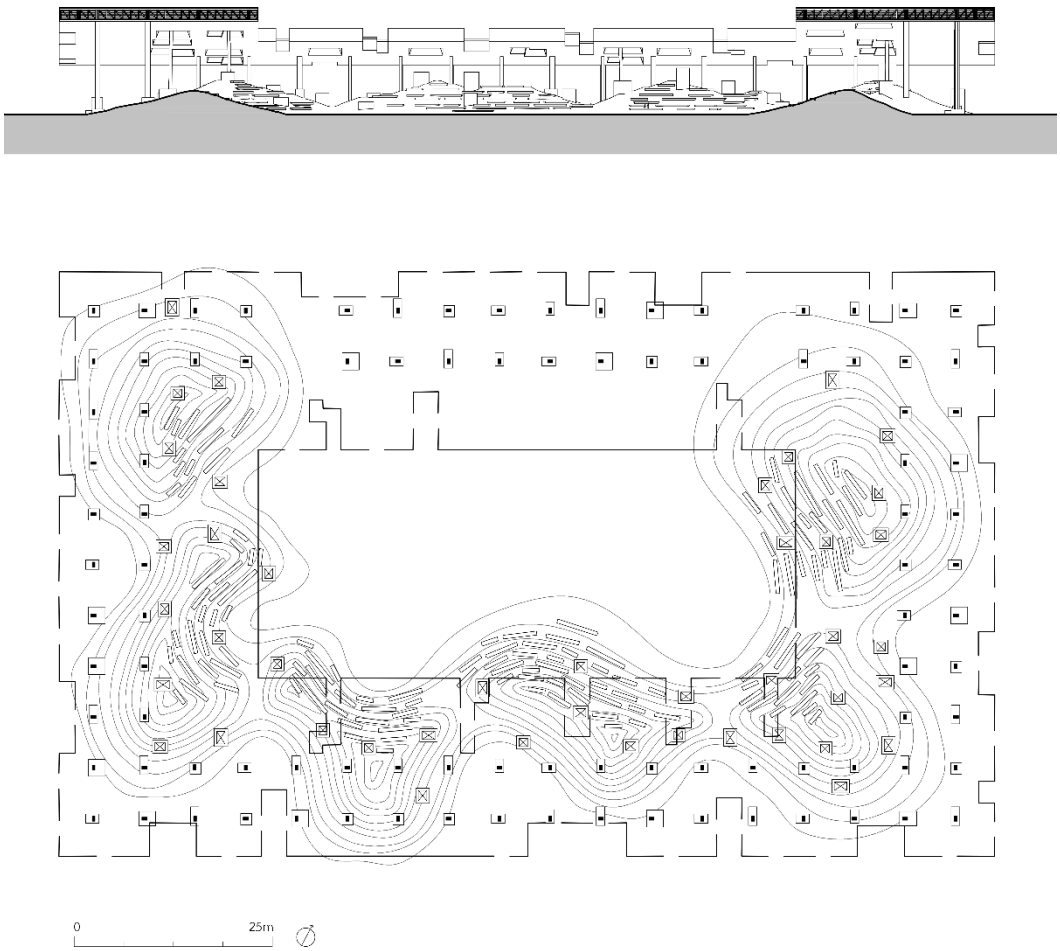

Figure 9 *Elephant Village, Cultural Courtyard, Boonserm Premthada, plan and section. (Source: Redrawn by the author).*

Conclusion

The point of this article is in the articulation of thoughts. Rather than searching for one built work or one tenet which could be some kind of answer, this study is about the many directions we can take when thinking about the ground in architecture, maybe also the consequence of accepting this. The theory of the scape opens up outwards instead of narrowing inwards, it is intending to be a more sentient way of thinking about architecture.

This view of architecture's contact with the ground is not intended to be comprehensive, but indicative of the kind of questions which are found in the act of looking down, raising points without a definitive answer. It would be a mistake to think that each building or piece of literature should be contained to the category used to describe it. While the curation of these references shows something about cultural differences around the ground, throughout the writing ideas have begun to repeat themselves. The importance of history in our understanding of the ground extends beyond the first category, as both Jørn Utzon and Arata Isozaki had to consider the past in order to understand their present relationship with the ground. The phenomenological experience of the ground is present in all buildings to some degree, at the very least this is true of Mrigadayavan Palace, where the long, level corridors draw the visitor's attention to their way of walking.

This writing was a way into the problem, and it is worth briefly discussing some of what has been left out. We could also see architecture's contact with the ground through the lens of demolition, whether this is planned and controlled for the sake of forward development, or the result of violent destruction in cities of conflict. Equally important, and deserving of larger studies by itself, is the vast infrastructural architecture which controls systems of food or industrial production. These processes change the landscape, they control the earth as part of something quite mechanical. Importantly, studies of these ideas (call them 'destructive ground' and 'cultivated ground') could be another part of the groundscape. Maps, plans, writing, even sculpture or film are objects which plug into this, which carry ideas into architectural reality.

This form of analysis, looking for what is scape-ish in things, could be applied to other aspects of our environment. To take only one more example, the scape as a way of thinking about architecture could be applied to the door. Consider how the door connects spaces, completes facades. It is both architectural punctuation and historical artefact. It is an object of craft, and an object with no clear limit to its definition. To design one means to touch all of these questions briefly, we can see the same is true when we make contact with the ground. Architecture is ultimately the composition of things, its value is in arrangement. Arrangement jumps between structure and instinct, it is more important than one thing itself. In arrangement knowledge and architecture meet.

References

Aldrich, R. I. (1966). The development of "-scape." *American Speech*, *41*(2), 155–157.

Beaumont, E. (2021, April). Shaking the foundations: The hidden roots that prop up capitalism. *The Architectural Review,* (1480), 82–86.

Beigel, F. (2003). *Time architecture. Architecture* Research Unit.

Cousins, M. (2004a, November 12). The Scape. [Lecture audio recording, transcribed by author]. *Mark Cousins Lecture Archive.* https://www.aaschool.ac.uk/markcousins/29

Cousins, M. (2004b, November 19). Landscape. [Lecture audio recording, transcribed by author]. *Mark Cousins Lecture Archive.* https://www.aaschool.ac.uk/markcousins/29

Cousins, M. (2005). "The scape" Friday Lecture series. *Mark Cousins Lecture Archive.* Architectural Associations School of Architecture.

Cullen, G. (1961). *Townscape.* The Architectural Press.

Gamallo, A. (2003, January). *The evolution of traditional types of building foundation prior to the first industrial revolution.* Proceedings of the First International Congress on Construction History. Madrid, Spain.

Isozaki, A. (1986). Floors and internal spaces in Japanese vernacular architecture: Phenomenology of floors. *Anthropology and Aesthetics,* (11), 54–77.

Koolhaas, R. (2018). *Elements of architecture.* Taschen.

Mollard, M. (2020). Breaking new ground. *The Architectural Review,* (1468), 3.

Moneo, R. (2005). *Remarks on 21 works.* The Monacelli Press.

Moneo, R. (2014, June 8). *Merida classic/anti-classic – National Museum of Roman Art.* Area. https://www.area-arch.it/en/merida-classicanti-classic-national-museum-of-roman-art/

Utzon, J. (1962). *Platforms and plateaus.* Zodiac. 10.

Wright, F. L. (1954). *The natural house.* Horizon Press.

Zaniello, T. A. (1978). The tonic of platonism: The origins and use of Hopkins' "scape." *The Hopkins Quarterly, 5*(1), 5–16