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7 Threshold as social surface

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Making surfaces

In this chapter, I work with an idea of surfaces as a status or a condition rather than as a permanent quality. The examples which follow are drawn from research conducted across a range of urban marketplaces in South Korea, where I examined markets as built environments, created without the interventions of professionalised architects. I focus on this work to explore what constructing surfaces in the constitution of an everyday livelihood might mean for the teaching, research and practice of architecture.

Urban markets are sites which are often under threat from development and modernisation. City authorities look upon such sites as being untidy relics of a past era and as representing an illegitimate urban condition. Namdaemun and Dongdaemun markets in Seoul have proved resilient in the face of modernisation, whilst others such as Seomun Market in Daegu have struggled. Further examples include Busan and Seoul's Jagalchi and Noryangjin fish markets. In this work, I aim to broaden notions of what might be considered architecture, regardless of the levels of wealth or power which makers of built environments might have. These markets in Seoul are adjacent to a large department store and shopping district and thus coexist within a broader system of exchange and a thriving urban economy.

Architecture often works from precedents, examples of successful buildings which contain lessons for future building. Good architects draw on such precedents without simply replicating them, developing expressions which accommodate for variations in context, climate, programme or purpose. What this research asks is: what happens to the scope of precedent when it is expanded beyond accepted canons of design and it incorporates more modest and improvised types of built environment such as the marketplaces described in this chapter? Such divisions have their origins in a persistent misinterpretation of influential Italian Renaissance architect Leon Battista Alberti by the architectural profession, which reinforces Aristotle's hylomorphic model of creation which sees matter as having no cultural value or meaning until endowed with a design of intellectual preconception.

In contrast to an accepted hylomorphic model, the marketplaces studied here are one example of a built environment continually under construction in a way

is that is concurrent with what Ingold (2011: 91) has described as a 'textility of making'. There is no finality of form in this context, no fixed result, but rather a series of flows, transformations, unmaking and remaking. A key element of this transformative process is that of the *threshold,* a zone or spatial element by which people transition from one sense of dwelling to another. Architects devote much of their time to considering such thresholds, whereby even such a seemingly simple threshold, such as that of the door, is given notable attention in architectural theory (Unwin 2007; Koolhaas 2014). In these marketplaces, we see spatial practices with similar qualities, where transitions across space are moderated, negotiated and scripted. Not all thresholds are as clear and obvious as doors, but any architectural element which mediates transitory conditions can be considered a threshold.

Status-based distinctions between *building* and *architecture* are persistent and problematic and restrict the scope of architectural possibility.[1] More recently, there has been a turn towards architectures of impermanence, fleeting and mobile structures, or an architecture which minimises its presence as an object (Kuma 2008). Such developments shift towards an understanding of buildings as more temporal than permanent and as material states always undergoing a process of becoming.

The approach of this research is embedded in both architecture and anthropology. As such, the research is part of a programme to develop a practice of *graphic anthropology* which sees drawing as a valid addition to written methods of knowledge production. Thus, as a programme of work, it lays foundations to work towards what visual anthropology has achieved through the use of lens-based media. The drawings in question use a range of established technical drawing conventions: *plan-based* drawings to emphasise spatial relationships, *cross-sections* to explore mass and volume as well as inhabitation, *axonometric projection* which works with a technique of measured three-dimensional drawing and is particularly useful for exploring complex compositions of form. Further techniques use diagrams and notations, some of which specifically address routes, movement and sensory experience (Lucas 2006, 2012).

This work is also conversant with an emerging architectural literature on marketplaces, where themes of informality and impermanence are foregrounded. Of significance here is the dual publication of *Informal Market Worlds* – published as an *atlas* (Mörtenböck and Mooshammer 2015) and a *reader* (Mörtenböck et al. 2015) – together forming a particularly comprehensive survey of *the architecture of economic pressure*, with the latter containing perspectives from economic anthropology (Hart 2015) and sociology (Sassen 2015; Simone and Febriyani 2015). While this work elevates local phenomena to an important global scale and is incredibly thorough in production, it attends less to the social and material intimacies of everyday marketplace architectures. By focusing on the finer-grained architectural and formative qualities of the market, further stories reveal themselves.

In an interview within the architectural journal *Perspecta*, anthropologist Arjun Appadurai (2003) discusses the economics of architecture framed as the illusion

of permanence. Appadurai cautions against practices of architecture which assume a desire for status-based social aspiration and which are insensitive to the needs of established livelihoods. Such tensions are palpable in Dongdaemun Fabric Market, Seoul, where grand architectural innovations have pushed established flea markets further out from populated areas, all so that the city authorities can tout Seoul as a 'global city'. Thus, an agenda of this research is to directly challenge the need for such innovation, given that marketplaces can be understood as architecture in their own right.

Gibson's surfaces and the architecture of sedimented materiality

In addressing surfaces, two perspectives inform this study: that of James J. Gibson's (1986) ecological psychology and the other of architectural theorists David Leatherbarrow and Mohsen Mostafavi (2002). Gibson's perspective is key in that it not only emphasises the importance of surfaces as phenomena, but that it resists a Cartesian absolutism of axes x, y and z and instead works with a relational perspective between human experience and the environment. Gibson's ecology of perception has three elements: substances, surfaces and medium. *Substances* are relatively solid things that offer resistance. Media are fluid, affording locomotion to animals. In being relative to a perceiver, media would be *air* for humans or *water* for fish. *Surfaces* exist as the threshold of contact between substance and medium.

The potential of Gibson's ecology is that it allows us to think carefully about *space*, a key concept in architectural theory. Elsewhere, I have used Gibson's concept of *medium* to support a description of architectural space that is multi-sensory, with corroborations between seeing and hearing and smelling and touching (Lucas 2012). In architectural terms, the contact between two spatial conditions is typically described as a threshold. Most often, this manifests as a kind of doorway that mediates passage from one spatial state to another, such as from the outside to the inside.[2]

> This is not a new environment – an artificial environment distant from the natural environment – but the same old environment modified by man. It is a mistake to separate the natural from the artificial as if there were two environments: artefacts have to be manufactured from natural substances.
>
> Gibson (1986: 130)

Writing on the affordances of the terrestrial environment, Gibson discusses the qualities of friction, its contribution to locomotion, and describes surfaces as the *basis of behaviour*. Gibson's account is largely a discussion of the surface of the earth rather than the proliferation of surfaces in a complex built environment such as the marketplaces under discussion here, but the thrust of the argument remains pertinent. If the surface can be thought of as the basis of behaviour and action, then the deliberate provision of new surfaces allows for additional kinds of action. The provision of surfaces is thus crucial to the operation of the market.

The reason surfaces are so important lies in Gibson's distinction between *geometric* and *ecological* descriptions of the environment. Drawing a distinction between surfaces and planes makes this clear:

> *Surfaces* and *the medium* are ecological terms; *planes* and *space* are the nearest equivalent in geometrical terms, but note the differences. Planes are colorless; surfaces are colored. Planes are transparent ghosts; surfaces are generally opaque and substantial. The intersection of two planes, a line, is not the same as the junction of two flat surfaces, an edge or corner.
>
> Gibson (1986: 33)

According to Gibson's ecology, a market cannot be adequately described geometrically but requires a description through surface conditions. The catalogue of surface conditions described by Gibson can be extended beyond *enclosure, detached, hollow, sheets, fissures* and *places*. Based on the following examples, we can include: *embodied* or *prosthetic* surfaces; *unfurling* and *proliferating* surfaces; *appropriated, accreted* and *permeable* surfaces and *formal, informal* and *mobile* surfaces.

Architectural theorist David Leatherbarrow and architect Mohsen Mostafavi tackle the idea of surface from a different perspective and offer ideas of surface which communicate something about the *intention* of the architecture in question. In Leatherbarrow and Mostafavi's (2002) account, surfaces are a framing and containing device for architecture, pierced by windows and doors, demonstrating the structure and communicating something about the spirit of the times through the use of materials.

Leatherbarrow and Mostafavi open with an interest in the '*project* of representation' (2002: 1, original emphasis), focusing their attention on one aspect of surface in architectural design. That architecture means or communicates something is essential to the history and theory of the *façade*. This debate is concerned with notions of style and operates through a conventional architectural history of how an articulated surface is developed through a variety of compositional and symbolic devices. Often what is communicated is civic or religious power, but sophisticated architectural designs also attempt to describe the physical forces working within a structure, such as communicating how a mass of elements are physically supported and spread across openings such as doorways and windows. Modern architecture is often held to represent a rupture in the relationship between the construction and its appearance, largely due to the capacity of materials such as steel and reinforced concrete to support the hanging of a 'curtain wall' with minimal visible components. Such advances in material and structural design gave twentieth-century architects a freedom with the façade, but for it to then decline into modular repetition and yet – towards the end of the twentieth century – to return back to an ornamental curiosity, directed by a postmodern programme which played with the logics of construction, albeit often with a misplaced irony.

Along these lines, Leatherbarrow and Mostafavi discuss *cladding*: one form of material surface used in contemporary construction. This building element is

much maligned and ignored theoretically, in that its synthetic composite nature is often seen to lack a material authenticity that is present in timber or stone or because it is bereft of an expressive quality that is inherent in other composites, namely concrete and its associated heroic brutalism. Thus, cladding is often seen as creating an architecture of false façade, directed by a programme of economic austerity. Further, cladding and its associated modular building systems are not seen to have the romantic craft of masonry construction, nor the seductive technical sophistication of more complex modular building systems that are present in 'high-tech architecture'.

> Before construction, cladding panels reside in storage warehouses, standing "in reserve" for application. When they enter into the construction of a building, however, these elements of a system lose their generality and become parts of an artefact that is wholly singular; when built, every construction exists in a particular location, for an individual client, and as a representation of a unique dwelling situation. How can cladding thus transform itself, how can it be both general and particular, suitable for the economies of construction, *repetition*, and the claims of representation, *identity*?
>
> Leatherbarrow and Mostafavi (2002: 20–22)

Taking this question into the market stalls of Namdaemun reveals an interesting turn, in that the identity of the market stall is one which is made, unmade and remade from a consistent set of construction elements from one day to the next, sometimes even within a single day. It is the same stall in its material components, but it is continually constructed anew in many different ways: an architecture of constant maintenance. Such a phenomenon of construction is also relevant to a discussion of memory within architectural theory, albeit in an unconventional manner. Leatherbarrow and Mostafavi cite the architect Aldo Rossi in this regard, distinguishing typologies from their actual manifestation: 'Aldo Rossi claimed that architecture lies at the interface of memory and reason. Types were thought to preserve the reason of form, but they were also seen as the objects of recollection, even longing' (Leatherbarrow and Mostafavi 2002: 205).

This statement suggests that building type is independent of the actual building and offers a way of understanding the un/stable nature of the market stall which manifests as a different form through one day to the next, dependent on situated context, yet retaining its identity as a *particular* stall. For Rossi, this sense of memory is not that of conventional history but of a 'sedimented materiality' (Leatherbarrow and Mostafavi 2002: 209), and much the same could be said of the architecture of the marketplace, albeit in a more vital and less nostalgic mode.

Leatherbarrow and Mostafavi's (2002) theory of modular architecture – most notably expressed in the chapter 'Framing Containment' – provokes consideration of how market stalls reside, particularly in the case here of informal constructions which are largely composed of cladding-like elements; that is, panels, in a planar arrangement which is reminiscent of the work of Dutch modernist architect Cornelis van Eesteren and the associated *De Stijl* movement.

Returning to consider the role of the façade as layer of mediation between an inside and outside, this is a phenomenon which Leatherbarrow and Mostafavi view to be present in all architectural forms. For the market, there is both an implied and material mediation, socially enforced to an extent. The vendor and stall – through their activities and construction practices working in concert – create and establish a private space within the crowded street, a space which enacts a social constraint, informing the buyer where to position themselves.

Extending the consideration of architectural forms to that of *structure*, this occurs in correspondence with the adjacent fixed buildings, whereby the market stalls lean against building surfaces and attach themselves to posts by way of a series of clips and clamps. Other surfaces, such as closed roller-shutters, are used to hang or suspend parts of the stall. Every surface available is thus subject to a variety of strategies in order to maximise visible and usable surfaces for the promotion and sale of goods.

Embodied surfaces: transforming oneself into a surface

Porters are a feature of most markets, facilitating the movement of goods from one place to another, most often as a chain where different modes of transportation are used. One notable instance of this can be observed at Namdaemun market, where the dense urban grid of the main market site renders large vehicles of limited use, often restricting them to the periphery of the market zone. Inside the market, goods are moved by a combination of motorcycle couriers – weaving expertly through the crowds – and manual labour. There are different kinds of manual labour, but one case stands out as particularly pertinent, as it involves porters effectively transforming their own bodies into surfaces.

A van arrives at the edge of the market, unable to penetrate too deeply into the busy market, as it is the middle of the day. It is met by a coordinator who wears a brightly coloured vest made from webbing fabric. The vest is covered with pockets containing order books, mobile phones and useful tools and also has the identifying logo of the portering firm he works for. The coordinator is soon met by an older man with a bulky timber A-frame strapped to his back. He crouches down, back vertical and his body formed like he is sitting on a conventional dining chair. The van drivers unload a series of large boxes, clearly struggling with the weight and bulk, placing them carefully on the frame. The resulting tower, ordered from largest boxes at the bottom towards smaller ones clustered at the top, is taller than the porter himself. The stack is secured with bungee cords wrapping around the frame and the boxes, compressing the tower of boxes together.

The next set of movements by the porter are the most precarious. Gradually stepping forward, the porter doubles over and allows the tower of boxes to tip forward, reaching an angle of 30–40 degrees to the horizontal. Legs clearly struggling, the porter then crouches and brings his load to the horizontal whilst extending his legs, arms outstretched. He eventually stands upright, pitched forward slightly, and immediately heads off towards his destination (see Figure 7.1).

In this process, the porters are transforming themselves into a usable surface by means of the timber A-frame. Interpreted according to Gibson's tripartite
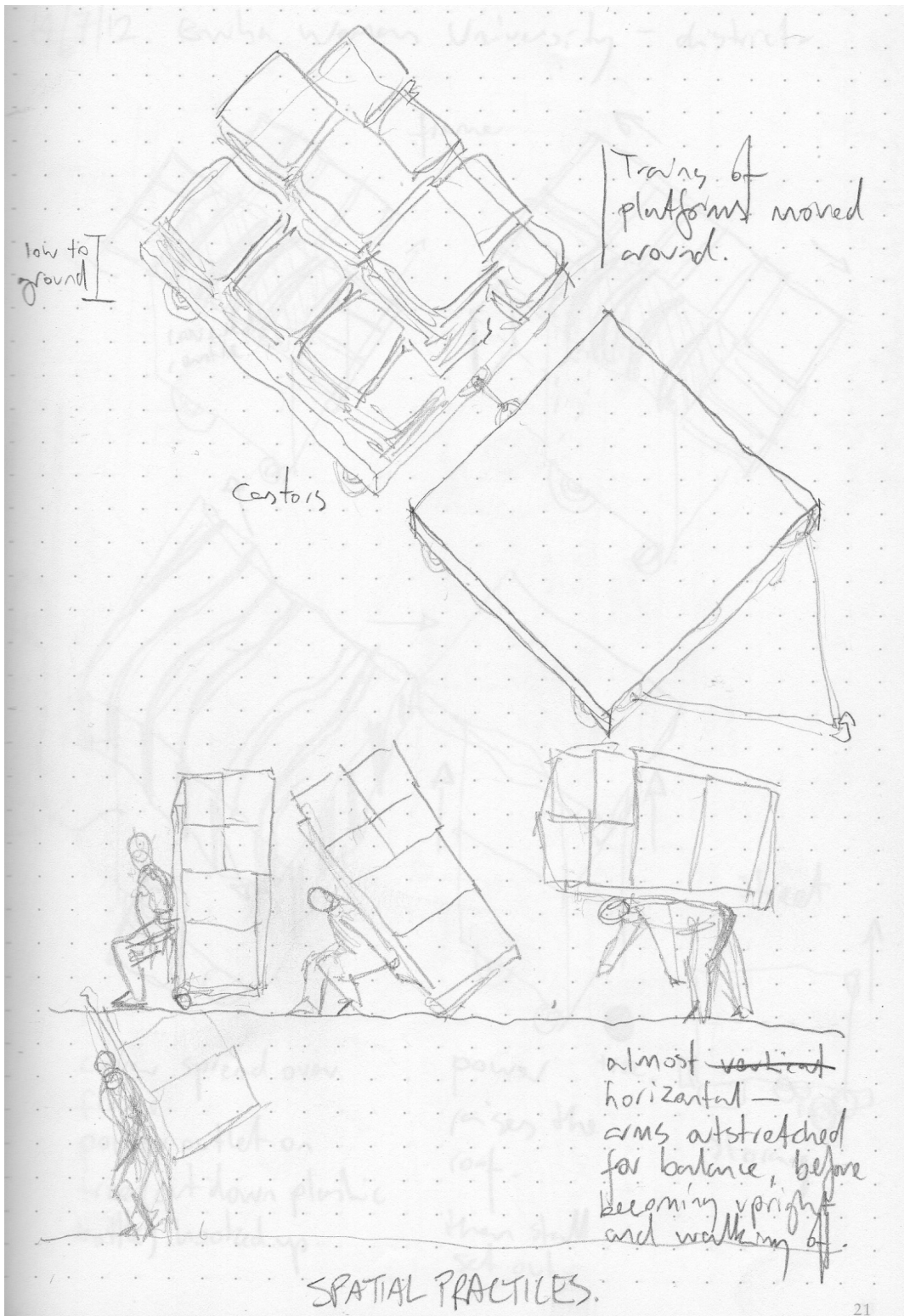
Figure 7.1 Packages in movement via wheeled platforms and a porter with A-frame.
Source: Ray Lucas

spatial system of medium-surface-substance, the market reveals itself as a complex medium composed of people and their movements. The porter is one specific kind of actor within this spatial system, moving through the medium within which buyers and vendors also move. Gibson's spatial system works at a range of scales, from the macro-scale of the market down to the interpersonal relationships between van drivers, porterage supervisors, vendors and the porter himself. Carrying individual boxes is awkward and inefficient, so a range of solutions to this issue is used in the market in different circumstances. Throughout the market, *surfaces* allow for the movement and display of goods essential to the functioning economy. Through the use and incorporation of various prostheses, porters transform themselves into surfaces, increasing the potential of the human body, while the frame becomes a technology of spatial transformation.

Unfurling and proliferating surfaces

In the vicinity of Ewha Women's University in Seoul, there is a precinct with cafes and stores to serve the student population. One section of this is a wide tree-lined strip of block paving, providing a little relief from the density of development elsewhere. A compact wheeled unit with handlebars and an internal engine is driven slowly and carefully along the pavement towards one of the trees, where it parks. The unit is an informal market stall, and the process of its unfurling gives an indication of the sophistication with which surface can inform the built environment. Indeed, a fully functioning piece of architecture can be assembled on site in less than ten minutes.

With the unit halted and brakes applied, a series of lightweight steel projections are extended from the top of the unit, open frames sliding out from the wheeled base on the left, right and front sides. The corners of the frame are completed, making a rectangular support over which a sheet of red and brown striped textile is spread. This waxed surface hangs down over the edge, being slightly larger than the frame it covers.

The vendor reaches into the base unit and pulls out a thick power cable, stretching it towards a nearby tree which has a power outlet hanging from it, protected from the weather by a cut-down plastic bottle. This process of connection is both a formal intervention – administering the use of energy infrastructures – and an ad hoc one, generated from readily available materials. Once connected, the vendor activates the motor again and the frame extends from its current position at waist height to slowly open up and provide a canopy. The top of the unit is now a surface, as is the fabric canopy, which, extending over the edges of the unit itself, defines a territory. This market stall now occupies a zone of space, with an inside and outside, managed by an overhead surface (see Figure 7.2).

Further spatial definitions are made by the vendor. A series of props are arranged which further inform the space, lanterns are hung from the canopy to announce the purpose of the stall – street food – and storage is unpacked and arranged around the rear of the base unit. An unrolled bamboo screen further defines the sense that the stall has a front and a back, this surface being placed in the vertical plane rather than the horizontal. The cooking surface is arranged, ingredients
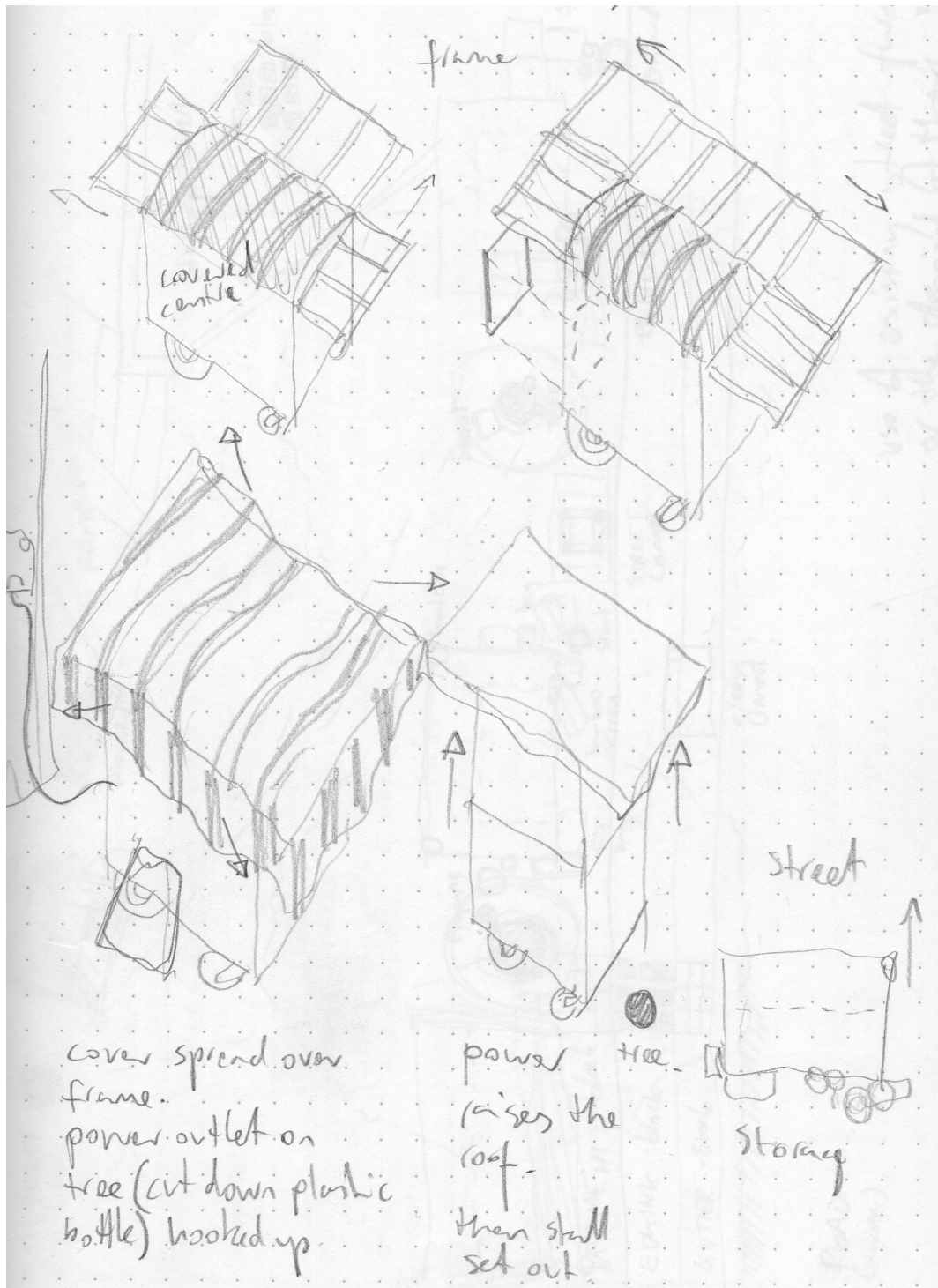
Within the sketch (handwritten labels):
- frame
- covered centre
- cover spread over frame. power outlet on tree (cut down plastic bottle) hooked up.
- power tree. raises the roof. then stall set out
- Street
- Storage

Figure 7.2 Axonometric drawings of the unfurling market.

Source: Ray Lucas

within easy reach, and the vendor lays claim to a territory around the stall. The paving bricks are no different materially or physically, but the nature of the space has been transformed fundamentally. When pedestrians move within a certain distance of the stall, they interact with the vendor: if one were to skip around the

back, it would seem like an invasion of private space. Those who are nearby and remain stationary become potential customers and may have to awkwardly defy a sales pitch. The transformations are simple but also fundamental. Thus, a previously undefined thoroughfare develops particular social qualities in response to surfaces introduced and unfurled by the street food seller.

## Accretion and layering onto formal space

Seomun Market in Daegu is a general market selling a range of goods and is under pressure from urban redevelopment as well as being hemmed in on two sides by major highway developments, which were subject to construction at the time of visiting in July 2012. These conditions create a pressure for space and its usage which is common to many markets but is particularly acute here.

The inhabitation of Seomun Market presents a complex set of interactions across formal and informal architectures. As with other markets in South Korea, the base building fabric is large urban blocks, between six to ten storeys tall. Seomun is an assemblage of nine such buildings – one of which is under construction and another of which is a combined car park and fire station – with a series of interstitial spaces, later covered with roof elements to create many internal spaces. Several major streets cut through the assemblage of blocks, with one devoted to street food and one allowing the co-existence of traffic and informal sellers.

The materials and technologies which mediate the relationship between formal and informal are of particular interest here and of a particularly acute nature in Seomun. The exploitation of surfaces works through material interventions: strategies of clamping, clipping, hanging and leaning. In this instance, the formal market is a surface to be exploited by the informal; it provides opportunities for temporary occupation, where an attachment can be quickly assembled, mounted and demounted, or an appending structure can evolve to generate longer-term accretions, such as an upper deck providing access for delivery and trading (see Figure 7.3).

Whether more temporary or accreted, these occupations make diverse usage of surfaces and any status that they offer. The cleanliness of a designed building is subverted by a gradual encrustation of attachments: steel decking, clips and clamps, conduits and cables, lean-to structures and the claiming of pavement territory by laying down a blanket or forming a canopy with a parasol or tarpaulin. This is the crucial feature of market life in Seomun: a diversity of restless improvisatory strategies to define, form and reinforce space.

Each time a territory is defined, it creates a spatial distinction between an outside and an inside, which correspondingly conveys a set of conditions about how to interact with that space – a kind of architectonic notation. These conditions are socially enforced: for example, a chilli paste stall – with a sense of *facing* and spatial *extent* – has its conditions reinforced as buyers conform to the ordering of the space.
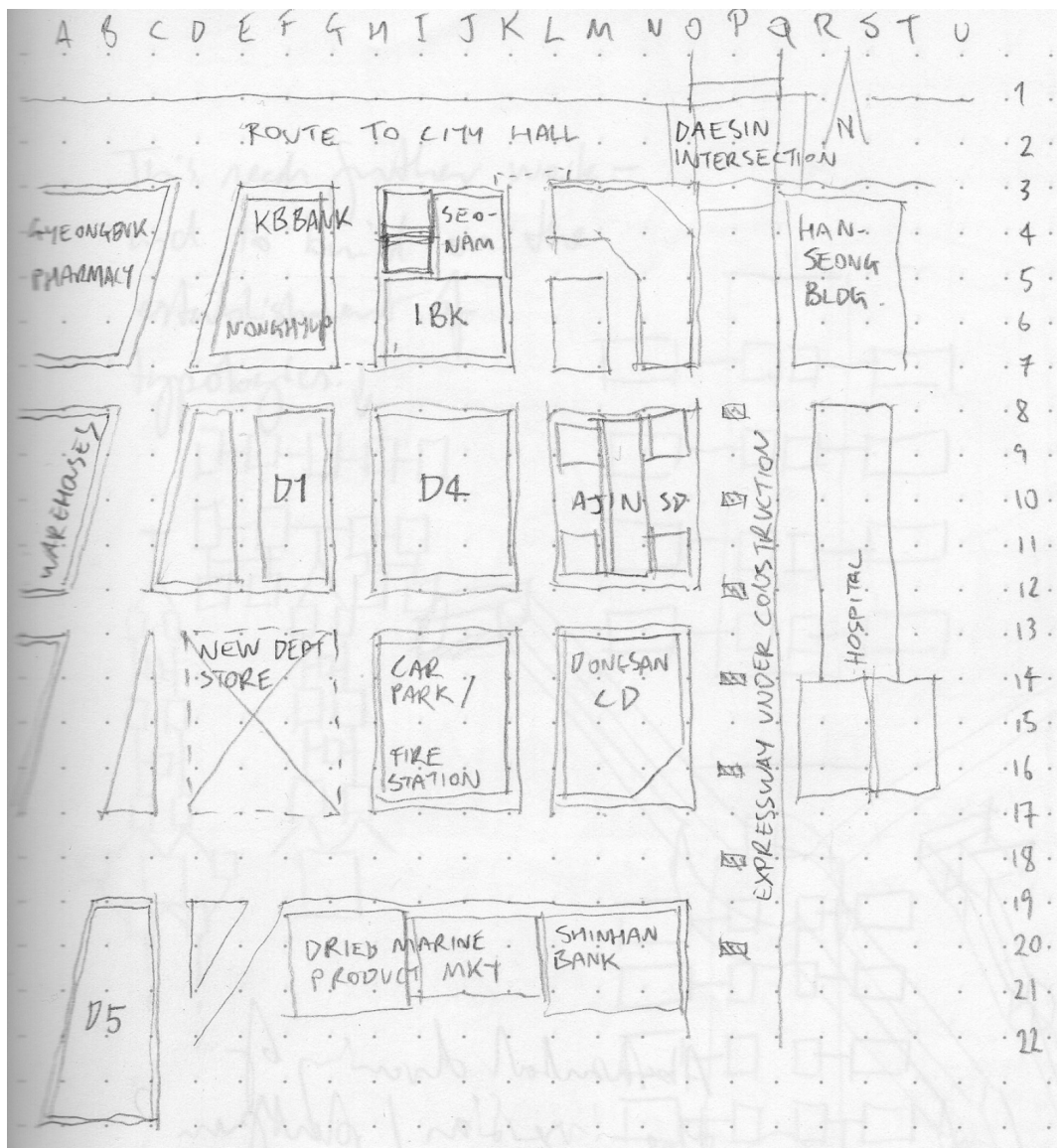
(A)

Figure 7.3 Plan drawings of Seomun Market. A) Settled building structures. B) The accretion of improvised layers of temporary settlement.

Source: Ray Lucas

These conditions create a visual complexity within the market. Where blank-windowed internalised buildings would normally be considered visually unengaging, the layering of signs, infrastructure, fabric, goods on sale, food, cooking and ongoing human interactions make for a most exciting urban spectacle. The opportunities offered by surfaces are seized upon and enrich the environment aesthetically and economically.
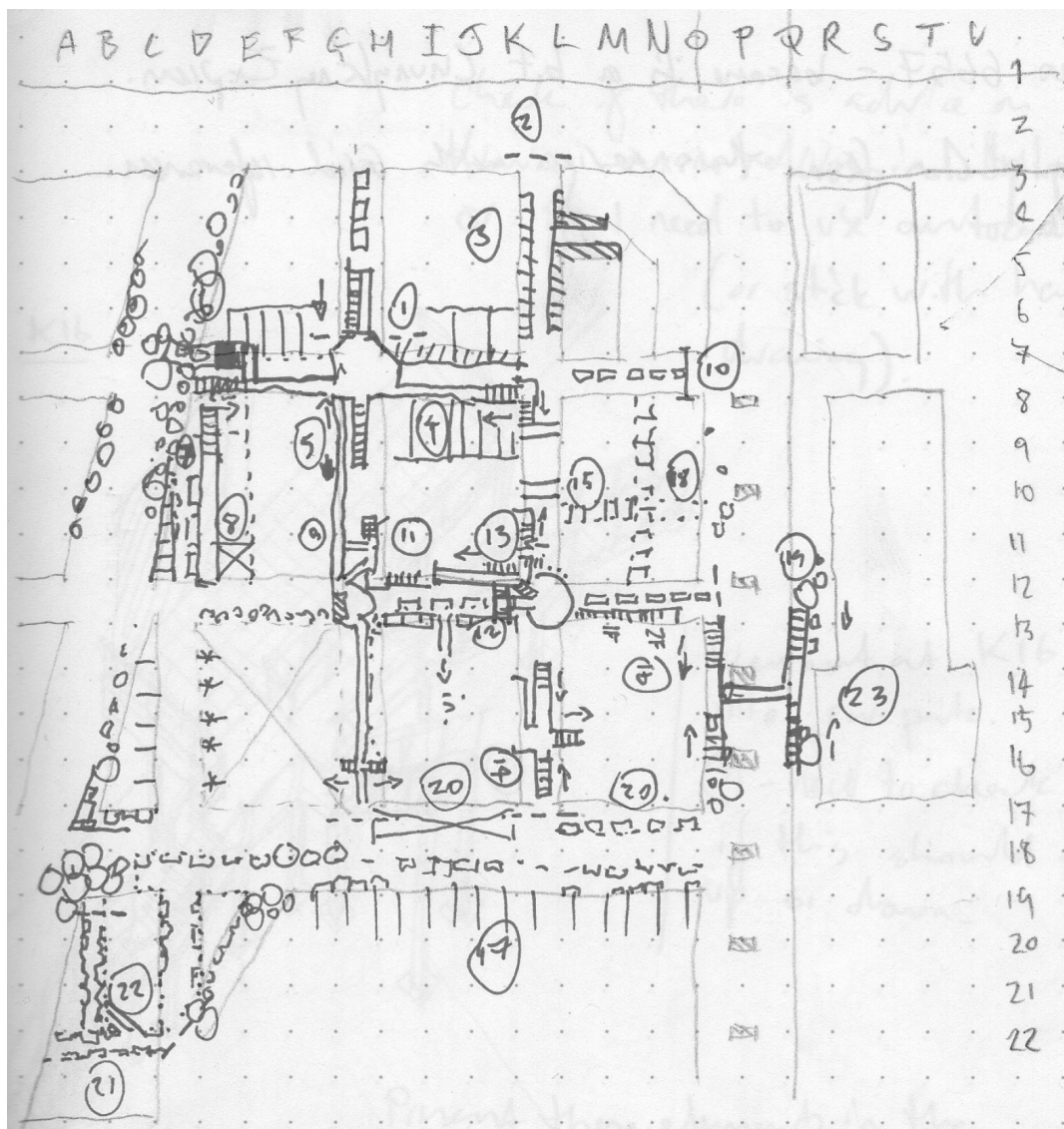
(B)

Figure 7.3 (Continued)

Formal and informal appropriations of space

As well as the sprawling complex of the main market – focused on the trading of fabric and textiles – Dongdaemun also has an associated flea market. This flea market is one of the most informal – and at times illegitimate – in the city, and it has been subject to pressure from city authorities. Having recently been moved on from its site in an abandoned baseball stadium to make way for the construction of *Dongdaemun Design Plaza* – a cultural institution designed by Zaha Hadid Architects – the flea market has gradually been pushed away from the main drag of Dongdaemun Market. The introduction of the design plaza seems much like a top-down imposition that contrasts with the more organic growth of the markets.

However, it could be said that this is simply another instance of claiming territory through a radical reformulation of space which is characteristic to so much of life in Dongdaemun. Thus, while vastly different in scale and approach, there is a fundamental similarity concerning the reinvention and appropriation of space.

In the operation of the main market, various props and devices are once again used to form and define spaces, albeit in this instance as *logistical* spaces. The turnover of goods within Dongdaemun Market is on an industrial scale. It is a wholesale market serving both national and international buyers, with networks of currency exchange, coin lockers for keeping samples and produce and international courier companies amongst the large blank-façade buildings. The market operates at night, with exchanges taking place in a variety of ways. Small-scale operations can buy directly: fabric by the metre, findings and fastenings by weight and completed garments at wholesale prices. Larger operators will send buyers out to suppliers with instructions for the types of fabric required. Often, they will select from sample books, even taking these samples back to the office in order to verify a large order. Once an order is placed, the purchases are not carried away by the buyers themselves – who are likely to be placing further large orders with other sellers – but rather the order is collated, vacuum bagged and sent down to street level for pickup by a contract porter.

The spatial arrangement of this operation is also a further form of appropriation. The pavements outside these department-store–style buildings are wide and well maintained, broad surfaces upon which to organise the distribution of goods. The paving is marked, and a series of tubular steel barriers are set out to divide the zones. These zones are supervised by company staff who maintain the orderly movement of goods across a complex network of vehicles, everything from mopeds and motorcycles to large trucks.

Permeability of surface

The flea market of Dongdaemun allows for the consideration of another quality of urban surfaces: their *permeability*. This market occupies a network of narrow streets which sell a variety of consumer goods and food. The relationship between the flea market and the main market is important, as the traffic to the main market also fosters demand for this less legitimate affair. The flea market is tolerated by the city authorities, even if they are uneasy with its level of informality (Mörtenböck et al. 2015) and its formative contrast with the design plaza, a project described as a 'Milestone of Parametricism' and thus bound up in the prominence of itself as an object of architecture (Schumacher 2013).

In maintaining a close proximity to the main market, several parts of the flea market occupy areas of tightly constrained space, and this incurs further innovations, accretions and appropriations like those seen elsewhere. Figure 7.4 shows a space less than two metres across, with a trestle table on either side of the pavement and a narrow walkway between. Each table is supplemented by metal grids which can be propped, tied or leaned against various fixed features and which provide the vendors with surfaces to display their goods.
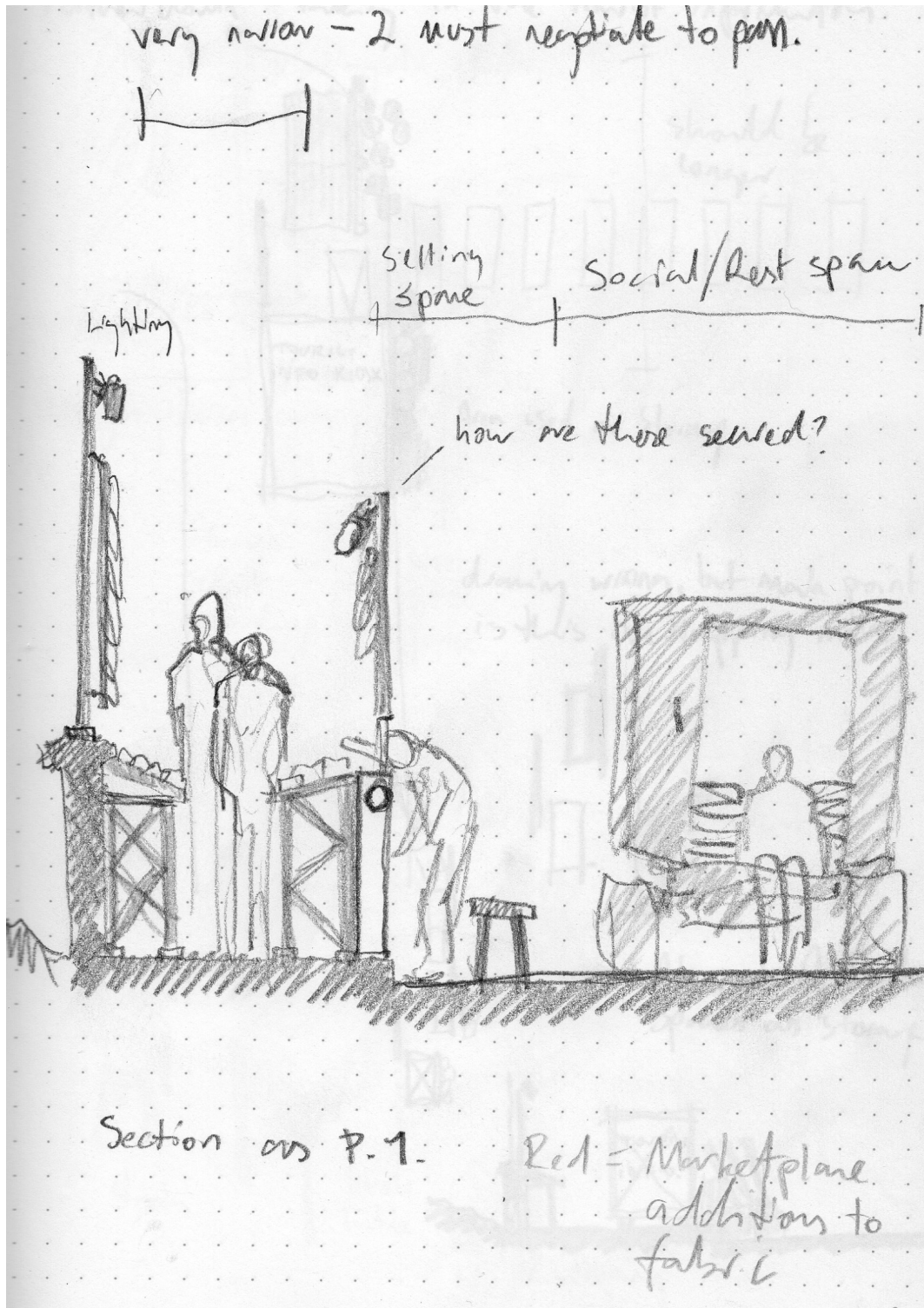
Figure 7.4 A sectional drawing through the flea market of Dongdaemun.
Source: Ray Lucas

This tight arrangement does not leave much room for the vendors themselves, however. This is a crowded market, with a steady flow of people passing by the stalls. Some vendors will leave a gap between tables, allowing them to stand and monitor their goods, to engage with customers and negotiate exchanges. Others are more inventive, however, and remain outside the flow entirely by standing behind the metal grids on the road rather than the pavement. They maximise their sales surface by allowing only small gaps in the metal grids to look or pop their head or arm through, reducing their bodily presence to an absolute minimum.

The efficiency of surface here is indicative of the economic forces at work: an immediate and direct relationship between the surface area and the profits which can be made within this spatially constrained and competitive market where many vendors are selling similar low-cost, low-margin goods.

A kit of parts – generators, utility clothing, vehicles, wheeled carts and plastic stools – is used to support the flea market, and the surface area of pavements and sidewalks is extended through the use of tables and metal grids, often underneath parasols or canopies. Vehicles are used to define logistical and social spaces for vendors: the bed of a van is a place to sit, and the open doors between two such vans offer a degree of privacy. All of these material interventions bring definition to an otherwise undifferentiated space in precisely the way an architect might hope to do, that is, to adapt and intervene within a context in order to foster the generation of specific activities.

The surfaces created by metal grids can be penetrated, however: they are material conditions which the vendor must make careful decisions about. Such surfaces have a significant influence on whether their selling activity can be disembodied and allow for a greater number of wares to be on display or whether the creation of a distinctive space for an individual stall is more important than location or quantitative aspects of display. Thus, this permeability of surface is a key parameter which the vendor experiments with in defining their space.

Surface and mobility

The markets of Dongdaemun also exemplify how surfaces are essential to the *mobility* of urban life. The idea of *movement* was particularly popular with 1960s avant-garde architects – such as the Archigram group, Cedric Price and the Metabolists – who conceptually experimented with the design of responsive, mobile, urban structures.[3] What is notable, in the context of this study, is that these explorations – whilst original for the architectural profession in the mid-twentieth century – can be seen to be preceded by the more modest, everyday iterations and innovations of traditional marketplaces.

Elements of Dongdaemun market move for several reasons: to re/position stalls within the flow of office workers during peak-time commuting, to avoid market inspectors and the fees they levy or to shelter from a sudden onset of monsoon rain. Other forms of motion involve activities of building, unbuilding and maintenance with architectures of castors and lightweight materials or through structures of tarpaulin and bungee cords. Such mobilities are highlighted by Graaff and Ha

in their consideration of De Certeau's strategies and tactics. According to them, 'it is especially the vendors' mobility that combines spatial and temporal tactics to allow them to momentarily circumvent the state's restrictive strategies, such as those that limit their access to public space' (Graaff and Ha 2015: 7). Thus, the vendor employs tactics in order to gain advantage, either in response to the spatial and temporal regulation of the market or in reaction to external factors such as urban schedules of work or weather conditions such as wind, rain and sun.

The open and closed conditions of the market are mediated by its surfaces. Returning to Namdaemun Market provides an example. The operation of this market is cyclical, in that some days are reserved for the permanent vendors housed in fixed buildings rather than those who operate mobile stalls on the street.[4] Some days allow the mobile vendors to have exclusive use of the site, and other days have every type of stall open simultaneously. This cyclical schedule means the mobile stalls must have the capability to have an open or closed condition. Mobilities of stalls are also required at the end of the working day so that they can be moved to a parking area on site. Thus, similar to the stall at Ewha Women's University described previously, the stalls at Namdaemun can be compacted to a smaller form to then be covered with tarpaulin to secure the goods in transit from the elements and, to some lesser extent, theft.

One of the most ubiquitous forms of stall is a white enamelled steel module which connects to the power infrastructure of the market. This connection to a fixed infrastructure also allows for the city authorities to impose some control over the spread of the market in that such infrastructures are prescribed to specific zones. These modular stalls are wheeled and can be hooked up in long trains, allowing them to be towed by a quad bike to the parking area. When compacted, these stalls can store goods within the unit, with overflow stacked and bound on top with a heavy-duty tarpaulin and fabric straps or bungee cords. Other more informal stalls mimic this arrangement. Here, the outer surfaces of the stalls are barriers and containers, with the carts thus appearing as amorphous and lumpy forms atop wheeled platforms.

Another practice of more responsive mobility can also be described in terms of its surfaces. Some of the most informal and low-cost market stalls are composed of large platforms made from timber pallets or from shallow containers made from waxed canvas. These platforms are mounted on castors, sometimes forming chains, and are typically piled high with clothing for sale. This appearance of plenitude is an important aesthetic within Namdaemun in that most stalls attempt to dazzle the buyer with the sheer abundance of choice rather than taking the approach of selectively showcasing a smaller amount of produce. In response to surrounding conditions, these platforms can relocate swiftly, whether picked up by two people and sprinted off to another part of the market or wheeled through the crowd, albeit more ponderously and precariously.

Responding to changing conditions relies on knowing and monitoring the local environment, such as being aware of office workers' schedules or the shifting presence of competition. Thus, the surfaces of the market move and reconfigure themselves in response to a fluctuating economy; it is as a self-regulating system which continually makes best use of the resources at hand.

Conclusion

Thresholds can be perceived in a variety of ways, each responsible for formulating a sense of shifting from one space to another. Marketplaces also have their particular social customs and orderings which are directed by the form of the emergent architecture at hand. This might involve a vendor inviting a buyer to briefly enter a specific space during a transaction, the etiquette of positioning one stall relative to another or the accepted practices by which a stall can be attached to a fixed building. All of these practices and procedures are malleable to some extent and subject to continued negotiation within entanglements of skill and power, as Mooshammer discusses: 'As spaces of exception, informal markets simultaneously uphold systems of power while concentrating their negation in a particular locale where they engender encounters between otherwise incompatible trajectories' (Mooshammer 2015: 17).

Each vendor's stall can therefore be considered a collective of thresholds which are held in place, or loosened and re-established as negotiations between people, place, economies, institutions and patterns of weather and work. Thus, as well as being sets of thresholds which foster local interpersonal exchanges and singular transactions, they are also thresholds which activate wider multinational exchanges and the movement of goods outward and inbound, to and from, locations overseas. The stall, whether cobbled together from components and materials to hand or located as a module inside a market building, is a mediation between a locale of intimate immediacies and a world of networked dependencies. It is thus the most active and agentive of collective thresholds.

Importantly, these thresholds exist as material *surfaces*. A wheeled street food cart has various chambers for storage, a surface for arranging ingredients and a separate one for cooking. It may also have a parasol which describes a space underneath it. This becomes a territory subject to a threshold as defined by the projection of one surface (the parasol, on a higher plane) onto another (the paved ground plane), whereby the buyer is subject to the gaze and attention of the vendor. The vendor is permitted to give you their sales pitch, but the buyer is forbidden from their sales and preparation area, which is projected behind the cart itself.

Such a sense of space that is relative to and folds out from the body can be found in Otto Bollnow's (2011) work *Human Space*. Here, Bollnow establishes a spatial system through the coordination of the human body rather than via the abstraction of the Cartesian coordinate system. To describe space, Bollnow uses everyday language – up and down, left and right, in front and behind – which qualitatively *feels* different from the positional co-ordinates of x, y and z, which equate every point in space to a theoretical neutrality.

Marketplaces are a proliferation of diverse thresholds, and this multiplicity is what makes them such engaging environments to observe and be part of. In strolling through the central street in Namdaemun Market, all manner of goods, sales strategies, marketing pitches, perceptual stimuli and forms of spatial occupation are encountered. Space exists in permanent, temporary, mobile and established forms; disparate vendors cooperate and compete simultaneously, and an

opportunistic architecture evolves which takes advantage of the shifts in market conditions as they occur from one day to the next. The market's surfaces – that for Gibson are the threshold between substance and medium – operate as social distinctions between vendors, authorities, restauranteurs, porters and buyers.

Discussing the collection of *practices and thresholds* from the ecological viewpoint of *surfaces* which constitute the market offers an opportunity to broaden the scope of what might be considered architecture. To observe, study and acknowledge the production of the marketplace presents a possibility to embrace themes of mobility, modularity and configuration in architecture which leads on from the imagination of 1960s avant-garde architecture but which does so in a highly pragmatic way. Importantly, to consider this bodily practice of architecture in correspondence with materials prompts a breakage from Cartesian coordinate geometry and points towards a sense of space that is more relative, fluid and imbued with the force and settlements of negotiation. Such a perspective asserts that architecture is, through its surfaces, constitutionally both material and social.

Notes

1 The architectural historian Niklaus Pevsner famously declared that: 'A bicycle shed is a building. Lincoln cathedral is a piece of architecture' (2009: 10). This is a position that still holds sway within some architectural debates but which this chapter fundamentally opposes.
2 See Lucas (2018) for more detail on this phenomenon, with reference to Katsura Imperial Villa Kyoto.
3 For an account of the Archigram group from the inside, see Cook (1999); for a discussion of Price's projects, see Hardingham (2016) and for a detailed account of the Japanese 'Metabolists', see Lin (2010).
4 Many, if not all, markets have a cyclical nature – see Gell (1999) for a notable diagrammatic account of a market in Dhorai, India, highlighting matters of temporality.

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