SPATIAL CHARACTER, COMPOSITION AND CONDITIONS OF INFORMAL SECTOR CONSTRUCTIONS & COMMUNITIES IN THE JAPANESE METROPOLIS

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ABSTRACT:

Japan is one of the world's most advanced societies, with technology, business, architecture and development proving inventive, progressive and impressive. With strong social structures and deeply rooted traditions at play, and an appetite to build the country and heighten effectiveness, Japan has arguably modernized with great efficiency, skill and success. Over the past fifty years Japan has strived to assume its place as an exemplary nation that showcases a high quality of life, rich civic amenity, and an especially large middle class. Japan can be proud of its stellar progress while looking forward to a bright and exciting tomorrow.

Japan's growth and development, while remarkably strong, has not come without some less than ideal implications. Challenges confronting contemporary Japan include the growing number of homeless individuals, the rising number of informal settlements and the cascade of temporary|transient housing punctuating metropolitan areas. Japan's homeless population, while modest compared to many other countries, nonetheless presents difficult social, economic and environmental dilemmas that warrant attention, study, education and intervention. The author has been studying Japan's homeless community for several years now, including spatial, architectural and planning considerations of the housing solutions and community developments.

The present paper outlines the various housing forms created and constructed to accommodate Japan's rising homeless population and delineates conditions of the informal sectors in the major metropolitan centers of Tokyo, Yokohama and Osaka. Character and composition of housing is analyzed from a spatial, architectural and 'design' perspective. Key aspects of the informal housing are delineated, including

sense of privacy, organization systems, materiality and meaning. Connections are drawn between informal temporary constructions and the design and planning approaches that are prevalent in more permanent and prominent buildings and landscapes in Japan. Observations are made with respect to various housing approaches developed in the major urban centers, with a goal to identify nuances while defining common moments and approaches. While housing solutions appear to be in stark contract to mainstream Japanese design and building solutions, it is argued that there may be greater similarities than is commonly understood.

Keywords: Japan, informal sector, homelessness, transient housing, personal space, place, culture, design, dignity, Tokyo, Yokohama, Osaka

INTRODUCTION

"The reality of a room, for instance, was to be found in the vacant space enclosed by the roof and walls, not in the roof and walls themselves. The usefulness of a water pitcher dwelt in the emptiness where water might be put in, not in the form of the pitcher or the material of which it was made. Vacuum is all potent because it is all containing."
Lao-Tzu as quoted in Okakura's 'The Book of Tea'[i]

When one thinks of modern Japan the notion of homelessness is certainly not front of mind. Rather, this progressive contemporary country is more commonly associated with a resilient massive middle class, a technology-savvy innovative manufacturing realm, and dynamic complex urbanization. Yet, despite realities of widespread wealth and high quality of living, there is a growing sector of Japanese society that resides in the margins. This component of the population, most commonly subsisting on day labour, lives a lifestyle that in many ways stands in stark contrast to the mainstream. That said, Japan is a culture steeped in tradition and strong in social norms – the principles that have shaped Japan through its rich history continue to exert great influence across all facets of contemporary life. Despite apparent differences in lifestyle, including housing, there are many characteristics that are common to both the mainstream and to the informal sector.

In previous papers the author has differentiated and distinguished various types of housing within the homeless milieu, or informal sector, of Japan. These housing types include doyagai (flop houses), tent structures and cardboard constructions. It is interesting to contrast the modern, lavish steel + glass edifices of Ginza's elite streets, and the wooden post + beam upper-class housing of Yamanote, with the cardboard and nylon assemblies of Tokyo's homeless precincts. While there are obvious and dramatic differences in material, scale and construction, there exists many aspects that serve to unite the typologies. Japanese culture has mastered control and delineation of space, from the tight and orchestrated layout and presentation of a Bento box to the architectural interplay of Kenzo Tange's towers. Modern Japanese design, such as Shigeru Ban's cardboard tube creations, Kisho Kurokawa's metabolist structures, and Rei Kawakubo's light infused transparent retail ventures, convey aspects of the transient and qualities of the impermanent. In such a vein, Japan's homeless housing is not simply a random collage of recycled parts but rather proves an intentional installation that provides shelter, privacy, space, place and a sense of dignity to its disempowered residents.

The present paper examines the character, composition and conditions of informal sector housing (and especially tent housing[ii]) in the modern Japanese metropolis with an interest in making connections to traditionally accepted and practiced design principles. Descriptive and analytical work arises from the author's many research visits to the major metropolitan centers of Tokyo, Yokohama and Osaka. While these major cities share much in common, there are evident nuances with respect to informal settlement and homeless housing. Comparisons are made between informal housing and more conventional architecture and landscapes in an effort to illustrate that informal housing, while on the surface seemingly ill-considered and hastily-assembled, does involve considerable thought, respect for societal norms, and attention to detail.

BACKGROUND & CONTEXT

"Not to consider 'I am this', that is freedom."
[Buddha]

Japan, one of the world's most industrialized nations, is comprised of a series of islands (approximately the same area in total as Germany), located off the east coast of the Asian continent. With almost 127 million inhabitants, Japan has the ninth largest population on the planet. Due to remarkable industrial growth after the WWII, and undeniable leadership in the high technology sector over the past few decades, Japan's economy proves a global force. While spiritual (Buddhist and Shinto) underpinnings color much of the society, the nation is not overly religious. Japan is strongly family oriented, strongly collective, and strongly bound to severe cultural norms and driven by commonly understood societal expectations. It is important to understand issues of homelessness, social systems, design and planning within such parameters.

An outsider's view of Japan paints a picture of a tightly-controlled, strongly-ordered, economically stable, and largely middle class society. Stereotypical aspects such as ethnic/cultural homogeneity, intense density, urban chaos, and the predominance of advanced technology, add to this picture of a modern, progressive Asian nation. While the facts bear out the claim of overall economic health at the individual and collective levels, the gap between Japan's rich and poor is growing as is homelessness. While many Western countries have elaborate and often effective social support systems, Japan has relied on other coping mechanisms to address such societal ills. Rather than looking to the government for assistance, Japanese citizens (largely the male population) are expected to look to work as the first choice of support followed closely by family networks. Down stream, when all options are depleted, is government aid. Japanese Ministry of Health, Labor and Welfare (1997 fiscal year) numbers indicate that approximately 7% of national social security expenditure is allocated to 'livelihood assistance' and 'social welfare'. Less than 1% of Japanese receive social assistance. In comparing social security expenditure to national income, Sweden stands at over 50%, Germany at over 30%, USA at approximately 20%, and Japan at 15%.

While homelessness is not new to Japanese culture, its somewhat dramatic increase in recent years presents unprecedented challenges. Compared with American statistics, which place the number of homeless in New York City alone at 50,000, Japan's problems seem modest. Tokyo, with one of the more significant homeless populations, has by numerous estimates (e.g., Japan Times) approximately 5000-6000 people living on the streets. Current estimates put the number of homeless in Osaka at approximately 15,000. For many reasons the majority of the homeless are men, mostly

put on the streets when they lost their jobs, saw their companies go bankrupt, or suffered a disastrous disgrace in the eyes of their families / communities. Despite living without a permanent address, many of the nation's homeless are law abiding, respectful of cultural norms, and regular (albeit modest) contributors to the Japanese economy and society.

SPACE, FORM AND BEAUTY

"In order to understand wabi sabi, beauty must first be understood on a conceptual level. The traditional concept of beauty differs radically from that of the West. The Japanese have long held that the notion of beauty is not inherent in an object but rather is experiential. Given an ordered set of circumstances, beauty is the elicited response experienced by the perceiver. In other words, beauty is a sensory experience resulting from the process of creating order."
J & S Crowley[iii]

Space in Japanese culture is fundamental to design and living, yet is very different in understanding and approach compared to the West. As an island society with limited resources and large population, space is particular precious and valued. Many families in Tokyo live in a fraction of the residential space that counterparts in North America might enjoy. Japanese society lives with high density and crowding as a simple fact of coping with a significant population on less significant land base. Psychological, cultural and social norms have developed that permit so many people to live in such close proximity. Personal space is tight and crowding is commonplace. Expectations for resources are low while conservation and reuse is high. Architecture and design support the need to live in confined spaces and tight places, and mechanisms of design work hard to make the tight feel more expansive and the small seem larger. Vehicles such as choreography of path and control of view (including the so-called 'Zen view') are vital in the quest for promoting comfort, pursuing beauty and seeking harmony (e.g., between people and environment; between the built and the natural, etc.).

Form and materials are important in Japanese design, interplaying in balance with the significance and meaning of space. On the material side, Japan is known as a 'wood' culture due to the historical access to timber as a primary building material. The structural qualities of wood, with its limited spans, gave way to a post and lintel construction system. The manner of building homes and temples, with complex joinery and regular grid layouts, fostered the rectilinear geometry that is so prevalent in historic Japanese architecture. From this building approach arose many aspects of Japanese design that are now well known in the West, including perhaps most significantly the interconnection and mutability of spaces, the use of infill panels (most notably the shoji screens), and the creative control of perspective to shape perceptions. Nishi and Hozumi (1983) describe qualities of architecture arising through reliance on post and lintel construction: "There is, moreover, a fluidity in Japanese architecture between inside and out. Though fixed walls are frequently used, the distinction between wall and door is very elastic, and whole facades in both temples and residences can be opened to the elements at will by folding open or swinging up the panels between posts or by sliding open, or even removing entirely, the wooden or paper screens."[iv]

In Japan there is an important concept known as shibumi, which in essence translates as an unassuming elegance and conscious reserve. When shibumi is elevated it invokes what is called the beauty of wabi sabi. Wabi is about the wretched, forgotten and forlorn while sabi is about the 'rust' of age. It is arguably in the union of wabi and

sabi where Japanese design becomes most compelling and aesthetics most remarkable – where the simple, the unaffected and the elegant coexist. We find this search for beauty, and the invocation of wabi sabi, deeply rooted in the traditional Japanese arts of ikebana (flower arranging), bushido (the way of the sword), and perhaps most notably sado (also referred to as chado or the way of tea). Certainly such concepts loom large in the efforts of Japanese architects and landscape architects, especially in their search to impart beauty, tranquillity and meaning in an ever-escalating modern milieu of technology, urbanity and uncertainty.

QUALITIES & CONCEPTS

> *"The space around a traditional house is as important as the interior. Privacy is provided by a fence or wall that surrounds the property. Entry is through a gate, which can be entirely modest or a substantial structure with a roof, depending on the wealth and status of the owner. The passageway from the gate to the main entrance of the house is where inhabitants switch from a public to a private mode in the sense of preparing themselves for psychologically for returning to a refuge from the stress and distractions of the outside world."*
> *D & M Young*[v]

Japanese design has many important dimensions and principles that guide the creation of landscapes, buildings and interiors. While there are too many to adequately review within the present paper, a series of key concepts is used for purposes of the analysis of informal housing in major Japanese metropolitan centres. The main points considered, from a design and analysis perspective, include: 1. Landscape & Nature; 2. Ritual & Routine; 3. Fluidity & Functionality; 4. Craft & Construction; 5. Identity & Place-making; and, 6. Impermanence & Transience. While this list is less than exhaustive, it does introduce some initial considerations with which to better understand informal housing and to begin to draw comparisons with other, more conventional forms of Japanese architecture and design.

While it is certainly true that informal housing, that is, the shelter created by the homeless class in Japan, does not benefit through the engagement of environmental design professionals, it is held by the author that design approaches whether intentional (high art) or vernacular (low art) are influenced by values, beliefs and conditions that prove omnipotent in Japanese society. For example, the notion of clean versus dirty realms is pervasive, with the very youngest of children taught to respect and revere the sanctity and simplicity of dwelling space. Another example of an omnipresent value is honouring nature as part of one's journey through everyday life. Such honour is seen in the great attention afforded to the sakura, or cherry tree, as it comes into blossom. Whether emperor or day labourer, the pleasure of viewing the cherry blossoms is a shared pursuit and a common joy.

One critical aspect of Japan, that informs and inspires design, is the deeply rooted spiritual history that underpins the culture. Shintoism and Buddhism are inextricably intertwined in the society, with ramifications witnessed over a spectrum of endeavours from business and the arts to education and politics. The Zen notion of mushin, or 'no mind', is a good example. Without a mind one is rendered without a self. Without a self one is afforded great freedom from the many trappings and seductions of common existence – inching ever closer to escape from the vicious cycle of suffering Buddhists call samsara. Japanese design and architecture often seeks such release from trappings and clutter, electing instead for the simple, the austere and the unadorned.

The Japanese term kanso acknowledges the importance of simplicity of design, akin perhaps to German modernist architect Mies van der Rohe's famous dictum "less is more".

1. LANDSCAPE & NATURE

"Unlike westerners', the traditional Japanese mind-set does not regard space as empty. In the Buddhist mind, space is an entity with four dimensions – height, width, length and time. It does not need to be filled up to be functional or useful."
Boye Layayette De Metne[vi]

Through history Japanese society has held a highly synergistic relationship with nature. Celebrated perhaps most clearly in the pre-eminence of the garden in their culture, the Japanese work hard to dissolve the boundaries between humans and nature, and blur distinctions between inside and outside. From the joy found in admiring a twisted tree trunk to the intentional control of views into nature, the Japanese strive to respect their place within a much larger cosmos. The importance of water, the acknowledgement of imperfection, the mystery of asymmetry, and the search for order, among other aspects, underscores a keen desire to reside as a part of rather than above the natural world.

We see in informal housing many dimensions of design and construction that resonate with aspects of landscape and nature. With siting of tents commonly in parks and along rivers, the homeless frequently seek a strong bond to place. In parks, for example Ueno or Yoyogi in Tokyo, one can witness an intentional placement of dwellings that take advantage of tree cover, access to light and avoidance of traffic. On the river edge one can notice dwellings located with attention to wind protection and views to the water. In both cases there is often a clear relationship between adjacent dwellings that, while often subtle, fosters sense of community and distinguishes private versus more public spheres.

2. RITUAL & ROUTINE

"Traditional genkan. Visitors leave shoes at the first level and step up into an enclosed area that provides access to the interior of the house."
D & M Young[vii]

In Japan the power of the collective, and the pressures of social norms, are profound. When one departs mainstream life these forces are not left behind and abandoned but rather continue to exert influence in many aspects of daily life. We see in the design and function of informal housing many qualities that respect the rituals and routines pervasive in modern Japanese culture. People in the West are aware of the Japanese tradition of removing shoes before entering a home or a temple. The separation of spheres, inside vs outside, private vs public, sacred vs profane, and clean versus dirty, is demarcated through the simple gesture of abandoning shoes at the threshold.

Although an individual may be displaced, destitute or in despair, the role of ritual in everyday life commonly remains intact. When a tent home is constructed the rules at play that serve to delineate space, for example to signal indoors versus outdoors, loom large. While in a formal residence the genkan may be clearly designed and strongly demarcated, for a homeless individual a collapsed cardboard box, standing only a few centimetres above the cold concrete walkway, proves a sufficient signifier of threshold and difference. While the gesture might seem minor and even unnoticeable to the foreigner, to the Japanese it is a clearly understood demonstration of respect, conformity and dignity.

3. FLUIDITY & FUNCTIONALITY

"Space in Japanese architecture is made up of transitory units. Each unit serves, in essence, as a bridge between the foreground and the deeper interior, and space consists of a series of such units, like the links of a chain. It is endlessly fluid, especially where the interplay of interior and exterior is concerned, with a fluidity that depends both on design stratagems and on the atmosphere of a place."
Takeshi Nakagawa[viii]

As noted previously, space in Japanese culture flows quite seamlessly within buildings and between buildings and the environment. Through the flexibility and mutability of space, and the mobility and transformation of objects (e.g., screens, walls, doors, etc.), the boundaries between rooms and the definitions of place shift with relative ease. A wall that is at one moment opaque is in an instant transformed into a richly lit translucent screen or a vast opening to the outdoors. The possibilities for dissolved borders translates into a possibility for greater harmony and unrestrained flow: harmony and flow between spaces; harmony and flow between container and contained; and harmony and flow between dweller and nature.

Within informal sector housing we witness similar concern with fluidity and functionality. Tent structures are designed in a manner that permits walls to shift, flaps to open, roofs to be rolled back, and the inside-outside delineation challenged. In many cases intricate and innovative use of building materials, often found objects, ensures flexibility and adaptability. The use of sheet nylon, often secured with ballast made of stones or more commonly spent automobile batteries, translates into a rapidly and easily adjusted collection of walls, roofs and doors. Temperature, ventilation, daylighting and views in|out can be readily modified as needs dictate. It is interesting that security of persons and materials is often not a major concern in Japan, for many reasons including intense social pressures and a widely and strongly held sense of honour (even among the homeless & day-labourers). Informal housing security features, for example, most commonly assume the form of roped-down window flaps and doors held closed with concrete blocks jarred on the exterior while the occupant is away on construction sites during the daytime hours.

4. CRAFT & CONSTRUCTION

"Regardless of whether circumstances call for restraint or exuberance, Japanese architects, builders, artists and craftspeople pay a great deal of attention to detail. Even when the overall effect of a building is simple, particularly when it is viewed at a distance, a close-up inspection of the building often reveals numerous details that add interest."
D & M Young [ix]

Japanese architects and builders are renowned for their spectacular attention to detail. In projects ranging from large scale museums of concrete and glass to small scale teahouses of wood and paper there is extraordinary focus on construction, assemblies and materiality. Craft is highly celebrated and perfection of both process and product deeply valued. In the case of wooden joinery, for example, the pursuit of tight

tolerances, skilful execution, and enduring performance is well accepted. As noted previously in the paper, the pursuit of perfection in Japan is not akin to Western notions of perfection. In Japan a surface may be intentionally rendered uneven, or a piece of lumber incorporated specifically because of its wretched shape. What is most critical is to produce works of beauty that resonate with accepted notions of harmony, poetics and meaning.

While most observers of informal housing in Japan would on first glance see mess and confusion, the design and construction of tent structures is often a complex, long and thoughtful endeavour. Collection of materials, concern about space and form, determination of site and orientation, consideration of mobility, deconstruction and reconstruction all factor into the equation. Aspects of craft and assembly are seldom happen-stance; rather they tend to be activities that are conscious, cumulative and meaningful. In many instances the informal housing units are owned by day-labourers who work in the construction arena. They are inhabitants who are used to working with their hands and often those who take pride in their craftsmanship. Often great ingenuity is demonstrated as an object intended for one use is redeployed in unexpected and interesting ways. A wonderful example of such ingenuity and creative reuse is umbrellas repurposed as tent pegs – a tactic seen throughout Japan and most notably in tent cities in major urban parks.

5. IDENTITY & PLACE-MAKING

"Sakui implies a will to construction, while jinen is a notion of self-becoming. One might translate the pair of terms simply as construction and becoming, although the equivalence is not exact. Furthermore, sakui might also be interpreted as architecture-as-Western-mode-of-thought, which entered Japan as the modern. By contrast jinen could be thought of as the Japanese life view: an attitude of letting the natural process of becoming decide its own course, that is, intuiting the course of nature and following it."
Arata Isozaki[x]

While Japan is a culture that strongly encourages conformity, it is also the case that personal identity and connection to place remains important. At the level of residential dwelling, aspects of customization, expression of personality and attention to image are evident. This is true of both conventional housing as well as informal housing throughout the country. In many instances there are efforts to personalize space and form both on the interior and exterior of dwellings. On first encounter all the structures in a tent city, or along a river's edge, may look similar. However, on closer inspection, and

through interactions with residents of informal settlements, it is abundantly clear that each dwelling bears unique features and enjoys a distinctive imprint of its designer/owner. While it is certainly the case that conventional houses in Japan operate within a fairly narrow range of ornamentation (kanso is a germane Zen concept underscoring the importance of restraint, simplicity and understatement), informal housing is arguably less constrained. Such housing often enjoys an unusual array of appliqué, including bird houses, paintings, stuffed animals and an assortment of anime characters. This need to express identity and to celebrate persona seems a common trait regardless of culture and country, albeit with curious nuances based on place, time and circumstance.

In his article "Different with a Difference", Roman Cybriwsky (2000) portrays aspects of personalization and place-making within Tokyo's informal sector. He wrote: "About 200 of the homeless reside on Shinjuku Station's west side, amid heavy pedestrian traffic, in a tidy settlement made of cardboard boxes. Some of the dwellings have more than one 'room', are equipped with futons, a few basic kitchen items, and ropes for drying laundry. Calendars hang from cardboard walls, giving an added sense of permanence and domesticity."

6. IMPERMANENCE & TRANSIENCE

"Mujo is a Zen concept that means mutability, transience, and uncertainty and is one of the deeper qualities of Japanese thought."
Boye Layayette De Metne[xi]

In Buddhism there is strong awareness of the illusion of permanence – that is, we construct and perceive our lives in a manner that suggests solidity, stability and predictability. All of this understanding of permanence however is mere folly, for the world and our lives are in constant change. What we accept now as reality is merely our best interpretation based on available knowledge, stimuli, past experiences and guesswork. Japanese culture accepts that life is ever-changing, and that a path that acknowledges the frailty of our journey and the uncertainty of our path is wise and reasonable. Zen teaches that in the midst of unpredictability, disorder and delusion one is well advised to make things as simple as possible. The goal of reducing one's environment down to its basics, to limit exuberance and seek the most minimal essence, is indeed noble.

While we see this search for simplicity, austerity and restraint in contemporary Japanese design, from Tadao Ando's awe-inspiring concrete churches to Kengo Kuma's masterful

collages of glass, steel and wood, it is also clearly evident in the constructions of the homeless. With challenges of subsistence and the demands of day-labouring, Japan's underclasses are artful in their optimal use of scarce resources and their clear acceptance of the impermanence of their situations. With the constant threat of forced relocation, the understanding that they reside in 'borrowed' space, and the need to make due with scavenged building materials, the homeless prove remarkably resourceful, resilient and inventive as they create 'homes' in less than ideal circumstances. The results are unquestionably accepting of uncertainty, mutable in nature, light on the land, efficient in operations, and effective in the provision of shelter that protects, nurtures and provides a rightful sense of dignity.

Japanese architecture, from both historical and contemporary perspectives, has encountered strong inspiration & influence from Buddhist thought. Spiritual notions of impermanence & ephemerality (mujo) impart a sensibility into design. Such impact is seen in the employment of cardboard and paper as building materials in the projects of contemporary architect Shigeru Ban. Concepts of layering, lightness, change, transience and the transitory can also been seen in the work of Arata Isozaki, Rei Kawakubo, and metabolist master Kisho Kurokawa (notably his Nakagin Capsule Tower in Ginza). Taro Igarashi (2005), in his article "Kisho Kurokawa: Buddhism and Metabolism", noted that the architect's "… global view that creation and destruction run fluidly into one another has its roots in Buddhist doctrine." He adds that, "In the original language of Buddhism, samsara means 'to flow', and also means the combination of various states, expressed through the process of reincarnation." In a similar manner to the celebration of the temporary that we see in the work of numerous modern Japanese architects, the informal housing of Japan's homeless acknowledges the inevitability of change, a lightness of being, and the cycle of suffering common to all sentient beings.

SUMMARY & NEXT STEPS

"There was just one homeless man in the park … He had turned the area underneath a small slide into a cozy little home. He had draped a plastic cover over top of the slide to form a protective awning, and he was sound asleep (or faking it) in a futon underneath the slide. Near his feet was a larder, with a selection of instant noodles, boiled water, dry biscuits, etc. He even contrived a sort of genkan, by laying out a blue rectangular plastic bath cover at the entrance to the house. His battered boots were standing neatly together on the bath cover."
Tom Gill[xii]

Japan is a nation where design is firmly engrained in the culture. Informed by spiritual aspects and shaped through a rich history, Japanese society places much emphasis on beauty, harmony and connection with nature. Modern Japanese architecture looks to

many vital principles, such as mujo, shibumi and wabi sabi for inspiration and guidance. The result is commonly landscapes, buildings and interiors that are remarkably powerful in their aesthetics, materiality and spatial composition. The informal sector, or underclass in Japan, while residing in the margins nonetheless respects and responds to a similar set of principles and values, albeit less formally and less explicitly. Informal housing is crafted and constructed based upon unwritten codes and norms that prove pervasive within Japanese culture. Shared awareness of the importance of space, of the impermanence of existence, of our undeniable place as part of nature, and of the need to respect each other, proves a powerful determinant of housing space, form, order and meaning.

The present paper sought to make some preliminary connections and considerations regarding design and construction within Japan's informal sector. In looking at a wealth of communities and cases in the major urban centres of Tokyo, Yokohama and Osaka, the author observed and explored similarities and differences in informal housing and engaged in initial analysis of design and planning aspects. Ongoing research, scholarly activity and creative endeavour aims to further consider, delineate and develop connections & associations between Buddhism, design thinking, and built form (buildings, products, landscapes) in Japanese society. Also under further study are the city-specific nuances in informal housing design, construction and inhabitation.

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[ii] Tent housing units are typically constructed using wood for the substructure and nylon sheeting for roofing and moisture control. Some units are simply fashioned from nylon sheeting alone. Most units, however, have more formality and substance, varying somewhat in design yet basically staying within a similar size and scale (typically not exceeding 3x3 meters). Units are often deconstructed, moved and reconstructed due to forced relocation by authorities. In many ways these tent units might be seen as miniature houses with improvised kitchens, sitting areas and sleeping quarters. Washroom facilities, in major Japanese cities, are readily found, well maintained and certainly accessible by the homeless and underclass. The author has written elsewhere in more detail about various homeless housing approaches in Japan, including tent and cardboard structures.

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