

CONSIDERING COMPLEXITY, CONTEXT AND CULTURE IN CONTEMPORARY TOKYO: URBAN SYSTEMS | URBAN TYPOLOGIES | URBAN DESIGN

Dr. Brian R. Sinclair¹

¹Faculty of Environmental Design, University of Calgary + sinclairstudio inc., Canada

ABSTRACT: Tokyo is one of the planet's largest, most complex and most successful cities. With a population exceeding that of Canada, the Tokyo Metropolitan Region embraces a rich array of features key to a well-crafted, well-designed and highly-functioning city. Consistently Tokyo ranks among the world's top cities, based on a wide array of metrics/measures. From a world-class multi-modal transportation system and vibrant mixed-use neighborhoods to walkable streets and planning innovations, Tokyo demonstrates how an urban centre can be colossal and complex while proving demonstrably dynamic, accessible and livable. For those looking from outside Tokyo proves a paradox – massive in size, and incomprehensible in scope while functioning at high levels, running smoothly and being relatively free from serious problems. Amenity is high, crime is low, efficiency is unprecedented, design is pervasive and a sense of community is ubiquitous. Tokyo's success is worth critical examination, not only to cull out reasons for achievement but also to better grasp facets of the city than contribute to its Gestalt. An approach overarching the research critically considers the vehicle of 'urban typology'. Using typology as a lens for investigation, the work imaginatively identifies/delineates unique typologies that define, shape and characterize Tokyo's rich fabric. Case studies embrace conventional awareness of typology while charting new ground in conceiving exceptionally Japanese types. Creative typologies include: Gate-Threshold; Spiritual Spark; Arcade Street; Optimize Leftovers; Extreme Parking; Koban; Palimpsest Remnants; Folded + Compressed; Thin Landscapes; Vending Ethos; and Love Zones. The approach taken to Tokyo Typologies is original, bold and in keeping with the pulse, energy and uniqueness of this leading global city. The author invokes an existing holistic framework for design + planning to better illuminate compelling reasons for Tokyo's ongoing progress despite intense pressures on economic, environmental, social, cultural & spiritual fronts. Application of findings, beyond Tokyo, is postulated.

Keywords: systems, holism, typologies, urban design, place-making

BACKGROUND

"The Japanese society approaches much of life with a respect for space and a critical eye to efficiency. Take clothing, for example: kimonos are designed to be folded then stored flatly, tightly, and efficiently. The bento box for food is another example where the focus is on space: attention to delivery, designed presentation, concern for aesthetics, and no waste. Cemeteries are another example of high efficiency, effective use of room, and the appreciation for scale, mass, surface, and space. As regards design and space, Japanese culture so often places tremendous value on beautiful functionality, on quality, on keeping, on maintaining, on preserving, on innovating, and on appreciating."
Sinclair (2015)

Tokyo is a remarkable urban conurbation, with intense population, compact development, extraordinary character and an exceptionally high quality of life. With an urban population exceeding that of Canada, the Tokyo Metropolitan Region embraces a rich array of features key to a well-crafted, well-designed and highly-functioning city. Tokyo is regularly acknowledged as a leading global city, with metrics underscoring rich amenities, walkable streets, diverse neighborhoods and extraordinary attention to design + planning. From a world-class multi-modal transportation system and vibrant mixed-use communities to pedestrian-oriented fabric and design innovations, Tokyo demonstrates how an urban centre can be colossal and complex while proving demonstrably dynamic, accessible and livable. For those looking from outside the city Tokyo proves a paradox – it is massive in size, and incomprehensible in scope while functioning at high levels, running smoothly and relatively free from serious problems. Amenity is high, crime is low, efficiency is unprecedented, design is pervasive and a sense of community is ubiquitous. Tokyo's success is in many regards without parallel. As an urban phenomenon it is worth critical examination, not only to cull out reasons for such achievement but also to better grasp the features and facets of the city than contribute to its Gestalt. In many regards Tokyo affords environmental design theoreticians and practitioners an outstanding exemplar for study, for experimentation, for inspiration and for best practices. While without question the context and culture of Tokyo and Japan is unique and nuanced, the author contends that many lessons learned are of demonstrable value and potential application well beyond the present geographical boundaries.

DESCRIPTION

SYSTEM: A regularly interacting or interdependent group of items forming a unified whole.
An organized set of doctrines, ideas or principles intended to explain
the arrangement or working of a systematic whole.
Organized or established procedure. Harmonious arrangement or pattern.
Merriam-Webster's Collegiate Dictionary (10th Edition)

In examining Tokyo as an urban model for managing complexity and achieving livability, the researcher cast the study within, and deployed assessment through lenses respecting, the explicit context, conditions and culture of Japan. The present paper builds from the author's long-standing connections to and extensive immersion in Tokyo, including pedagogical explorations and urban investigations conducted within the ethos of an annual study-abroad studio. The research is structured, methodologically, upon three aspects: literature review, logical argumentation, and case studies selected from within the confines of Tokyo. An approach overarching the research critically considers the vehicle of 'urban typology'. Using typologies as a lens for investigation, the research innovatively identified and delineated a series of unique typologies that define, shape and characterize the rich fabric of the city. Review of historic and prevailing approaches to urban design, urban analysis and urban typologies, such as Cullen's *Townscape* (1961) and Mikoleit + Purckhauer's *Urban Code* (2011), was undertaken in order to underpin the current research. Context matters. Sandalack and Uribe (2010) wrote "Public space typology must also be considered within the morphology of the city. A space or street by itself is meaningless – it must be conceptualized and designed in relation to its physical and spatial context." Also considered vital are cultural and spiritual parameters that influence, inform and inspire the shaping of the city. The pivotal force of Metabolism, evidenced in projects by Tange, Kurokawa and Isozaki for example, is of relevance within a broader perspective of utopian vision and post-WW2 rebuilding of Japan. It is important to highlight that an understanding of Tokyo's order despite complexity and chaos is tightly intertwined with a mindset arising from and informed by historical forces fundamental to the soul of Japan, including bushido (way of the warrior), chado (way of tea) and kendo (way of the sword). Within frenzied environments, whether physical, social, political or spiritual, decorum and calm is pursued with such forces underpinning perception, attitude and action. The author has previously written about these pervasive cultural influences and their weighty impacts upon topics ranging from homelessness (Sinclair, 2010) to current architectural theory & practice (Sinclair, 2016) in Japan.

It is valuable to explore some dimensions of Japanese culture, with a particular emphasis on spiritual qualities, in an effort to better contextualize urban typologies and design gestures evident in Tokyo. In Japan architecture and planning historically and conventionally blurs and dissolves boundaries between inside and outside. For example, buildings visually and often physically interconnect with surrounding landscapes. The natural and the built purposefully interlace. We see this in many cases where mutability of space and form affords users the opportunity to change their environments in ways that enhance connection, conditions and comfort. In a ryokan (type of hotel) (Figure 1) residents can readily adapt their room to suit their needs, whether physical (such as room layout), social (such as converting a room for sleeping into a room for conversing), or spiritual (such as shifting a solid wall into a transparent wall that draws in the landscape beyond) (Figure 2). In Japan many spaces and places tend to be multi-purpose, capable of accommodating shifting needs. Walls move via shoji screens. Floors embrace the modularity of tatami mats. Much of contemporary planning and design in Japan draws influence and guidance through such historical practices and principles.



Figure 1: Ryokan outside Kanazawa

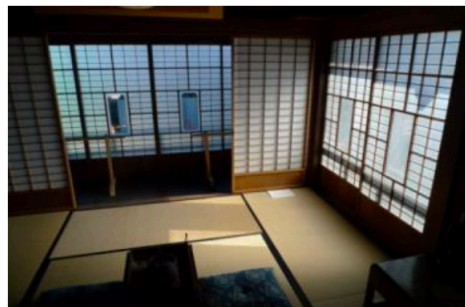


Figure 2: Shoji Screens + Tatami Mats

Spirituality also assumes a key role in Japan's planning and design, including of course approaches and strategies to deal with its largest cities. Shintoism and Buddhism coexist, with each contributing guidance to the conduct of design. Several Buddhist constructs are especially apropos to the design and planning of architectural and urban environments. *Mushin* translates as 'no mind'. It is about having freedom to act and react. It is a state of flowing where one pursues complete awareness. Three tenets of Buddhism warrant further exploration with regard to design and planning.

Ephemerality is the opposite of being concrete, of being fixed and of being set. It is characterized by a lightness of existence and an ethereal quality. Noted Japanese novelist Junichiro Tanizaki potentially captured and conveyed such realms of ephemerality in his classic book *In Praise of Shadows* (1933). Impermanence suggests all of reality is in a state of constant flux. Life is an ever-changing ethos, where situations rise and fall and uncertainty is a certainty. We see this tenet manifest in Japanese designs that celebrate open building and capacities for disassembly and reassembly. Non-attachment is the ability to distance ourselves from the material world. It weakens notions of objects as precious, primary and unchangeable. This construct is powerfully illustrated with the Japanese obsession with *goraiko* (sunrise) – a fleeting moment that is to be relished but not held. It is a mere moment in a much greater sea of moments. These spiritual dimensions serve to influence the thinking and acting of Japanese designers, planners, builders and users of the city.

TOKYO TYPOLOGIES

TYPOLOGY noun: typology; plural noun: typologies

* a classification according to general type, especially in archaeology, psychology, or the social sciences.

* study or analysis using typology.

* the study and interpretation of types and symbols

“The essential difference between life and a machine is that a machine eliminates all idleness and ambiguity. It is constructed entirely on the basis of physical connection, functional, rational principles, and efficiency. In contrast, life includes such elements as uselessness, ambiguity, the unknown and idleness. It is a flowing interrelation continuously creating a dynamic balance.” Kisho Kurokawa (1995)

Without doubt urban typologies serve as powerful moments that shape our cities and influence our experiences. In a Western sense we understand typologies such as streets, parks and plazas. In terms of Tokyo these typologies, while at times present, are arguably not pivotal. Rather, there are in the view of the author distinct typologies that have arisen in response to the unique pressures and parameters present in the city. The case studies developed in the present paper embrace conventional awareness of typology while concurrently charting new ground in conceiving of exceptionally Japanese types. Creative typologies invented and examined in the paper include: Gate-Threshold; Spiritual Spark; Arcade Street; Optimize Leftovers; Extreme Parking; Koban; Palimpsest Remnants; Folded + Compressed; Thin Landscapes; Vending Ethos; and Love Zones. These typologies are found across the Tokyo region and often enjoy inter-relationships and associations.

Gate -Threshold:

Thresholds and gates are key elements in the Tokyo landscape. They signal change in an urban or architectural realm – for example, a shift from a profane zone to a sacred space (Figure 3). They also celebrate arrival and entry, such as seen in the demarcation of the notable Ameyoko Market (Figure 4) in the Ueno district of Tokyo. In compact, at times messy, fabric gates and thresholds introduce welcomed clarity.

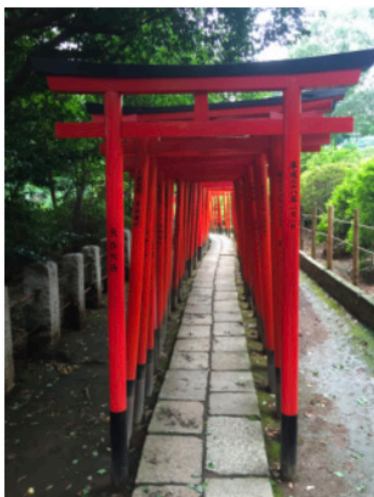


Figure 3: Nezu Shrine



Figure 4: Ameyoko Market

Spiritual Spark:

Another typology concerns spiritual moments, or points, in the urban fabric. Spirituality is pervasive in the city – Buddhist temples and Shinto shrines punctuate and activate the urban landscape. Scales of activation vary widely (Figures 5–6), from major temple complexes of deep cultural importance to modest neighborhood shrines. In all cases they focus attention away from the everyday and towards the sacred.



Figure 5: Large Shinto Shrine



Figure 6: Small Shinto Shrine

Arcade Street:

A very pervasive and special typology in Tokyo is the arcade street (Figures 7–8). A good illustration of this type are the omnipresent shopping zones, covered and protected, that envelope public streets (i.e., ginza streets) that remain public and fully accessible. Unlike the privatization of ‘public’ space in North American malls, these Tokyo developments find a rich and healthy balance of the public realm and private enterprise.



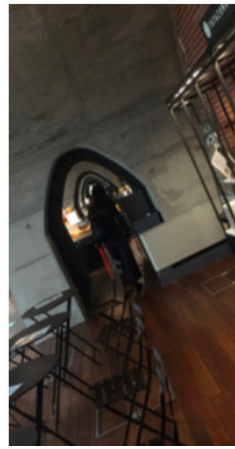
Figure 7: Jujo Arcade



Figure 8: Akabane Arcade

Optimize Leftovers:

As noted previously in the paper, Japanese phenomena, such as bento boxes and cemeteries, illustrate and emphasize an attitude towards the precious nature of space and the efficient utilization of resources. A typology that extends such thinking at the urban scale concerns optimizing leftover space. In many cases we see high quality space (e.g., retail functions) realized in tight, difficult and unruly conditions – such as marginal areas within historic buildings (Figures 9–10) or under active rail lines (Figure 11). Such spaces, in North America, would typically be deemed orphan spaces that prove unreasonable and unworkable.



Figures 9-10: Redeveloped Train Station

Figure 11: Retail Under Rails

Extreme Parking:

Again responding to the tightness of space on the relatively small islands of Japan, and the overwhelming spatial pressures in the mega-city of Tokyo, the typology of extreme parking has serious ramifications in the urban ethos. There is limited on-street parking. Home-owners need to provide proof of space within their property in order to receive a vehicle permit (Figures 12-13). In response to a demanding regulatory regime in the city, Tokyo has witnessed an incredible proliferation of high-technology-based high-density robotic parking structures. These windowless soaring parking towers (Figure 14) dot the landscapes across Tokyo.



Figure 12: Parking in House

Figure 13: Two Car System

Figure 14: Parking Tower

Koban:

A very special and impressive typology of Tokyo, with both physical and social implications, is the Koban (i.e., community policing kiosks). Every neighborhood has a distinct and readily identifiable koban. Police are seen as vital and welcomed members of the community – readily accessed and always willing to assist. Each koban has a unique architectural quality and character that is intentionally in keeping with its community setting and urban context (Figures 15-16).

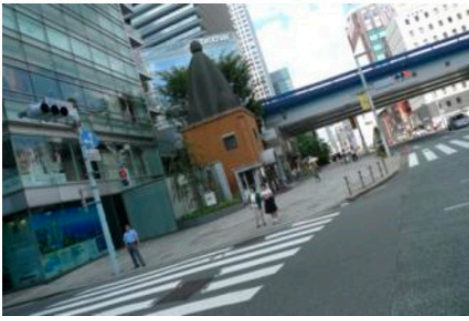


Figure 15: Traditional Koban



Figure 16: Modern Koban

Palimpsest Remnants:

The typology of palimpsest remnants acknowledges the fact that modern Tokyo is built and layered upon a city with centuries of history and generations of complicated land division. Buildings, as a result, are often thin, tall and irregularly shaped – being constructed on impossible sites, with intriguing geometry, using structural gymnastics and open-minded and somewhat flexible regulatory concessions (Figures 17-19).



Figure 17: Narrow Infill



Figure 18: Retail & Residential



Figure 19: Apartment Block

Folded + Compressed:

Land in Tokyo is extremely precious with building sites tight and demanding. In response design and planning practices have adapted. Often design is intentionally aimed at accentuating experience and optimizing perception – for example, conveying a feeling that a space is far bigger than its reality would dictate. In spaces, such as residential developments, the movement of visitors is carefully choreographed to unfold the experience – to reveal slowly the environmental conditions at hand and to heighten perception despite any spatial limitations (Figures 20-21).



Figure 20: Entry Sequence to Home



Figure 21: Residential Project

Thin Landscapes:

Again underscoring the scarcity of land and finiteness of resources, the typology of thin landscapes is a clever

reaction to a need to customize, to personalize and to humanize space and territory. In Tokyo even the most modest and seemingly insignificant spaces are brought to life and given meaning. The insertion of nature into the cracks and crevices of the urban fabric (Figures 22-23) serve to enrich the city and bring down the vastness of Tokyo to a manageable and comprehensible level.



Figure 22: Vertical Garden



Figure 23: Interstitial Garden

Vending Ethos:

Another typology that capitalizes on slender and awkward interstitial (or in-between) spaces is the ethos of vending machines. Mechanized automated commerce of convenience (e.g., hot + cold drinks, food items of all varieties, cigarettes, electronics, etc.) finds its place along building edges, in nooks and crannies, and in found spaces throughout Tokyo. These machines afford punctuation, variety and relief to the streetscape while proffering moments to slow down, to connect and to recharge. (Figures 24-25)



Figure 24: Interstitial Vending



Figure 25: Edge Vending

Love Zones:

The last typology is one that is uniquely Japanese – that is, the love hotel regions of Tokyo. Japan is particularly liberal and permissive when it comes to sex and associated activities + industries. Love hotels, and the zones in which they are located, relate again to scarcity of space in the city. These hotels, rented commonly by the hour, populate urban ethos along rail lines in sub-cities of Tokyo (e.g., Ugiusudani). They tend to optimize difficult land, portray a character all their own, and afford islands of distinctiveness, relief and release in the vastness of the metropolitan region. (Figures 26-27). It is important to note that these areas are not problematic from an everyday citizen perspective. Rather such zones are typically and uneventfully interwoven into surrounding neighborhoods with community members, regardless of gender, comfortable moving in and around them on their daily commutes to and from local transit stations.

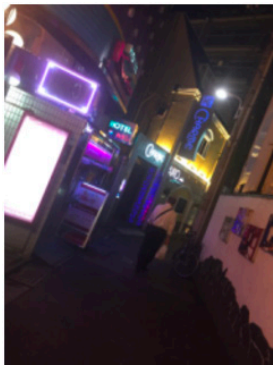


Figure 26: Love Zone at Night



Figure 27: Rest or Stay

LESSONS

Returning to the matter of complexity, it is important to underscore that despite Tokyo's intensity and diversity the city works exceptionally well. The city is perhaps best grasped in its holism and through the dramatic integration of its parts. Tokyo is a city influenced deeply by tradition and spirituality yet committed to progress, innovation and experimentation. It is an urban milieu comfortable with uncertainty and accepting of indeterminacy. In many ways the city illustrates with potency the success that can surface when a richness of consideration and a multiplicity of needs is addressed in city building. The author has written widely on the need for systems thinking and holistic posturing in the execution of architectural design and city planning (Sinclair 2009, 2015). The author's Holistic Framework for Design + Planning was inspired in part through his longstanding relationship with and engagement in Tokyo. Agility is about an ability to mutate, to accommodate, to adapt and to respond as circumstances shift. Fitness concerns the appropriateness of environments and their resonance with user needs and situational purposes. Diversity celebrates the inclusion of uses/users into the equations of urbanity and city dwelling. And perhaps most critically, Delight underscores essential yet largely immeasurable qualities of our environments that cause us to be joyful, enlightened and inspired. Synergies with Japanese spirituality & culture are not accidental.

To understand Tokyo's success we must push hard to grasp the bigger picture. Over 37 million people in an urban environment characterized by high amenity, strong order, efficient transit, low crime, exceptional walkability and arguably unequalled livability. The success story of Tokyo is in part driven by a population with strong societal norms and pressures concerning behavior. In part by strong connections to nature that dictate a blurring and blending of otherwise distinct boundaries. And in part informed by sensibilities and sensitivities drawn from firmly held spiritual tenets and widely subscribed cultural parameters.

No doubt the typologies imagined and invented in the present paper shape experience and environment while concurrently reflecting/capturing/conveying *zeitgeist*. The particular approach taken to the development of Tokyo Typologies is inventive, bold and in keeping with the pulse, energy and originality of this leading global city. The prevalence of the typologies, and their demonstrable influence on civic life, is supported via governance, regulatory regimes and approaches to resiliency that factor into the city's extraordinary means of managing complexity. The author argues that such strategies, including relevance to an existing holistic framework for design and planning, serve to illustrate and explain the compelling reasons for Tokyo's ongoing progress and triumph despite intense pressures on economic, environmental, social, cultural & spiritual fronts.

CONCLUSIONS | IMPLICATIONS

"Nothing is harder, yet nothing is more necessary, than to speak of certain things whose existence is neither demonstrable nor probable. The very fact that serious and conscientious men treat them as existing things brings them a step closer to existence and to the possibility of being born."
Hermann Hesse, *The Glass Bead Game* (1972)

So what can designers and planners from outside Japan learn from the principles, processes and practices of urban Tokyo? From the author's vantage point there are many lessons to be learned about city building, meeting user needs, space shaping and place making. In the West we commonly rely on expertise, experience and traditions when approaching design and planning. While these often work well and have positive outcomes, increasingly we are called upon to innovate in response to changing & challenging conditions (at local, regional, national and international levels). For certain Tokyo presents many unique and intriguing dimensions from urban planning and urban design perspectives.

The novel typologies in Tokyo, delineated in the present paper, arise through sundry and distinct forces of people and place. Seeing through the eyes of others, studying different approaches to problem solving, and being far more open to creativity, boldness and innovation – such as witnessed in the Tokyo Metropolitan Region – is vital to our ongoing advancement as environmental designers and to our continued development of our planet's growing urban ethos. Yuki Sumner (2010), in the *Residue of Japan-ness*, wrote “Japanese spatial renderings, whether contemporary or historical, are inherently performative; that is to say, they are incomplete without people.” Tokyo Typologies can provide us with new ways of executing spatial renderings, with alternative means of viewing urban life and with different means of achieving greater walkability and improved livability for our cities and their inhabitants.

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