

Mixed-use districts as key to resurrect urban life:

Patchwork and new urban design approaches to urban design in Tokyo city.

Submitted by: **Anand Wadwekar**,
Candidate, PhD program, Faculty of
Engineering, Laboratory of Urban & Regional
Design, Hokkaido University, Japan

Abstract: Tokyo city is composed of many villages. There has been various viewpoints to look at the urban design of Tokyo. Historically Tokyo has been a large patchwork metropolis wherein 'suitable' programmatic patches are constantly added. The programs are flexible in order to accommodate customized requirements of space, area and use. This paper explores various images of Tokyo city, a product of constant learning and teaching of Japanese urban "know how". Tokyo's cultural homogeneity transcends the heterogeneity of urban spaces. These heterogeneities are mixed use programs where knowledge is shared and displayed for both active and passive consumption. Paper uses 'patch' as element to reinvent Tokyo's urbanity.

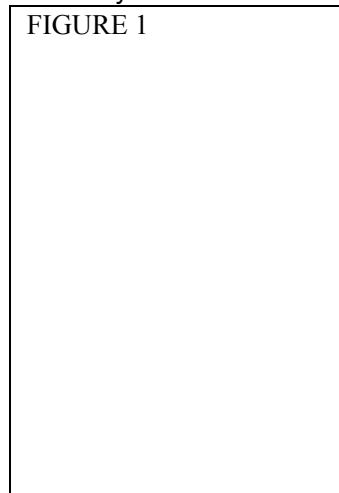
INTRODUCTION

Tokyo proves that God does not exist-
Franco Purini¹

This statement aptly suggest that if you are to search the divine or cosmic order in city

of Tokyo, probability is that you might not find any kind of visible order which your eye is conventionally familiar with. Tokyo defies order on its own way. While Tokyo appears unplanned, it possess a hidden sense of order, but this is the order of fragmented unity, village-like areas stapled together, possessing a feeling of chaos that many architects have found inspiring.

FIGURE 1

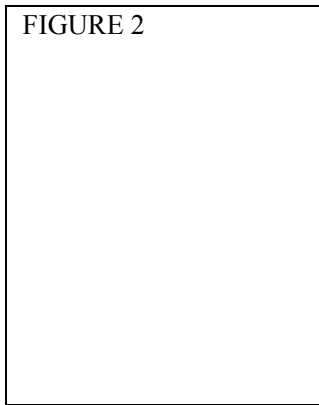


Perhaps greatest exercise of urban design, many streets were planned to protect unhindered views of Mt. Fuji

Tokyo is an agglomeration of many cities and villages. It is as in Italo Calvino's book *Invisible Cities*, a mysterious and almost mythical place nurtured by fantasy, the layering of memories and ritual of daily life. The secrets and magic of the city can be only revealed through ideas of everyday discoveries, by personal experiences of getting lost in its labyrinth folds. But at the same time Tokyo is no history city. Yet with historical associations like *Edo no Hana* (江戸の花) and old nomenclature of areas being still followed generate a different sense of urbanity (Waley, 2006).

TOKYO URBANISM

Once a city of water, Tokyo today is formed of liquid space. Livio Sacchi in his book on Tokyo wrote “ A body in the liquid state is, as is well known, characterized by fluidity. This unlike the solid state, implies the absence of actual shape. Hence space does not remain fixed in time; architecture



has, more or less always done the opposite”.

Edo era feudal model of early Tokyo (Edo). Note the force of concentric rings, darker areas are on the higher ground (shogun estates)

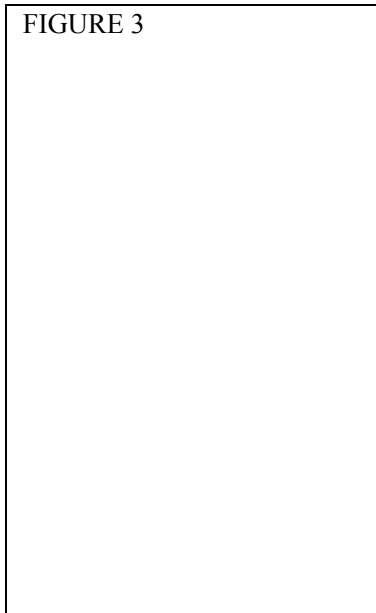
whereas most public residential areas are in the shitamachi (downtown)

Aldo Rossi idea of ‘permanence’ also has embodied notion of architecture of solidity. Tokyo space is evidently contrasting to this idea. Jinnai Hidenobu wrote “Tokyo is synchronic whole, tenaciously surviving by rather amoebic adaptability. It is an ugly, chaotic metropolis, but it is organic and constantly in the throes of change. I cannot help wishing at times that the amoeba would replicate its parts with somewhat more care, but its vigor cannot be denied”.

But generally speaking, the high City’s uneven topography forced continuous exceptions and the settlement system had to undergo continuous adjustment,

irregularity was the norm. So residential settlements, which took up most of the area, developed from the relationship between a keen planning logic and topographical diversity faced by the builders themselves. Unlike Europe, the city’s architecture formed an intimate, fundamental relationship with nature. A notion of “Topos” can be added to this, which results from the accumulation of an array of memories, religious meaning, and a complex and often mysterious stratification took place at the time of the genius loci (Sacchi, 2004)

Tokyo city in urban design and planning literature is always described as patchwork metropolis. But in once after calling it a patchwork, there is no substantial effort to describe in detail as to how this patchwork



works specially with respect to urban design aspects. Japanese sense of urban design has been based on very different notions.

Two main ideas are; sense of centrifugal approach to design and horizontality in

geometry of design, 'Culture of floor' (床の文化) a term coined by Ashihara (Ashihara, 1998) perfectly illustrates the preference for lateral dimension of design over vertical one.

The result of such spatial thinking is "scattering of semi-autonomous cells across the landscape, each with its own logic and interested actors, who can use mobile modules (cars, telephones) to move between patches of order while remaining in contact with each other" (Shane, 2005).

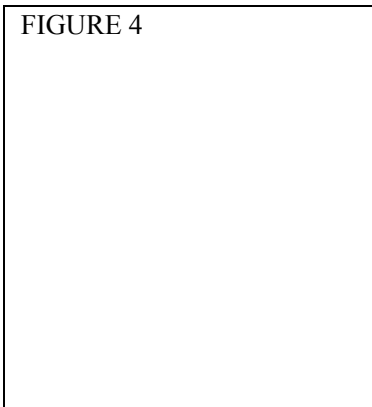


FIGURE 4
Tokyo's Yamanote line connect major urban centers of Tokyo.

This is where the term of "patch" becomes important and in order to understand the real working of the Tokyo city from patchwork point of view we have to examine in brief also the role of patch as interdisciplinary element.

The image of Tokyo as *international city* has been in discourse for many years because of inherent potential it had for patchwork adoptability. Saskia Sassen's *Global city* concept is increasingly becoming reality. The technocratic and comprehensive styles of urban planning most closely allied with the rolling out of

the modern infrastructural ideal have also found it difficult to survive the shift to an increasingly globalised political economy driven by liberalized flows of capital, technology and information (Graham & Marvin, 2001). Tokyo today stands almost at the juncture of becoming a hybrid metropolis where mixed use and fragmented districts are making unique contribution towards the understanding of new Japanese urbanity.

NEW AGE CITY

The idea of fragmenting city and end of master plan for a city has been making round of the urban theoretical discourses (Collage City, 1977, Non-plan 2000, Splintering Urbanism, 2001, Recombinant urbanism 2005) where there is a paradigm shift in approach towards understanding the city. The shape of the city faded into multiple landscapes and no one is in whole control of the city. Collage city was more of political commentary on the master planning approach. Influenced by relativity theories, designers no longer saw themselves as working in a uniform "deep space" of universal perspectival recession. Shallow spaces, local layering, hybridization of patterns, multidimensional overlap are the new key words for design. Joseph Fenton (1970) lists hybrid building typologies which are the result of complex

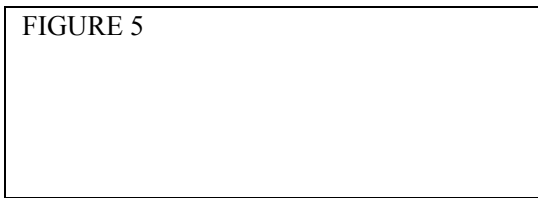


FIGURE 5

activities and people's interaction with city.

Ikebukuro station is hybrid in its form, as there is no individual building which marks an impression. Solidification of building and 'liquidification' of space. .

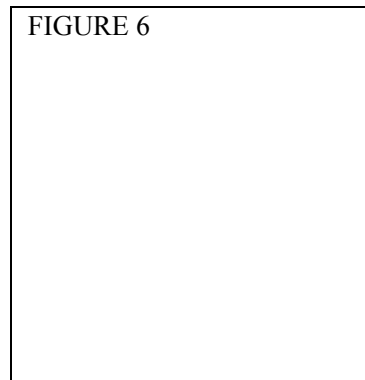
Also, Alexander's *City Is Not A Tree* describes the significance of 'overlap' "It is only the fact of the overlap, and the resulting multiplicity of aspects which makes any painting fascinating". Both of these philosophies directly points out positives of such system. Historically speaking Tokyo always had these inherent properties to it.

In order to review approaches adopted by various schools of thought and to arrive at the common denominator of patchwork methodology, let us briefly look at the development of these approaches

PATCHWORK AS DESIGN

Patchwork as conceptual and theoretical entity is being used in many disciplines as a way to understand the complexity of system where there are many players interacting with each other in a non-linear fashion. Patchwork in science of complexity is defined as series of interacting elements where once set in motion; they achieve a stage of optimum balance between themselves through constant adjustment. Stuart Kauffman in his book "*At Home in Universe-the science and laws of complexity*" describes the concept of patch where he recommends analytical approach of breaking

organization into patches. Kauffman states "The basic idea of patch procedure is simple; take a hard, conflict laden task in which many parts interact and divide into a quilt of non-overlapping patches trying to optimize each patch. As this occurs, the couplings between parts in two patches across patch boundaries will mean that finding a good solution in one patch will change the problem to be solved by the parts in the adjacent patches". This definition is important from two points of view, first, it reiterate that decentralized organizations works better as contrary to centralized entities, second it makes a quite resemblance to Christopher Alexander's seminal theory of "City is not a tree". Christopher Alexander encourages looking at city as semi-lattice structure rather than as hierarchical branching



system of flow and circulation.

C.A. Alexander's idea of city as semi-lattice structure. These lattices are layers in themselves and

at the same time they are patches.

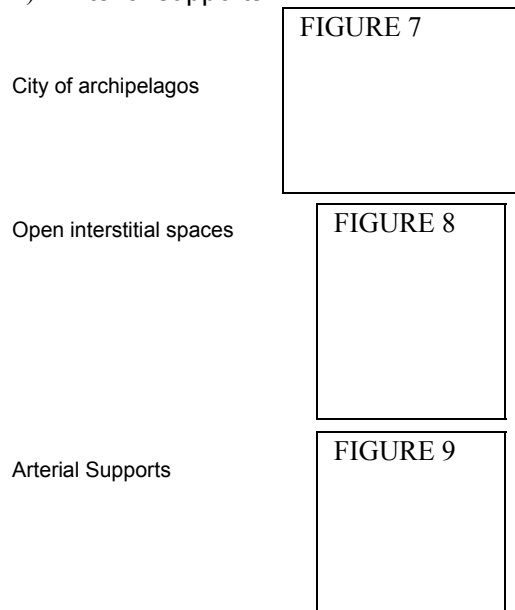
Extending the concept into further direction, one can also call patch as a gene. A gene is building block of any life form and therefore patch in life system is very much analogous to gene. Game

theory inventor John von Neumann also struggled to formulate a version of game theory for evolutionary biology. In that version, he states, “If you consider each genotype as a “strategy”- the encoding for a set of traits and behavior for playing the great game of survival. The fitness of the genotype depends on the other organisms it encounters and plays. Therefore the average fitness of your genotype-strategy depends on who you encounter and play during your lifetime” (Kauffman, 1995). The same can be hold for urban conditions where patches of insertion have to interact with the surrounding areas to either survive or bring about a change in the system.

From the urban theory viewpoint, William Jan Neutling(1992) defined patchwork city as the process, which is happening on a world scale, is one in which the city has stopped being an enclosed entity and has come to manifest itself as a combination of multiple and fragmented remnants. These fragmented remnants are now acting as building blocks of the city. The principle of continuity is based no longer on ‘edifice’, but rather upon the networks that articulate them and the background that surrounds them. Neutling’s approach is important in view of new emerging culture of global cities. Cities are increasingly working in parts and parcel since intrusion of global communication networks. The contemporary urban space is definitively open and irregular body and its

manifestation is expressed trough three elements

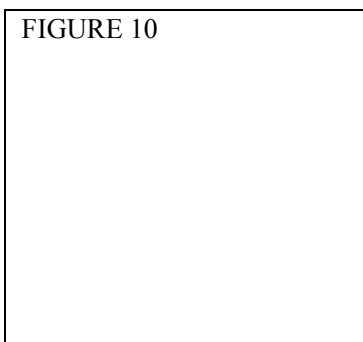
- 1) Constructed archipelagos
- 2) Open interstitial spaces
- 3) Arterial supports



Constructed archipelagos enclaves which are not closed totally, but their working is based on permutation of permitted and non-permitted urban actors. Open interstitial spaces are inviting urban fields where many urban actors can participate, these are more open and democratic as compared to constructed archipelagos. Arterial supports on the other hand provide much needed links to larger networks through transportation and communication. Above mentioned three factors can also be termed as patch as they have characteristics of transformation and are highly programmatic in nature.

SPLINTERING CITY

City as constructed archipelagos is relatively emerging concept in the field of urban design. It is different from zoning where each part is segregated from each other with a single functional use. Contrary to zoning, archipelagos are multiuse districts with varied use and activity. These islands are often supported by arteries of infrastructures consists of transport networks including road and rails.



Splintering urbanism (1995) brings out changing forms of the cities in such era of rapid transformation from centrally accumulated mass structure into dislocated islands of information and time.

Diagram of Tokyo as agglomeration of islands. Train routes connects all dispersed activities

Tokyo has a center but is empty, the empty vortex distributes the force of the city centrifugally in all direction but at the same time Tokyo rejects the idea of getting bound into particular shape contrary to its image as a city of radial structure. Though Rail network connect fragmented landscapes of Tokyo but it also segregates them as individual archipelagos with their own global and local urban identity. These islands become very important

constructing 'genes' of the city. Though Tokyo has no real centre, the city unfolds as a series of densely situated village like districts each centered around subway or station much like the three elements mentioned by Neutling.

PATCHWORK METHODOLOGY FOR TOKYO

Through my research I have tried to identify these patches in the city of Tokyo, I call them *patch* because of the two reasons. First; they are all envisaged as individually working entities (enclaves) when they are inserted into urban system, second, Tokyo is composed of many urban villages rather than being one single mass like American or European cities, these 'enclaved' entities are patch. Formless boundaries of patches interact with each other to produce most complex urban agglomeration called Tokyo. Fragmentation is integral to Japanese. A Japanese architectural identity is primarily based on fragmentary approach (Ashihara, 1998). By giving example of Katsura Palace, Ashihara says "its design originated from fragmentary kind of approach to architectural composition". He further states "Japanese buildings and cities are conceived much like organisms and clearly undergo metabolic processes". Analogies of Tokyo's growth with the evolutionary biological processes in fact were the main focus of the metabolism urban school of

thought initiated by Kenzo Tange in 80's.

The patches which I have identified are as follows:

1. Conducive(貫流)
2. Transformative(変換)
3. Rebellion (造反)
4. Filler(穴理め)
5. Continuer(永続)
6. Historical(史跡)
7. Heterotopic¹⁾(異質)

Theses patches are not land-uses or zoning in themselves but are inserted or created programmatic 'enclaves'. Enclaves are the urban design element; the use of enclave typology has appeared in many of the urbanist's literature. Kevin Lynch in his seminal book describes it as area formed by set of characteristics of both imaginary and physical elements. Enclaves are also places of special interests and characteristics. *Recombinant Urbanism* mentions seven properties of enclave, out which three are of special importance when taking an analytical view towards Tokyo. First property is that *enclaves have distinct interior spatial and social order* and second is *gates perforate these perimeters, connecting to transportation and communication channels that admit outsiders to access larger urban complex* and third, *they are places of rest and stasis* (Shane, 2003). All of these properties show creation of archipelagos. Tokyo's urban development can also be seen in this light

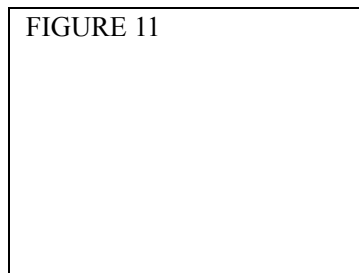
of programmatic interventions in the continuously changing cityscape. Each of archipelagos has distinct functions or group of functions to offer.

Next step is to look into the detail description of these patches and then classifying Tokyo on the basis of typology of patches.

First typology is conducive (貫流) patch, a patch which is inserted to create conducive 'field' to generate growth and facilitate a stage where interaction between various 'players'. This patch may not necessarily participate in the process of conduction. Conducive nature ensures smooth operations of change in landuse and builtform. Development of Maru no Uchi is categorized under this typology. As observed through planning of cities in Europe, like London and Paris where various rail lines from the provinces each had their own terminus near the edge of the urban core, The same kind of pattern was found in Tokyo where 1890's sale of the old parade ground adjacent to Palace to Mitsubishi company, saw a development of Marunouchi, the new central business district popularly known as "One block London" (一丁ロンドン) after the Victorian British style stone buildings.(Sacchi, 2004)

FIGURE 11

Maru no Uchi
office district



Second patch of transformative nature (変換) transform the area where it is inserted. The operation of insertion itself does not transform the area but it is the interaction of patch with surrounding which creates transformed field over the period of time. Shinjuku area of Tokyo can be classified under this category.

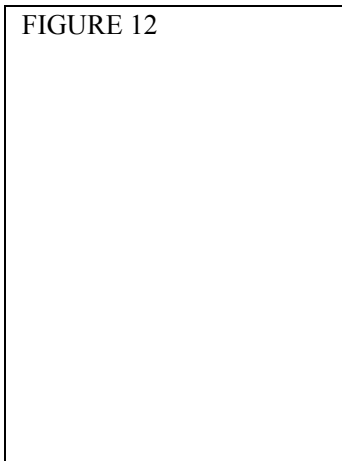


FIGURE 12

High rise buildings of Shinjuku

Dominance in terms of size and catchment area (impact area) becomes decisive factor. Over the period of time, this patch might develop ability to transform itself. Second example is of Aoyama. At the time; the high areas of Aoyama were the base of Samurai and other residences for the nobility

Third patch typology is more interesting in its theoretical meaning as it suggest a degree of opposition to the both master plan approach and user. This patch rebels (造反) against the existing unsettled equilibrium of urban players like land-use,

building use and infrastructure.

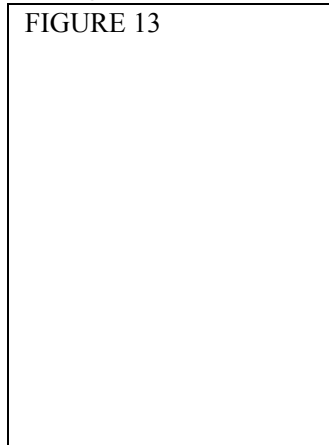


FIGURE 13

Akihabara
Personification
becomes
geographical
phenomenon

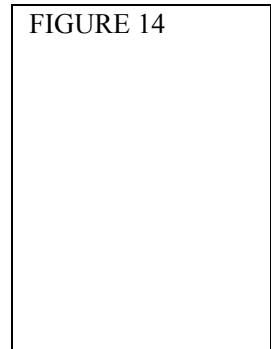


FIGURE 14

This patch changes its own function without the consent of user or designer. Rebellion patch continue to function as it gels with the situation. Akihabara in Tokyo is a kind of rebellion patch which has changed its own use since it started as electronic devices market district. Now it has turned into specialized gaming market with animation characters images dominating its space and therefore making it the 'personapolis' within Tokyo(Morikawa, 2006). Kaichiro Morikawa in his book *Learning for Akihabara: The Birth of Personapolis* explains how 'community of interest' has taken an urban form while taste and personality are becoming geographical phenomenon.

Fourth patch is called Filler (穴埋め) as it fulfills the functional and physical void, Patch as filling device either to complete the incomplete or fill the "gap" in between enclaves in order to re-establish identity of area. Roppongi is the example of such kind. Roppongi was former defense area

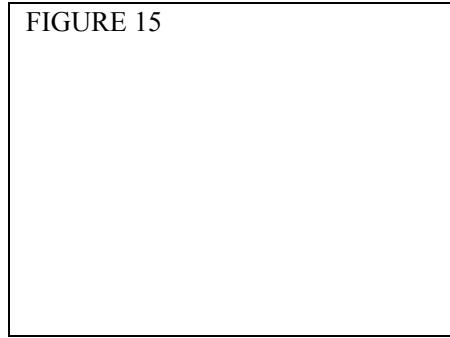
occupied by military authorities, is now turned into special art and entertainment district with its state of art infrastructure coupled with transportation.

Roppongi Mid Town has transformed the whole area into specialized activities. It itself has multiple function housed inside it.

Continuer(永続) patch is a intervention to continue the ongoing development of a district/area/enclave to establish connection with other enclaves. This patch is different from conducive patch at its primary level because of its ability to participate in the process of development. Much of the city development can be categorized under this patch as interventions continuously happen for primary reason of expansion of urban area.

Historical(史跡) patch gains its identity over the period of time. Preservation and conservation are some of the ways to make this patch continue working. Though Tokyo is no-history city, some of the patches do make their impact globally and locally. Most visible and famous Nihombashi has been a very strong traditional identity of ultra modern Tokyo in both physical and notional sense. This patch plays hide and seek through the complex urban fabric. Visibility is not so important factor for this patch, even a sense of existence is enough to create reality of presence, Emperor's palace at the centre of Tokyo is such kind of mute and empty powerful symbol.

FIGURE 15



Emperor's palace at the centre of city.

Heterotopic (異質) patch as name suggest, is either composed of many activities or has a special function to offer to the city. The city itself consists of many heterotopias (Foucault, 1964). Existence of heterotopias is necessary in city as it brings diversity into one patch. Tokyo, since its modernization has always created heterotopias. Teleport town, Disney land, yume no shima, and newly proposed umi no mori to be created right into the sea are few of the example. All of these patches contain diverse activities and users, and therefore making them heterotopic.

Tokyo is mosaic of such patches. Each of these patches unifying reiterate the spirit of distinctive Japanese urbanism.

PATCH DYNAMICS

As mentioned earlier, all of these patches require a set of factors to function. Arterial support is most important of such factors. Indeed as Naomichi Kurata observes, the history of urban development in Japan cannot be described without referring to the development of railways stations

(Sacchi, 2004). One can observe the complexity of *Eki* (train stations) buildings in Japan, which has become synonymous with the great public buildings and *Eki-mae* spaces are like agora and piazza. In fact, it is the complexity of railways station buildings which is then flown into the city resulting in even more complex patch dynamics. On a closer look one can find peculiar characteristics of these buildings, which make them fall under the categories described by Joseph Phenton as hybrid

buildings. I have categorized these buildings into mainly seven categories as follows.

The black cylindrical lines are representing metro train movements while buildings are shown in different typologies. From figure 1 to 7 one can observe the increase in complexity of the built form. Figure 4 shows train routes below ground level, whereas figure 5 shows interchange station typologies. Figure 7 shows most complex typology of station.

FIGURE 16

As one can infer through the diagrams, it evidently becomes clear that complexity of these buildings increases as more and more layers activities are added. Patches are strongly attached to functioning of these buildings. Efficient working of Tokyo city finally depends upon these patch dynamics, which skillfully negotiates *linked realities and virtual realities, conflict and tension, place and non-place, mobility and immobility*. Patches are nothing but another form of mixed use districts, which are the building blocks of Tokyo. Future Tokyo will grow on its abilities of 'flexibility', 'fluidity' and 'fractality'.

¹ *Tokyo*-Livio Sacchi

¹¹ Michael Foucault in his essay *of other spaces* (1964) uses this term first time to explain existence of special areas within society and he calls them Heterotopias. Subsequently many scholars have extended this concept into several contradictory directions. David Graham Shane in his book *Recombinant Urbanism* (2005) borrows this term to explore idea into the field of urban design.

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Working paper written by

Anand Wadwekar
PhD student, Second Year

Hokkaido University
Graduate School of Engineering
Laboratory of Urban & Regional Design
Kogakubu, A Block, South wing (A2-51)
Sapporo-060-8628
Tel/Fax: 011-706-6243

wadwekar@gmail.com