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**the surveyor's contract:** *property as the fundamental fact of the city*  
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At Harvard's GSD in the late 1980's, the Austrian designer and educator Raimund Abraham gave a lecture on the origins of architecture. Arguing against both Abbé Laugier and Quatremaire de Quincy, he declared that history of our built world did *not* commence with the construction of first the primitive hut. Instead, he insisted, the production of human habitat was initiated by the invention of the surveyor's rod. This assertion seems rather innocuous, yet it entails a fundamental deconstruction of how and why we build. It is customarily believed that we construct buildings in order to create a place for ourselves in the world. Instead, Abraham contended that we divide the world into places, so that we can build on them. And – more radically – that the primary reason that we build is not to protect ourselves from the impositions of nature, but to shield ourselves from the intrusions of our neighbors.

We may or may not agree with Abraham's proposition, but it does raise profound questions about the values and intentions we attach to the act of building. By valorizing the surveyor's mission, Abraham declares that the social division of space is the fundamental act in the habitation of the world. In this interpretation, the first step in the process of building is to establish *where* one can build. The elemental answer to this is quite simple: I can only build on land that I control. This determination demands the definition of what is *yours* and what is *mine*. And here is where the surveyor comes in. Surveying divides space and demarcates it for control, and for ownership: we cannot *own* anything until we establish *what* that thing is. So, buildable property first comes into being when the surveyor wields his measuring rod and divides the world into individually controllable parcels of land.

Yet questions remain: why *do* we divide our world into privately controlled parcels of land? And: why must a controlled parcel be *owned* as property? The answers, I believe, reside at the cultural nexus where material utility and social practice intersect.

We value land first and foremost because it is necessary for our being. We require it as a place to physically exist upon, and as a resource to provide for our material needs. But land is a limited and highly differentiated resource; both its appropriation and its use are unceasing sources of conflict and disputation. Therefore, social practices are needed for governing both access to land, as well as its exploitation. In this sense, private property is a cultural instrument used to allocate land-use rights. It provides for ownership, and ownership specifies a significant set of valuable rights. It regulates *who* may occupy any parcel of land, and therefore the material value which *that occupant* may obtain from it. The control of land through the instrument of property bestows potential utility value upon the landholder. And the more (and the better) the land, the greater the utility value.

But utility is not the only importance that we attach to land. Humans are social beings who create and live in hierarchical socio-economic systems, so the possession through ownership of the cultural instrument *property* (and its potential for material utility) confers substantial social status upon the landholder. How we appropriate, and exploit, the land about us is not just an issue of fulfilling corporeal needs. It is also a question of social organization and cultural significance. The possession and utilization of land imparts power and conveys meaning.

It is worth contemplating what this entails for our times. One inescapable fact of the present is that the Western World has organized itself into a capitalist, urbanized society. The possession and the capital-driven exchange of private property has long defined our way of life, and therefore the value structures that underlie it. And capitalism has undeniably spread out beyond the confines of the West. Already, a large percentage of humanity – probably even the majority – now live in urban agglomerations that are organized according to the power structures and value systems of capitalism<sup>1</sup>. So, it is useful to consider what a capitalist city is.

One definition would be: *a complex social system predicated upon the subdivision of urban space into private properties that are physically developed for profit-generating economic activities*. Or, in more succinct form: *a capitalist city is a form of coexistence, in which land is divided, privatized, and then exploited in*

*accordance with the profit principle.* Whichever way you may choose to formulate it, real property is clearly the fundamental building block of the capitalist city. And, in the same way that capitalism demands that an investment bring returns, the capitalist city expects property to perform and produce value.

This principle seems simple enough. Yet what makes it intricate and endlessly interesting is that no single, universally acceptable definition for the optimal performance of real estate exists. Even under the all-encompassing umbrella of capitalism, the ways in which a society utilizes, signifies and, therefore, values property is function of its specific customs and social conditioning. In this way, the use of real property must be understood to be a socially normed spatial practice, one which is a central constituent of any cultural tradition. Land is not only a utilitarian commodity but also a very specific cultural good. Thus, the determination of the most valuable way to use real property is one of the most highly contested issues in every society around the world.

It is a common trope that cities in our globalized world are becoming ever more generic and alike. Yet it remains obvious that the social values that guide spatial practice are persistently local phenomena: every municipality has its own, distinctive set of zoning laws, building regulations, property norms and real estate practices. A city is a complex social organism, which evolves within its own specific cultural and historical context. Each urban society draws upon its unique tradition when it projects its own particular set of values upon the ownership and use of land.

How these values manifest themselves in the built environment reflects the how a particular urban culture defines optimal property performance. And, in turn, these built forms and spatial structures speak volumes about the peculiarities of the culture that has created them.

### ***measurement, allotment, and the valuation of urban land***

Whatever philosophical meanings we may read into the surveyor's labor, the product of his handiwork is impressively simple. He measures out pieces of land called *plots*, and these become the property of individuals or corporate persons<sup>ii</sup>. A plot is circumscribed by a boundary line, which subdivides the land and differentiates that plot, both conceptually and practically, from its neighbors. One essential issue here is whether you are *inside* or *outside* of this boundary line. This simple difference has far-reaching consequences: a boundary defines the primal dichotomy of *mine* and *someone else's*. Within my property, I possess certain rights of occupation and usage. Outside of the boundary, these rights belong to me no more.

Certain sets of activities are inherently connected to private property. Domesticity, for example. The family is certainly not the only type of domestic household, but it is traditionally its primary form. By common definition, families are private social entities – and therefore their existence requires some form of private space. In capitalist societies, the intimacy of couples, the act of procreation, and the process of child-rearing are therefore existentially connected to plots of real private property. But family property not only serves as an abode; it is a space of economic activity as well. The English word *economy* stems from the ancient Greek word *oikonomia*, meaning "household management, thrift" and further from *oikos* meaning "house, abode, dwelling".<sup>iii</sup> In western civilization, the archetype of economic activity are the household endeavors that take place within the boundaries of a private plot. Irrespective of the specific legal form of the "family" and "household" in question, this archetype still informs our understandings of economy, business, and property to this day.

Not only is the division of land into patterns of measured properties the framework for private occupation and usage; it is the foundation of the public realm as well. The provision of land for the common weal is a central tenet of urbanity, even in the capitalist city. The city's complex interplay of social and economic activity requires the interaction – and therefore the interconnection – of its individual private spaces. At one level, this interconnection is undeniably material: the public domain provides the transportation corridors that connect plots together, and it supplies the infrastructure that nurtures their daily functions. However, urban interconnectivity is more than just a series of physical connections. The public realm is where the city exchanges its ideas and shares its social values. If the private plot designates what is *mine* and what is *yours*, public space embodies what is *ours*. The public realm is where urban society expresses itself as a collective, and articulates the responsibility that individuals share for shaping and maintaining the community.

This principle of shared responsibility affects how private property is used. I have rights of usage, but I am also responsible for ensuring that what is done on my land does not harm my neighbors, or the community at large. Based upon this principle, cities regulate not only how property can be used, but also what, and how much, can be built upon any plot of land. What does get built in the capitalist city is largely determined by market forces, which are a highly complex set of motivators. These reflect prevailing cultural expectations and economic practices, as well as the social value and prestige that can be derived from the control and use of a particular parcel of land. The imperatives of the market, however, are counterbalanced by sets of restrictions – such as zoning, height limits, setbacks, minimum standards for construction and hygiene – that the community places upon the use of individual property. Building in the city is the dialectic between individual desire and collective restraint.

These restraints take on many forms. They can be statutory, which is to say, they are legislated or standardized. Or they can be conventional, that is, based upon social expectations and peer pressure. Whatever form these restraints may assume, the way that an urban society regulates the use of private property reflects the relative value it attaches to individual and collective interests. It also shapes its stakeholders' expectations of what appropriate property performance should be. A city is a social artifact, a spatially articulated text that conveys cultural attitudes about privacy, property, individual rights, and collective interests – as well as how these attitudes have evolved as the city has developed over time.

If in fact the city is a text written in the language of property, how can we begin to read it? We could begin by considering how private households occupy and use plots of land. Patterns of occupation embody fundamental, highly idealized concepts of public and private, so the spatial configurations of housing tell us much about social norms and cultural conventions. A next question would be: how these plots interact with each other, as well as with the public realm? The division of plots reflect ideas of social propriety and the idealized proximity of households. Finally, we might ask how restrictions upon usage influence the continuing (re)development of the city. The interplay of spatial regulations and built form can render a culture's relative valuation of private and community interests palpably legible.

### ***privacy, enclosure, and the ideal abode***

It seems reasonable to claim that each culture possesses a distinctive, often idiosyncratic set of ideal forms for dwelling. There may be one or many ideal types, and each type may address a different segment of society. A type evolves out of the ways a specific culture expresses its social relationships in space.

The conception of privacy strongly affects the form of typical housing units. Consider the differences between Japanese and American domestic models. In the USA, for example, a “room of one's own” has high social value. Domestic walls should be solid, with a door that can be closed when desired. The principle extends to the house as well. Walls define closure: the doors and windows are openings that selectively allow light in, and views out. In contrast, personal and domestic privacy in Japan seems more a psychological state than a physical refugium. In traditional domestic architecture, rooms hardly existed at all, much less a room of one's own. With their sliding, rice-paper *shoji* screens, Japanese interiors were open and changeable. As permanent walls did not exist, the floor plane assumed the responsibility for demarcating space: earth-floored service zones, wooden verandas for circulation, straw *tatami* for sitting and sleeping. The envelope of the building functioned in much the same way. Platform and the roof took precedence to the wall; the facade had few fixed partitions, if any at all.

If notions of privacy shape the form of the typical house, this form also governs the boundary conditions of the plot it occupies. In the classic US suburb, privacy begins at the solid walls of the house. The property line need not be fenced-in at all. In many regions of that nation, it is considered bad manners to fully enclose a plot; one need only know, for the practical purpose of mowing, where their own lawn ends, and their neighbor's begins. In Japan, however, open facades meant that the house required a respectable distance to the perimeter of the plot. Thus, some classic Japanese houses – for example, those of the *Samurai* – were surrounded by wooden stockades or high stone walls, but householders of lesser social rank had to make do with a tiny spot of fenced-in garden to make place between themselves and the neighbors. Clearly, one fundamental reason that Japanese and American cities are not alike is because the different conceptual diagrams of their ideal typical houses generate different boundary conditions.

## ***property, propriety, and urban morphology***

The formulation of boundaries generates rules of property adjacency, and thereby molds spatial relations between neighbors, as well as between the private and the public realm. How we can place houses close together and still maintain privacy is one of the major issues of city design, and local ideas of appropriate distance and separation affect how what the market wants and what the regulator allows. The idea of how the house fits onto its plot is the basic diagram for building the city.

A fundamental parameter of property is the number of households that may occupy a single plot. The crucial dichotomy here is *one* or *many*. If more than one domestic or economic unit resides upon and uses the property, the plot must be internally divided, and equipped with a set of rules to determine has access to which parts of the plot, as well how they can use it. These rules can be formulated in many ways, and these different formulations generate a diverse array of internal spatial patterns for different plot types. These patterns affect, and are affected by, the size of the plot as well as its relationship to its neighbors.

A private plot needs to access the public realm. Again, the decisive dichotomy of *one* or *many* defines the two fundamental morphologies of property. If one householder (or tenant, which can also be the case) occupies one plot with one access point to the public space, the entry points to the individual properties will be dispersed along the street. In this case, each occupant needs but *one* key to pass from the public to the private realm. The English theoreticians Bill Hillier and Julianne Hanson categorize plots of this type as *distributed*. In contrast, they regard plots occupied by more than one household as being *non-distributed*. This is because, instead of distributing household entries along the street, this typology bundles them together into a single, shared door. In this case, some sort of semi-private space, such as staircases or courtyards that connect the individual dwellings with the public realm, is required for the property to properly function. Householders or tenants need *two or more keys* to travel from the street to their private abode.<sup>iv</sup>

London and Vienna provide an illuminating comparison. Two of the worlds' largest and most important cities in 1914, much of their present built fabric were built in the decades leading up to the first world war. In many ways, the types of buildings developed during that era have shaped both cities' conventional ideas for dwelling and property usage until this day.

The London row house was, and still is, a distinctively urban, middle-class and domestic building type, and its configuration reflects the value system of the 19<sup>th</sup> century English middle class. The domestic ideal of the family demanded that the dwelling be separate from work, and the idea that "a man's home is his castle" meant that a proper family lived under one roof on its own private piece of land.<sup>v</sup> The cultural standard for respectable housing became the row house terrace, whose small, individual plots had front-yard entries distributed along a network of streets and squares. This morphological type, reduced in size and appointment, became the accepted model for the working class as well. In keeping with the class principles of English society, government act designated four separate classes for the houses themselves; one could determine a person's position in society simply by knowing their address and the class of house built on their street.<sup>vi</sup>

Viennese dwellings scandalized 19<sup>th</sup> century English sensibilities. The fact that families could, and would, live stacked up over each other, separated only by floor and ceiling, went against everything their sense of domestic propriety stood for. In contrast to the conventional London house, the Viennese typology manifested neither a particularly urban nor a newly modern sense of dwelling. Vienna's courtyard-like, non-distributed morphology derives from rural typologies indigenous to the villages along the perimeter of the city.<sup>vii</sup> These shared many typological and social correlations with their upscale cousins, the palaces of the nobility. Both embodied a pre-modern, patriarchal social hierarchy, where servants, retainers and lodgers would live together with their patron under the rambling roof of his many-chambered house.<sup>viii</sup>

Compared to Londoners, the Viennese attached less importance to the exclusive occupation of a plot. For a "respectable" family, there was little stigma attached to living with other households under one roof. The Viennese *Mietshaus* – be it a "bürgerliches Stadthaus" or a working-class "Bassenahaus" – bundles numerous apartments onto one site; these share a common stair and courtyards that light and ventilate the back rooms.

### ***proper[ty]values: the economic and social utility of land***

Cultural ideals of privacy and propriety generate diagrammatic form of the dwelling as well as the morphological rules for integrating dwellings onto plots. However, development pressures in the capitalist city demand increasing density of usage for nearly every plot. Here, the private interests of property conflict with the welfare and safety of tenants, neighbors and the community at large. The city demands that we maximize utility; in the capitalist city, that means optimizing the exchange value of property itself.

Yet, even in capitalism, the perception of optimized exchange value remains a question of culture and custom. As Marx noted, exchange value has two components. One is the qualitatively determined *use-value* of the commodity. The other is the commodity's *value-form*, which factors the social relationships involved in the production of a commodity into its exchange value in the real world. This is a complex process of valuation, which correlates the relative social prestige involved in the production, possession, and usage of the commodity. As property is the fundamental commodity of the capitalist city, the individual way that each city determines urban property's ideal relationship between use-value and value-form will strongly influence its built appearance.

Consider Manhattan's famous gridiron as an instrument for maximizing use-value of commoditized domestic forms. The Commissioners' Plan of 1811 parceled out identical, 25ftx100ft plots over the length of the island. At that time, the ideal house form was the single-family rowhouse, similar what was being built in London at the time.<sup>ix</sup> The commissioners' chosen plot size was ideal for such row houses, and they deliberately selected the rectilinear form to facilitate both the sale of plots and the construction of these dwellings. The public realm was not forgotten. The streets were wide; parks, markets and an aqueduct were planned. Although it radically commoditized urban space, the aesthetic and atmospheric quality of this plan is evident to anyone who visits Chelsea, or the Upper West Side.

However, as Manhattan grew, population pressures made single-family houses increasingly unaffordable. In accordance with the principal of value-maximization, rowhouses were subdivided, and multi-family rental dwellings were constructed upon the 25x100ft plots. The railroad flats that resulted had no interior windows and were an unmitigated hygienic disaster. In response, the city passed a series of tenement laws that regulated how plots could be built in plan. These codes insured light and air for all rooms, and effectively balanced economic optimization against renters' needs. Later, when the electric elevator increased vertical site exploitation, the city responded by passing the Zoning Law of 1914, with its famous setback scheme that regulated property usage in section.<sup>x</sup> Today, Manhattan can be interpreted as built expression of an arms race between the maximization of private economic value and public strategies that regulated property use in service of the common good.

In Tokyo's Yamanote district, one quickly notices the ever-present and exquisitely attenuated spaces between its modern buildings. Circa 60-90cm wide, these spaces do not help against earthquakes (quite the opposite, in fact), do not aid ventilation and do little to prevent the spread of fire. Although we expect the use of urban property to pursue a strategy of value maximization, it is difficult to imagine how these spaces could serve private interest or public good. Something else is happening here.

In the pre-industrial society that preceded the *Meiji* restoration, essentially all real property in Tokyo (then known as Edo) belonged to the *bakufu* government of the shogunate. There was no real estate market as we know it; land was allotted to nobles and their retainers by decree<sup>xi</sup>. The size and location of the property reflected the status of the occupant, and the form of the house and the boundary of its plot were strictly regulated to match that status.<sup>xii</sup> While there is a real estate market in modern-day Japan, the valuation of property in some ways remains rooted in the cultural practices of the shogunate. As the samurai caste evolved into the middle class, it held on to old attitudes about the propriety of house form and property boundaries.<sup>xiii</sup> The social prestige provided by the possession of property in a certain location is often greater than the financial gain that could be made by selling the land. A proper house maintains a respectable distance to the boundary of its plot, and propriety is often more important than revenue maximization through building to the property's edge<sup>xiv</sup>. The gaps between Yamanote's buildings reflect a radically different interpretation of the value-form – and therefore cultural expectations of optimal property performance – than we find in Manhattan.

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- i According to the World bank in September 2022, 56% of the world population lives in urbanized areas. It is safe to say that a very large percentage of these urban areas have some sort of capitalist system as basis of their political economy.  
<https://www.worldbank.org/en/topic/urbandevelopment/overview>
- ii A corporate person can be defined in many ways, but the principle is that there are enforceable rules regulating the interactions between the individuals that comprise the corporation. Examples of corporate persons could be families, partnerships, limited liability companies, etc. The ownership of common parcels is a distinct form of property administration. The public realm is that freely accessible land owned and/or operated by the corporate entity of the community. The community is a corporate person; it can define itself at many scales and levels, be it the commune, the state, or the nation, or even supranational organizations. The essential criteria are that the community be sovereign and can assert a degree of social and political control over the area in question.
- iii <http://www.etymonline.com/index.php?term=economy>
- iv Hillier, Bill and Hanson, Julienne; *The Social Logic of Space*. Cambridge, London and New York, Cambridge University Press. 52-83
- v In fact, the problem of subletting was present as soon as the row-house type became the conventional housing form in London. The presence of the lodger in the proper middle-class house was a flaw in the system that was often socially or psychologically repressed. Sharon Marcus has even claimed that the literary genre of the haunted house was a story-telling method for processing the cultural dissonance represented by the presence of these of unwanted and improper spirits in the otherwise respectable homes. See: Marcus, Sharon; *Apartment Stories: City and Home in Nineteenth Century Paris and London*. Berkeley, University of California Press, 1999. 83-134
- vi See: Muthesius, Stefan; *Das englische Reihenhhaus: Die Entwicklung einer modernen Wohnform*. Königstein im Taunus, Karl Robert Langewiesche Nachfolger Hans Köster, 1990.  
 Also: McKeller, Elisabeth; *The Birth of Modern London: The Development and Design of the City 1660-1720*; Manchester and New York, Manchester University Press. 1999
- vii See, for example, Klar, Adalbert; *Die Siedlungsformen Wiens*. Wien – Hamburg, Paul Zsolnay Verlag. 1971
- viii Barea, Ilsa; *Vienna: Legend and Reality*; London, Pimlico, 1992. 37-57
- ix See, for example: Blackmar, Elizabeth; *Manhattan For Rent, 1785-1850*; Ithaca and London, Cornell University Press, 1989.
- x There are many sources for this discussion, but possibly the simplest, yet most comprehensive presentation of this material has been written by Richard Plunz. See: Plunz, Richard; *A History of Housing in New York: Dwelling Type and Social Change in the American Metropolis*; New York, Columbia University Press, 1990
- xi Hein, Carola. "Shaping Tokyo: Land Development and Planning Practice in the Early Modern Japanese Metropolis." *Journal of Urban History* 36, no. 4 (2010): 447-484.
- xii See: Naito, Akira; *Edo, the City that Became Tokyo*; Tokyo, Kodansha International Ltd., 2003
- xiii Sand, Jordan; *House and Home in Modern Japan*; Cambridge and London, Harvard University Press, 2003, 162-202.
- xiv See, for example: Shojai, Amir et al. "Developing terminology for side facades and side setback areas in Japanese neighborhoods: a study on utility and perception" *City, Territory and Architecture* (2016) 3:6 DOI 10.1186/s40410-016-0034-0