

SCIBE

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7

SCARCITY + CREATIVITY IN THE BUILT ENVIRONMENT

SOME THOUGHTS ABOUT SCARCITY

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In everyday discourse the notion of scarcity is relatively straightforward: it refers to an insufficiency of amount or supply, a shortage as when we speak of a scarcity of resources. It also can refer to something that is rare, but rarity is in effect a condition of insufficiency; i.e., there is not enough of whatever thing is identified. What defines the condition of scarcity then as a measure of the availability of materials that we need for our lives is most often assumed to be obvious. But there is a problem not so much in the everyday meaning of scarcity but where it is applied and with what measure. Is it in some way an absolute lack of something or is the shortfall the result of human desires or wants.

As a result, scarcity has been at the centre of many debates particularly those cantered on issues that revolve around the economy, and the environment. As Mehta (date) points out, the past few years has witnessed a growing concern about water and its implications for our livelihoods. Since at least the 1970's, and still to this day, there have been heated discussions about scarcity and what this might mean for the limits to growth. Notions of scarcity have also been at the centre of many debates about the characteristics of our economy – what moral or social imperatives drive it – and the question about the continued sustainability of the natural and human made environment to our social practices. While for many the issue of scarcity is relatively straightforward, it has become increasingly commonplace in the literature to see scarcity as a complex, variable and socially and politically embedded condition (cf. Mehta).

At the core of the debate is how we define scarcity and to what social and policy uses we put it. In other words, the notions surrounding scarcity it is argued serve different interests and moral and intellectual imperatives (Mehta, Mathaei, Perelman). This debate goes back a long way each understanding or measure of scarcity implying different social practices and different ends.

Take for example a very critical debate exemplified by the writings of Edmund Burke in his *Thoughts and Details on Scarcity*¹ (1795) written just before his death. It is a compilation of notes given to William Pitt then Prime Minister that addresses the problem of the considerable shortfall in agricultural production in England that augured the possibility for high prices and the potential for hunger among much of the masses. Many at the time argued for government interference to deal with the problem similar to the Speenhamland System in the late 18th and early 19th centuries, which gave relief to the poor, based on the price of bread and the number of children a man had. Burke was opposed to these laws as he felt they created more problems than they solved. Because of this he also opposed any government intervention to address the agricultural shortfalls and the scarcity it would create. As he argued “Of all things, an indiscreet tampering with the trade of provisions is the most dangerous, and it is always worst in the time when men are most disposed to it; that is, in the time of scarcity. For Burke, scarcity itself was not the issue, it was clearly a shortfall. More critical to Burke was that scarcity is not a social fact but rather part of the state of nature and thus to intervene was to distort nature. What is of note is that for Burke the issue of production and the technologies and social system that guide it that may have been part of the reason for shortfalls and the economic system that priced grain and to a great extent created the hunger based on price was not a social question; it was natural. Markets and the scarcity that is central to them was natural and thus not to be questioned. What we also note here then is that scarcity where it goes as an

¹ In Burke: *Select Works of Edmund Burke* Vol, 4 Miscellaneous Writings,

unquestioned fact for many commentators is in effect an essentialization of one particular economic system and ideology. If scarcity is natural in a critical sense it is not interesting either as a sociological or biological fact. It only becomes a problematic when it is seen as such and actors try to 'tamper' with it as Burke so disparagingly put it.

In a similar way Malthus naturalized scarcity without any corroborating data. Malthus and other like minded pundits saw scarcity as produced by population growth and thus were able to reject any notion that Capitalism might bear responsibility. Later in his writings he began to argue that population growth was ideally related to needs of capital. Rational arguments were rejected in favour of a strong belief that communism or sharing would drag down society through a rapid growth of population and little growth in production thus leading to poverty for all.

Although not so insistent that government has absolutely no role to play in the economy, scarcity as an essential and natural state has played a critical role in the ideological justification of the market as we know it. Neoclassical economics argues that whereas nature provides a finite quantity of resources with which to fill our needs, we are consistently confronted by scarcity. This gives rise to economic life as we know it – property, exchange, and production. As we all try to maximize our goods this gives rise to valuation, exchange (to expand what we can get) and production which is the result of realizing that we can bring increased satisfaction by postponing present consumption to increase satisfaction in the future. Markets create a kind of Pareto Optimal allocation where no one gains without someone else losing which is a result of relative valuation to demand. (cf. Mathaei) Thus as scarcity is the natural state of things the market is the ideal response.

As Michael Perelman (date) points out, for Marx - and by extension with the necessary changes Marxists - population and scarcity were effectively social issues. As society grows especially as it grows in technological sophistication its impact is determined more and more by social relations

especially the social relations of production. In the process of capitalist development a relative surplus of population is produced; mechanization and other new techniques create a kind of reserve army of labourers who are mostly underfed, under housed and destitute. 'what appears as a crisis of overpopulation is not the result of either natural conditions or food supply but to the needs of capital accumulation. Scarcity in this context is scarcity of employment owing to the concentration of the means of production in a small class of capitalists operating according to the logic of profit and consumption. Even in those cases where a growth in demand creates shortages it is not the result of some natural logic but rooted in a social logic of production which in this case under produces. Thus scarcity neither is, fixed in human nature nor is it freely chosen, as Julie Mathaei (date) points out. They are social products determined within a set of human interrelationships that constitute social life.

Thus through a particular deployment of one or another claim about scarcity, economists and other social theorists of particular ideology were and still are able to justify one or another economic system or social practice as necessary and natural in spite of the historically rooted nature of scarcity.

What I am arguing here is not unique (e.g. Mehta, Mathaei, Perelman) . Nor is it particularly useful to engage in general theoretical discussions about scarcity except to understand them as ideological formulations justifying one or another social policy or practice. Also, to argue that the notion of scarcity is usually socially constructed while important to note is less than useful unless accompanied a discussion of how and in what way this social construction encourages or prevents one or another social action or practice. This is true even if we agree on a general meaning or application of the notion because what always needs to be in a sense adjudicated is just what we will use to measure scarcity. This is especially true of the issue which our project (describe briefly) is addressing; i.e., more specifically architectural creativity – in our case housing - in relation to scarcity.

Let us take housing for example. There is no shortage of residential properties in many of our cities but there is a shortage of housing. Let us take NYC for example. “The revised data from the 2008 survey of housing in NYC... found that the citywide net rental vacancy rate was 2.91 percent – not 2.88 percent as originally reported – down from 3.09 percent in 2005. The City’s total housing stock rose to more than 3.33 million units – the largest in the 43-year period since the first survey was conducted in 1965 – and all five boroughs saw an increase in housing.”² Yet there was also a net vacancy rate of only 2.91% in the rental market. Such a low rate of rental housing availability suggests a significant scarcity of housing even though from another perspective NYC never had more housing units available. And even as the city suffers from a shortfall in rental housing, more and more low cost rental units have been taken off the market making scarcity of housing in that market even greater. In other words, plenty of housing but not enough to go around! In other cities one finds that there is a significant number of empty housing units yet there is a shortage or “scarcity” of housing – think of the overbuilding Shanghai yet the high degree of homelessness. Does Shanghai have a surfeit of housing units or a scarcity? It depends on the measure that one uses and it depends on the descriptive criteria one uses in setting out either surfeit or scarcity. And it also is a function of the measure’s purposes; i.e., to what policy, social practice or in terms of what argument or context is the concept to be applied.

There are manifold ways to measure shortages in housing. Of course, we can look in the most conventional way and ask about the number of residences available in terms of number of people seeking them as in the example above. We can also measure need and demand in other terms as well (and this list is not complete):

Availability of housing in relation to cost is probably the most salient issue in most discussions of housing scarcity; e.g., it is often the case that

² www.nyc.gov/html/hpd/html/pr/vacancy.shtml

there are more than enough actual units but a shortage of units of a particular cost usually low cost.

- Availability of residences of particular square footage
- Availability of residences available with x or y number of rooms
- Availability of dwellings of a given amount of square feet per person
- Availability in particular neighbourhoods or locations
- Availability of housing by type; e.g., single family housing, apartments, low or high-rise, integrated community housing etc.
- Availability of dwellings with or without kitchens, or indoor plumbing (relevant in much of the South)
- And any combination of the above measures; e.g., availability of housing by type in this or that location or neighbourhood, or availability of housing with cross-ventilation, with central heating etc.

The permutations if not infinite are considerable. Thus to speak of a scarcity of housing is of little meaning. We need to know what kind of scarcity in regard to what set of measures or attributes. Availability also needs to be defined in terms of the groups or individuals making the demand and the method of distribution - is it calculated by individual purchasing or renting power or is it assessed in terms of social needs. The issue of individual versus social measures is not unimportant. If we see housing as a commodity that is to be individually owned or rented how we calculate what is necessary is potentially very different from an assessment based on the need to provide dwellings for groups of people; e.g., the aged, the young; single family households or extended families. Not only will our numbers be different the kinds of housing we will need or that are appropriate to the individual or group in question will vary. So then will the architecture.

If we add to this the reasons for one or another scarcity our challenges become more varied. What is demanded of a situation where there is an overall shortage of units and need for many dwellings, as for example at the end of each of the world wars, is different from the challenges raised by market based housing where there may be no overall shortage of units but a shortfall of units at a given cost usually low-cost. In the South, the challenges posed by housing scarcity is more often an issue of the availability of formal and conventional housing and not dwellings per se. More often too is the issue not so much of a general shortfall but where housing for different groups is located. And most critically, how one might respond to often housing shortages, whether in the North or South, is a function not only of the type of shortage but whether responses are limited by the political will to address the shortage or significant technical issues associated with any housing upgrade or provision.

To speak of scarcity in relation to creativity in housing design then is neither straightforward. Depending on the scarcity referenced and the social and economic conditions in which this scarcity is found, what needs to be addressed in the design of housing will be significantly different. Take for example addressing the housing shortages and challenges associated with the development of slums. For the most part slums, it is commonly argued (UN Habitat Slum Book), are the result of some kind of scarcity be it of affordable housing, or housing in general. But depending on the type of slum and the type of housing that is being included in our assessment, the design issues will vary radically.

'Slums' are found in many shapes, sizes and locations and with a variety of legal and socially accepted types of tenure. Many slums were and in some case still are found in the central part of our cities. They may be the result of direct investment in cheap but profitable housing by wealthy landlords seeking a maximum profit as they were in many of the notorious slums of cities like London, Manchester and New York. St. Giles Rookery described by Dickens was such a slum as was the infamous neighbourhood of Five Points

in New York depicted most recently in the movie *Gangs of New York* by Martin Scorsese. Or they may be areas that were previously middle class or even wealthy communities; their houses once solid bourgeois residences or grand mansions now divided into many small flats with often more than one family living in them. Some of the poorest and most destitute and rundown parts of Harlem in New York City, or central St. Louis and even parts of central Bogota or the *medina* in Rabat were previously more prosperous and respectable. Finally, within the central core of many of our cities are found what we might call slum estates or areas built privately by factory owners or the state; e.g., the chawls of Mumbai or the “public projects” of Chicago.

Other slums may be found in or close to the central city but are informal settlements or small even building specific slums. In Nairobi, the huge and heavily populated slum of Kibera is found not ten to fifteen minutes away from the CBD by bus yet exists as a kind of island without a clear and consistent pattern of connection to the city, with a significantly different morphology than the more formally developed neighbourhoods and with little infrastructure that connects Kibera to the city at large or that serves the community internally as dwell. There are Kibera’s throughout the South, for example Dharavi, in Mumbai, India, or the inner city areas of Ibaden.

More commonly, though, the fastest accumulation of slums exists in the marginal and peripheral areas of the cities of the South. Everywhere from the favelas of Rio de Janeiro to the Flats in Capetown, or the margins of Durban or the rapidly expanding slums on the outskirts of so many Asian and Latin American cities like Mumbai and Buenos Aires. Even cities like Paris in France and Glasgow in Scotland have and still are experiencing such peri-urban ‘slummification’, to coin a neologism.

House types found in slums also vary considerably. If what we mostly are shown in articles about slums are the self built and informal huts made of mud, metal signs, (name of steel for roofs) and other found materials that

are so common in cities of the South, they make up only one type of slum housing. At the other extreme, places that were once mansions now provide overcrowded dwellings at the heart of some of our more famous slums: think again of parts of Harlem in New York City. In between we find all sorts of house types from the high-rise public housing projects like Pruitt-Igoe – which was eventually blown up because of its levels of crime and destitution – the solid working class apartment buildings of so many American cities; e.g., the South Bronx, the tenements of so many inner cities, the chawls of Mumbai, and the historical buildings of Ibadan and Rabat among others. Effectively there is no one house type that may be clearly called slums. This is important to keep in mind because it suggests that when we address the challenges posed by slums they are not reducible to one or another design approach or solution. Some house types would just need less crowding and simple upgrading while others possibly might need to be eliminated as their type and their numbers make difficult if not impossible to simply service and upgrade them.

In a similar way the spatial forms of slums also vary and also, and in more important ways – present a number of different challenges for designers and other dealing with slums. In one instance, we are faced with neighbourhoods that are essentially no different in terms of their spatial form, their street pattern, their infrastructure services, and their connectivity to the rest of the city if not the conditions in which they are kept. In other instances we are faced with the neighbourhoods that are essentially without basic infrastructure such as piped water, solid waste removal, and sewage, which have a physical structure and street pattern that are distinctly different from the rest of the more formal city, that is often badly connected to the core city and which is filled with self built generally impermanent structures. Slums in many of our central cities are little different in physical form or aesthetic from the rest of the city that surrounds them; again think of places in Paris, in New York, parts of Bogota among others. Other neighbourhoods we call slums; the self built informal

developments, have a very different spatial order than the more formal city of which they are a part. Their street structure, their densities, the way they connect to the rest of the city through their structure of streets, their physical accessibility for cars, buses and trucks and their often lack of any orthogonal logic contrast considerably what we have come to see as the conventional urban structure that surrounds them.³ And again the variety of slum spatial forms as with housing present us with challenges that are not different only in detail but are poles apart in regard to the larger social and political issues they raise and the design strategies needed to address them.

For example, one might well argue that to respond to a condition like that imposed by a slum like Kibera with high rise or middle class housing - often the result of what is seen as creative urban upgrading - no matter formally or aesthetically pleasing or inventive is not particularly creative as it does not address the issues Kibera poses for those who live there. Indeed self built mud shacks that engage with the conditions found in Kibera may be more creative to the extent that the designs address issues of disease, comfort, cleanliness but in conceivably unaesthetic and conventional forms. It depends on what is seen as scarce - new and inventive house types or housing serves the most people in a reasonably affordable and salubrious manner. You can take your choice. The key though is that it is a choice - it is never obvious because how we measure scarcity is never obvious.

In much of Northern Europe we often find social housing from the 1930's compared to contemporary housing. Usually, the housing from the 1930's is seen as of higher quality and a more creative solution to the challenges posed by the dearth of affordable housing in either period. We need to ask though whether these two periods are comparable. In the first instance scarcity was seen as a social challenge and the result of larger social forces - housing was seen as a social good and more often than not

³ Some argue that this new slum morphology has major lessons for city building and spatial design.

underwritten by government. Today for the most part scarcity is seen in individual terms as consequence of market forces – housing is defined in terms of market processes and built by private developers. Design in each instance aims at different targets. In the first instance the design issue is how to make housing that will serve as many people as possible in a reasonably decent manner and provide decent social and community spaces and that will meet broad social measures. In the second instance, design is measured in terms of its attractiveness to those who can afford it and its potential in terms of resale – this of course will encourage a kind of design that meets individual expectations. What would make good design in one instance might be problematic in the other.

I could go on: The kind of creativity called for when one is addressing issues of square footage per capita is different from design issues that seek to deal with numbers of rooms; designing community based housing is different than designing single family housing; placing housing in an open green field is different than placing it within the dense city fabric and designing middle income housing is different than designing low income housing. All these housing types and responses can and often are responses to the problems associated with housing scarcity but they set different conditions and contexts. What then is a creative response to one may not be to the other. While we can disagree that one is a “better” architecture than another along any number of different grounds, the issue is the grounds – the criteria for the design in each case differ as does the criteria for judging their creativity.

And there lies the challenge: to root the issue and the analysis not in broad theoretical terms but to address them within local contexts and with local realities in mind. The issue indeed may not even be scarcity or creativity per se but the way each delineation of both and each response addresses with local conditions.

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