

SCIBE

WORKING PAPER NR.

SCARCITY + CREATIVITY IN THE BUILT ENVIRONMENT

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OPERATIONAL SCARCITY

Michael Klein

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Speaking for architecture, urbanism and planning, there is probably nothing that has had comparable influence on a broad level in the last few years on the domain as the issue of sustainability. The topic did not emerge out of the field of architecture itself but on a bigger, more general level. But nevertheless, for architecture, it emerged hopefully at the right time: after the “pitfall of modernism”¹ and subsequent unavailing sheet anchor of designing “pure icons”²lost credibility. With sustainability, so the assumption, architecture will finally become good again, contribute to our future and take some responsibility, as the planet’s problems are real.

Along with the topic *sustainability* came another, related issue to the fore: that of *scarcity*.

Scarcity is not sustainability. Nevertheless, many of the considerations, ideas and projects in the debate on sustainability argue with scarcity; one taking on the role of cause, the other of necessary effects. Or was it ends and means? Shall we, as architects, dedicate ourselves to sustainable progress and growth as the planet is getting smaller and smaller, as resources become scarce? Or shall we limit (as sustainability is about needs and limits) ourselves - “scarcify” so to say - to ensure progress in a world we

¹ Remember these housing blocks. See also Jencks’ often-cited note on the demolition of Pruitt-Igoe as “the day, modern architecture died”. Charles Jencks, *The Language of Post-Modern Architecture, Revised Enlarged Edition*, Revised. Enlarged (Rizzoli, 1977), p.9.

² Conceded: somewhat empty. “So that is out.” see Rem Koolhaas, *On Sustainability* (Harvard University, 2009).

continuously destroy? How to read the prior attempts in architecture to cope with scarcity in various ways?

As we stray around we see these narratives heroized or condemned, they are moralized and ideologized. So have been concepts of scarcity as well. At no point in argumentation, this is to say, scarcity can be considered as neutral or devoided of ideology: Neither have been arguments for keeping populace short nor for ecologic consciousness. But taking a closer look of these concepts of scarcity we can try to dissect and expose their modes and relationships.

In this text, I will try to operationalize scarcity by discussing it on general terms (1) in order to open it up to an architectural debate (2). We could look how architecture and planning relates and reacts to its surrounding then, how it contributes to it and how then again, the involved surrounding re-reacts. Architecture read with scarcity will focus necessarily, on the *modes of production* and it will be always consider it to be relational, or “*ecologic*” (if you want, in the sense of Banham).

The term sustainability itself had been of versatile meaning, and during its way to the top, some new have been added. Although already now quite hard to grasp, it is worth and necessary to look closely at the underlying concepts and the discourse they are involved in. Sustainability’s, biggest opportunity *and* shortcomings seems to be its aspect of comprehensiveness. Opportunity, as it brings together various fields in the domain that have grown apart, such as theory, technology and design-practice. Shortcomings, as it runs risk of becoming meaningless by embracing all these fields by searching for a common denominator.

Of course, scarcity is not limited to the issue of sustainability. It has acted as a key-term for political economic theory; it has been described as central to economics, even to define it (such as Robbins as “the science which studies human behaviour as a relationship between ends and scarce means

which have alternative use”³). As both fields reflect on society and provide proposals to it, the concepts have had enormous impact on our lives.

Considering my intention to operationalize scarcity, we have to address ourselves to some central concepts. First and foremost, I will be speaking about the *Principle of Population* by R. T. Malthus, who “introduced” scarcity into political economic theory. I will work out underlying concepts of scarcity in the controversy incited by Malthus’ *Essay*, their conjunction and use as an argument as well their aftermath in economic theory.

In Part II, I will introduce different forms and modes of scarcity. In addition to absolute and relative scarcity usually discussed in economic literature, I will use *Actual Scarcity*, *Projected Scarcity*, *Comperative Scarcity* and *Scarcification* as concepts to specify certain aspects. Furthermore, I want to push a critical contemporary discussion of scarcity. Considering the necessary reformulation of a positive notion of scarcity, I try to step beyond pure economisms to open up to the *other* productive aspects of scarcity.

Part I will therefore take a look at the conception of scarcity in the *Essay of the Principle of Population* by R.T. Malthus and some of its aftermath. In Part II, I will try to focus on the operationalisation of scarcity.

PART I:

MALTHUS’ ESSAY ON THE PRICIPLE OF POPULATION

(Additional Note: Part I is a more or less separate part on scarcity in Malthus’ *Essay*. For general aspects of scarcity and its operationalization jump straight over to Part II.)

³ Lionel Robbins, *An Essay on the Nature and Significance of Economic Science*, 3rd edn (The Mises Institute, 2007).

Malthus and his surrounding

Scarcity as a concept seems first to be quite clear and evident. There is a justified assumption that resources needed for living are finite on earth, be it gold, corn or milk, or a finite amount of money in our pocket. Scarcity presents a measure of the disposability of these needed resources; it appears as a reflection of something “nature-given”⁴. Such understanding of scarcity is basically the one central to the Essay by R.T. Malthus. In the range of attempts taking up this *nature-given constraint*, reconsidering it and reformulating it into a political, social or economic argument, it stands out as an important example. Its underlying notions and methods reappear again and again in political economics. The idea behind has shaped our way of thinking, not least because of its framing from early economists on. The economic discourse, with its focus on scarcity, had a profound impact even beyond economics ⁵.

Malthus lays out his concept of scarcity in his *Essay on the Principle of Population* in 1798 during economic, social and political changeover in Europe. He sides with Aristocracy and Mercantilism against libertarian thought coming along the French Revolution⁶. Although written as a political tract⁷, in rather harsh manner, it found its way into the world of science soon as what later was called classical political economic theory.⁸

⁴ cf. Michael Perelman, ‘Marx, Malthus, and the Concept of Natural Resource Scarcity’, *Antipode*, 11 (1979), 80-91 <doi:10.1111/j.1467-8330.1979.tb00131.x>.

⁵ Fred Luks, ‘Deconstructing Economic Interpretations of Sustainable Development: Limits, Scarcity and Abundance’, in *The Limits to Scarcity: Contesting The Politics of Allocation*, ed. by Lyla Mehta (Earthscan, 2010), 94.

⁶ The full title is „Essay on the Principle of Population as it affects the future improvement of society with remarks on the speculations of Mr. Godwin, M. Condorcet and other writers” Thomas K. Malthus, *An Essay on the Principle of Population* (Penguin (Non-Classics), 1976), 59.

⁷ Which „is sometimes forgotten” David Harvey, *Spaces of Capital: Towards a Critical Geography* (Edinburgh University Press, 2001), 40.. If we read it, in fact, we soon get the pamphlet -like trait.

⁸ together with the work of Smith, Ricardo, Mill and Say. Following the classification of Hans Albert, classic political economy is can be characterized by following notions and assumptions: 1. Laws can describe the examined facts. 2. That these facts can be explained by the interaction of individual acting under different conditions. 3. Scarcity plays a crucial role in satisfying human needs. 4. Self-interest as a basis for the orientation of rational choice. 5. Action and

What Malthus does in the Essay, and this is typical for later neoclassical theory, is to extend *economic thinking*, to all fields of human practice. By *economic thinking*, or *economic analysis*, neoclassical theory means the “optimal allocation of scarce resources to alternative ends”⁹. Neoclassic theory directly follows a concept that in this respect is already laid out in its foundation by its classic predecessor. Malthus, on that score extends *economic analysis* to *demography* and *population politics*.

The argument Malthus states unfolds as a scientific conclusion. He builds up his argument on a method that brings together his “logical conclusions” and “empirical observations”. The scarcity emerging in the Malthus equitation grounds on assumptions on the population-food-rate. It is based on two premises: first, that population growth is geometric; secondly, food growth is linear.¹⁰ (In Neo-Malthusianism this is roughly energy harvesting, and it is not linear, but still, below population growth) Food, therefore becomes scarce. As soon as population outdistances food (or later, with Neo-Malthusianism: energy) produced from these limited resources, insufficiency is perceived - this is the point of the Malthusian crisis. Although Malthus does not follow a “scientific” language and his empirical basis was rather slim¹¹ this “hypothetico-deductive system” that “verifies” logical statements with empirical observation¹² arises as a scientific one. A theory considered as plausible.

If “scientific” is hardly an attribute for the “formula” stated by Malthus, least of all it holds good for his conclusions. Misery and poverty, to

choice is affected by changing Institutions Hans Albert, ‘Die Idee Rationaler Praxis Und Die ökonomische Tradition’ (Forschungsgemeinschaft für Nationalökonomie, Hochschule St. Gallen, 1995), 17.. All these count for the Essay of Population by Malthus. The essay on population states such a “law” (1) based on progress, resource and the behaviour of certain groups (“the poor”) under certain conditions (2), namely scarcity, abundance and sufficiency (3). Such Behaviour acts always in favour of individual advantage (4) why Malthus pleads for political measures (5).

⁹ Michel Foucault, *The Birth of Biopolitics: Lectures at the College De France, 1978-1979*, Reprint (Picador, 2010), 268.

¹⁰ Malthus, 71.

¹¹ Perelman: 80.

¹² Harvey, 41.

understand and follow Malthus is a natural law. Any attempts to leave them behind, would just create more misery, as any improvement of the conditions of the poor population would just end up in higher population and hence, more scarcity. As a consequence, he concluded, that the best thing to fight increasing poverty is to do nothing. Scarcity is seen as both, the origin of poverty and the effective instrument against it.

Malthus' "success"¹³ absolved the ruling classes from responsibility, since the "real cause for of the continued depression and poverty of the lower classes of society was the growth of population." (Malthus 1976, p.25). He recognized that poverty made the working class more willing to submit to wage labour ¹⁴. Since higher wages would only lead to higher birth rates that again only result in more poverty (the "Do-nothing-theory"), scarcity, for Malthus seems to have become a "source" for progress. The then-emerging problem of oversupply (since accumulation and, as a consequence production rises faster than the needed demand) allowed him to develop a crude argument for aristocracy: A ruling elite of unproductive consumers that is necessary to keep the economic system running on the level of full employment. ¹⁵ By doing so, Malthus showed that the actual problem for the economic theory laid out was abundance and not, as stated scarcity.

The Aftermath of the Essay from Ricardo to Marx and Up

The legacy and effect of the Essay can hardly be overestimated. The influence outreaches political economy and population policy, to

¹³ politics reacted promptly and his writing had a direct effect on the then-discussed Poor Laws, a system of Poor Relief. As Malthus' argument already suggests, he was one of the very proponents of its abolishment.

¹⁴ Perelman: 82.

¹⁵ cf. Karl Marx and Friedrich Engels, *Marx Und Engels über Malthus. Werk- Und Briefauszüge Gegen Die Theorien Von Thomas Robert Malthus*, 1st edn (Dietz Verlag, 1956), 19.

Darwinism¹⁶ and to later futurology.¹⁷ The scope of Neoclassical Economics was distinctively Malthusian.

Malthus owes his rise a lot to David Ricardo, his friend and opponent. He (*I am more Malthusian than Malthus*) transferred scarcity, the central aspect underlying the Essay into analytical model building economics and therefore helped to embed the “concept scarcity” in economic theory. Scarcity there opens up as a regulator for wages, population, labour and commodities all treated as “responsive resources”. Ricardo accompanies Adam Smith’s *invisible hand* (self-)regulating economy in his methodological attempt to build a system that aims for “equilibrium” and sort of “harmony”¹⁸ For the landed interest (as a member of the clergy Malthus showed distinctive tendency) there is no place in Ricardo’s model of the “economic rationale”.

It is about the time when the idea¹⁹ of the *homo oeconomicus* emerges; he expands *economic thinking* to any conduct that employs limited means to one end among others. Even “beyond” economics: the grid of the *Homo oeconomicus* is generalized to any rational conduct²⁰, to rational thinking per se.

Both Malthus and Ricardo soon found exposed to accusation of having “ideologized” their theories by Karl Marx and Friedrich Engels. For Marx as

¹⁶ „In October 1838, that is fifteen months after I had begun my systematic inquiry, I happened to read for amusement Malthus on Population, and being well prepared to appreciate the struggle for existence which everywhere goes on, from long-continued observation of the habits of animals and plants, it at once struck me that under these circumstances favourable variations would tend to be preserved, and unfavourable ones to be destroyed. The result of this would be the formation of a new species. Here, then, I had at last got a theory by which to work; [...] Malthus, 50.

¹⁷ There is a long tradition in future forecast with an interrelation of scientific prognosis based on laws, and negativity, a „narrative of projected disasters“ that refer explicitly to Malthus, such as Paul Ehrlich, Meadows and the Club of Rome and James Lovelock.

¹⁸ cf. Harvey, 47.

¹⁹ Though not literally but as e.g. *economic man*.

²⁰ see Foucault, 269.

a relational thinker²¹, it is not possible to think about resources, and therefore, scarcity, independently, as they always have to be regarded in relation to the modes of production ²². Thus his first critique on both Malthus and Ricardo is on the ahistoric conception of the formula for Malthus and on the “general Model” (which methodologically, crosses out history) for Ricardo. Despite all criticism, Marx appreciated Malthus’ rejection of pretended harmonism and the pronounced conflictual fundamentals in economics, although evidently, he took up the position opposing Malthus’ advocacy for aristocracy (see Meeks 1956, p.21). He supposed that poverty, which (if Malthus was right) is nature-based, could possibly only be equally distributed if not conquered, but in the afterword of the second edition of the Capital conceded, that “the Population law is not the same anytime and anywhere” (see Meeks 1956, p.26). This again shows the relational argument.

Despite all sparring with Malthus and Ricardo, Marx and Engels have not dismantled the underlying argument of its modes of scarcity. Why so? The assumption they forewent the conception of scarcity in Malthus’ work avoiding inner fussy struggles ²³ since Malthusianism was well established in the German socialist movement²⁴ is not satisfying. Is this the reason why so much critical theory has forgone the inquiry and analysis of the productivity of scarcity and why the Malthusian topic was insufficiently touched on? - and its late progeny: Mr. and Mrs. Meads, Mr. Ehrlich (whose

²¹ In Harvey’s reading of Capital, Marx’ dialectic argumentation (in contrast to e.g. pure causal argumentation) builds up a space of references and relations, as every single element has its „counterpart(s)“. (See e.g. Harvey in his Introduction of „Reading Capital“ Pt. 2 David Harvey, *Reading Marx’s Capital*.

²² Harvey, 51.

²³ see Perelman: 83.

²⁴ Lasalle, for example had incorporated Malthusianism into German labour movement (see Engels letter to August Bebel 18.-28. March 1875).

concepts surely all were criticized but as to the underlying notions of scarcity, there is little beyond rejection), and amongst ourselves greenies²⁵ ...

The population-resource-scarcity relation as an argument reappears again and again in manifold ways, even outside ecology. Examples concerning housing in Vienna: Take for example its “right” allocation. In 2006, the municipality opened up social housing to non-EU-citizens. This is how right-wing parties argue against it: Money doesn’t grow on trees in Vienna, existing welfare is hardly affordable and already existing scarcity of subsidized housing stock. The next assumption is, that opening up welfare benefits to non-EU-citizens will be exploited and pull even more foreigners to Vienna. All that, so the conclusion, culminates in the point, where “true Viennese” lose out. (Rather soon, since “they” are so many). Or, one concerning planning: When Red Vienna shifted from a planning strategy that initially developed cooperative, self-organized settlements towards the dense Hof, one argument was the scarcity of land and money related to the growing immense need. Of course, one could argue, argumentation follows population-resource scarcity-ratio. It is about economic, rational thinking. Processes, however do not necessarily follow such argumentation, as the planning strategy after the second world war shows: Despite of scarcity in resources, money, energy and labour, the biggest building program was started.

Part II: OPERATIONALIZING SCARCITY

A Productive Notion of Scarcity

Scarcity has been described as central to classic economic theory. My assumption here is, that Scarcity together with prospects to Abundance and Sufficiency even beyond the Neoclassical economic perception *is* one of the

²⁵ „ Scratch an environmentalist and probably you'll find a Malthusian.“ (Ian Boal in conversation with David Martinez 2007) Ian Boal, 'Specters of Malthus', 2007 <<http://www.counterpunch.org/boal09112007.html>>.

central driving forces for the world we live in (1). - That Scarcity (in its relational mode) *is* productive (2).

What scarcity definitely is? - A term dividing opinions. My experience? Vocalizing it (the S-Word?), the reaction is either of interest. Or (preferred in a “critical” surrounding), scepticism, rolling eyes and “but...you can’t”. Scarcity has become a hot-button issue: Through attention from liberal economics and its Neomalthusian re-thematization since the 70ies. Given credit to the eye-rollers, it seems, Malthus has spoiled the concept of scarcity for us all. Obviously, there are other underlying separation in addition to (Neo-) Malthusians and their opponents: Optimists and pessimists, or “modernists” on the one side and “doomsters and gloomsters” on the other. Scarcity? Here we go: back into Stone Age. Scarcity is the *pars pro toto* for Malthusianism somehow associated with defeatism, pseudo-scientific methods and reactionary politics. Since we don’t want to be seen as one of them, we don’t talk about it.

Nevertheless it is not about a denial that scarcity would not exist at all I am trying to work out. Quite the opposite: As stated, I think it is central to our society and that I consider it to be productive. To push it even further: That any debate about the future of our society, sooner or later will have to deal with it. Confronting ourselves, we have to unfold the amalgam scarcity into its modes of scarcity to develop methods within and possibly against scarcity to go beyond.

There is a justified assumption that resources are limited. But it is not said that everything limited equals scarcity. Resources are related to specific modes of production respectively consumption, which again have a social, political and cultural connex. Given a set, a certain amount or collection of goods respectively resources, Scarcity requires further operation. This is basically (human) involvement, or in other words: access (capture by Michel

Aglietta; the classical term is *occupatio* ²⁶. Finite resources can result in scarcity, so does excessive demand. In any case it is an *imbalance* in the set-access-ratio. Scarcity therefore, is not nature-given, but always related to society, it is *social*. Scarcity is *relational*.

Resources are unequally distributed. The Availability of resources varies locally and temporally. Allocation is, in most societies, arranged unequally, often according to social position, power or income. The need for resources changes within time, place and culture. Scarcity, thus emerges locally and temporary. For it is related to a certain context, which might be different, Scarcity is *contingent* and changes within its context.

Need (I will come back to it later) varies according to a set of practices that give meaning to physical and social and realities outlining concepts, thoughts and categorizations. What is defined or stated as scarce, through its relational attribute, is structured according to discourse, to a heterogeneous ensemble of ideas, views, concepts and positions, methods, systems and practices that altogether form a *dispositif*. Any Scarcity we state is, in its relation to all that always constructed (see Luks 2010). Even if there was “real” scarcity, we can only deal with it socially. But this does not make it less important.

Modes of Scarcity: Actual Scarcity - Projective Scarcity – Scarcification

When T.R. Malthus writes “An Essay on Principle of Population” he does not explain scarcity to be relational, social, discursive and contingent. He works out a law of population, stated as a physical law. Developing this “Nature-based law”, Malthus needs different levels or modes of scarcity in order to let it appear as a plausible closed whole. The first step is a hypothesis. It is based on the induction of observed growth rate for demographic and

²⁶ cf. Niklas Luhmann, *Die Wirtschaft Der Gesellschaft*, 6th edn (Suhrkamp Verlag, 1994), 179(footnote).

production development with given resources that are finite.²⁷ There are finite Resources and a growing population. Population develops geometrically, food growth only linear. They implicate, so to say, demand outrunning supply, and culminate in the point of Malthusean crisis. This is a first mode of scarcity that we could call *Actual Scarcity*.²⁸ But that is not all.

The prognosis of the dismal point in Future (the Malthusian crisis, where population outpaces agricultural production) presupposes another, different mode of scarcity.

At the time of forecast, actual scarcity is not necessarily given. Even during times of abundance, Malthus could have predicted the point. Nevertheless, once pronounced, scarcity hangs in the air, menacing to befall us all. I would call this *Projective Scarcity*, since it projects an assumption on scarcity on a point in future. By no means, *Projected Scarcity* implies that there would be no threat to those exposed to it. It gives an argument for action or the exertion of power. I would assign here scarcity as an explanatory statement for acts or omissions of control, of government and of biopolitics (as here, Malthus), as well as campaigns and engagement against something. The argument against urban sprawl, for example, often avails of *Projective Scarcity*.

The English word scarcity stands for two meanings I would state that in German Language are separated. Though used sloppily and synonymously, they literally describe different aspects of scarcity: *Knappheit* and *Verknappung*. Both words annex the word *knapp*, meaning scarce and are derivations. So *knapp* is the adjective that is lexeme and gives the basic meaning. But while the suffix *-heit* (*Knapp-heit*) in German language comes with the lexical meaning of state of being (something is scarce), the suffix *-ung* (*Ver-knapp-ung*) usually accompanies verbs. So the German word

²⁷ laid out in more detail in Pt. I

²⁸ see Jeremy's working paper I

Verknappung points to a verb (a nominalised verb), the verb *verknappen*. The Verb again, forebodes the involvement of a subject and a process. Trying to translate it into English, I have to come up with the neologism *Scarcification*, according to the verb “to scarcify”. By that, I mean here (for Malthus) the artificial exertion of scarcity via power, but it could be else seen as the artificial scarcity created by processes of distribution related to specific social order (e.g. markets, in a free or socialist market economy).

Neither *artificial scarcity*, in my opinion, would describe it sufficiently, since other scarcities are artificial as well nor *constructed scarcity*. As it is related to society, any scarcity is constructed.

To set things scarce: This is exactly what Malthus claims for: *not more* for the poor. To act and limit (or for Malthus, not to act, since he called for abolishing the poor laws) on the very basis of a system that is motivated by ideology, I here call *Scarcification*.

More Modes: Absolute vs. Relative Scarcity and the Naturalization of Scarcity

As a common denominator, contemporary academic literature on scarcity (e.g. ²⁹ ³⁰ share a separation between at least two different views of scarcity, namely (1) absolute and (2) relative scarcity ³¹. In literature, these two are often referred to human (1) needs and (2) desires ³², which is not a necessary condition to define these two views ³³. Absolute scarcity describes basically generally required needs and the scarcity of ultimate means, with no necessity of particular resource or a special point of view. We could even

²⁹ Stefan Baumgärtner and others, ‘Relative and Absolute Scarcity of Nature: Assessing the Roles of Economics and Ecology for Biodiversity Conservation’, SSRN eLibrary, 2005 <http://papers.ssrn.com/sol3/papers.cfm?abstract_id=892106> [accessed 17 February 2011].

³⁰ Adel Daoud, ‘Robbins and Malthus on Scarcity, Abundance, and Sufficiency’, *American Journal of Economics and Sociology*, 69 (2010), 1206-1229 <doi:10.1111/j.1536-7150.2010.00741.x>.

³¹ Edward Barbier, ‘Endogenous Growth and Natural Resource Scarcity’, *Environmental and Resource Economics*, 14 (1998).

³² Baumgärtner and others.

³³ Daoud, 1206-1229.

think about it as well in the sense of *common limited resources*³⁴. We could assign the actual food-population scarcity in Malthus' Essay to such absolute Scarcity; speaking of planning it would be e.g. the area available to cover with buildings for a city. Absolute Scarcity is often the Scarcity affected in ecological economics. Ecological Economics, and that is basically what distinguishes it from Neoclassical Economics, conceptualize resources as scarce that neoclassically are considered to be abundant (such as air, water by relating them to environmental value-production, so it is clean-water, clean-air³⁵).

Relative scarcity on the other hand is about "the relationship between ends and scarce means, which have alternative uses."³⁶ Human beings, therefore "have to choose; they have to economize."³⁷ Scarcity here does not correspond to a "not enough for all", an insufficiency but rather a scarcity emerging through an "alter-use" of something.³⁸ To stick to our example, we could use land either use for growing vegetables, build a single family house, or even a skyscraper. So relative scarcity always refers to allocation, requirement and choice. Mainstream Economics tend to denote scarcity as mere allocation problem, resp. as "relative", whereas alternative economics such as ecological economics "got caught" by absolute scarcity³⁹.

³⁴ as Garrett Hardin did it in his disputed article the Tragedy of the Commons Garrett Hardin, 'The Tragedy of the Commons', *Science*, 162 (1968). He refers to the dilemma of multiple individuals acting on self-interest sharing common resources that will necessarily result in overexploitation and disaster. Therefore he argues on behalf of the survival of men for the necessity of coercion and limitation. He does so very much alike Malthus did discussed in the first part.

³⁵ see e.g. Herman E. Daly and Edward Elgar, *Ecological Economics and the Ecology of Economics: Essays in Criticism* (Edward Elgar Pub, 2000).

³⁶ Robbins.

³⁷ Daoud, 1206-1229.

³⁸ Such Daoud, 1206-1229. suggestion for relative/absolute scarcity is contrary to the conception, that goods are *either* relatively *or* absolute scarce. There is no reason why to dismiss concurrency in favour of exclusivity. Instead of *either... or*, I would plea for the possibility of *and... and*. Moreover, the amalgamation of scarcities in Malthus' essay shows this productivity.

³⁹ cf. Luhmann, 177; Luks, 99.

Resources then might be regarded as both absolutely and relatively scarce at the same time from different views, or can even differ (e.g. absolutely sufficient and relatively scarce). Alternative use turns necessary for relative scarcity, but they have always to be mutually exclusive. In economic theory these alternatives are referred to as opportunity costs.

What is chosen and therefore, what gets *scarce*, is determined by the economizing individuals themselves ⁴⁰. That is to say scarcity is not defined “before” or “outside” (e.g. by an economist or sovereign), but emerges within the system. The notion chosen by subject, ergo the “subjectivity of scarcity” suggests an assumption of a model-like “free choice” market. This might be misleading. For scarcity “strictly subjectively defined by the individual” however, it is necessary to underline that this subject constitutes itself through its practices as a (self-)disciplined, normalized one ⁴¹. This is of particular importance here, especially in economical circumstances of scarcity; otherwise commercials would not higher sales, or just in case of well-grounded reason.

Moreover, economic politics in the 20th century have shown that choice and purchase behavior is decisive dependent on the social and business environment. If we envision Fordist economics, the rise of wage, for example, was to higher sales of ever more and cheaper (through standardization or “optimization”) commodities. Similar strategy applies as well for the focus on aggregate demand for Keynesian economics.

This is of particular importance, since it means that if subjects act beyond “pure reason” and follow desire or want triggered from (and if it is not triggered from, it is related to) the process *and* from operations involving another position, scarcity can be produced: A system that feeds itself. Or to put it differently: scarcity scarcifies.

⁴⁰ Daoud, 1206-1229.

⁴¹ Michel Foucault, *Sexualität Und Wahrheit: Erster Band: Der Wille Zum Wissen*, 18th edn (Suhrkamp Verlag, 1977), 77.

Individuals determine scarcity insofar as they take: It is access (capture). Since access produces, what it aims to dispose, viz. scarcity, it is a paradoxical problem. Niklas Luhmann describes this as a *form of unfolded self-reference* ⁴².

So what all forms of scarcity share, is that it is not the resource or the good by itself alone that effects scarcity, but they have to be accessed. In a de-paradoxed form it is transformed into (or coded as) a system of equilibrium, of supply and demand⁴³ (no matter whether it is *desire, want or need*). Access or Demand in this respect is “prior” to scarcity. Different modes of scarcity (*Absolute* and *Relative* forms of Actual scarcity, *Projected Scarcity* and *Scarcification*), therefore might result through a limit/insufficiency of resource or its allocation but in any case through an operation on the access/demand side be it creation, continuation or push of demand. Both sides are exposed to various forms of power that are made invisible through the inevitable becoming scarce: Scarcity is naturalized and universalized. Both modes, absolute and relative scarcity, appear as given.

The example of Malthus’ Essay shows how various manifold modes of scarcity can be interweaved and superimposed. He states a *Projected Scarcity –actual scarcity* forecasted in future. Although he builds up his argument on *Absolute Scarcity* he claims for *Scarcification*, viz. to distribute it differently as *Relative scarcity*. In the end it appears as a whole. Forms and operations contribute to the argument.

Underlying Malthus’ argument goes a premise he affirms that in fact pollutes his argument. What is necessary in order to attain credibility, is a clear conception of nature apart from society⁴⁴ and an observer outside

⁴² Luhmann, 178.

⁴³ Demand serves as the abstraction of desire, need or want; It evolves in the 18. Cent. The progressive abstraction within the system of economy allows for decoupling communication of information of social and cultural position.

⁴⁴ We had a Latourean Aspect of scarcity already before, in Jeremy’s text linking the non-Human to the human.

(this is Malthus). Looking at Nature in a scientific manner, Malthus is able to “extract” two laws that he builds up on his formula. The formula can be seen as such an attempt of developing a “physical law” in Economics and Demographics. There is no level of the Actual Scarcity though, in the whole concept, that would render such clean purity. The notion of Scarcity here is apparently inextricable to both sides and arises as a *Quasi-Form*. (Analogue to Quasi-Objects described by Serres and Latour ⁴⁵)

If scarcity is located between access (claim) (that constitutes it) on the one side and a set on the other, and this set could be natural resources, then it can be related to both sides, society and nature. We have to arrange with it, but it is necessary to reduce it neither to the side of what has been described as nature (Classical Theory, Ecological Economics) nor to society (Neoclassic theory, Marxism). In fact, we could consider whether we necessarily need this distinction.

From Spectres & Paradoxa towards a Prospective Positive Notion of Scarcity

Scarcity, basically, is nothing but information. It tells us about the availability of something. In its societal context, admittedly, it obtains much deeper meaning, as it tells us about possibilities and impossibilities.

Using the *Essay on the Principle of Population* by R.T. Malthus as an example, I tried to show how scarcity can be instrumentalized for argumentation in socio-political action. I therefore introduced three terms, to denote specific aspects: I talked about *Actual Scarcity (1)*, to describe the „less“ or diminishment, I took *Projected scarcity (2)* to cross out the aspect of

Scarcity appears as the measure of non-human resources to the human need for production. At the very early moments the establishment of economics as a discipline in scientific academics this was achieved through a division into “Nature” and “Society”. (Malthus held the first professorship in political economics, (Chair for History and Political Economics at the East India Company College, today Haileybury) Malthus’ Population Law we could state, is an attempt to project the natural law onto society, close the idea Latour follows in “We have never been modern”cf. Bruno Latour, *Wir Sind Nie Modern Gewesen: Versuch Einer Symmetrischen Anthropologie*, 2nd edn (Suhrkamp Verlag, 2008)..

⁴⁵ cf. Latour, 176 ff.

time and that the time of stating scarcity does not necessarily have to coincide the incidence of scarcity and I called *Scarcification (3)* the process of becoming or making scarce thus the active limitation of acces.

I emphasized that scarcity is not reducible to nature, but that it is relational and social; therefore it is discursive and contingent. Basically, I described it as resulting out of the operation of acces from a set. In this (last) part, I want to point out the particular societal aspect of scarcity and its meaning for development.

To get out of the paradoxical situation, that scarcity emerges out of access that aims to dispose what it creates, we have to look what this creates for the involved. This is basically the production of difference between either *have* on the one side as opposed to *have not* on the other. So basically, the “involved” experiences only have or have not. But as we all *know* that the more we take, the less it becomes, we are always observers, too. Property in this sense basically guarantees repeated access. Owning land, for example, allows to use it for building or agriculture again and again and ensures autonomy from its getting more and more scarce. Value-production is needed for exchanging, trading goods, now commodities, since the system of economy does never limit itself to *those that have* but always includes those that have not as to become potentially *those that have*. Otherwise, politically, it would be quite unstable.⁴⁶ Their form of communication is money ⁴⁷.

In this sense, the ahistoric conception of scarcity is not tenable: neither is the “rational” selection to maximise returns (e.g. Ricardo’s “rational choice model”), nor is the medium of communication as Marshall Sahlins convincingly shows ⁴⁸. Our today’s conception of scarcity is an invention of

⁴⁶ See as well the idea of liberalism in both political and economic respect; though not necessarily developed alongside.

⁴⁷ see Luhmann, 177-230.

⁴⁸ see Marshall David Sahlins, *Stone Age Economics* (Transaction Publishers, 1972).

Bourgeois society. So, Scarcity is central to our world, but this is not an ahistoric law. This is necessary to state.

A Motor of Growth

Within the difference between *have* and *have not* another process comes to light: desire and imitation⁴⁹. This goes well along with the bourgeois concern for *evolution* and *progress*. For economy this is often understood as growth. In the aspiration for progress, scarcity itself becomes a basic requirement.

A basic premise for human progress is that needs can be changed and extended. The consciousness for scarcity (together with desire) serves as the motor heading forwards. In terms of progress this movement is forwards, socially, it is described as upwards.⁵⁰ Progress, therefore always means overcoming scarcity, though for the emergence of new ones. Here, the scarcity to overcome always appears relational: to a possible conceivable future without, “projecting the culturally supplied expectations onto the socially offered opportunities”⁵¹. First, it is those in the vanguard of progress, who are confronted with new scarcities. Those behind experience increasing scarcity: progress is accompanied by ever more scarcity. As long as they perceive their deficiency (their “distance”) as temporary and compensable, since they believe they would follow, the understanding of progress as *societal* is not put into question. The Hungarian Sociologist Balint Balla calls this process of following *equalizing progress*⁵². Central to this process is comparison of different niveaus. Scarcity emerges in the perceived and experienced difference. again: to *have* or to *have not*. Nevertheless there is, of course, no imperative that it is about

⁴⁹ Luhmann even talks about the imitation of desire, ending up in self-imitation and conflict referring to Spinoza.
 see Luhmann, 182.

⁵⁰ At one point, difference of *have* and *have not* has been coded into *developed* and *un-developed*, and further on to *under-developed*. The term already exists in modernization theory.

⁵¹ Zygmunt Bauman, *Socialism: The Active Utopia* (Taylor & Francis, 1976), 106.

⁵² Balint Balla, *Knappheit Als Ursprung Sozialen Handelns*, 1st edn (Krämer, Hamburg, 2005), 25.

“real” or material scarcity or mere impression; the perception of scarcity does not necessarily follow reason alone. The example Marx uses to illustrate the scarcity arising out of comparison – Balla calls it *comparative scarcity* - is that of a house satisfying residential needs until, next to it, a palace arises letting the house shrink to a hut.⁵³

To follow this idea, the development of technological means is accompanied the development of wants. Progress (we should not reduce it to pure technics) goes along with ever more need. Need, therefore has to be produced and this is carried over by the relationship of *have* and *have not*. Even if need is, as assumed before, prior to scarcity, comparative scarcity (the actual status of “have not” with a chance to “have”) goes along with the production of wants and needs. Within that notion, there emerges a key-role for scarcity in an emancipatory interest. To follow Costas Panayotakis⁵⁴, the capitalist economic process that reproduces scarcity artificially also enriches human needs and so, creates the preconditions for overcoming scarcity. The Dynamic growth and ever-new achievements intrinsic to capitalism’s logic raises the prospects for other, new ways of living. This can be both: the desire produced (the fancy car and the big flat) but as well the different society that uses its achievements to overcome scarcity. Or to put it different: The desire to go beyond scarcity, is, what scarcity triggers.⁵⁵ But

⁵³ “A house may be large or small; as long as the neighbouring houses are likewise small, it satisfies all social requirement for a residence. But let there arise next to the little house a palace, and the little house shrinks to a hut. The little house now makes it clear that its inmate has no social position at all to maintain, or but a very insignificant one; and however high it may shoot up in the course of civilization, if the neighbouring palace rises in equal or even in greater measure, the occupant of the relatively little house will always find himself more uncomfortable, more dissatisfied, more cramped within his four walls.” Karl Marx and Friedrich Engels, ‘Lohnarbeit Und Kapital’, in *Werke, 43 Bde., Bd.6, November 1848 Bis Juli 1849*, 8th edn (Dietz, Berlin, 2000), chap. 6.

⁵⁴ Costas Panayotakis, ‘Capitalism’s “Dialectic of Scarcity” and the Emancipatory Project’, *Capitalism Nature Socialism*, 14 (2003), 88 <<http://www.informaworld.com/10.1080/10455750308565516>> [accessed 22 November 2010].

⁵⁵ the idea „the desire to go beyond scarcity, is, what scarcity triggers” is basically the same operation that Luhmann means, when he writes “access produces, what it aims to dispose” but upended, inverted. The main move is that from material to immaterial. In the sense that the world of labour has extended in such way, we could follow.

simultaneously, the ever-new desire, (the restless one) the potential leads necessarily to frustration⁵⁶ - as capitalism is based on progress and growth. The Circumstance that society is structured unequally, with some having access to things that others don't have (through money, knowledge etc.) ensures that scarcity (comperative scarcity) can be artificially created. Artificial Scarcity, or, what I called *Scarcification* created e.g. through competition or markets, is what helps to re-establish the social order of our society, where competition results in the fact, that success of one means the failure of another.⁵⁷ Scarcity is dialectical –The idea, Scarcity raises of a common future beyond itself, is promptly replied by the answer scarcity establishes of unequal social order. As Zygmunt Bauman puts it, Capitalism [...] stands and falls by the continual re-creation of scarcity.⁵⁸

Scarcity, in this regard is both universalizing and particularizing. Despite all endeavours of fragmentation, scarcity still raises the spectre of another society. It points beyond societies actual limits and serves as the transcendatory aspect of capitalism that opens up spaces for emancipatory politics⁵⁹.

Panayotakis perceives the universalizing notion in the emancipatory aim beyond scarcity. Quite a lot of pathos. But it is neither the pathos, nor the universality emerging out of the unifying struggle against scarcity, leading to the "new society". The problem, in fact lies in the "beyond". *Beyond scarcity*, for now, seems not only far out, but dangerously close to neglecting scarcity as it loosens it in the kingdom come of *post-scarcity*. It runs risk of

⁵⁶ There seems to be a strong parallel to Lacans *petit object a*, desire and lack.

⁵⁷ Panayotakis, 88.

⁵⁸ [...] Culturally, the experience of scarcity is an inexorable by-product of the acquisition of objects regarded as the only mode of personal self-acquisition and the only compensation for the humiliations of a down-graded social position. Socially, the experience of scarcity, like pain for a biological organism, becomes a crucial warning and orientating device in a situation in which the constant human need for certainty and security must be satisfied in the conditions of a market-regulated environment. Economically, production of ever-new "relative deprivations" to replace the satisfied ones, keeps the economy, based on profit and the market, afloat. Bauman, 106.

⁵⁹ see Panayotakis, 88.

getting lost in messianism. Any engagement might aim beyond, yet we must not let loose. We could only imagine it as *a venir*⁶⁰.

A Design Postscript

An emancipatory aspect within scarcity forms in the 1910-20ies in Vienna. Such was the attempt of Austrian Social Democrats in what is known as Red Vienna. To overcome the scarcity of housing stock that had led to horrible conditions. The city's population, in fact, exceeded far the production of housing stock. This was mainly due to the liberal development the city underwent during promoterism. Scarcity helped to raise value, as there was ever more need. Within this process, available space was distributed unequally ending up in overcrowded flats and miserable living conditions. That was the starting point for Red Vienna. Yet, the interesting point is that of aims and means. The means of Austrian Democracy was to overcome both scarcity and with it, misery. To change the existing order how scarcity had been produced. The aim was to build up a new society.⁶¹

The action taken to confront the misery resulting from the process of scarcification during promoterism, was to create abundancy. To build and let prices fall. On the level of markets, it worked and allowed to provide a roof overhead.

For today's situation it is about to think about alternatives. There is no question about the necessity of goods. But the concept of growth has beguiled us of thinking about allocating things differently. And In all the

⁶⁰ A venir in the sense Derrida uses for describing „democracy to come“ (democratie a venir) and messianicity without messianism. cf. Jacques Derrida, *Schurken: Zwei Essays über Die Vernunft*, 1st edn (Suhrkamp Verlag, 2005).

⁶¹ It seems as if even Malthus believed in an emancipatory aspect of scarcity. He might have set up his theory and written the essay exactly with the intent to prevent any uproar. Under such perspective we could also read the food riots in 2007/8.

restless, perpetually unfulfilled desires, we have forgotten whether growth was, what we wanted. And not to mistake growth for development⁶².

For any such vision and attempt it is necessary, to keep in mind scarcity's underlying characteristics of being relational, discursive and contingent. It is relational as it is related to defined ends encountered by human access, so to society, its modes of (re)production and consumption. So is it to *have* and *have not*. Stating scarcity does not mean that this scarcity is natural or universal. At any point it is contingent. We might then consider whether the dialectical opposite of material scarcity at any moment is really material abundance.

Any learning how to do it differently implies the process of unlearning. In our Intention to let the yet *unknown other* come true, to evoke the new and to contribute to tomorrow, we have to know what is today - so as to know, what we have to learn and what to unlearn.

Understanding Scarcity as the "social perception of limits/restrictions"⁶³, that is structured relational, discursively and that is contingent, we point at its very political meaning. Amongst the changes in today's processes of planning, be it in economics, in politics to the field of architecture and urbanism, a tendency makes its way: The idea of the expert. In this shift - the replacement of *real politics* by *management* that has been described as *PostPolitical Politics*⁶⁴, the belief has slipped in, that, because of ever more scarcity (through, globalization, competition, financialization etc.) leading to ever more diminishing latitude, structural competences have be sourced out

⁶² It might be strange to refer to Denis Meadows. In an interview in 2009 accents the necessity of a distinction between growth and development. He illustrates it with the example of parents proud and enthusiastic about their growing child for the first years, but after some time want their child to develop and become wiser. If the child would grow continuously further on to 2,3,4 metres, the parents would be worried cf. Dennis Meadows, 'Prof. Dennis Meadows in Conversation with Bert Beyers; Davos Sept. 2009', 2009 <<http://www.faktor-x.info/multimedia/videos/dennis-meadows.html>>..

⁶³ Luhmann, 177.

⁶⁴ Chantal Mouffe, *Über Das Politische: Wider Die Kosmopolitische Illusion*, 3rd edn (Suhrkamp Verlag, 2007).

to experts. Decisions are more and more overtaken by analysts and consultants; decision-making authorities outsourced. The ultimate expert however, concerning scarcity, is the economist. The very field of action of the expert, (not only in the issue of scarcity), but all-over has been colonized by the homo oeconomicus. The expert of today has to take over the role of the optimizer. But by no means, this can be a neutral position. As scarcity is not natural, optimization and ideal allocation has to follow rather normative and utilitaristic directions.

The accredited expert is typically the expert in the canonical, in the knowledge of the power. Giving power to the expert, in this sense means radicalizing the existing.

Malthus and Marx were in agreement that the social order of the world they lived in was based on antagonism.⁶⁵ Scarcity, as a topic found its way into the debate through Malthus' introduction into political economic theory. This is where we have to resurrect it. It is not about the "economic" handling by "the expert". It is about decision.

As architects, designers and planners, we are *somehow* experts. It might be either the very last leftovers of an outdated understanding of the architect as the universal genius or however that of an universal dilettante. In fact it does not matter, what makes the Sociologist Dirk Baecker think: "No one knows still so much everything as architects do" ⁶⁶. This does not mean that architects or designers know more. But they know they make decisions they have to take responsibility for. As observers, they know they are always "inside". Following Baecker it seems as still, there is the chance to think and plan for tomorrow and, by doing so, change the construction of scarcity.

⁶⁵ Marx gave Malthus credits for that albeit he maintained the opposite position (Meeks 1956: 26)

⁶⁶ Dirk Baecker, '1+1=3', in *Architektur: Consulting: Kompetenzen, Synergien, Schnittstellen*, ed. by Oliver Schürer and Gordana Brandner (Springer, 2004), 24(transl.).

In such respect, scarcity's other side of opening up to the yet unknown is not that far away from an understanding of design as a practice of confronting oneself with certain *realities* and thinking about how to change them. Not within the self-perception of the genius. But with the understanding of an open practice, extending to other fields the very antagonistic notion of decision-making. It is the practice of design itself, we have to confront.

In this respect, the very problem seems not to be the critique of scarcity, and to have the right ideology accompanying it, but to think how it might be possible to find new *politics of scarcity*. It is not about the consciousness of scarcity but to seek for *the other order* of how scarcity is produced. It will mean to consider how *have* and *have not* are related to the production of desire, need and thus, value and what they mean for development.

It is for that reason that any vision of a better tomorrow, any struggle for equality and emancipation has to become aware of the importance of scarcity: In the prospect of the yet unknown as well as its fragmenting potential. For the moment, it seems, that we just must not abandon the debate on scarcity. We have to persevere for negotiation to keep the idea of *the other to come* alive - to live within and against Scarcity.

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