

Urban Development in a Post-Capitalistic Economy

A Contingency Plan for Leipzig

Master Thesis
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This book comes along with an atlas. If you read both documents parallel, you can experience the detailed illustrations along with the text, go for and back and make yourself an own image of post-capitalistic spatial development.

For here have we no continuing city, but we seek one to come.
Hebrew 13:14

I. Introduction	9
Problem Field	12
Problem Statement	15
Research questions	17
Methodology	19
II. Between Economic Evolution and Spatial Development	29
About the nexus of economic and spatial development	31
The separation of urban and rural	39
III. The spatial and economic becoming of Leipzig	47
Leipzig	49
Analysis	59
Summery	76
IV. The Day Capitalism failed	83
A socio-economic world order...	85
... And its inevitable end	101
The end of the urban era	121

V. Contingency Plan	131
Time Window	133
Strategy	139
The Region as a Resource	151
Contingency plan	161
Pilot Project	177
Up-Scaling – The full Potential	183
VI. Scenario: A History of the Future	193
A new EU – A Landscape of embedded Economies	195
Taking care – The decommodification of the	229
VII. Conclusions	263
Answer Research Questions	265
Reflection and Limitations	271
Appendix	283

I. INTRODUCTION

This research and design thesis addresses the transition towards a post-capitalistic economy and explores a corresponding spatial development perspective for Leipzig (Germany) and its hinterland.

It all started when I was wondering where we are going: endless economic growth, the participation in global markets and consumption wherever you go – the ciphers of modern development. And with increasing neoliberalization, urbanisation covered the globe. At the edge of neoliberal capitalism, urban development and its contradictions became one of the most challenging questions of our time. But while high-end renderings of urbanized landscapes with tall, shiny and green towers seem to determine a general image of an urban future, I wondered who would live and work in those towers made of steel and glass, where would the materials come from and what would happen to the rest of the territory?

Of course, the skyscrapers in the rendering are just friendly coloured symbols of a small minority of profiteers from global capitalism. In order to maintain its growth, capitalism concentrates people, markets, power and economic activities. As fix points of global capital, cities develop towards global capital – the economic relations and supply chains take place in global networks and the city is organized to increase those flows. But in the shadows of the CBDs, livelihood in the cities becomes increasingly precarious and the cities' hinterlands became wastelands.

Even though the socio-economic power always lied within the city walls, the historical city-hinterland dependency shifted from a mutual relation to a one-sided, non-territorial exploitation. Instead of being supplied by its local hinterland, capitalism made the exploitation of remote territories possib-

le, so that the cities can fulfil their demands at the lowest price. But the costs of this exchange-value-driven development are enormous: monocultures, pesticides, exhausted soils, resource exploitation, polluted air and water, increased transport and traffic volumes, decreasing biodiversity and increasing social injustice as well as systematic disempowerment are just some of the effects, the shiny rendering is hiding.

But even though the images of the future in the glossy magazines might be quite appealing, I think we do not have to go down the smoothly paved, fossil-fueled road of capitalism. There is a range of different development alternatives to a future, in which the powerful gain more power, the rich get richer, the deprived people and the environment become more exploited and our cities more exclusive. But in order to explore such alternatives, one has to challenge the guiding ideology – the universal socio-economic order of our time: neoliberal capitalism. If we change this paradigm in our thoughts on the future, we might arrive at a different, not profit driven, form of development.

Problem Field

The current accumulation of literature on criticism of capitalism as well as alternative economic models, the increasing frequency of large crises to the capitalist system, the countless social movements raising their voices against the prevailing form of economy, the increasing occurrence of alternative living models, capitalism's noticeable negative externalities and its destructive effects to the environment indicate that we are in a time of transition (see Parenti, Streeck, Mason, et al.).

Those broad indicators of a large transition can also be measured in economic terms: long-term trends such as decreasing or stagnating growth rates, increasing overall debts and increasing inequality show that the dynamics of current neoliberal capitalism differ from its historic patterns and thus indicate a fundamental change to the system (see Streeck, Piketty, et al.).

This global transition period is also acknowledged in the debate about the new geologic era – the Anthropocene. Beside the pure recognition of the immense impacts of certain human activities on the biosphere of the earth (see Crutzen, et al.), some scholars point out the destructive role of capitalistic consumption and production patterns as key factors of the Anthropocene (see Parenti, Sloterdijk, Stiegler, et al.); in that context also called Capitalocene (see Parenti, Moore, Lazzarato, et al.).

Accordingly to the various symptoms of the global economic transition, there is an increasing discussion between economists, social scientists and philosophers, among others, about a great economic transformation and its possible paths to take.

The discussion on the economic future is characterized by a wide field of opinions, but what most scholars – even from

different positions – agree on is that capitalism in its neoliberal form is at a turning point. Mainly coming from historical analysis of capitalistic development, analysis of current long-term trends and crisis – including the latest big crisis 2008 – and under the impression of major changes due to new technical innovations, there is a broad agreement that the end of capitalism – or at least fundamental changes to its current neoliberal form – is inevitable and we are right in this process of its decay (see Mason, Streeck, Wallerstein, Collins, Mann & Calhoun, Srnicek & Williams, et al.).

So far, it is mostly unclear, or at least very vague, how the transformation towards a new economic model will look like, but different scholars in the discussion provide ideas about new economic models according to their particular analysis (see Mason, Srnicek & Williams, Gibson-Graham, et al.). Those post-capitalistic economic models or assumptions reach from neo-classical reforms and a new upswing generated by the information technology (see Mason), to de-growth ideas (see Latouche), to purposeful self-destruction of the system (see Streeck). Nevertheless, all of them lack ideas and images of spatial implications of any post-capitalistic economy.

Even if one does not agree with the interpretation and prognosis of those scholars, one should at least think about the possibility of a sudden failure of the capitalistic economy caused for example by drastic effects of climate change (Parenti 2017). One could argue that during the last 300 years capitalism has proven to be a quite resilient and adaptive system, but its ultimate failure during the global financial crisis 2008 was not parried by the markets themselves, but by external state and supra-state interventions; in concrete terms incredible financial assistance as never seen before (see Mason,

et al.). Since this crisis capitalism failed to adapt, to swing up to the next cycle and to produce new growth rates without debts.

Since no one can predict how the next crisis will look like and if rescue affords like those after 2008 could be repeated, it seems legitimate and logic to understand capitalism as “[...] a historical phenomenon, one that has not just a beginning, but also an end” (Streeck 2014: 45) and thus raise the question of how different economies could look like and what impacts those could have on the spatial organization and on urban agglomerations in particular. And in the last point lies the problem, which I want to address with this thesis.

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Problem Statement

Designing long-lasting spatial structures means planning for a timespan of 50 or even 100 years. So what kind of structures are we thinking of that will not just satisfy today's demands but also those in 50 or 100 years? If the capitalism is currently under a great transition, we should ask what demands future spatial structures will have to fulfil and how they might look like. Raising this kind of question addresses not just spatial organization patterns, but spatial planning and its relation to economic development.

Capitalism is based on the imperative of endless profit accumulation through efficiency, scarcity and concurrence. Following classic Marxism, profits are generated by the transformation of use-value into exchange-value through the process of labour. Even though one might think that this process is purely in the realm of private production, the state and its institutions play a crucial role in this process. A condition of the state's territorial sovereignty is its geo-power or infrastructural power (Parenti 2013). This power enables the extraction of use-value through infrastructure, territorial organization, technology, knowledge, laws and others, all of which are related to spatial planning and design. Creating preconditions for the generation of profits and their private accumulation, the discipline of planning directly contributes to the capitalistic economy and thus its continual reproduction.

If a fundamental transition in capitalism is inevitable and in fact has already started, but today we are still designing long-lasting urban structures according to neoliberal values, paradigms and imperatives, we need to ask ourselves if those structures will be adequate for a post-capitalistic future, or even the transition towards it. In order to do so, we as a discipline need to acknowledge the fact that a transition in the dominating economic model is already taking place and we



need to start understanding current post-capitalistic economic models and assumptions in order to ask for their spatial impacts. Doing so might help us to design adequate and supportive structures for an inevitable post-capitalistic future with new values, paradigms and needs.

If we do not start this process now, the discrepancy between new economic model(s) (new values) and urban structures (based on old values) will expand due to spatial planning's natural inertia, causing unpredictable frictions between spatial and economic development – space and social interaction. In concrete terms, if capitalism's global supply chains fail, the neoliberal spatial structures will not be able to provide fundamental supplies. Bridging this conceivable detachment – an unstable state – might demand large amounts of time, resource and energy.

Unfortunately, there is little recognition of this fundamental economic change, and the problems it might cause in the field of spatial planning and design. This issue becomes even more problematic since the purely economic post-capitalistic models and assumptions are quite abstract and furthermore do not elaborate on spatial implications. We as planners and designer do not just lack understanding of the inevitable economic transition, moreover we do not even think about possible spatial consequences. Consequently will not be able to produce adequate spatial structures for such an inevitable future. Instead of taking an active role in this transition, the discipline is still holding on to its reactive role in capitalism – reproducing and organizing overcome values of an economic system in decay and managing its negative externalities, which compromise equality and the environment.

Research Questions

My research question can be formulated as the following:

What impacts could post-capitalistic socio-economic relations have on the spatial and social organization of urban agglomerations?

Thereby, the following sub-research questions are arising:

What is the current debate on an inevitable transition of capitalism about?

How did former capitalistic cycles shaped the spatial structures of urban agglomerations, and in particular the spatial structures of Leipzig, Germany?

How can post-capitalism be defined and what would this mean for spatial development and organization?

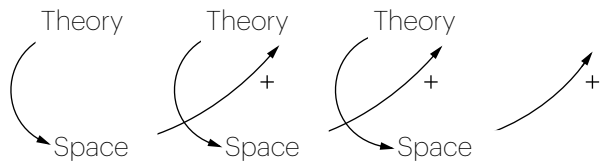
How could a spatial development perspective for Leipzig and its hinterland look like, that corresponds with post-capitalistic socio-economic relations and demands?

Methodology

Throughout the different phases of my research and design thesis, the basic pattern of my methodology remained the same: an analytical design approach based on the repetitive exploration of the relation between theory and spatial expression. In order to understand the capitalistic as well as post-capitalistic relations between economic and spatial development, I always started from a theoretical perspective and translated it into spatial configurations.

In the analytical phases of my work I applied this methodological approach to reveal, how the different capitalistic cycles manifested themselves in Leipzig. I analysed Leipzig's spatial structures according to theses, which I found during the literature research, and thereby translated those theoretic assumptions into the existing spatial environment. Doing so, I was able to understand how the theoretic assumptions manifested themselves in Leipzig's spatial structures. Further, the resulting analysis and analytical maps became spatial interpretations of the

invisible forces, which successively created Leipzig's current spatial configurations.



In the design phase of my thesis I could also apply this analytical design approach. Again starting from theories, models and ideas, which I deduced from the literature research and which met my definition of post capitalism, I started to test those in form of spatial relations. The resulting knowledge of how certain post-capitalistic socio-economic relations would manifest themselves spatially or what spatial conditions would be needed to realize them, informed my own

ideas regarding a post-capitalist development of the region of Leipzig and its spatial expressions. Consequently, the final design is a spatial response to my own understanding of post-capitalistic socio-economic relations, which are a combination of theories and models that correspond to Leipzig and its spatial context.

The methods applied within this methodological approach correspond to my research questions as the following:

1) Regarding my theoretical approach, I take the view that phases of urban development are congruent with the growth phases (Equilibrium) of the four capitalistic cycles; that there is a nexus between spatial and economic development. Following this assumption I want to find out and explain how Leipzig's spatial structures have been affected by capitalism's cyclic evolution. Each cycle – mercantile, industrial, post-war, neoliberal capitalism – can be described as a different accumulation strategy (Brenner 2014b) in order to create maximum profits. I will show how the different cycles, their accumulation strategies and technical components, successively changed Leipzig's urban structures. The urban structures I will be looking at embrace Leipzig's network structures, its morphological structures and its spatial qualities. Analysing those I will explain the development of Leipzig in relation to its economic development according to the capitalistic cycles.

At the beginning of this section stands a study of Leipzig's economic development according to the four cycles based on data from the city archive (especially historic maps). Succession drawings, tracing through Leipzig's urban development during the past 300 years, will not just illustrate Leipzig's spatial growth, but the development and evolution of its diffe-

rent transport networks (especially road and train) and stress the importance of Leipzig's supergrid.

Network structures

Drawing succession maps I will be able to describe Leipzig's overall growth and identify different hierarchies and knots in Leipzig's transport networks. The knots will give first indicators on the allocation of economic activities among the city. Places of great significance regarding economic activity and infrastructure (market, old fair ground, new fair ground, stations, places of large scale production) will be mapped for each capitalistic cycle. Tracing Leipzig's spatial growth, as well as development and change of its different infrastructure networks, will give an understanding of how the city as a whole changed and developed in accordance to the capitalistic cycles.

Studying the development of Leipzig's supergrid will show in detail how the network evolved and how different settlements types (e.g. villages surrounding the historic city centre) were integrated differently, how their functions on city scale changed and how they changed their centralities. Further, the supergrid analysis will identify the road system's hierarchies as well as important knots. The crossing of the two ancient trade routs *via imperii* and *via regi*, for example, formed the heart of mercantile Leipzig – the market. Crossings of the highway system and arterial roads form the economic cores (business and industry parks, malls, distribution hubs) of the current neoliberal city. The different hierarchies of the supergrid are also relating to different scales of economic activities within the city and thus give clues on the allocation of globally, city-wide or locally oriented economic activities and their changes in time.

The development of Leipzig's supergrid – its backbone – will explain Leipzig in its current form and the distribution of economic activities of different scales and functions. In combination with the current land use plan, the supergrid analysis will show the connection between Leipzig's historically grown network structures and its current economic activities.

Morphologic structures

Beside the development of the transport networks, the succession maps will also show characteristic growth spots of each capitalistic cycle. First and most obvious, the growth spots of the different cycles will increase in size. While the economic core of Leipzig in its mercantile phase was compact in size and mixed used due to its building typologies, allocation strategies of Leipzig's industrial capitalism demanded larger surface areas. The change in size and scale occurred due to increasing productiveness: larger production numbers allow cheaper production and thus higher profits, but require larger machinery and production facilities. The land demand – especially for globally oriented economic activities – increased constantly through the cycles.

The increasing division of labour, which is characteristic for the capitalistic development (Marx 1887), also changed the relation of working and housing as well as their typologies. Monofunctional buildings and increasing disintegration of working and housing were the results. I will identify and map different functions within each growth spot according to its (original) building typology, in order to show and compare the morphological changes in each economic cycle. While in mercantile Leipzig housing and working took place in one building, industrial Leipzig separated the functions but kept them in close proximity. Because of the workers limited

mobility, places of production were integrated in the neighbourhoods, which were dominated by working class housing. Leipzig's post-war development varies in building typologies, but is characterized by an increasingly distinct functional zoning: monofunctional large-scale housing areas at the edge of the city were a highly efficient way to provide housing in the GDR. With the fall of the Iron Curtain the economic neoliberalisation of Leipzig caused further functional separation. Business and industry parks, malls and distribution hubs, oriented towards a global economy, emerged in close proximity to the global transport networks and their knots. At the same time monofunctional suburban single-family house emerged rapidly at the fringes of the city and in its neighbouring communities (Nuissl & Rink 2005).

Spatial qualities

In the end, the growth spots of each specific capitalistic cycle will show different spatial qualities compared to the others. Those differences mainly originate from the allocation in and connection to Leipzig's transport networks and from their spatial morphology and typology, which define their functions and their capacities to facilitate changes in the socio-economic relations. Qualitative differences between a relatively mix-used working class neighbourhoods of the industrial Leipzig and a monofunctional post-war large-scale housing area or a neoliberal business park along the highways can be correlated to the orientation of the local economic activities. While BMW produces for a global market, economic activities within Leipzig's former working class neighbourhoods are generally stronger orientated towards the neighbourhood or operate city-wide (Grossmann et al. 2014).

2) The main hypothesis of my thesis is the end of capitalism and consequently the emergence of a new economic model: post-capitalism. First, I will try to approach capitalism from a theoretical and historical perspective to give a delimitative understanding of the topic. A literature review focused on scholars involved in the discussion on the current great economic transformation and capitalism's decay will provide the argumentative base for my hypothesis. Following Wolfgang Streeck's comprehensive argumentation, I will review reasons for the end of capitalism. It will be shown that contemporary neoliberal capitalism is undergoing a great transformation; leading to its decay. The reasons for such a development can be found in capitalism's systematic disorders, its contradictions and its decreasing legitimation (Streeck 2014). The contradictions capitalism produces include artificial and small growth rates, increasing debt rates, dysfunctional distribution mechanisms, the increasing plundering of the public domain and resulting austerity, increasing socio-economic inequality as well as social and environmental exploitation (ibid.). But in my eyes, the changes in the production process and labour structures due to increasing automation, as well as the increasing dis-empowerment of local communities, are the tipping points that will make capitalism's great transformation inevitable.

3) Using a normative-narrative scenario (Kosow & Gaßner 2008), I will describe and illustrate how the region of Leipzig will be affected by an embedded post-capitalistic economy regarding spatial structures, forms of living together and governance structures. The normative-narrative scenario is a tool for me to design in this speculative realm, but it also embeds my proposal in a larger context and reveals the full potential of the plan. Based on Leipzig's specific context (spatial and

economical development), current socio-economic trends (distribution of working population and estimated growth till 2030) and assumptions regarding the end of capitalism, I described a desired, post-capitalistic future in the year 2068. The scenario will start at EU level describing necessary EU reforms to enable autonomous regional economies. This larger frame allows me to propose a contingency plan for the region of Leipzig, which is designed to prepare the region for the end of capitalism and the failure of its global supply chains. Based on a self-sufficient agriculture, I will describe a development perspective for the region, which proposes a regional decentralization and local concentration, resulting new city-hinterland-relation. Working within the region's resources and using the existing spatial organization patterns, the contingency plan will be a strategy on how to approach a post-capitalistic economy. Socio-economic goals, strategic actors and places will be highlighted. I will apply different visualization and mapping techniques, but also describe key processes, reforms and policies that are important for Leipzig's post-capitalistic development. It will be shown how agriculture and landscape will change under a use-value oriented economy and how Leipzig's supergrid, and with it the city's development direction, will change. Instead of further division of labour and zoning, the city will be reinterpreted: concentrated, dense and diverse cores along the rail network will emerge.

In order to illustrate and explain my proposal more detailed and differentiated, I will describe a pilot project. This pilot project will sketch Leipzig's new agricultural self-sufficiency at different stages of the production and consumption chain. At each place within the pilot project, the current situation will be described, from which I will project different stages of the region's larger transformation towards a post-capita-

listic economy into the future. At this scale, concrete spatial transformations will become visible and their effects on daily life and the governance structures will be explained.

4) After studying alternative socio-economic concepts as an inspiration and information for my scenario, it became clear that contemporary literature does not provide an explicit definition of post-capitalism, which is why I need to define it. Going back to the literature review and my own proposals of a post-capitalistic region, post-capitalism will be defined as an anti-thesis to capitalism. Capitalism is defined as a singular, hegemonic form of comprehensive socio-economic organization that is based on structural inequality. It operates on the principles of scarcity, rationality and concurrence, and has the sole purpose of endless private profit accumulation. At its core is the transformation of use-value to exchange-value within the process of labour. The dynamic historical phenomenon operates as an economic order, a social order and an ideology and thus is a complex system to secure and reproduce power structures.

Consequently, post-capitalism will be defined as a pluralistic socio-economic system, in which a variety of different economic models and forms of societies can exist parallel and in symbiosis. As such, this flat landscape of different economies produces a variety of locally grounded (economic) needs and (ethical) values. Thereby, those embedded economies contradict the singular, hegemonic blueprint logic of maximum profits and endless growth. Instead of endless individual profits, the common good – defined by local needs – must be the goal of a post-capitalistic economy. Therefore, the use-value is the core of this economy.

II. BETWEEN ECONOMIC EVOLUTION AND SPATIAL DEVELOPMENT

About the Nexus between Economic and Urban Development

The starting point of my entire argumentation – the base to relate any further assumptions and hypothesis to – is my position in theory. The theoretical key perspective I am taking is that urban structures are spatialized or materialized expressions of social relations, dominated by economic ones. Therefore, the development of urban agglomerations cannot just be seen as a product of varying social contexts, but as the consequence of the economic evolution in time.

My understanding of the city relates to Bernard Stiegler's interpretation of the polis as the consistent expression of individual and collective desires for justice, truth and beauty (Stiegler 2017: 43f). Naturally, the collective understanding and definition of those desires is mainly influenced and reproduced by the ruling power, its ideology and institutions. In a neoliberal context for example the desire for truth is in fact the desire for ultimate rationality: maximum efficiency, computed results, but also the total commodification of all aspects of life are desirable because they are considered to be true. Hence, the current neoliberal city must be an expression of those desires of the ruling powers. If this is the case, then the city itself must be a product of capitalism's development.

Economy in general has always been a form of social interaction. Any economic system does not just provide a frame for those interactions, but is also an instrument of power. An economic system, but especially capitalism, fosters certain forms of social interaction, while it impedes others, in order to reproduce the respective power structures and its desires for justice, truth and beauty.

In the following, I will describe the nexus between economic

evolution and urban development from different but complementary perspectives: I will briefly introduce an Anthropological Perspective referring to Bernard Stiegler, an Economic Perspective referring to Christian Parenti, a Historical Perspective referring to Stephen Read and an Urban Perspective based on thoughts of Neil Brenner.

Anthropological Perspective

From an anthropological perspective, there is little difference between the development of society, economy, technology and space. As an entity those realms could describe the cultural evolution of mankind. It is the close mutual relations between those realms that manifest the unity of their development.

Economy in its original form for example is an integral part of social interactions. And as a part of social relations, economical development is linked to social development. Technology and its development (innovation) on the other hand is a base condition for economic development (Arrighi 1994, Marx 1887). At the same time technology can be seen as a form of cultural exterior of humans (Stiegler 2004), meaning that technological development equals social development.

These realms develop parallel and under mutual influence. But above, they all have a spatial component. The application of technological innovation for example has been shaping cities from the very beginning. Cities as spatial expressions of externalized social and technical relations illustrate the mutual development of the different realms and their indispensable spatial implications. The social, economical, technological and spatial development are not just linked to each other but can be seen as one unit. The city as a catalysts for socio-economic

interaction can be seen as the condensed vehicle of this mutual development. The development of each realm can be read in the entity of its structural compositions and forms.

But within this constellation of technology, society, space and economy capitalism has a dominant role due to its outstanding ability to intertwine in every aspect of life in order to generate profits wherever possible (Stiegler 2004). According to contemporary definitions of the current economic model, capitalism is dominating social relations in such a way that society – hence their physical environment – has become a side effect (Streeck 2014: 48) of capitalism’s “[...] attempt to accumulate capital endlessly” (Wallerstein 1995: 2).

Market relations, the strive for endless growth and profits, endless consumption promoted by omnipresent and algorithmic advertisement are dictating the development of economies, technologies, urban and rural areas and societies.

Economic Perspective

The nexus between urban and economic development becomes even more evident, when one considers that the phases of large urban growth since the beginning of the industrial revolution only appeared in times of economic growth (Equilibriums).

Fundamentally, economy always has spatial demands. Spatial characteristics, such as infrastructure and natural resources, are the basic condition for economic activities. Especially in a capitalistic economy, natural resources and their extraction are the ground condition for the conversion form use- into exchange-value and thus the condition for profit generation (Marx 1887).



US economist Christian Parenti describes the ability to use space for socio-economic purposes as geo- or infrastructure-power (Parenti 201). In that sense a defined territory is shaped and reproduced to the economic demands and vis-a-vis serves as a pre-condition for economic activities and thus the reproduction of the dominant economic order.

Within this mutual relation between socio-economic and spatial development, the discipline of spatial planning plays an important role: by organizing space to meet the respective economy's demands, planning constitutes the respective economic development. Going one step further, one could say that planning as a form of institutionalized geo-power, creates the pre-condition for any economy. Accordingly, planning acts as a mediator between space and economy, setting the precondition for profit generation and currently constituting neoliberal developments.

If one sees the discipline of spatial planning and design as a tool to balance conflicting spatial interests, a paradox appears: in a neoliberal economy planning and design are tools to materialize and spatialize endless economic growth and thus profit imperatives. At the same time planning and design are tools to counteract negative externalities (e.g. social inequality, segregation, environmental destruction) caused by such capitalistic imperatives, which it facilitated in the first place. Pointed, one could say that the discipline is part of the destructive machinery capitalism.

Historic Perspective

The historic perspective complements the line that cities developed as places to organize increasingly complex (socio-economic) tasks, in order to increase human capacities. Refer-

ring to Stephen Read cities did not emerge in singularity but in trade networks (Read 2009: 2). Thereby, the infrastructure of those networks became the structural base for the city archetype. Cities have their structural roots in the infrastructure of economic trade networks. Hence, their development followed the development of the economic networks and their infrastructure (ibid. 2). Again the link between economic, technological and spatial development becomes apparent.

Technological innovation played a key role for both the economic and urban development. Key innovations have always been the driver of the capitalistic evolution (Arrighi 1994) and their infrastructural components always had major impacts on the development direction of urban agglomerations (Read 2009). Therefore, the development of technical innovation along with and triggered by the economic development influenced the urban development strongly.

The change in transport infrastructure might be the most obvious example for this link between economic and spatial developments. Horse-drawn carriages could move goods from one city centre to another. And so the centres at the beginning and end of these trade connections became economic cores; city gates and entrances to merchant houses were designed in a way that carriages could fit, and a linear support system along the trade route emerged. With the introduction of the train network as the main means of transportation the centrality of the historic town centres changed. Economic cores emerged along train tracks and in close proximity to the stations. With the revolution of individual motorized mobility, passenger and freight aviation as well as telecommunication the city's infrastructures changed again and new spatial development patterns emerged.

Urban Perspective

From an urban perspective a city can be interpreted as an entity composed out of different units, which represent specific investment and accumulation strategies.

Referring to US planner Neil Brenner, a city is a continuum of different accumulation and investment strategies and their counter actions, such as social movements, unions and protest (Brenner 2014a, 2014b). Those different accumulation strategies had a specific spatial demand and fostered a certain type of urban development. Even though the urban models that emerged with capitalism all served the idea of economic growth through rationality and efficiency, their accumulation strategies and thus their forms differ.

Therefore, each capitalistic cycle (mercantile, industrial, post-war, neoliberal capitalism) must have shaped the composition of urban structures according to its specific needs during the last 300 years. Those structures do not just represent capitalistic key values, they were also shaped in a specific way to support the respective economic model, enable its efficient functionality and enhance its capacity to perform.

The different structures that emerged according to the dominant accumulation strategy were superimposed on each other. Some structures remained but changed functions, some transformed and some disappeared while new ones were added. Since the evolution of capitalistic cycles, their key infrastructures and analogous the structural adjustments in urban agglomerations, are a continuous process in time, each capitalistic cycle must have left its traceable imprints in the long-lasting urban structures of contemporary urban agglomerations.

The increasing separation of functions within a city (zoning) for example illustrates the spatial application of different accumulation strategies. Whereas the mercantile city was a dense overlap of various economic activities and other functions, the industrial and later the neoliberal city developed increasingly large-scale, monofunctional and decentralised places for economic activities (e.g. industrial and business parks).

The Separation of Urban and Rural

The nexus between economic and spatial development goes beyond the realm of urban development. Economic development affects the entire spatial organization – urban and rural development.

Capitalism is inherently urban. For reasons of rationality and efficiency power, capital, people and production processes are concentrated in the city. With this concentration the organization patterns of the city follow capitalistic logics: in the logic of division of labour functions are separated to provide undisturbed, conflict free production and profit generation. The transport infrastructure is designed and optimized to connect the zones of different use. In its attempt to provide favourable conditions for capital accumulation and profit generation, the city is organized like a factory (Biehl 2010: 5) transforming it “into a commercial and industrial enterprise” (Bookchin 1986 quoted in Biehl 2010: 5).

Capitalism promoted the city as the most rational, most profitable type of settlement. The globally increasing urbanization can be seen as a consequential side effect of capitalism’s global development. Therefore, we are experiencing the highest rate of urbanisation at the times of capitalism in its latest form – globalized neoliberal capitalism. In that way it can be said, that capitalism sounded the bell for the urban age. Capitalism’s development started the rise and development of the city to the structure and form as we know it today.

But cyclic capitalism did not just influenced the structure and form of cities, it also shaped the non-urban areas and promoted specific types of rural developments. The application of different infrastructures in the different capitalistic cycles might be the most obvious example that illustrates how capitalism not just shaped cities, but also the spaces in between

them. First, a system of trade roads was installed. Then train lines and canals cut the landscape, water towers and chimneys became new landmarks. Later highways and high-voltage transmission poles reorganized the territory. The landscape became increasingly industrialized and the natural environment turned into a fully man-made one.

But even more drastic than the influences of infrastructural changes on the space in between the cities were the structural changes in the rural areas. In order to supply the growing urban cores with resources of all kind, the rural areas became places of resource exploitation and exhaustion. In favour of the growing cities, the hinterlands became degraded. The pre-capitalistic cities were depended on local food supply from their hinterland. City and hinterland were integrated (Biehl 2010), because both relied on each other: the powerful city provided protection and redistribution of its agglomeration benefits to its hinterland. The city's hinterland on the other hand provided food and other agricultural products, which could not have been produced within the city, but on which the city's existence relied.

But with the commodification of agricultural production the mutual relation between the (socio-economically) powerful city and its supplying hinterland, on which the city relied, vanished. The local use-values of agricultural products from the hinterland were turned into non-territorial exchange-values. This means, that the production of agricultural products in the hinterland was not tied to the demand of the city anymore, because non-local market trade made it possible to achieve higher profits. The other way around, the city could supply its demand with (cheaper) non-local agricultural products. The city and its hinterland became detached from each other due to the development of capitalism.

Marx described the separation of city and hinterland as a necessity of capitalistic development when he wrote that “[t]he foundation of every division of labour that is well developed, and brought about by the exchange of commodities, is the separation between town and country. It may be said, that the whole economic history of society is summed up in the movement of this antithesis” (Marx 1887, Section 4).

This separation of the city and its hinterland was not just a functional matter – the division of labour as well as space in order to increase productivity – but also an act of domination. The dissolution of the mutual city-hinterland-relation decreased the city’s dependency on its hinterland, whereas the agricultural hinterland was forced to become a “profit-making enterprise” (Biehl 2010: 7). As such, agricultural production became industrialized (*ibid.*), which in the first place was precondition for urban based capitalism to develop.

In accordance to the technological innovations that drove capitalism’s development, the agricultural sector was developing as well. Developments in the agricultural sector were always necessary premises for economic development. Food was and is the very basis for (peaceful) individual and societal being, therefore it is the premisses for all social, thus economical, relations. A brief look at the impacts of the evolution of the agricultural sector illustrates the relation between agricultural and capitalistic development.

First, arable farming became the basis for humans to settle. The relatively high and constant food supply changed the former hunter-gatherer societies radically. Increasing division of labour and specialisation became possible, leading to the increasing development of technology, arts and crafts, sci-

ence and trade – culture and with it cities. In that sense, the stable surplus in agricultural production was the precondition for the emergence of complex socio-economic relations, leading to the development of mercantile capitalism.

In the same way, industrial capitalism is not sole based on technological innovation or power structures, such as hegemonic colonization, which enabled cheap resources extraction and opened new markets. Labour forces and sufficient food supply for the increasing urban work forces were needed for the industrialization of the societies and increasing productivity. The enclosure of peasants' farmland in favour of larger territories was the first step towards that. The destruction of small peasant farming structures was not just

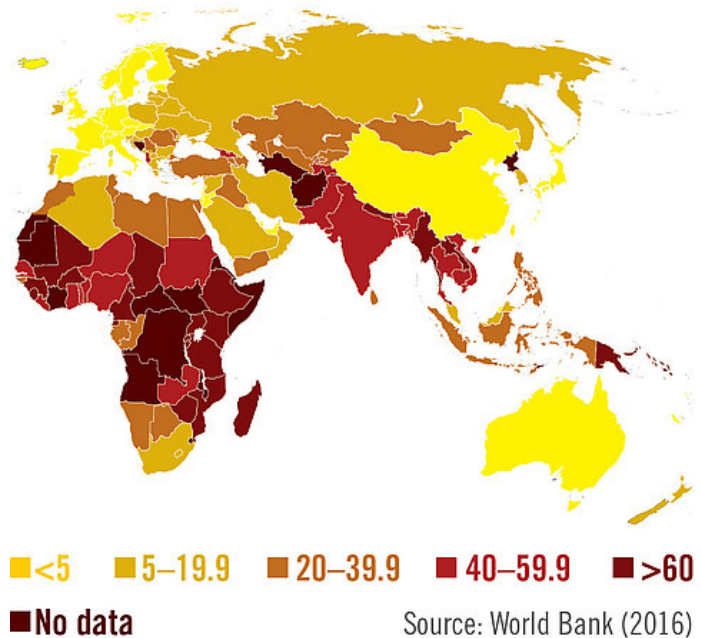


Image 1_Employment in agriculture: Agricultural employment as share of total employment in percent 2011-2015
World Bank 2016

a mean of power, it also enabled more efficient agricultural production due to larger farmland plots. But moreover, the industrialisation of the agricultural sector and the introduction of mechanical agricultural equipment reduced the need for cost intensive and less efficient human or animal labour. Labour forces were set free and they moved to the capitalistic cores in need of labour power – the industrial city grew.

Capitalism's development – and with it the urban development – was not just product of new technologies, new accumulation strategies and power relations. Those processes could only happen because of agricultural revolutions, which at the same time were a products of the capitalistic development – the application of the most profitable accumulation strategies on the rural territories. In here the mutual relation between agricultural and economic development – between spatial and economic development – becomes visible.

Those agricultural revolutions were all characterized by the increasing industrialization of the sector, leading to increased productivity rates and lower employment rates in favour of higher profits. Similar to the city, the hinterland changed its structure and form according to new technologies and accumulation strategies.

Separated from the city, the industrialized agricultural production, needed to introduce artificial fertilizers, pesticides and later genetically modified crops, large-scale production and monocultures in order to become more productive, more efficient, most profitable (Biehl 2010: 7) and “to meet problems of storage, transportation, and mass manufacture” (Bookchin 1955: 56). But above that, the deterritorialisation of agricultural production caused the loss of nutrients, leading to the depletion of soil (Foster 2013).

Engels already warned that the separation of city and hinterland threatens public health due to the negative environmental effects that a market oriented agricultural production would have (Engels 1954: 323). Further, the extensive and profit oriented agriculture – the “plundering [of] the riches of the earth” (Gutkind 1974: 56) – was increasingly degrading and eroding the soil, and monocultures led to a loss of biodiversity.

But above, the separation of city and hinterland changed the inherent relation from humans to their environment – their “ties to the soil” (Bookchin 1986: 27). In that sense Bookchin describes a balance between humans and nature, which in his understanding had been lost due to the separation of city and hinterland. Contextualized, this lost relationship could be interpreted and expressed in the ways capitalistic societies treat their environment: plundering and exploitation no matter the costs.

The development of capitalism has not just been shaping the structure and form of the urban but also the rural. With its development, which was fundamentally based on the development of the agricultural sector, it separated the city from its hinterland. The hinterland became a separated, profited oriented and exploitable exterior of an urban based capitalism. Finally, it might be said, that the current urban settlement type, which includes a disconnected relation between urban core and its hinterland, is a product of the capitalistic development.



Image 2_Monocultures and waste landscapes near Leipzig

III. THE SPATIAL AND ECONOMIC BECOMING OF LEIPZIG

Leipzig

The following analysis will focus on the spatial development of Leipzig during the last 300 years. It will be shown, how capitalism's cyclic development influenced the spatial reproduction of the city.



According to the different accumulation strategies in the capitalistic cycles, Leipzig has development different network structures, morphologies and typologies. After a brief introduction of the city with a particular focus on its economics, each cycle will be analysed in those three terms.

Even though the focus of the analysis is on new urban developments, it needs to be said that with every new capitalistic cycle the existing structures changed as well. Those changes were less of a structural nature, but more of a change in function and use. It also needs to be said, that the growth of Leipzig, according to the capitalistic cycles, went hand in hand with the change of its rural hinterland. As Leipzig gained economic power, the hinterland got separated from its urban core. This relational change affected the appearance of the landscape.

In the end it will be shown that the development of Leipzig, as the concrete territory of economic activities, is a product of the capitalistic development. Leipzig's current form and the appearance of its hinterland are products of capitalism.

First mentioned 150 AD in Ptolemy's Geography of Magna Germania Aregelia and later 1015 as urbus Libzi, Leipzig was founded at the crossroad of the two ancient trade routes via regia and via imperii. Located in the wet riparian zone in the lowlands middle eastern Germany it quickly gained regional economic dominance because of the international trade connections. With the town and trade privileges from 1165



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C1

the city became an international trade town hosting markets and fairs. Its location at the crossing of the two trade routes – connecting Kiev and the silk route with Paris and the Atlantic; Rome and the Baltic Sea – was the foundation of the city's development as a trade town, its prosperity and regional dominance.

Leipzig's growth reached its peak during the 1930s: with more than 700.000 inhabitants it was the 4th largest city of Germany. Today the city is populated by around 571.000 people (December 2016); the 10th largest city in Germany.

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The beneficial location at the crossing of the old trade routes in the heart of Europe was not just the precondition for its development as an international market and fair town, but also for the development to an industrial city. Fueled by large brown coal deposits in the South of the city extended its economic profile and became an industrial city. Already before the invention of the steam engine, Leipzig became famous for its publishing, book-printing and binding economy. Firstly only trading written documents and books, Gutenberg's invention of the letter print stimulated the development of this economic sector. Consequently, the emerging machine-building sector was specialized on printing and binding and later aerospace. The metal-working industry as well as the textile industry became increasingly strong.

Again the beneficial location of the city was stimulating this development strongly. Leipzig became an infrastructural hub: the first national long-distance railway line connected Leipzig and Dresden in 1839. 76 years later Europe's largest terminal station was built. Additionally, the Karl-Heine-Kanal, built between 1864 and 1898 connected the city to the national wa-

terway system. The first Airport was built 1927 at its current location and Leipzig was connected to the national Autobahn system (highway system). Those large scale infrastructure developments base on the latest technology can be seen as a condition for Leipzig's success as a international trade and industrial town. At the same time those infrastructural developments were superimposed on the old structures and shaped the urban form and structure of the city. Its industrial heritage as well as the wealth of the city can still be recognized: beside the remaining places of production and working-class housing, Leipzig is famous for the largest coherent building stock of Gründerzeit quarters.

The importance of the city on national level, resulting from its economic power, was the reason for its heavy destruction because of allied air-raids during World War II.

The following period of the city's history was characterized by its decay. The centralistically organized GDR, which was suffering from the compensations it had to pay to the Soviet Union (including the disassembly of machinery and the train tracks), was never able to repair all the damages of the war and was politically not interested in rebuilding the existing built stocks. Instead of investments in Leipzig's built stock, the socialistic administration promoted socialistic large scale housing as the ideological solution for the post-war housing crisis. As a result, large-scale housing settlements in standardized production emerged at the edges of the city, while the housing stock was slowly decayed. The destroyed fabrics were rebuilt according to the 5-year-plan and the countries strongly limited resource capacities. The building sector became an impotent economic pillar of the city but overall it lost its international importance as a industrial and trade city.

After massive decay during the GDR time, resulting from missing investments in the city's existing building stock, Leipzig was shrinking during the 1990s (Bartstzky 2015). The city, in which the peaceful revolution started, lost about one fifth of its population (Schader-Stiftung 2006). The new economic conditions – the transition from a socialistic planned economy to neoliberal capitalism – turned down the remaining industry and the publishers, leading to massive losses of jobs and population. An interesting phenomena occurred: while the city in its administrative boundaries was shrinking, Leipzig's suburban outskirts were growing (Nuisl & Rink 2005). Many of the people leaving the city moved to the suburbs to live the neoliberal Western dream of an own house outside the city and a car – which was a highly scare product in the GDR – to commute to the city. In the hope of better economic and employment situation, many people also moved to the Western parts of the reunited country. As a result, the city was not just suffering from suburbanization but also from vacancy and continuing decay due to absent in-

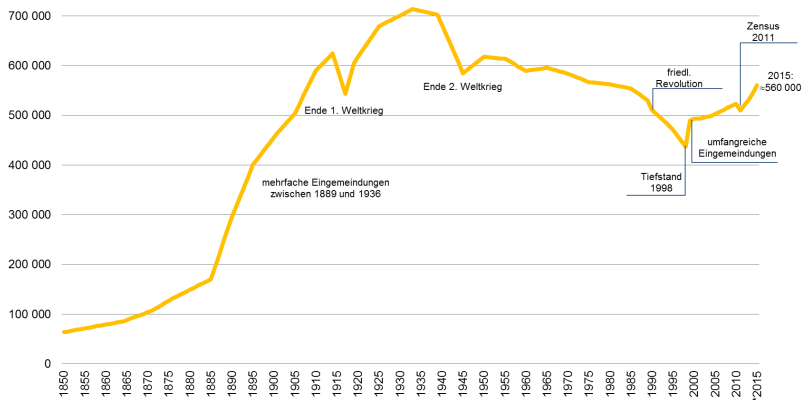


Image 3_Demographic development from 1850 till 2015
 Stadt Leipzig Amt für Statistik und Wahlen (Edt.) (2016): Bevölkerungsvorausschätzung 2016

vestments. The vacancy rate reached up to an overall of 40% and local peaks of up to 80% (Bartstzky 2015).

Despite those tendencies during the 1990s, Leipzig is now one of the most attractive and fastest growing cities in Germany (LVZ 05.06.2017). The reasons for this development can be found in its economic re-orientation starting in the late 1990s and early 2000s (Bartstzky 2015). This reorientation was put into operation by massive investments in Leipzig's hard location factors. While the shrinking city offered a lot of vacant and cheap space, large-scale industries and investments were attracted. The historic city centre, which was in a bad condition after many years of decay and negligence during the GDR time, was redeveloped. The restored inner city and the new international fair ground became city's new global flagships (ibid.).

In addition to its beneficial location in the heart of Europe, the deliberate upgrades of its (hard) location factors, and

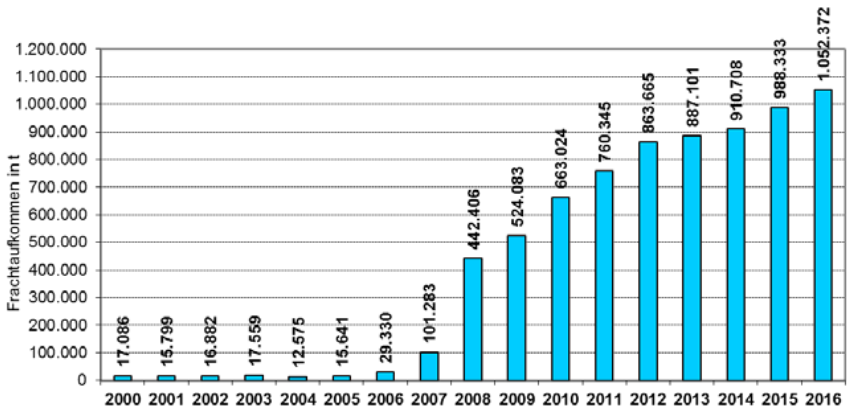


Image 4_Development of cargo at the airport Halle/Leipzig (in tonnes)
 Industrie- und Handelskammer zu Leipzig (Edt.) (2017): Wirtschaftliche Entwicklung der Stadt Leipzig

especially the infrastructural networks, during the late 1990s were one of the main factors contributing to this development (Bartstzky 2015). Highway-network and airport expansion, massive investments into the rail network (passengers and freights), large and cheap surface reserves and the vacant building, but also the cheap production coasts in the new eastern states of Germany (including land and wages) made the trade and fair town highly attractive for labour intensive production and distribution (Institut der Deutschen Wirtschaft Köln 2013). Consequently, large and globally oriented manufacturing (Porsche, BMW, Siemens) and logistic and distribution companies (Quelle, Amazon, DHL), as well as their suppliers, were attracted to Leipzig. A new phase of economic growth for the city was initiated by the focused development of the city as a transport hub. The new jobs, which were created with this development, stimulated a new growth in population as well as urbanization (Institut der Deutschen Wirtschaft Köln 2013).

The current economic profile of the city is characterized by its global orientation. While production and construction have decreased, the finance and service sector as well as the information, communication, trade and logistics sector are now the pillars of Leipzig's economy. But the culturally vibrant university city with its historic built stock and its industrial heritage has also become a popular destination for tourists.

This last aspect has to do with Leipzig's high quality of life. The strategic planning of the late 1990s also included the revitalization and commercialization of Leipzig's historic city centre. The restoration of the cities heart was meant to be the flagship of the city's economic reorientation (Bartstzky 2015). Further, private investments were directed to the building stock, so that large parts of it have been privatised and

renovated. The downside of those investments into Leipzig's real estate market are local gentrification tendencies (Rink et al. 2014).

Nevertheless, Leipzig is still well known for its relatively affordable housing and the many open spaces, abandoned places and buildings and vacant lots – ideal conditions for individual and collective fulfilment. Additionally to the generally cheap living conditions in the newly-formed German states,

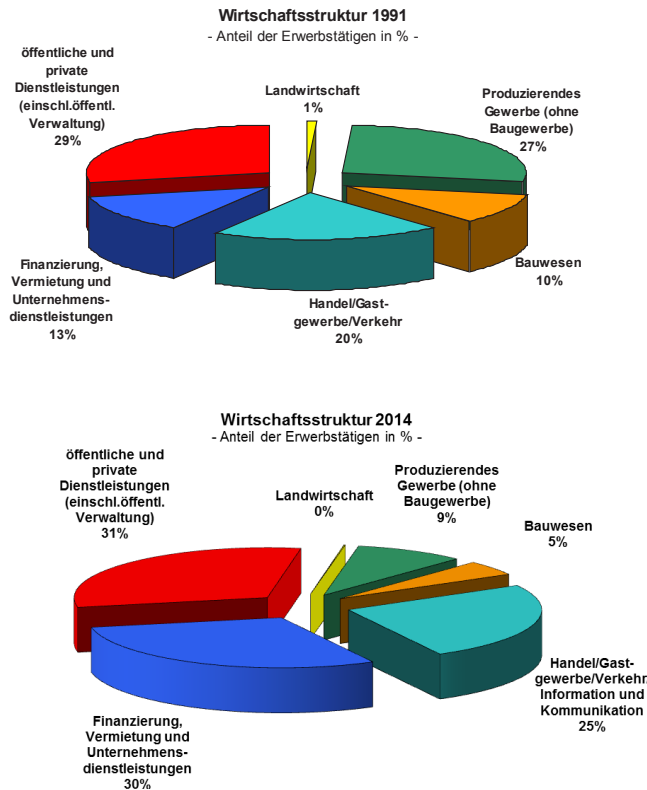


Image 5_Leipzig's economic structure 1991 and 2014
Industrie- und Handelskammer zu Leipzig (Ed.) (2017): Wirtschaftliche Entwicklung der Stadt Leipzig

Leipzig's region is and has become quite appealing. The revitalisation of the former brown coal pits is partly completed and has created a connected network of artificial lakes in the direct neighbourhood of the city. Leipzig's current economic development, its location, its affordability and the opportunities for local recreation are characteristic for its quality of life and the resulting attractiveness (Stadt Leipzig 2009).

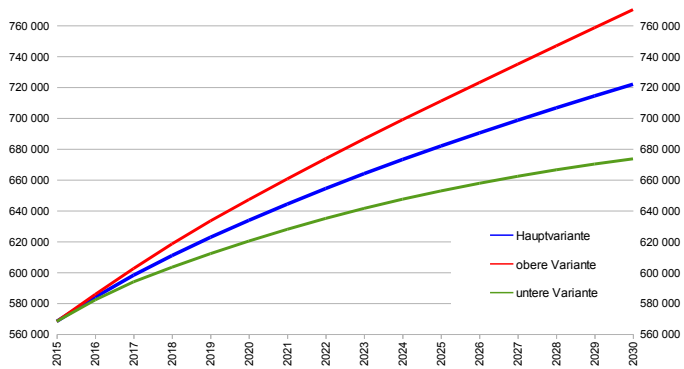


Image 6_Expected demographic development (blue: main trend)
 Stadt Leipzig Amt für Statistik und Wahlen (Ed.) (2016): Bevölkerungsvorausschätzung 2016

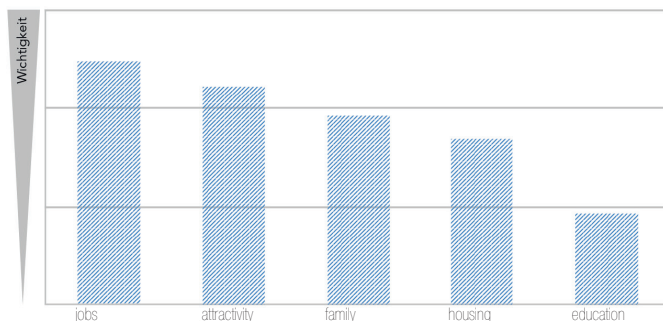


Image 7_Important reasons for immigration to Leipzig
 Stadt Leipzig (2009): Blaue Reihe. Beiträge Zur Stadtentwicklung 50. Leipzig 2020 Integriertes Stadtentwicklungskonzept

The current phase of growth, which was stimulated by the spatial development strategies of the late 1990s (Bartstzky 2015), is predicted to hold on till 2030 (estimated 720.000 inhabitants; LVZ 23.08.2017). So far, the municipality's strategy focuses on inner development and densification in order to facilitate the growing housing demand. Further, additional industry and business zones in the North and East-North of the city will be prepared and developed. The allocation of the economic activities follows the neoliberal imperative to provide good access to the supergrid and its global transport infrastructures (highways and airport) and maximum production freedom through functional separation.

Following this brief introduction to the city and its history, I will illustrate the theoretical assumption of the nexus between economic evolution and urban development.

During the last 300 years each phase of Equilibrium within one capitalistic cycle (phase of economic growth) should have triggered a phase of urbanisation and urban growth. Therefore, Leipzig's spatial development in terms of network structure, morphological structure and typologies can be explained through its cyclic economic evolution.



General development tendencies will be identified and particular growth spots analysed. The goal is to understand and show how the capitalistic cycles materialized in the city of Leipzig as different accumulation strategies, leading to its current structure and form.

Analysis

1) Mercantile Capitalism

Network Structure

Leipzig was founded at the crossing of the two ancient trade routes via regia and via imperii. This crossing became the economic core of mercantile Leipzig – the market. The routes leading into the city were the first parts of Leipzig’s supergrid and connected the city to an international trade network, but also to the villages in Leipzig’s rural hinterland and other cities in the region.



Outside the city walls, the villages and smaller towns along those trade routes provide shelter, food and fresh horses travelling merchants. Beside international trade goods, agricultural products from the local farmers, destined for the supply of the city, was transported on those early supergrid routes.



Apart from the market, economic activities emerged along the supergrid – the routes of the traveling merchants. Those economic activities were of a regional and global orientation due to their direct connection to the supergrid. Those were especially merchants, trading the goods coming along the two major trade routes. Economic activities, which were not directly connected to the supergrid, had a stronger local and regional orientation. Craftsman of different kinds were located within the city wall. Nowadays, street names in the inner city still remember the guilds of craftsmen, that were working there.



Another outstanding feature of mercantile Leipzig were its extended economic spaces. Surrounded by a city wall and fortifications public space and thus space for trade was limited. In order to counteract this spatial restriction, trade hou-

ses with inner passages emerged. Those private Messehäuser were fair grounds for the local merchants and included show rooms, storage facilities, offices and accommodations. Others hosted different kind of craftsman. The passages inside those large, often splendid and costly designed, buildings were directly connected to the supergrid and thus created an extended space for globally oriented economic activities.

The early supergrid was also the guiding structure for the first city developments. Merchants and craftsman settled along the trade routes outside the city walls and street networks emerged between the dominant routes.

Morphological Structure

The medieval urban structure of Leipzig is characterised by dense built-up urban blocks, divided by a hierarchical network of streets. The streets leading outside the city walls are the ones of highest priority – the supergrid. The street network of the inner city was the only public space, while the plots and houses were in private ownership.

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The market was the structural centre of mercantile Leipzig. The adjoining townhall as well as the churches with their open spaces are part of the public institutions and spaces. Beside those, there are very few commons: parks and cultural institutions, such as the opera house, were established after the demolition of the fortifications during the late 18th century.

The built coverage of the inner city is extremely high compared to the open spaces – the street network. Further, the plots were small in size, mainly mixed-used and orientated towards the public spaces. Housing and economic activity

took place in same space. The Messehäuser and their passages were the exception: superimposed on medieval structures those buildings were larger in size than the medieval blocks, were relatively mono-functional and oriented towards their insides. Even though their façades were representative and the passages connected to the supergrid, the globally oriented economic activities took place inside those buildings.

Overall, the inner city of mercantile Leipzig was highly diverse regarding its functions and had particular economic cores (Messehäuser), which had a different scale from the surrounding buildings but were still integrated in the urban structure.



Image 8_City Centre

Typology

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The building typology of mercantile Leipzig corresponds to its morphological form. The buildings on the medieval plots are quite slim but tall and oriented towards the street. The buildings themselves provide the conditions for the mix-use of the inner city: the ground floors were made for economic activities and especially along the supergrid shops and show rooms of the merchants could be found. The buildings in the back of the plots provided space for economic activities, which did not need showrooms and passing trade, such as workshops.

The first floors of the houses were often used for the economic activities of the ground floor as well (storage or offices). Housing took place in the upper floors or in the buildings in the back of the plots. Housing and economic activities took mainly place in same building.

With the increasing separation of labour and specialization of economic activities during mercantile capitalism new typologies emerged in the inner city. The Messehäuser with their orientation towards the inside were an example of increasingly mono-functional cores of globally oriented economic activities (see above). But beside those large construction complexes, mono-functional typologies, corresponding in size and scale to the medieval plots, emerged. Especially along the streets of lower hierarchy representative offices of trade, service and finance companies emerged.



Image 9_Merchant house Hainstraße (inner city supergrid)
SLUB/Deutsche Fotothek, Roger Rössing



Image 10_Representative Messehaus Speck's Hof in Leipzig's city centre
foto-folker.de

2) Industrial Capitalism

Network Structure

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The industrial revolution in Leipzig triggered a large phase of growth regarding the city's size and demography. The increasing economic activities in the city caused a high demand for labour, whereas the industrialising agricultural sector allowed higher production rates at lower employment. People migrated from the agricultural hinterlands to the industrializing city.

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The hot spots of Leipzig's urban growth were the extensions of the existing settlements outside the old city wall and the surrounding villages. Especially the ones located along or in close proximity to the old supergrid transformed: the formerly rural villages, which provided agricultural products to the city, became industrialized urban cores of the growing city.

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Because of their existing connection to the supergrid, the link to the city's core and the resource supply from outside was very good. The connection to the supergrid, which connected Leipzig internationally, was also an important condition for the emerge of globally oriented economic activities.

But above, Leipzig's new growth spots were connected to the new infrastructure technology: the train network and its stations. A ring of train tracks connected the industrial cores – the former villages – and the main station in the North of the city centre. From this ring train tracks connected the growing city to its agricultural hinterlands (parallel to the supergrid) and Europe.

The reason for the connection to the international (trade) networks – road, train and canals – laid in the global ori-

entation and external resource demands of those economic activities. Even though, brown coal was mined and burned in the South of Leipzig, especially steel needed to be imported for the growing machine-building sector.

Morphological Structure

The growth spots of industrial Leipzig showed an increasing detachment of economic activity and housing. Industrial areas emerged in close proximity to the railway network and its stations. Organized in large blocks, those areas were quite mono-functional and the production facilities became large in scale. The industrial production needed more space compared to pre-capitalistic manufacturing, production was increasingly noisier and dirty, thus barely compatible with housing, and larger production number also meant cheaper production and in the end higher profit rates for increasingly global economic activities (industrial production).



Beside those industrial areas housing areas emerged. Plagwitz for example was organized in closed blocks oriented towards the street network with common inner yards. Various functions could be found in those blocks, but housing dominated. Within one block local supplies were organized according to the street hierarchies: Along the supergrid different shops of a local and city wide orientation emerged. At the crossings of streets of a lower hierarchy corner shops emerged, supplying the local neighbourhood. In the streets of the lowest hierarchy housing dominated the blocks, but frequently one could find small shops for daily and fresh supplies for the residents of the block. Those places were highly important for food supply in times without refrigerators and for social interaction in the neighbourhood.



The housing areas, which emerged in the industrializing Leipzig, were of different characters. The bourgeois neighbourhoods were equipped with public green spaces, the blocks were open or closed and the houses were costly decorated Gründerzeit buildings. The borough Gohlis in the North of the city centre is an outstanding example for this kind of neighbourhood.

The working class neighbourhoods on the contrary were poorly equipped with public green spaces and the houses were of a simpler appearance. Due to the limited mobility of the workers, those areas were often located in close proximity to the industrial areas. Further, the back yards of the blocks were often used for economic activities (manufacturing).



Image 11_Plagwitz

Another form of industrialized neighbourhood did not separate housing and industrial use that strong. As the example shows, housing blocks for the working class with their additional functions were side by side with large scale production facilities.

Even though one can distinguish those different industrial neighbourhoods on basis of their morphology, all of them have in common that the supergrid was incorporated in the morphology of the new neighbourhoods. It became an atria of those areas, which once were villages outside the city. In doing so, the centrality of Leipzig's industrial neighbourhoods is not just focused on the old village centres (Anger or market places), which became squares, but on the incorporated supergrid itself.



Typology

Even though the morphology of the bourgeois industrial neighbourhoods distinguishes from the working class neighbourhoods, the typology does not as strong. As already mentioned, the design of the façades varies as well as the size and shape of the flats. But regarding orientation of the buildings, scale and opportunities for ground floor use the typologies are quite similar.

Depending on the connection to the different street hierarchies the ground floors were made for economic activities. Along the supergrid the orientation of the economic activities spans from local to city wide. Along the lower street hierarchies the economic use of the ground floors gets less and is mainly oriented to the neighbourhood (e.g. corner shops) or in case of the micro shops (daily supply) to the block.

Buildings in the back yards provided space for additional economic activities (hand craft, workshops and manufacturing), but were not necessarily connected to the houses facing the street. Due to their position inside the blocks their economic orientation must have been of smaller scale. Apart from an economic use, buildings in the back yards could also serve the tenants as additional storage space or workshops.

The typologies of the production facilities became mono-functional cores of globally oriented economic activities in the growth spots of the industrializing Leipzig. The orientation of those typologies depended on the main transport infrastructure (resource and distribution flows) and economic orientation. A brewery for example, which was producing for a city wide and regional demand with resources from the regional agriculture was oriented towards the supergrid. Metal working and machine-building fabrics on the other hand were oriented towards the railway system or the water ways.



Image 12_Plagwitz. Housing and working in one neighbourhood
SLUB/Deutsche Fotothek



Image 13_Closed blocks for the working class
SLUB/Deutsche Fotothek



Image 14_Work, housing and transport side by side
SLUB/Deutsche Fotothek, Norbert Vogel

3) Planned Economy (GDR)

Network Structure

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The spatial development of Leipzig in GDR times was mainly characterized by the addition of large-scale housing units.

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Those neighbourhoods were attached to the supergrid, but did not incorporate it into their structures. The physical disconnection (spatial distance, noise barrier and dense vegetation) from the large-scale housing neighbourhood Paunsdorf and the singular connection to the supergrid, make it seem like those new neighbourhoods were plugged to the supergrid – the carrying network of the city.

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Even though the large-scale housing neighbourhoods of the GDR were made for individual car use, the scarcity of cars in the socialistic state made the tram the most important network connection for those growth spots.

Morphological Structure

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C39

The morphological structure of Paunsdorf is characterized by large open surfaces and open blocks. The same additive charter that applies to the entire neighbourhood, applies to the large housing units, which form the blocks.

The housing units are mono-functional. The neighbourhood is equipped with social services, such as kindergartens, different schools and community centres. Beside those centralities, two economic cores appear in the morphological structure. Both are only for the supply of the neighbourhood.

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C38

The entire neighbourhood is embedded in an open landscape at the former city boarder. Allotment gardens create a form of transition. Those gardens were originally an invention of

the industrial revolution. Founded 1865 in Leipzig the Schrebergärten had various purposes: it was meant to educate children, to provide a near-natural place for the family and in times of poverty to provide additional food supply. The small plots are in private leasehold.



Typology

The typologies of the large-scale housing units vary little. The standardized production allowed high efficiency in costs and building completion. In the same rational approach the flats are design for efficient housing. The buildings are oriented towards the streets and the parking lots.



Image 15_Paunsdorf

The social units as well as the supply units in the neighbourhood got their own typologies and stand out due to their lower building height. Very few of the large-scale housing units have additional front buildings. Those allow the use of the ground floor. Those accommodate smaller shops with neighbourhood orientation and social facilities.



Image 16_Large scale housing embedded in the landscape at the edge of the city
SLUB/Deutsche Fotothek, Norbert Vogel

4) Neoliberal Capitalism

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C41

Network Structure

The development of Leipzig since the late 1990s is characterized by the city's global economic orientation. In order to strengthen the position as a national infrastructure hub, the extension of the highway network and the airport illustrate Leipzig's attempts to provide optimal location conditions in order to attract globally oriented economic activities.

The supergrid is the backbone of this development strategy. And the zoning like allocation of business and industrial parks along the northern highway complements the city's approach: offering large pieces of land directly at the main transport infrastructure, which leads directly to the airport and connects the business parks directly to the rest of Germany and Europe.

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C44

Studying the land use plans since 1990, one can clearly see how Leipzig growth and development takes place most intensively along the supergrid and the edges of the city. Those developments are globally oriented and detached from the city and its neighbourhoods. The new fair ground, shopping malls, the distribution hubs of DHL and Amazon and the production facilities of the car manufacturers are such businesses, which are dependent on the Leipzig's well connected transport infrastructure, but otherwise show little connection to the city and the life in it.

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C43

Even though the intensified zoning and functional separation fragmented the edges of the city and increased the need for individual transportation, a train tunnel underneath the city centre was built in order to improve public transport and to connect the terminus station directly to the Southern parts of the rail network.

Morphological Structure

If one compares the growth spots of each cycle to each other, the neoliberal developments stand out due to their morphological structure.

Regarding scale and size, the neoliberal developments in Leipzig appear to be larger than the previous developments. The change in scale becomes most obvious if one compares the BMW production plant to the settlements, which surround it. This has to do with the increased spatial demands of the production facilities and the general profitability of larger developments.

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C42

The morphology of those areas is characterized by large open surfaces, large detached buildings and monofunctional use. In the morphology, the underlying zoning finds its spatial expression: conflicting spatial interests are avoided by the separation of functions. The resulting designation of those areas for a sole function causes their monofunctionality and increases transportation demands.

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C46



Image 17_New fairground (right) and DHL hub (left) in the North of Leipzig at the Highway 14 close to the airport
Stadt Leipzig (2009): Blaue Reihe. Beiträge Zur Stadtentwicklung 41

Typology

The typology of those areas is in one line with their purpose of undisturbed functionality. Size and typology are exclusively designed to enable most efficient functionality. Mono-functional buildings and building complexes are the result. The orientation of the buildings is dependent on the transport infrastructure and the internal logics of efficient functionality.



Image 18_Suburbanisation in Taucha at the North-Eastern boarder of Leipzig
Bing.com 2018

Summery

The spatial analysis of Leipzig's capitalistic cycles in terms of network structure, the morphological structure and typology has shown how the various accumulation strategies produced different spatial systems in the city of Leipzig.

Network Structure

Through the different cycles it could be observed how the connection of the economic activities to Leipzig's supergrid changed. The economic core of mercantile Leipzig was the market – the exact crossing of the old trade routes. The new economic cores in the industrial Leipzig emerged in close proximity to the superior hierarchies of the supergrid due to their global production orientation and external resource demand. But above, they were allocated close to the new infrastructure technology; the train network and its stations. Again the reason lies in the orientation and demands of those economic activities. The same applies for the introduction of canals as means of freight and resource transportation. With the introduction of the car as the mass mean of transport, the economic activities of neoliberal Leipzig allocated along the superior hierarchies of the supergrid. The arterial roads connecting the city to the highway system and the highway intersections became the focus points of economic development. Because of the direct connection to the airport and the highway system, the North and North-East of the city attracted economic activities, and especially the logistic and distribution sector. The demand for a good connection to the highest levels of Leipzig's supergrid, national, transnational and global transport networks is rooted in the global orientation of those economic activities.

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The various cycles showed different connections and treatments of the supergrid, depending mainly on the orienta-

tion of the economic activities but also on the main mean of transport at the time. The increasingly global orientation of the economic activities within the city also explains an increasing importance of transport networks apart from the supergrid.

Morphological Structure

Throughout the capitalistic evolution the accumulation strategies have been striving for increasing rationality and efficiency in the production process. In Leipzig, this phenomena could be clearly shown by the detachment of economic activities and housing. Mercantile Leipzig was highly diverse in functions with particular economic cores. Industrial Leipzig showed first signs of the detachment of working and housing. Due to the limited mobility of the workers both functions still needed to be in close proximity to each other; often in the same neighbourhood. In post-war as well as neo-liberal Leipzig those two functions became completely separated. In those developments the idea of maximum rational and efficient production becomes most obvious: in order to produce without limitations, which might arise from conflicts between housing and working (e.g. noise and smell), the functions were detached from each other and the neighbourhoods became singular in use. That also means, that the complexity of the neighbourhoods decreased with the increasing strive for rationality and efficiency as well as the increasing division of labour.

Another observation regarding the morphological structures of the different cycles is the change in scale of places for economic activities. The passage system of mercantile Leipzig increased the limited economic space (market and supergrid). While the trade and fair houses and their passages were still

integrated in the medieval blocks of the inner city, the spatial demands for industrial production increased drastically. Entire blocks were used for those economic activities. With neoliberal capitalism the spatial demand for the increasingly globally oriented economic activities in Leipzig increased again. By the application of zoning laws, areas as large as entire neighbourhoods were dedicated for either mono-functional production or housing.

The successive increase in size and decrease in spatial complexity, thus functional mix, also led to increasingly monotonous urban areas.

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Typology

The de-coupling of economic activity and housing – the separation of functions in favour of maximum production liberty – was also shown in the development of Leipzig's typologies. The opportunity for the economic use of the building's ground floors has vanished with the capitalistic evolution, its new spatial demands and conflict prevention strategies (see above). The complexity of the typologies decreased parallel to the decrease of spatial complexity.

A change in scale regarding the typologies could also be observed. With the specialisation of work a strict differentiation between the typologies became possible. Compared to the trade and fair houses, which often included housing and which were used by different economic activities, typologies of production were custom made for the economic function and increased in scale. The same applies to housing typologies until Leipzig's economy became neoliberal. The GDR mass housing – even though it was not of a capitalistic nature – was the strive for pure rationality and efficiency in

housing and the production of housing. But with neoliberal capitalism the size of housing units decreased – even though the living space demand increased – due to the opportunity to buy private property in the suburban outskirts of the city.

Apart from the comparison of the areas under observation regarding their network structure, morphological structure and typology, all of them have changed from their original form (original accumulation strategy). The development of the city in the capitalistic cycles did not just added new areas according to the new accumulation strategies and economic demands, it also stimulated changes of the existing neighbourhoods according to the economic transformations. This means, that the capacity to facilitate an economic transformation must already have been inherent in the existing urbane structures. The presence or absence of this capacity can be determined by the current (economic) uses of the original structures, which especially in the mercantile and industrial areas vary from the original. This observation leads to two hypothesis:

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1) The connection to the supergrid and the complexity of morphology as well as typology of the different areas determine their capacities to facilitate economic transformations, hence to serve new economic demands.

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2) It also seems that globally oriented economic activities tend to be larger in scale, allocate in mono-functional and less complex areas and strive for a good connection to the supergrid and international transport infrastructure. Those areas have the least capacity for adoption to new economic demands.

Finally, the theoretical assumption that cities are products

of economic developments could be approved. The spatial becoming of Leipzig is fully embedded in the cyclic development of capitalism. Its current form and spatial structure, as well as its development within the last 300 years, must be seen as a product of the capitalistic development. Current Leipzig is a product of capitalism.

IV. THE DAY CAPITALISM FAILED

A Socio-Economic World Order...

In the previous chapter Leipzig's spatial development has been analysed in accordance to its economic evolution. The analysis was focused on the city's development in the growth phases of the four capitalistic cycles – the phases of large urban growth. But what exactly is capitalism, how can it be defined and described?

In the following section a definition of capitalism will be given and its nature will be described. Due to the complexity of capitalism, this classification is without any claim to completeness. Nevertheless, it will be comprehensive enough to provide an operational frame.

Capitalism is a complex and dynamic historical phenomenon and thus can only be understood through its cyclic development. It can be defined in different, but necessarily connected, consecutive and mutually reinforcing, ways: as an economic order, a social order and an ideology. Therefore, one can call capitalism a form of comprehensive social organization based on the principles of scarcity and rationality, striving for endless growth.

A historic phenomena

Within capitalism's dynamic evolution, beginning in Europe in the 18th century, different stages of development can be identified. This evolution in time took place in a constant, repetitive pattern: the development from mercantile to industrial, to post-war, to neoliberal capitalism occurred in a cyclic form. Each cycle is based on a technological key innovation, shows stages of constant growth (Equilibrium), crisis and decay (Inequilibrium). Further, each cycle has a higher input-output-ratio as well as a higher energetic level than the previous one.

With the beginning of capitalism's development as an economic order, the consecutive stages of development are all rooted in the key idea of endless private capital accumulation and economic growth. In the same way, all of them are also based on the principles of efficiency and rationality. The differences between the cycles on the other hand, occur due to the different economic productivity and accumulation strategies, as well as varying main economic sectors. Further, the socio-political contexts, which are generated, or at least highly influenced, by the cycles varies: the previous cycle influences it by its decay, and the following by its key innovation. The link between economic and social development is not exclusive for capitalism, since economy can simply be defined as a form of social relations. However, capitalism shows an extremely close connection in economic and social developments, which has to do with its ideological nature, which will be explained later.

In that sense, each capitalistic cycle can be characterized as a stage of development in terms of capitalism's mode of operation as a social and ideological order. The higher cycle is characterized by a higher degree in appearance as a social and ideological order. Hence, contemporary neoliberalism as the most developed capitalistic cycle is, compared to its previous forms, the most ideological one with highest impact on its own socio-political as well as cultural context.

Furthermore, the different cycles show different forms of regulation: while previous cycles have been regulated by external forces (institutions, politics, philosophy, law, role of the national state, territorial organization), contemporary capitalism shows a distinct approach towards self-regulation (Glunk 2017). Those regulations organize the respective cycle's markets, define the degree of commodification (Po-

lanyi 2001), organize the distribution of benefits and thus create the cycle's social framework.

The limiting forces also show different power relations in different stages of capitalism's development, representing an overall power upshift in time. Striving for growth, self-regulation and commodification are aspired through the systematic disempowerment of external regulating institutions (Glunk 2017). Thus, increasing self-regulation, disempowerment and oligarchic power structure are characteristic for the capitalistic development. The most self-regulated cycle with least external market interference and regulation can be seen as the purest form of capitalism, since it has the least (external) obstacles to maintain endless growth. By de facto generating its own rules and thus socio-political context, neoliberal capitalism is closest to its original idea: it is the purest and most unrestricted form of capitalism, interfering in nearly any aspect of life (complete commodification), operating on the logics of economic rationality and endless growth. The neoliberal idea can therefore be seen as the base concept – the heart – of capitalism, revealed and brought into action through capitalism's cyclic development.

Economic Order

As an economic order, capitalism always operates under the condition of scarcity. Its key imperative is the endless accumulation of profits (Wallerstein et al. 2013) and in result endless growth. The main productive factors are land, labour and capital, from which surpluses are appropriated. In order to create surpluses out of their use, profit generation is of fundamental importance (Marx 1887). Scarce use-value is turned into exchange-value through the process of human labour with the aim to generate surplus in the input-output

value-ratio; respectively a higher sale price than production costs – profits.

The entire process of production is meaningless without a market – an organized exchange where demands (consumption) and offers (production) can meet. Therefore, capitalism is not just based on the process of profit generation but on consumerism. It is one of the preconditions for production and thus profits. In here, capitalism’s feature to act simultaneously in different modes of operation – as a economic as well as social order – can be surveyed: by literately advertising the idea of free individuals and free markets as the basis of social life – paradoxically an order to guide social relations – through the theoretically unrestricted (free) satisfaction of (material) needs, consumption and production are simultaneously stimulated in neoliberal capitalism. The result is constant economic growth, while resource consumption (producer) and individual debts (consumer) are increasing.

Capitalistic Cycle	Main Mode of Transportation	Transport Infrastructure	Energy Resource
mercantile	horse, ship	trade routes (land & water)	wood/bio-mass
industrial	train	train network	coal
post-war	car	highway	oil
neoliberal	all + data	all + information infrastructure	all

Image 20_Development capitalistic cycles, main modes of transportation and energy resources

Apart from markets and consumerism as preconditions for a capitalistic economy, rationality plays an important role. The concept of economic rationality can be described as capitalism's basic ground of argumentation on which decisions are made – its own ethics. This manifests itself in one of capitalism's inherent structural components: an advanced capitalistic system is characterized by a high degree of division of labour (Marx 1994). Following the principle of economic rationality through efficiency, the labour and production process is subdivided into many little, monotone, highly specialized steps. On the one hand, this enables a fast, cheap and easy to control production processes. On the other hand, it also allows the production subunits of one product at different places. In turn this enables a global production and consumption system: following the principle of rationality in order to increase profits, production is taking place where costs are lowest, while distribution of the product and its consumption is mainly where the prices are highest.

This hegemonic expansion logic of capitalism also follows the principle of economic rationality through efficiency: long distance trade was one of the first capitalistic methods to increase profit rates: a product's exchange-value grows due to the extra labour required for long distance trade (Braundel 1984). Further, a widespread, global network of related producers and consumers also opens up new markets for disposal of products and exploitation of resources. In that sense, neoliberalism as the furthest developed capitalistic cycle and purest capitalistic form has created a global network of production and consumption, of interrelated capitalistic markets and of economic dependencies in order to increase the profit and growth rates.

The evolution of capitalism as an economic system relies on the technical key innovation of each cycle. Those are the most influential technologies stimulating further technological innovation, new markets, new profit opportunities, new accumulation strategies and thus new growth rates. Technical innovation can be seen as the driving wheel of capitalism's development. If expansion, profit and growth are the integral capitalistic imperatives, technological innovation cannot just be seen as the artifactual externalisation of the human development as social beings (Stiegler 2004), but as economic self-purpose. The need for specific technological developments is not autonomous anymore (Illich 1975), but defined by the pursuit for profits and integrated into societies through consumerism.

Here again, one can observe how capitalism is acting not just as an economic, but also as a social order. Especially the development of transport infrastructure illustrates the role of key innovations in capitalism's historic development (Braundel 1984, Arrighi 1994). The transition from rail based to motorized transport networks shows the innovation-driven evolution from industrial to post-war capitalism and gives a hint on the nexus between capitalistic and spatial development. Within this transition the physical infrastructure networks changed fundamentally and with it the urban structures and growth directions.

An increasing energy demand is also characteristic for capitalism's development in innovation-driven cycles. While capitalism in general is characterized by its dependency on fossil fuels (Bookchin 1965), each cycle shows specific main energy resources, fuelling the main transport infrastructure and production.

The capacity to create new markets through technical innovation as well as expansion is characteristic for capitalism's most incredible feature: its ability to find, commodify and exploit socio-economic niches; to adapt to changing external conditions. In this process – as well as in the entire cyclic development –, the crisis as a moment of *Selbstreinigung* (Streeck 2014) is an important feature: after a major market failure accompanied by decreasing growth, capitalism creates new profit opportunities by tapping new markets through commodification, new technical (key) innovations, new accumulation strategies and self-regulation¹.

After every crisis, the call for self-regulated markets appears to be an appropriate solution to restore growth. In order to maintain growth rates, the regulatory function of capitalism's antagonistic powers and institutions, which is supposed to prevent the commons from commodification, is diminished further with every crisis (Streeck 2014). But the tapping of new markets bears the threat of commodification of the commons, which means the creation of market-like, asymmetric access conditions to public goods, resulting in socio-economic inequality (Polanyi 2001). Thus, neoliberalism as the most developed and purest form of capitalism shows the highest degree of commodification and therefore the highest socio-economic inequality (Piketty 2014). Again it can be observed how capitalism as an economic order interferes in the socio-political realm.

¹ Interestingly, economic-liberal forces have been arguing over and over again that self-regulated markets would be more robust than externally regulated ones, even though the frequency and intensity of the latest crises – the ones in the most self-regulated neoliberal form of capitalism – have been increasing and systematic failure could only be prevented by external interventions.

The role of the national state in capitalism and its development brings us close to capitalism defined as a social order. The national state, defined as a social construction to organize contradictions in society (Engels 2004), is of vital importance for capitalism in two ways: on the one hand, the state provides territorial sovereignty as a precondition for resource extraction, and thus production. On the other, it organizes the distribution of benefits and thus legitimizes capitalism as the dominant economic model. Organizing distribution patterns to fulfil the Mandevillean promise of turning private into public benefits (Streeck 2014), the national state legitimizes capitalism's existence as the sole socio-economic model. Without this effort, the reversed top-to-bottom distribution fosters increasing socio-economic inequality, leading to instability and decreasing legitimation of the economic model (ibid.).

Beside the distribution of benefits, the national state's territorial sovereignty, described as its ability to provide infrastructure, law, knowledge, human capital as well as its power to act – also referred to as geo-power (Parenti 2013) –, is of vital importance to maintain capitalistic production and resource extraction. Thus the national state's territorial sovereignty, hence the national state itself, is a precondition for capitalism, for capital accumulation and profits. The process of colonisation illustrates the relation between an expanding and resource-demanding capitalism and respectively aggressive and hegemonic acting national states: geo-power, national sovereignty and economic order were imposed upon peripheral countries primary to support resource demands of the core economy and second to exploit new markets.

Collective welfare – a fundamental value or aim of any modern national state – is not one of capitalism's goals. Rather,

it is a side-product of individual accumulation of capital, profits, wealth, benefits and income (Streeck 2014). The national state itself developed parallel to and through capitalism; it changed its role from a regulative to a compensating body and is disempowered further as capitalism develops (Parenti 2013 according to Moore). Nevertheless, capitalism's development would not have been possible without the national state and still relies on it, since the state's power monopoly – especially the power to use physical violence (Weber 2004) – secures the benefits, profits and power of the economic elites.

Social Order

Going back to the assumption that economy in general is a form of social relations and under the impression that capitalism as an economic order influences and even generates its social context, capitalism must also be defined as a form of social order. Since the two modes of operation occurred and emerged parallel, the same economic key principles must be in operation: endless accumulation of individual profits and thus growth, resource scarcity and rationality.

In order to understand and define capitalism as a social order, I will start looking at the neoliberal connotation of (individual) freedom. Free, self-regulated markets are a desirable state in the capitalistic development and reflect capitalism's purest form. Through the idea of endless economic growth enabled by free markets, freedom plays an important role in the neoliberal ideology. Neoliberalism creates the promise of individual freedom and free societies as an equivalent to free and self-regulated markets. It promotes the idea of free markets, thus economic prosperity, as a precondition for free societies and individuals.² Thereby, neoliberalism – as any other capitalistic model before – strongly influences and even creates

its own social context, in which economic relations and their organization are not just dominate but normative for other social relations.

Striving for endless economic growth and free markets through the promise of individual and societal freedom, the principle of (economic) rationality becomes of high importance for the organization of capitalistic societies. Instead of decisions regarding social relations and distribution mechanisms being based on ethical discussion, rationality is the ultimate argument in a neoliberal social discourse. One can observe this phenomenon, looking at the development of artefacts in the time of modernity. The artefact in general can be understood as the externalised expression of a particular state of Dasein and thus particular social relations (Stiegler 2004).

Before the triumph of modernity, design and architecture could easily be associated with a certain culture or society. However, those artefacts became more homogeneous with the developing capitalism. Behind this strive for artifactual, thus socio-cultural, homogeneity lays the capitalistic principle of rationality: design became less decorated, edged and distinguishable but more minimalistic and efficient to suit a lar-

² The question in how far societies and individuals can be free in a socio-economic system, that defines individuals as economically exploitable subjects, as producers and consumers, remains open. If my time is occupied by labour, one could say I am at least free to consume and satisfy my desires. But the socio-symbolic, material needs you want to satisfy one are not necessarily autonomous anymore. Psychologically optimized mass advertisement is strongly influencing our daily decision-making and especially our consumer behaviour. Your decisions and actions are less yours than you would expect. But in times of big data things have changed: your consume patterns as well as your path dependent future decisions became calculable, therefore manipulable and thus controllable. Thinking to be free within neoliberalism is not simply an erroneous belief; it is exactly what someone else wants you to think.

ger group of – initially socio-cultural different – consumers. In order to create homogeneous consumer groups, in which one product meets uniform desires and thus can be sold more often without changes in design or production, socio-cultural differences are challenged by neoliberalism's artificial desires promoted through advertisement (Stiegler 2017). Based on the economic principle of rationality and in order to increase profit rates and economic growth, capitalism in its purest, neoliberal form creates homogeneous societies.

Within such societies the role of the individual is clearly defined: individuals are economically exploitable subjects acting as producers and consumers. Capitalism as a social order is not interested in creating community or common wealth. The promise for individual freedom already implies the high meaning of egocentric individuality within capitalistic societies. The pursuit for endless profits and growth is an individual endeavour.

Based on this individualistic perspective, capitalistic societies tend to be highly competitive. Following the logics of scarcity and rationality, individual and societal prosperity can only be reached through competitive success (Žizek 2014). Success becomes a matter of (self-) optimization. Acting as a producer, the economic subject increases its efficiency to become more successful. A fully rational approach to increase productivity.

In the same sense, consumer societies are the societal expression of capitalism as a social order. Individual freedom is largely connoted to the subjects financial abilities, meaning that only competitive success, which is measured in individual profit accumulation, enables to be free – to participate in the consumer society. In its endless strive for profits, capitalism

creates external, materialistic needs. Those are the impulses to consume the produced goods, which in return demand further production and in the end serve individual profits. In the contrary to autonomous needs (Illich 1975), those external needs do not come from the individual itself, but are imposed by societal – capitalistic – norms.

A social order which operates on the principle of scarcity and which creates competitive societies can only fail to provide the initial goal of every society: a good life for all (Exner & Lauk 2012). Instead, only a few will win in this competition, while the majority will lose. The few winners will become profiteers of the appropriation processes, whereas the rest will be excluded from the benefits and profits of the winners. Therefore, capitalism as a an economic and social order is characterised by systematic inequality appearing on various scales.

Further, the competition of the free individuals against each other destroys the foundation of healthy communities: their ability to organize themselves (Anders 2017), which in short is solidarity. Capitalism as a social order continues to break down societal relations and thus disempowers the different societies. It is a societal system, which disempowers its subjects and shifts this power up by the processes of accumulation and appropriation. The power concentrates it in the hands of few, whereas the power structures at the lower level is systematically hollowed out (Read 2018).

Ideology

The reason for capitalism to appear in different modes of operation lies in its transcendental character. Even though the entire history of capitalism is a repetitive story of crisis

and systematic inequality, capitalism is still constituted to be the best – or more precisely the most efficient – system to organize social life and economic distribution. And in here one can identify capitalism – and especially its purest form neoliberalism – as an ideology. And as an ideology neoliberalism claims to be without alternatives – being the only, universal truth.

With this claim of being the universal truth, neoliberal ideology affects all aspects of life; colonizing our minds and thoughts. In fact, the idea of neoliberalism as the only truth with rationality at its core is quite persuasive. Instead of complicated truth-finding processes, neoliberalism as an ideology becomes a quite simple and basically irrefutable decision making tool to solve social contradictions. If the argumentation is rational – if the strive for profits can remain endless and undisturbed –, it must be true. Or in different words: When the (capitalistic) economy is doing well, we do well.

Needless to say that this idea is useless, because capitalism is a system, which reproduces asymmetric power structures in which only few profit. The claim for rationality in socio-economic matters can only rendered to absurdity, if the larger goal always remains endless profit accumulation and the protection of unequal power structures – irrational rationality.

As an ideology neoliberalism is constantly oppressing its opponents. Claiming to be the only truth means to negate other alternatives. Thereby, neoliberalism becomes a hegemonic system, striving for expansion and the limitation of its possible alternatives (Streeck 2014). Defining opponents, denying them and dissociate oneself from them is needed to define and legitimize neoliberal capitalism as the dominant and sole ideology.

Since the ruling class – the powerful capitalistic profiteers – is only interested in remaining its power, the neoliberal ideology does not allow powerful alternatives to exist parallel. Alternatives can only exist as long as they are not incorporated by, meaning integrated in, the capitalistic ideology. Capitalism's outstanding feature to adapt to changing conditions is expressed in the process in which it imposes its logic of exploitation on its alternatives. The commodification of alternative relations and ways of life becomes a necessity for the alternative. At the same time, the existence of the alternative within the ideological limits of capitalism, disempowers the alternative. The alternative is mitigated, while the capitalistic ideology has taped a new field of profits.

The result of this hegemonic set of ideas, which have become omnipresent in daily life, are the increasing assimilation of lifestyles – the standardization of culture and their artificial expressions. In the guise of individuality and personal freedom our lives become more aligned than ever. In result an increasingly homogeneous mass of producers and consumers, with a shared ideology, similar life styles and similar desires. This standardization process, a result of a hegemonic ideology with the claim of universal truth, becomes most obvious if one looks at the settlement type this ideology has produced.

If one considers the environment – but especially the built environment – to be an expression of a specific socio-economic context, or more precise the superimposition of varying socio-economic contexts and their ideologies behind, the city, and its current expression as the phenomena of global urbanization, is the settlement type of capitalism. Seemingly endlessly growing, the city is the dominant organization pattern for a society in a neoliberal ideology. The built struc-

tures represent social hierarchies and the asymmetric power relations fostered by neoliberal capitalism. Its organization is based on the principles of rationality and efficiency, whereas the increasingly segregated neighbourhoods are an expression of individual socio-economic success in a competitive society. Access to city, and thus participation in societal life, has become a matter of obeying the neoliberal ideology.

The problem with any transcendental ideology is exactly the point that it claims to be the only truth. Bernard Stiegler put ideology on one level with stupidity. He argued, that ideology “is this destruction of the ability to rethink ideas” (Turner 2017: 97). That means, that ideology destroys or neutralizes alternative desires and ideas, which leads to a decrease in openness to change (ibid. 94). So by incorporating alternative desires and ideas through forced commodification, capitalism systematically destroys the capacity to change and hence enforces stupidity.

Doing so, capitalism reduces its own capacity to adapt. Without truly alternative desires and ideas – those existing outside the capitalistic mindset – the system loses the ability to change and cannot develop further. This de facto standstill becomes highly problematic, if one asks for the reasons for adaption and development itself. If one takes Hegel’s idea that any developing system is embedded in a larger (developing) system and that any system relies on the limits of the latter (Biehl 2010: 8f), the reasons for a system, characterised by the ability to change and adapt, are the dynamic limits of the natural environment. Any ideology, which lost its ability to develop, change and adapt, must fail at the natural limits of its larger system.

Capitalism has been introduced as a dynamic, historical phenomena, striving for endless profit accumulation and growth. As a power system it operates as a social and an economic order. Further, it can be characterised as an global and hegemonic ideology. Even though this system has been in operation for more than 300 years, its characteristics make the entire system appear vulnerable to its own contradictions. The following section will examine the possibility of capitalism's failure due to its systematic errors. We will "[...] think again about capitalism as a historical phenomenon, one that has not just a beginning, but also an end" (Streeck 2014: 45).

... And its inevitable end

Introduction

While an increasing debate about the new geological era of the Anthropocene – were parts of humanity have become the most influential factors affecting the state of the biosphere (Crutzen 2002); often linked to changes in the global climate – is taking place, former Guardian writer Nafeez Ahmed wrote in 2015 that “[c]limate change is merely one symptom of a wider Crisis of Civilization” (Ahmed 2015). He argues that the infinite growth model of contemporary capitalism is simply not sustainable – neither in an ecologic, nor in a social sense. Basing his argumentation on the international study *Planetary boundaries: Guiding human development on a changing planet* (Steffen et al. 2015), which describes different Planetary Boundaries in which humans can act without destabilizing the Earth System, he states that capitalism in its temporal form is destabilizing the entire Earth System and thus destroys the (natural) conditions for human life. In that sense French philosopher Bernard Stiegler describes the new era as the Entopocene: the state in which the biosphere’s entropy increases drastically due to (toxic) human impacts (Stiegler 2017). US economist Christian Parenti carries forward, stating that the toxic human impacts, which Stiegler describes as the disturbed relation between humans and their technics under the capitalistic order (Lemmens & Hui 2017), are in fact the capitalistic production and consumption patterns, leading him, among others, to the terminology *Capitolocene* (ibid.). What is noteworthy about this seemingly trivial terminological debate is the blunt remark that not humanity but capitalism in its current form is actually destroying the basis for human life on earth – capitalism as the reason for or even the Crisis of Civilization itself.

The paper on hand will not elaborate on the manifold symptoms of this global crisis. It rather tries to outline the debate between economists, social scientists and philosophers, among others, on the end of capitalism that revived after the last major economic crisis in 2008. Within this debate one finds different lines of argumentation, according to the different ways current socio-economic trends and historical developments are analysed, understood and interpreted. In order to get access to this debate, I will exemplary illuminate Wolfgang Streeck's¹ comprehensive argumentation on the end of capitalism with special regard to his recognition of capitalism's legitimation crisis and its systemic disorders. Mainly referring to Streeck's fundamental paper *How Will Capitalism End* (2014), it will be shown that a transformation of the current economic mode of production is already taking place, which will lead to the inevitable end of capitalism. Despite the different lines of argumentation in the debate, Streeck's interpretation and argumentation is exemplary for the entire discussion, since other reviewed scholars (Latouche, Wallerstein, Sachs, Parenti, Stiegler, Piketty, Mason, Parenti, Srnicek, Williams, et al.) do have complementary and relational arguments to Streeck and above commonly agree on an inevitable major transformation of capitalism.

From the perspective of spatial planning and design – a discipline concerned with the organization and development of space; projecting development into the future – such a drastic transformation in the economic model raises the question

¹ Wolfgang Streeck was Director of the Max Planck Institute for the Study of Societies (1995–2014) and is a renowned economic sociologist and political economist. He is focusing and extensively publishing on current capitalism and the democratic state. Among his latest influential publications are *How Will Capitalism End: Essays on a Failing System* (2016), *Buying Time: the Delayed Crisis of Democratic Capitalism* (original 2014), *Politics in the Age of Austerity* (2013, with Armin Schafer) and *Re-Forming Capitalism* (2010).

of possible meanings for the spatial reproduction and the role of the discipline itself. Naturally, those questions cannot be answered within the limits of this paper, but I will argue that the consideration of such a fundamental change among the discipline of spatial planning is as inevitable and urgent as the economic transformation itself. Spatial planning and design can be seen as tools to materialize and spatialize economic growth and thus reproduce capitalistic imperatives. I will argue, that if those imperatives belong to an economic system in decay, their current spatial reproduction generates solutions, which will not meet future (socio-) economic demands and thus produces future frictions between spatial and economic development. Therefore, the paper calls for an exploration of space after capitalism and the disciplines reconsideration as a territory-making tool.

The economic sociologist Wolfgang Streeck sees “[...] capitalism, as a social order held together by a promise of boundless collective progress, [being] in critical condition” (Streeck 2014: 63)² and states that the process of its transformation has already started. His work is focused on the analysis of the contemporary decay of the system, which he claims to be a consequence of the disempowerment of its antagonists (ibid. 54). In that sense he is following Geoffrey Hodgson’s point that capitalism can only exist as long as it is not fully capitalist (ibid. 50). Consequently Streeck points out five disorders of contemporary capitalism resulting from the disempowerment of its limiting counterforces. Those disempowe-

² In order to assess if capitalism has destroyed itself yet, Streeck defined capitalism more detailed as “a modern society that secures its collective reproduction as an unintended side-effect of individually rational, competitive profit maximization in pursuit of capital accumulation, through a ‘labour process’ combining privately owned capital with commodified labour power, fulfilling the Mandevillian promise of private vices turning into public benefits” (Streeck 2014: 48). Another, more economic, definition of capitalism comes from Immanuel Wallerstein, who defines a capitalistic system as characterized by “the persistent search for the endless accumulation of capital” (Wallerstein et al. 2013: 10).

red counterforces, he claims, destabilize the entire capitalistic system, reduce its ability to adapt – the one key property that made capitalism that successful in history – and consequently will lead to its self-destruction. Underpinning his assumption he identifies three major socio-economic trends, which, as he claims, are the expressions of an on-going phase of Inequilibrium³ – a deviation from the historic pattern of capitalism’s cyclic development.

Disposal of antagonists

The baseline of Streeck’s interpretation of the current state of capitalism is that the stability of the system depends on its countervailing forces (Streeck 2014: 47), which, as he argues, have been continuously disempowered by the development of capitalism in time. Going back to Polanyi’s idea of markets being disembedded from society due to the commodification of the three fictitious commodities (labour, land and money)⁴, Streeck says that the limiting powers of post-war capitalism were crucial to protect those commodities from marketization.⁵ Moreover, they secured capitalism’s Man-devillean promise of distributing benefits from top (where

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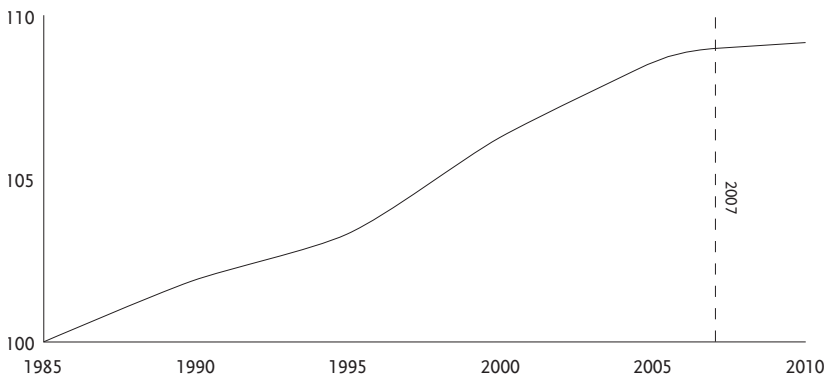


Image 21_Gini coefficient OECD average, 1985-2010
OECD Income Distribution Database. in Streeck 2014

capital accumulates) to bottom (where profits are created) – turning private into social benefits (ibid. 48). Both aspects, Streeck argues, were abandoned with capitalism’s evolution to its current neoliberal model and mark the beginning of capitalism’s end.

³ Arrighi describes this instable state in the capitalistic cycle as “turbulences” (Arrighi 1994: 9). It is broadly described as a temporary phase of recession after an economic crisis, characterized by no or only little (artificial) growth rates, increasing overall debts and greater socio-economic inequality.

⁴ In his book *The Great transformation* (1944) Austro-Hungarian economic historian Karl Polanyi tried to understand the reasons for failure of European civilization (WW I, global economic crisis, fascism) and found answers in the generalization of market principles: “Instead of economy being embedded in social relations, social relations are embedded in the economic system” (Polanyi 2001: 57). He saw free and self-regulating markets as a utopia that would “[...] depress human activity, exhaust nature and render currency prone to crisis” (Sachs 2013: 18). He was an advocate of regulated markets and pointed out three fictitious commodities – money, labour and land – to need special protection from market forces because they were embedded into society. Any commodification of those segments would, according to Polanyi, negative effects on society and nature. Following this logic, he interpreted fascism as an attempt to bring order into capitalistic chaos – an interesting parallel to current global political trends of separation and nationalisation.

⁵ According to Regulation Theory Andy Marrifield described the phenomena quite precise: “[...] every regime of accumulation requires a corresponding “mode of regulation,” [...] each needs one another just as base and superstructure.” (Marrifield 2014: 118)

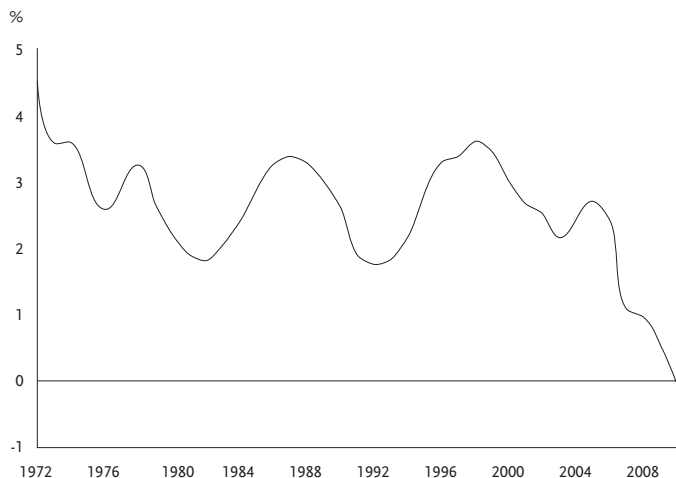


Image 22_Average growth rates of 20 OECD countries, 1972-2010
 OECD Economic Outlook: Statistics and Projections. in Streeck 2014

According to the Keynesian idea of a fair or moral capitalism – the ideological base of social market economy – steady economic growth and social equality could be achieved simultaneously by a regulated economy (Streeck 2014: 41). However, the neoliberal model of capitalism⁶ disempowered its regulating institutions, which were supposed to organize and guarantee the top-to-bottom-distribution of wealth and benefits. By disempowering those institutions neoliberal capitalism freed itself from constraining limitations – turning the top-to-bottom into a bottom-to-top distribution.⁷ The effects of the reversed top-to-bottom distribution are the concentration of power and capital at the top, socio-economic inequality⁸ and in the long run social instability (ibid. 37). Here Streeck refers to the long-term trend of socio-economic inequality: statistics underpin his assumption that inequality has been rising since neoliberal capitalism has disempowered its antagonists with the effect, that major parts of wealth and profits are accumulated and distributed among a few, while the majority faces stagnation in income and wealth (Piketty 2014).

⁶ Neoliberal capitalism is characterized by Hayek's idea that free and unregulated markets, operating based on economic efficiency and rationality, would be most efficient and responsible (see Streeck 2014: 44). However, they turn around Keynes top-to-bottom-distribution and thereby foster capital accumulation and concentration among a few – a power-upshift. Those new and hardly democratic power structures prevent markets from (democratic) interference, regulations and limitations and increase socio-economic inequality.

⁷ For an extensive and sharp-tongued illustration of these processes within the financial sector and special focus on Goldman Sachs see *The Great American Bubble Machine* (Taibbi 2009)

⁸ French economist Thomas Piketty analysed historical changes in the concentration of income and wealth since the beginning of the industrial revolution. He came to the conclusion that wealth always grows faster than the economic output resulting in the concentration of private wealth in the hands of few – socio-economic inequality. (Piketty 2014)

By disempowering its own antagonists, capitalism breaks the Mandevillean promise and thereby weakens or even loses its legitimation as the dominant global socio-economic order – “ending its historical existence as a self-reproducing, sustainable, predictable and legitimate social order” (Streeck 2014: 48). Paradoxically, the broken promise that everyone would profit from economic growth has been – and still is – politically instrumentalized to justify actions in favour of free and unregulated (neoliberal) markets, which actually broke it in the first place. Various political institutions for example have justified the decreed and devastating austerity politics in Greece since 2008 as a necessity in order to fulfil new dreams of prosperity (Engelen et al. 2014).

Apart from securing socio-economic equality due to top-to-bottom distribution, counteracting powers and institutions are needed to limit and control the expansion of markets and hence prevent complete commodification in the sense of Polanyi. They are setting limits to the capitalistic Eigendynamik: its distinctive attempt to convert all forms of use-value into exchange-value endlessly in order to generate maximum profit rates. In the attempt of complete commodification the neoliberal model of capitalism disempowered its limiting institutions to expand its markets and drive commodification forward, resulting in a power shift to the top along with the neoliberal bottom-to-top distribution of benefits and profits as well as larger socio-economic inequality.

Capitalism’s attempt of “[...] freeing it from countervailing powers which, [...] had in fact supported it” (Streeck 2014: 50), led to the on-going commodification of Polanyi’s fictitious commodities, breaking the Mandevillean promise, resulting in socio-economic inequality, power accumulation at the top and thus the destabilisation of the capitalistic system

itself – the start of its self-destruction (ibid. 5). A symptom of this process, Streeck argues, can be seen in the detachment of capitalism and democracy (ibid. 40f), leading to political disruptions such as electoral fragmentation and the rise of populists.⁹ Further, capitalism without limiting antagonists will be ultimately self-consuming (ibid. 55), since its unrestrained natural endeavour to generate profits endlessly would simply be too resource intensive and in the end damage the earth's biosphere beyond repair (Sachs 2010: XI).

A systemic crisis – Capitalism's 5 disorders

According to Streeck, the current instable capitalistic system shows five particular, mutually reinforcing disorders (Streeck 2014: 55ff), which cause three negative socio-economic long-term trends (growth, debts and inequality) – the measurable results of the continuous crisis, the decay and the looming end of the capitalistic system.

Stagnating growth is the first disorder pointed out by Streeck that would lead to greater socio-economic inequality (Streeck 2014: 56). Following Robert Gordon that economic growth has always been driven by technological innovation (ibid. 56), Streeck argues that – deviating from capitalism's historic development pattern – information technology has not boosted economic growth yet (ibid. 56). A reason for this atypical behaviour of innovation in a potentially new capitalistic cycle can be found in information technology's specific price-making characteristics¹⁰ (see Mason 2015), which failed to boost new economic growth and thereby initiate a new phase of Equilibrium. Instead of a new capitalistic model emerging, neoliberalism continued to exist. Stagnating growth also undermines capitalism's legitimation, because endless growth and thereby increasing prosperity are one of its key characte-

⁹ In that sense, current global political trends such as the rise of the AfD in Germany (in national parliament since 2017), the Brexit (2016) or the presidency of Trump in the US (since 2016) can be understood as effects of further socio-economic inequality and power upshift due to the disem-bodded capitalism, resulting from disempowered antagonists, deregulation and commodification.

¹⁰ Some scholars in the discussion see the biggest threat to capitalism in the new production patterns. According to classic Marxism, prices are created by the combination of limited resource and limited labour – the labour processes adds value to the product, which is reflected in the profit rate of the capitalist (private owner) (Marx 1994) – in relation to the demand-supply-ratio (market). Automated production processes (infinite labour) and information technology (data as an infinite resource) allow theoretical zero-cost-production (one-time input and infinite reproduction) and thus counteract the entire value and profit making process – capitalism's core. The only way to create profits out of this new production circumstances and technologies is by artificial access restrictions (e.g. copyrights or data-storage monopolies). (see Mason 2015)

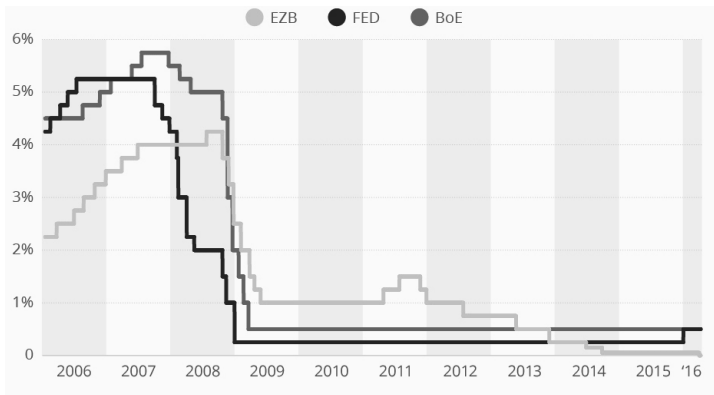


Image 23_Base rates ECB, FED and BoE, 2006–2016
Bank of England, Federal Reserve System, Bundesbank. Statista.com

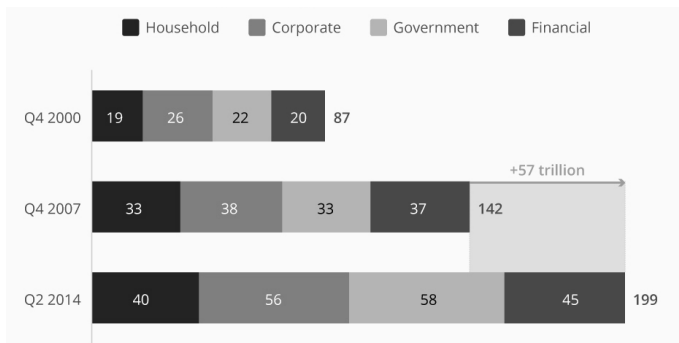


Image 24_Global overall debts, 2000–2014
McKinsey Global Institute. Statista Charts 2015

ristics and promises.

Apart from that, Streeck claims that due to the neoliberal bottom-top-distribution and prospective increasing automation in production any possible additions to growth “[...] would probably be cancelled out by what it would add to inequality” (Streeck 2014: 56). In opposition one could argue that current growth rates are still present, but this statistical phenomena does usually not tell about the location, level and condition of economic growth. Globally growth rates are lower than expected; even the economically promising BRIC states show slower growth than expected (ibid. 49). Beside the fact that current economic growth rates are on a lower level compared to times before the 2008 crisis, they also almost exclusively appear in the financial sector and not in the real economy. The exception is the construction and housing sector, which is commonly known to transform virtual capital surpluses into physical value. The reason for this particular economic growth lies of course in the persistent low base rates for investments and increasing debts.

Further, Streeck identifies stagnating growth rates as one of the on-going long-term trends to be a consequence of contemporary consumption patterns. Beside the question in how far consumption in capitalist societies has dissociated from autonomous needs (see Illich 1975), consumerism is of vital importance for the reproduction of capitalism (Streeck 2014: 55). Referring to Marxist’ underconsumption theory¹¹, Streeck explains the stagnation of growth rates in the real economy

¹¹ The concentration of accumulated capital, wealth and income at the top (neoliberal bottom-top distribution) creates a threat of underconsumption due to a lack of financial resources and thus purchasing power at the bottom (see Foster & Magdoff (2009); Marx 1994, Capital Volume III, Part III).

(ibid. 56). He also points out the paradox that growth is stagnating while consumption rates are still high. This paradox can be explained by the failure of information technology to boost the economy: instead of technological innovation, private debt became the motor of consumption. This deviation from capitalism's historic development pattern partly explains the long-term trend of rising overall debts – another indicator of capitalism's deep crisis.¹²

Stagnating growth leads directly to Streeck's second observation: increasing economic inequality – the third long-term trend. While small growth rates in the real economy mean stagnating incomes and wealth for the majority, alternative and largely uncontrolled profit opportunities – especially in Polanyi's fictitious commodities – promise huge returns and therefore grow continuously¹³. Of course the growth of these markets, and particularly the finance sector, is the personification of inequality itself: the financial crisis of 2008 revealed the oligarchic power structures in this dominant economic sector and the detachment of those economic elites from the collective (democratic) interests (Streeck 2014: 58f).¹⁴ The

¹² The other part of the explanation of the rise in overall debts relates to the behaviour of the state: neoliberal states tend to reduce taxes in order to attract global capital, while expenses to tackle negative externalities (inequality) rise, leading to an increase in state debt (see Engelen et al. 2014).

¹³ Arrighi described this phenomenon as following: "capitalists are interested in the expansion of production only if it's profitable" (Wallerstein 1995: 3). Therefore, he explains continuous higher growth rates in unregulated sectors (potentially higher profits) compared to more regulated ones (potentially lower profits). This tendency is deeply rooted in capitalism: Braudel explained capitalism's emerge and development in the economic sphere where profits were highest (Spence 1983: 2). Consequently capitalism's trade origin developed into a global system because long-distance trade promised higher profits.

¹⁴ According to Piketty's Grand Theory of Capital and inequality the concentration of capital and power will continue. In terms of inequality and power the future will look like the past before the welfare state – a "patrimonial capitalism" (Piketty 2014)

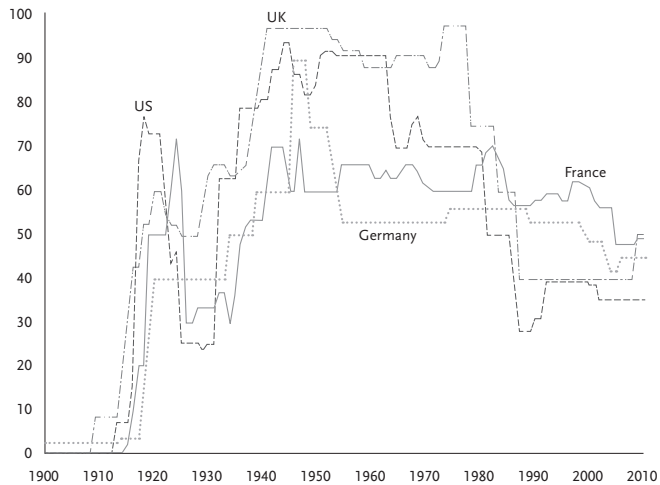


Image 25_Top marginal income taxes, 1900–2010
 Facundo Alvaredo et al.: The Top 1 per cent in International and Historical Perspective. in Streeck 2014

Committee To Save The World (Robert Rubin, Larry Summers and Alan Greenspan on the cover of *Time Magazine* 1999), among other powerful economic elites, were fighting to free the US economy and especially the financial markets from over-regulation, leading to the uncontrolled commodification of money. Ten years later, the resulting economic crisis in 2008 and its consequences illustrate Polanyi’s assumption that full commodification results in negative effects for the society: major profits for economic elites and stagnation or decay for the majority – detachment of the economy and increasing inequality (Polanyi 2001: 1f; Beckert 2007: 10).¹⁵

¹⁵ The crisis itself is nothing unusual to capitalism, in fact crisis are “[...] required for its long-term health” (Streeck 2014: 38). The *Reinigungskrise* represents capitalism’s capacity to adapt to new conditions – the feature that made its development so successful (see Mason 2014).

The ramifications of the 2008 crisis – the massive state assist for the finance sector with billion-dollar bailouts, emergency loans and historically low base rates financed by tax money, as well as the drastic cutbacks in social systems¹⁶ – illustrate Streeck’s third point: the plundering of the public domain through privatisation and underfunding (Streeck 2014: 59). Parallel to the evolution of capitalism the state developed from a tax-state, to a debt-state and further to an austerity state or a state in consolidation (ibid. 59). The development of the state shows the shift from the Keynesian top-to-bottom distribution to the neoliberal bottom-to-top distribution. The results of this shift have been the exploitation of the public domain, while – or even in order to finance – cutting down taxes especially for high-income groups and global economic players under the guise of stimulating national economic growth. Competitive tax breaks, designed to attract large economic players, lead to less fiscal revenues and thus to fewer resources to counteract negative (social) externalities. Or in other words: economic elites get the opportunity to save taxes on their individual profits, while at the same time the state is cutting in public and welfare spending. This paradox also indicates the current power relations between economic elites and the state. In that sense Lemmens and Hui remark pointed that “[..] national sovereignty is de facto eliminated and replaced by the dictates of the financial markets” (Lemmens & Hui 2017). The question in how far change to current neoliberal capitalism can be facilitated (e.g. regulations and limitations) under these conditions tends to an uncomfortable answer: it cannot; and thus capitalism will continue till it either damages the biosphere irreparably or simply collapses due its own contradictions.

¹⁶ For a deeper inside in the role of austerity in neoliberalism and its effects on cities see the afterword of Andy Merrifield’s *New Urban Question* (2014).

The redistribution due to the neoliberal revolution contradicts Weber's idea of an ethical capitalism¹⁷ in such way that Streeck thinks of it as the substrate for greed and corruption. Again he points out the finance sector as an economic environment "[...] where the largest firms are not just too big to fail, but also too big to jail" (Streeck 2014: 61).¹⁸ In the practise of taking advantages of the last bits of profit opportunities – no matter how dirty, unethical and illegal – he sees the moral decline of capitalism and interprets this as a sign for its end (ibid. 62). Latest disclosures on dubious tax saving practices and resulting tax inequality such as the Panama Papers (2016) or the Paradise Papers (2017)¹⁹ bluntly reveal the moral state of the economic elites within current neoliberal capitalism and their evident, blatant fraud against the public. The real question appearing here is when these injustices will extravagante.

Finally, Streeck identifies the current global political and economical chaos as a result of the absence of a geographic centre of capitalism, since the beginning power decline of the US (Streeck 2014: 62f). Interestingly and congruent to the capitalistic development, the US began to loose power in

¹⁷ Weber understood capitalism as being morally founded and thus not based "on a desire to get rich, but on self-discipline, methodical effort, responsible stewardship, sober devotion to a calling and to a rational organization of life." (Streeck 2014: 61)

¹⁸ Closing the legal proceedings on condition of a charitable payment due to a lack of time to process court files and evidence in the case of former German HRE bank manager Georg Funke (see FAZ 29.09.2017) is just the latest illustration of oligarchic power relations especially in the finance sector.

¹⁹ For further information see *Süddeutsch Zeitung* (online).

Panama Papers: panamapapers.sueddeutsche.de/en/

Paradise Papers: projekte.sueddeutsche.de/paradisepapers/politik/this-is-the-leak-e866529/

the moment their ideological antagonist got disempowered with the fall of the iron curtain. In the style of Arrighi's explanation of the capitalistic development in long centuries dominated by a strong hegemon (Arrighi 1994), Streeck states that "[g]lobal capitalism needs a centre to secure its periphery" (Streeck 2014: 60). The current absence of such a centre might also be understood as capitalism's current high degree of entropy, leading to the decay of its vital capacity to adapt. This tendency was revealed during the global failure of the housing and financial markets in 2008 and the years after – the time capitalism was meant to end. At that time capitalism's survival was not given due to its (natural) ability to adapt, but to its power structures and the economies close relation to the state.

Streeck's examination of the five current disorders of capitalism and its accompanying long-term trends build up the case for his key assumption: the inevitable self-destruction of capitalism. While each disorder on its own might be interpreted in a less destructive way, the true problem lies in the strong interrelations of those mutually reinforcing disorders. This characteristic and the variety of levels on which Streeck identifies those disorders are typical for an ultra-wicked problem²⁰ – a problem without a solution; apart from its self-destruction. What has been promised to be the only and most rational global order has failed in its development to generate the promised economic growth and instead produced inequality and immoral oligarchic power structures, not to mention the fundamental environmental destruction. Capitalism in its neoliberal form is steering towards its end due

²⁰ Terminology borrowed from Prof. Peter J. Russell during a speech on the closing event of the Urban Landscape Week 2017 at TU Delft (19.10.2017).

to the contradictions it generates. And since it disempowered its antagonists and due to the oligarchic power structures it created, there is no force to correct its course – making its end inevitable.

Spatial Planning – Materializing Capitalism

After reviewing Streeck's line of argumentation on the end of capitalism, the question of possible meanings for its spatial reproduction and the role spatial planning plays arises. This question is based on the theoretical perspective that urban agglomerations – and particularly their spatial structures – are both products of and conditions for any dominant economic model. Therefore, cities developed in networks as places to organize increasingly complex (socio-economic) tasks in order to increase human capacities (see Read 2009: 2). Following this line, each capitalistic model shaped the composition of the urban structures according to its specific demands. Those structures support the respective economic model, enable its efficient functionality and enhance its capacity to perform. Thus, economic and spatial developments are necessarily linked to each other and take place analogously. Naturally, the discipline of spatial planning plays an important role in this mutually influencing relation.

As a part of the institutional apparatus of the state spatial planning is, among others (e.g. law, the capacity to act or knowledge), one of the most important tools to maintain and reproduce territorial sovereignty. According to Parenti, territorial sovereignty is a basic precondition for growth and profit making (Parenti 2013: 8ff). Referring to Marx, Parenti states that a certain geo or infrastructural power is needed to transfer use-value into exchange-value. Therefore, this territory making power – organizing a certain territory in a

specific way – becomes a precondition for capitalism itself. In that sense, spatial planning is a tool of the state to enable capitalistic production: it generates and organizes the spatial environment, and especially infrastructure, in order to support the efficient transformation from use- to exchange-value under the imperatives of endless capital accumulation and growth. Parallel, spatial planning has to serve a tool to manage negative externalities caused by the capitalistic growth imperative itself. A paradox becomes visible: spatial planning to ensure and spatialize growth, while at the same time managing negative externalities caused by the imperative that it materialized in the first place.

Apart from this curiosity the real problem lies in the natural inertia of the discipline: planning and projecting long-lasting urban structures – based on imperatives of an economic system in decay – into a future, which is inevitably to be post-capitalistic, raises the question if those structures will be adequate to new, post-capitalistic socio-economic demands. If we do not start to liberate our thoughts about future spatial development from the dominant neoliberal ideology (see Sachs 2010, Merrifield 2014, et al.), a discrepancy between post-capitalistic economic model (new values) and urban structures (based on capitalistic values) will emerge. This might cause unpredictable frictions between spatial and socio-economic development.

But even more disturbing, if the discipline continues to act as a reactive territory-making tool, it will also continue to spatialize negative impacts of the capitalistic economy, thus supporting social inequality and environmental damage beyond the point of return. Therefore, I call for an exploration of spatial models, concepts and theories beyond capitalism.

Conclusion

After reviewing Streeck's key arguments on the end of capitalism it became clear that current neoliberal capitalism is in a deep crisis of legitimation: neither does it generate real growth, nor does it bring prosperity and benefits to the majority. The five mutually reinforcing systematic disorders have been shown to have the potential to not just destabilize capitalism as the globally dominating socio-economic order, but also to force its collapse. The endless economic growth is only carried out due to external stimulation and debt. In order to support further growth rates and to keep capitalism alive the public domain is plundered in austerity. Instead of fulfilling its promise of distributing benefits from capital accumulation, capitalism generates increasing socio-economic inequality. The few profiting economic elites have become immensely powerful players in an emerging corrupt, oligarchic power structure and the loss of capitalism's geographical centre led to global political and economic chaos.

Further, it has been shown that capitalism's current development is deviating from its historic development pattern. Unregulated commodification led to markets disembedded from society, fostering the occurrence of oligarchic power structures. Additionally, capitalism freed itself from limiting restrictions due to the disempowerment of its antagonists. Thereby, the chances for corrective interventions to the system diminished. Nothing seems to be in sight, powerful enough, to stop further development, resulting in capitalism's self-destruction. Apart from the matter of power, capitalism's pursuit of profit is open-ended, meaning that by definition the reinstallation of limitations, which would cause a moderation, are not included in its DNA and therefore unlikely to happen (Streeck 2014: 55). The deviation from its historic

patterns has also been revealed in the increasingly rapid succession of crisis in capitalism's recent history. As the three continuing long-term trends have shown current capitalism does not seem to recover from its crisis, so that the state of Inequilibrium became normal.

It might just be a matter of time for capitalism to collapse from inside itself due to the accumulation of its dysfunctions resulting in socio-economic inequality, social anomie, instability and the loss of its essential ability to adapt. It is possible that a quick succession of economic crisis will bring capitalism to its end. But there is also the possibility of devastating wars in consequence of increasing concurrence or unbearable socio-economic inequality to be the final end for capitalism. No matter how its end will look like, the contradictions capitalism generates on various levels will at one point become unbearable – without corrective intervention the end of capitalism is inevitable.

The notion that capitalism is inevitable to fail is not just arising from Streeck's argumentation. As mentioned in the beginning, this chapter was only examining Streeck's position in a larger discussion, in which even more reasons for a failure of capitalism occur and, even more important, in which most of the scholars agree on an inevitable major transformation of capitalism – including the high likeliness of its end. In its natural endeavour to generate profits endlessly, the production and consumption patterns of neoliberal capitalism are ultimately self-consuming (Streeck 2014: 55) due to the lack of self- as well as external regulation and its exorbitant resource consumption, leading to the irreparable damage of the biosphere.

In the end, the Crisis of Civilization might be the biggest

chance humanity has to develop further towards a truly sustainable future beyond capitalism. If we take the chance to liberate our thoughts from capitalistic ideologies and allow alternatives in the face of an irreparably damaged biosphere, there is a chance that “[...] future historians will consider the past two hundred years of Euro-Atlantic development a parenthesis in world history” (Sachs 2010: XI).

Especially from the perspective of spatial planning this depends on our own position: shall we hold on to and reproduce a failing system that has the capacity to destroy our basis for living on earth or should we accept the fact of the inevitable economic transformation and start to gain knowledge about it and think about appropriate post-capitalistic spatial structures. Those will be necessary, since the current type of settlement, which is characterized by economic, demographic and power concentration in the city and the separation between city and its hinterland, is a product of the capitalism’s development. Therefore, the era of the city must end with the inevitable end of capitalism.

The End of the Urban Era

The analysis of Leipzig's development in relation to its economic evolution has illustrated the theoretical assumption, that there is a nexus between urban and economic development. The city in its current form is a superimposed product of the different capitalistic cycles and their accumulation strategies. It also became clear, that Leipzig's different spatial types, which are the spatialized reproductions of the different cycles and their accumulation strategies, were rather adaptations, which in their entity constitute the current city. The fact that the infrastructural networks changed least – that the supergird is still the base structure of Leipzig – makes clear that the different capitalistic cycles did not reinvent the city, but optimized its form and structure regarding the different accumulation strategies. In concrete terms, Leipzig in its current form is a product of capitalism and its cyclic development.

So, the exemplary analysis of Leipzig illustrated the theoretical assumption that the contemporary city in general is a product of capitalism and its development. If one considers the phenomena of global urbanization, we might say that the city is the specific, most suitable settlement type reproduced and required by capitalism. Therefore, one could say that capitalism as the globally dominant economic order has triggered the global urban era. This era is composed out of two main components: the city itself and its relation to its hinterland. Hereafter, it will be shown that the era of the urban is inextricable linked to capitalism, its development and in the last consequence its demise. It will be shown that the capitalistic settlement type is not just a product of capitalism but ultimately the reason for its failure.

The developments of cities around the globe during the last 200 years – under the premisses that the societies and poli-

tical systems introduced capitalism as the main socio-economic and ideologic order – have produced common characteristics, which allow the characterization of a global capitalistic settlement type. Of course the concrete cities within this type vary in form and structure, according to their specific local contexts. This includes the geographic location, local climate, history and socio-economic developments before the introduction of capitalism and during its development.

In 1974 Murray Bookchin described in *Limits of the City* the city to be like a profit-oriented enterprise, efficiently organized like a fabric (Biehl 2010: 8). This fabrik-like organization is represented in the strong functional division of the contemporary city. This functional division is characteristic for the capitalistic settlement type; it is the equivalent to capitalism's fundamental division of labour.

Instead of serving local needs this hierarchical settlement type prioritises profits, which are always highest in long distance trade relations (Arrighi 1994). The resulting economic orientation towards global trade relations and profit opportunities is another characteristic of the capitalistic cities. This economic orientation manifests itself in the hierarchical infrastructure networks, in which transregional, national and finally global connections are at highest level.

The city is also the place where the commodification of daily life is the most advanced. This means, that access to societal life in the city and its commons is mainly a matter of individual economic success. Processes such as segregation or the asymmetric allocation of (public) services, such as high schools (Einert 2015), but also local suppliers, according to the wealth of a neighbourhood, are examples for this characteristic of the capitalistic settlement type.

But the most striking characteristic of the capitalistic settlement type is concentration in all forms. It is the capitalistic production itself, which “[...] concentrates the historical motive force of society [...]” (Marx 1976: 637). As a product of the capitalistic development, the city concentrates people, economic activities, wealth, jobs, culture and power. Concentration is the actual premisses for the city to operate profit-oriented. The increased number of people in a limited territory allows the exploitation of different markets, provides high demand and offers enough labour power – ideal conditions for profit generation. At the same time, the high concentration within a scarce territory creates a constant concurrence situation, which benefits profit generation. This manifests itself in form of continuously increasing real estate and land prizes, segregation and gentrification.

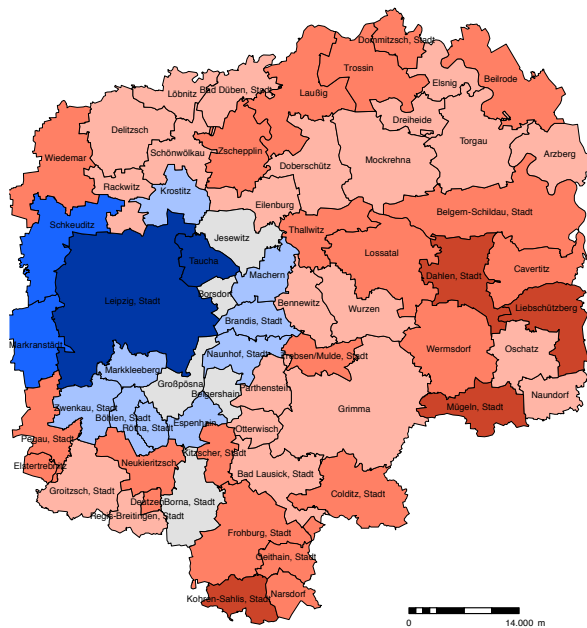


Image 26_Demographic concentration. Inwardmigration from the hinterland to Leipzig
Stadt Leipzig Dezernat Stadtentwicklung und Bau (2017): Monitoringbericht 2016/2017.

More abstract, the city as the capitalistic settlement type can be defined in Stiegler's understanding of the polis: being a consistent expression of individual and collective desires for justice, truth and beauty (Stiegler 2017: 43f). Truth is that the city grows endlessly, that it continues to concentrate people and generate profits. Justice means that individual success in a concurrence driven performance society is represented in materialistic symbols: the location and form of living in the city (segregation). Beauty has been reduced from a particularity to a global standard and is reproduced in the most rational, (cost) efficient and profitable typologies. In Stigler's understanding of the polis, the capitalistic city is a highly rational settlement type, which is fully embedded in the socio-economic reality of capitalism, following the endless strive for profits, but thus losing its human nature (Biehl 2010: 5).

However, the capitalistic settlement type is not just characterised by a distinguishable characterization of the city, but also by the relation of the city to its hinterland. This separation, which has been described more detailed before (see Chapter II), can be interpreted as an effect of the concentration processes in the city. The concentration of people, economic activities and power in the city led necessarily to a decentralization of the counterpart to the urban, the rural areas.

Marx and Engels described the separation of town and countryside – urban and rural – as a inevitable development triggered by capitalism (Marx 1887 Section 4). This idea, which was carried on by Marxist and Anarchist streams (see Biehl 2010), basically says that with the development of capitalism, the increasing division of labour and the concentration of economic activities, people and power in the cities, the industrializing agricultural production in the rural areas got sepa-

rated from the city (see Chapter II). With this separation the relation between producer and consumer changed and the process of labour got alienated.

However, this separation does not affect the city's absolute dependency on the agricultural production in the rural areas. The critical difference lies in the deterritorialisation of production and consumption. This means that the demand for agricultural products in the city is satisfied through global markets; exploiting external soils to meet the city's demand. Consequently, the rural areas do not produce for the local demand – the cities which they surround – but for highest profits on the global markets. On this dependency level, the separation between town and countryside is more the separation between the globally supplied city, which externalized its supply on agricultural products, and its direct hinterland.

It is this separation of city and its hinterland and the concentration in the city, which characterize the urban era and which are also the concrete, physical expression of the “Great Rift in the human relation to nature” (Foster 2013: 15). In his metabolic rift theory Marx explained that humans are inextricable parts of the natural metabolism. Going back to Hegel's idea that any system is embedded in a larger system and that any system relies on the limits of the latter (see Chapter II), Marx claimed, that the social and the natural metabolisms need to be balanced – having an equal input-output-ratio (Foster 2013: 12) – in order to provide the basic conditions for life on earth and the “chain of human generations” (Marx; quoted in Foster 2013: 8) – an early call for sustainability. Two factors are determining for this balance between the metabolisms: labour and agriculture, or in a broader sense, as I will argue, the type of settlement.

The interaction between the social metabolism (human) and the natural metabolism, Marx argues, is mediated through the process of human labour (Biehl 2010: 4f), which in its real form is about the transformation of nature into use-values in order to fulfil initial human needs (Marx & Engels 1988: 55). On the other hand, the process of labour in a capitalistic system is about turning natural use-values into exchange-values. Under the imperative of endless growth, labour is reduced to a means of profit-generation. This results in the production of products, which only serve the endless strive for profits and are therefore non-fulfilling human needs. At the end of this process useless products, which only generate profits and compromise the interaction between the two metabolisms, are created – waste is produced (Foster 2013: 16).

In here Marx saw the alienation of the labour process: using labour power to produce profitable waste instead of fulfilling initial human needs. This circumstance, he continued, was compromising the mediating function of labour and consequently disturbed the interaction between social and natural metabolism (Biehl 2010: 16f). It is the resulting imbalance, which constitutes the rift in the universal metabolism of nature, compromising the basic conditions for human life – an intact natural environment. This unbalanced metabolism between nature and humanity – the profit-motivated exploitation of the natural resources and the production of waste – “[...] is at the heart of contemporary ecological problems“ (Foster 2013: 13).

Coming back to Hegel, this form of metabolic relation cannot persist, because the social metabolism in a capitalistic society – its production and consumption patterns – exceeds the limits of the natural metabolism. The natural metabolism, condition for the existence of any social metabolism, is not

just compromised by the metabolism of global capitalism. The dysfunctional mediation process, which is the constant dynamic transformation of capital without limitations, causes the rift between both and thereby becomes the final limitation of capitalism.

Beside his critique on the capitalistic labour process as one factor that causes the rift in universal metabolism, Marx “[...] emphasized in *Capital* that the disruption of the soil cycle in industrialized capitalist agriculture constituted nothing less than “a rift” in the metabolic relation between human beings and nature” (Foster 2013: 7). What Marx is saying here, is that the deterritorialisation of agricultural production and the externalized supply with agricultural products is a one-way movement – from the rural production to the urban consumption. This causes the loss of soil nutrients. In a balanced metabolic relation, the nutrition cycle is closed: what has been extracted from the soil (agricultural products) comes back in form of natural fertilizers. With the separation of city and hinterland and the concentrated demand in the city, this cycle was broken open: the nutrients of the soil did not return to its origin, because they are consumed elsewhere. The nutrients are lost and the soil is depleted. Out of this imbalanced relation comes the requirement for the industrialized agriculture to use synthetic fertilizers, in order to keep the soil productive.

Engels summed up the entire problem when he wrote, that the capitalistic agriculture, which is a fundamental aspect of the separation of city and hinterland (see Chapter II), is “[...] the robbing of the soil: the acme of the capitalist mode of production is the undermining of the sources of all wealth: the soil and labourer” (Engels 1956: 95). This understanding

of the negative impacts of the rift in the natural metabolism, caused by the unbalanced metabolic relation, had its direct physical representation in the capitalistic settlement type: the separation of concentrated city and exploited hinterland (Biehl 2010: 13). The capitalistic settlement type is not just a product of the capitalistic development, its contradictions are also the reasons, which “[...] [disturb] the metabolic interaction between man and the earth” (Marx 1976: 637).

The alienated process of labour and the capitalistic settlement type are the reasons for the rift in the universal metabolism of nature – they are initially unsustainable, because they operate beyond the limits of the natural metabolism. In that sense, Bookchin’s claim, that the city has reached its limits and therefore cannot be “significantly improved or changed” (Bookchin 1986: 215), becomes a whole new meaning. The contradictions of the capitalistic city, which Bookchin highlighted as being congestion, poisoned food, air and water and negative impacts on the mental and physical health (Bookchin 1986: 204f), go way beyond: the entire capitalistic settlement type is inherently against a balanced relation between social and natural metabolism. The current, globally predominant settlement type is the built expression, the manifestation, of the great rift.

Now, if the contemporary city and the separation between city and its hinterland are the settlement type of capitalism, which causes and expresses the rift in the universal metabolism, then the end of capitalism – as a result of the unbalanced metabolic relation or as a result of its socio-economic contradictions – must also be the end of its settlement type. The end of capitalism must be the end of the urban era. It

will be the end of concentrated urban cores and the separation of city and hinterland.

The end of the urban era does not mean that cities will extinct and disappear. On the contrary, I believe that they will remain as places for people to life, but their meaning, form and structure, as well as the degree of concentration, will change. As it appeared, the contemporary dominant settlement type is unable to provide the livelihood for future generations, because its capitalistic metabolism operates outside the limits of the natural metabolism, and thereby compromising it. Marx and Engels, as well as thinkers such as Mumford and Bookchin (Biehl 2010), saw a possible solution for this dilemma in the synthesis of city and hinterland – “[t]he abolition of the antithesis between town and country“ (Engels 1975: 92).

The call to overcome the separation of city and hinterland goes hand in hand with the call for decentralization and the abolition of the urban era: It is infact the approach for a life in balance with nature – a life beyond capitalism. “[I]n order for humanity to become fully civilized,” – to synthesis and balance the social and the natural metabolism, and thus preserve the basis for life on earth – “[...] the urban process must burst the fetter that the megalopolis had become” (Biehl 2010: 9).

V. CONTINGENCY PLAN

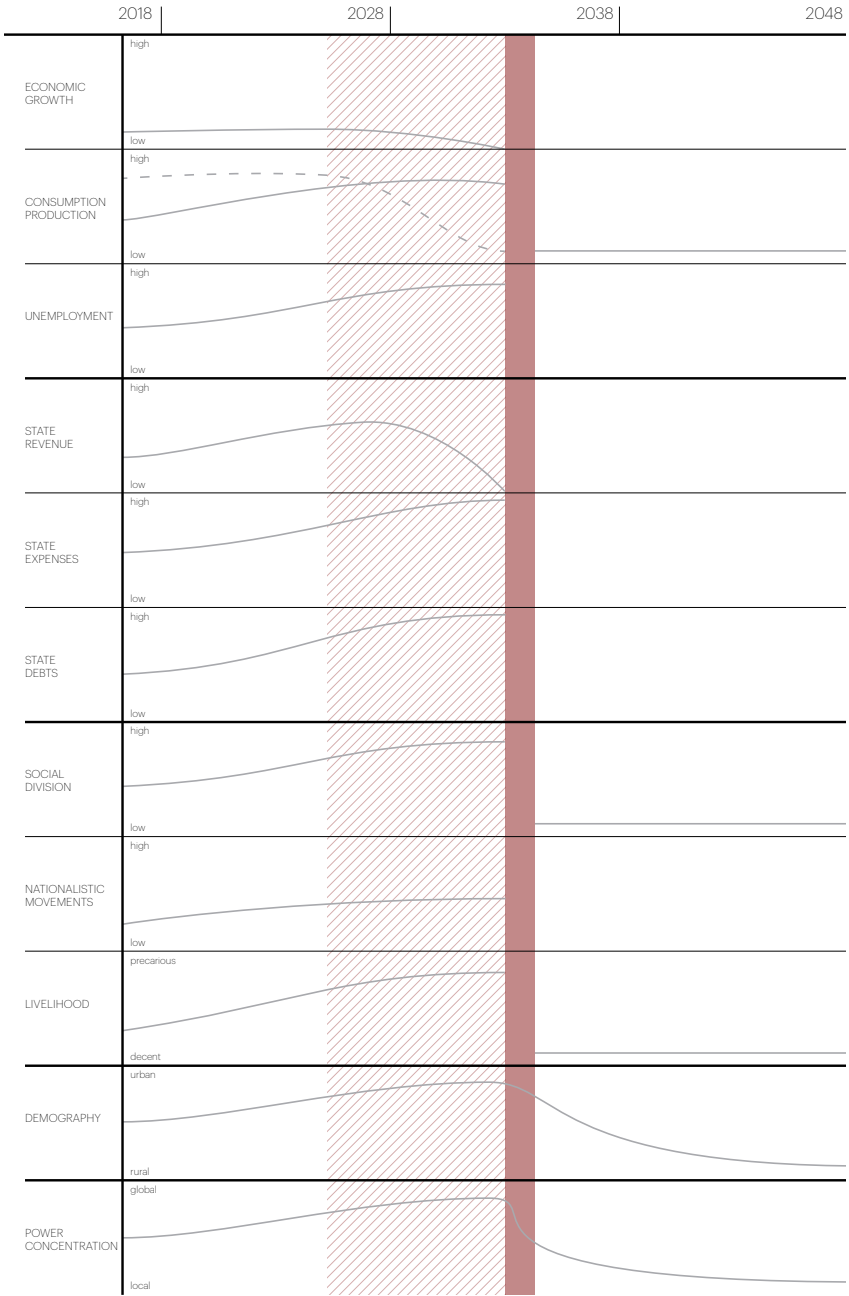


Image 27_Timeframe. The end of capitalism as a hypothetical process

Time Window

Regarding time, the end of capitalism needs to be understood as a process, divided into two phases: its gradual decay – which has already started (Streeck 2014) – and its sudden end – capitalism's final crisis.

The second phase will be a very drastic and sudden event, in which global trade relations, finance markets and power structures will collapse. The effects of such a global disruption are hard to anticipate, since they will have particular forms depending on the location and embeddedness in global capitalism. But it is for sure, that such an event will disturb the socio-economic organization patterns and leave a large power vacuum. This will be a highly instable and insecure phase – the state of maximal entropy.

This drastic event will also be the moment in which the dominant capitalistic settlement type will fail. The concentrated, globally embedded urban cores around the globe will suffer first from the disruptions and the collapses of the global markets. Being fully dependent on globally organized, external supply chains, the cities will not be able to provide basic demands for its inhabitants. The social disturbances, which will be triggered by the lack of basic goods and especially food, can barely be imagined and will be enforced by capitalism's asymmetric distribution patterns. In the same way as access to the city and its services is a matter of financial success, the access to scarce food will become a matter of financial success. The increasing number of urban dwellers living in precarious conditions will suffer most. Violent outbursts, riots or even worse would be a quite likely development.

The inability to provide food, because of the separation of city and its hinterland and the resulting (food) dependency on external global markets, will prove the urban settlement type



to be fully unsustainable. This will be the moment of failure for the urban era and the ultimate loss of steering capacities.

Capitalism's gradual decay on the other hand offers a time window to anticipate and to brace the urban cores and their hinterlands. Even though the socio-economic and political conditions will impair, this phase still allows active steering. In this phase we will see the aggravation of capitalism's systematic contradictions as Wolfgang Streeck described them (see Chapter III).

Without going into the details of the effects of each development, I will try to anticipate the effects of capitalism's decay on various socio-economic and state dimensions. Since this process is highly complex and of a global nature and so many influential factors – especially policy interventions – cannot be brought into consideration, it cannot be predicted. Even though the exact developments of the different dimensions might be at a different pace than I expect and temporal progress in general may vary, the direction of developments should be similar to what I anticipate:

For a national economy, such as Germany, the decay of capitalism will be most noticeable in lower and later negative economic growth rates. Those will most likely be triggered by the mass application of artificial intelligence in the production process. Since growth rates are the main measure for a nation's success and base for any socio-economic or political legitimation, stagnating and declining growth rates will cause political disturbances. The legitimation of the dominant socio-economic system and the political body maintaining it will be challenged (Streeck 2014).

With the decline of growth rates the national unemployment will rise as well. This development will have strong impacts on the political landscape as well as on the developments of consumption and production rates.

The development of the growth rates and unemployment rates are closely tied to a nation's production rate as well as domestic and global consumption. Germany as a highly export-oriented national economy will show continuous high production rates as long as the global markets show the demand. This will mainly be depended on international trade relations and the overall state of the world economy. As soon as large players start focusing on their domestic economies and global trade becomes more and more protectionist, an export-oriented nation such as Germany will face decreasing global demands for their products and consequently lower production rates. The development of the domestic markets on the other hand will be characterized by a decrease in consumption. The increasing number of unemployed people will have less purchasing power, which will make the consumption rate fall under the production rate – an underconsumption crisis.

The decrease in export and production in general the state revenues will decline, because of missing tax revenues. At the same time, the increasing number of unemployed people will increase state expenses. From this imbalance in the national budget will result the need for higher debts in order to bridge the gap between state revenues and expenses. Since the profiteers of the capitalistic accumulation and distribution mechanisms will still benefit from the developments, it will become hard to legitimize such a political course, which requires large amounts of common financial assets and burdens future generations with high debts.

In my eyes, the social division, which will come along with increasing unemployment and obvious injustices in favour of a healthy economy, will be the most problematic development. Increasing social division holds the potential to force socio-economic changes undemocratically and even violently. With the decrease in overall wealth and livelihood, resulting from decreasing economic growth and increasing unemployment, and the obvious dysfunctionality of the distribution mechanisms, the social division could become a real threat to democracy on national and EU level. The dissatisfaction of the un- and underemployed will support the rise of protectionist, nationalist and undemocratic political parties, which – in the nationalist manner – put the blame for the effects of capitalism's decay on the rest.

The phase of capitalism's gradual decay will not just be the time in which its contradictions will be at the highest level, it will also be capitalism's highest stage of development. This means, that the concentration of power will intensify, so that even fewer profiteers will accumulate more capital and power, leaving the vast majority disempowered and left behind. It will also be the time in which the demographic concentration in the urban areas as the capitalistic cores will reach its peak and the separation between city and its hinterland will become the largest.

Even though the socio-economic and political conditions are very likely to impair during the coming 10 to 15 years, capitalism's gradual decay offers a time window to brace the cities, regions, nations and superbodies, their inhabitants, political leaders and economies, for such developments, culminating in the final moment of capitalism's failure. Although, it will become increasingly difficult to act under such impairing circumstances, this period allows active steering, as long

as the political legitimation is not fully subverted. In order to provide food – the basis for peaceful individual and social existence – in case of the failure of global supply chains, this period needs to be used to organize and implement regional self-sufficient food supply. Those structures and organization patterns need to be implemented and tested in order to be ready for operation. But doing so actually includes the possibility to organize the territories for an economy, which comes into action after capitalism failed, reorganizing socio-economic and power relations. Agriculturally self-sufficient structures can be the base to establish post-capitalistic economies.

Strategy

In order to prepare the city of Leipzig for the failure of capitalism, a contingency plan was developed. The contingency plan itself provides a strategy to organize the city's food supply in case of global market failure. At the same time, it is part of a larger strategy, which focuses on the reconnection of Leipzig and its hinterland as well as the establishment of an embedded regional economy.

The strategy is in accordance with Stephen Hinton's "suggestions" for Accelerating Transition in the Stockholm Region . The "suggestions", which he pointed out in this work, are guidelines for the successful implementation of a transition towards a resilient, fossil fuel free and self-sustaining urban region (Hinton 2016). In the following, most of them are represented in one form or the other.

Goals

The primary goal of the contingency plan is to emplace structures for a self-sufficient food supply for the Leipzig and its hinterland. This goal is not exclusively directed to the agricultural production in Leipzig's hinterland. It involves the entire food production and distribution chain, processing including, storage and transportation. The goal is to provide a self-sufficient and autonomous food supply for the city and its hinterland, in order to avoid food shortages and possible social distempers resulting from such. Food security is the precondition for any form of social organization and management, thus the base for a peaceful reorganization of the social conditions after the failure of capitalism.

Since the end of capitalism will, at least in short -term, also have a large impact on the access to and supply with oil, the agricultural production and distribution need to be fossil fuel

free. Only a food production chain, which does not solely rely on external and finite energy sources, will be able to maintain production and distribution when the global supply chains fail.

Further, a fossil fuel free agricultural sector with minimal transport distances – Leipzig’s hinterland and the city – would be environmentally friendly and could become the first step towards a fossil fuel free economy; one which operates within the limits of the natural metabolism.

The secondary goal of Leipzig’s contingency plan is to lay the foundation for the implementation of an agricultural based, post-capitalistic economy. The implementation of structures, which are required for an embedded regional economy. This kind of post-capitalistic economy needs to be one, that satisfies local needs with local resources and which harmonizes the social metabolism to meet the natural limitations. First and foremost, this requires the production and consumption of local products, starting with food. Further, it requires a change in employment structure, which includes the reduction of working hours, the shift from exchange-value-based production to use-value-based production and the revitalisation of the employment in the agricultural sector. The last point goes hand in hand with the approach for a fossil fuel free agricultural production and distribution, since contemporary industrialized large-scale agriculture fully relies on fossil fuel driven machinery.

Agricultural revolution

In Chapter I it was argued, that each economic revolution did not just had a technical but an agricultural revolution at its core. Consequently, approaching a post-capitalistic economy must be rooted in a new revolution of the agricultural production. First of all, this new form of agricultural production needs to revise its production goals. Instead of profit-oriented production for non-territorial global markets, the production volume should be limited by the actual demand. This demand is composed out of the city's and its hinterland's demand as well as provisions.

Turning away from the imperative of endless profit accumulation, the reduced production volume could respect the local environments and their particular limitations. Instead of monocultures, large-scale application of pesticides and artificial fertilizers, self-sufficient production promotes a less intensive agriculture. Beside the positive effects on biodiversity, less intensive agriculture offers the opportunity for the broad introduction of ecological agriculture. As long time studies from the Rodale Institute in the US have shown, organic farming systems are able to match conventional yields, can performed better in years of drought, deplete the soil but instead improve its regenerative qualities (Rodale Institute 2018) and finally provide un-poisoned food.

Bringing this into consideration, a less intense agriculture, which is focused on the local demand, allows a diversified production – including the possibility to use arable land for energy production – and small scale production. Large-scale fields farmed by few people make the employment of heavy machinery indispensable. Smaller plots in a less intensive agriculture on the other hand reduce the need for heavy machi-

nery and can, in the best case, be farmed by man and women power. This form of labour intense production would be less energy consuming than conventional farming and would also be working without supply of fossil fuel due to the failure of global supply chains. Finally, an agricultural sector, which produces for local demands will drastically reduce transport distances and thus require less (fossil) energy.

Redefine city-hinterland-relation

The most important aspect of the whole strategy is the redefinition of Leipzig's city-hinterland-relation. In order to establish a regional metabolism, in which the hinterland produces enough to provide food for Leipzig and itself, the hinterland needs to be activated. This activation contains two main pillars: active cooperations between Leipzig and the communities in its hinterland and investments in upgrading those communities.

The second aspect is mainly focused on improving the livelihood in hinterland communities. Since those communities are quite diverse and face different problems, an investment fund needs to be installed. This fund should be used for investments in structural and service improvements, which directly improve quality of life and access to services on site. Such could be the installation of high speed internet, local energy production, improvements in mobility, the creation or activation of community places and the support of local social service, such as schools, doctors, local suppliers and care of the elderly.

Further, an additional investment fund should be installed. This second fund should be used by the municipalities to provide interest-free loans for local entrepreneurs, which

commit oneself to the wealth of the community instead of individual profits (see Felber 2018). Additionally, this money should be used to support people, who want to contribute to the new form of agriculture. Therefore, the municipalities should use this fund to acquire land and real estate, which can be provided for small-scale farmers.

Apart from those investment funds, an active and mutual cooperation between Leipzig and its hinterland needs to be established. This cooperations can be of all kind, but most important are the cooperations that organize the distribution of agricultural products from the hinterland to Leipzig. Those cooperations can be in form of agreements between local suppliers in the city and local producers in the hinterland. The new cooperations will require adjustments in the physical structures regarding food processing and the distribution and transportation of the agricultural products. The municipalities need to provide funds for such investments. Additionally, active cooperations between Leipzig and its hinterland should also include the exchange of other economic goods the other way around.

It is highly important for the successful creation of active city-hinterland cooperations, that two-way cooperations are created. Thinking about the exchange of other goods than agricultural products, those socio-economic cooperations are the fundamental basis for a regional economy. But apart from economic exchange, cultural cooperations are vital for successful city-hinterland cooperations (Petrin 2017, Faber 2017). As the urban core of the region and due to its history, Leipzig offers a large variety of cultural activities. Compared to the sparsely populated hinterland, the concentrated city has an outstanding surplus meaning regarding cultural activities. It is precisely this cultural variety, which is missing in

the hinterland. To be clear, the hinterland offers cultural activities of diverse forms, but naturally it cannot compare to the appealing concentration of cultural diversity in the city. In this regard active cooperations between the city and its hinterland can – at least temporarily – diversify the cultural offer in the hinterland and thus improve the quality of life (see Faber 2017).

The activation of the hinterland and the active cooperations between Leipzig and its hinterland would not just approach the dissolution of the separation between city and hinterland, but also be the base for an operational self-sufficient agriculture. Further, those active cooperations will improve the communication as well as the coordination of interests between Leipzig and its hinterland municipalities. The cooperations might also lead to a (re-) discovery of the cultural potentials and the unique environment of the hinterland. Apart from being perceived as a waste, empty land, ready for economic exploitation, the hinterland and its landscape – testimony of century-long cultivation, of an active relation between women and man and their environment – bare the potential to become important moments of identification (Faber 2017).

All together, the investments into the hinterland communities, the active cooperations and especially the provision of land for small-scale farming strengthen Leipzig's hinterland and will act as pull factors. This new attractiveness of Leipzig's hinterland is supposed to create a demographic decentralization.

Decentralization

As the urban era must come to an end with the failure of capitalism, the synthesis of the city and its hinterland, which is the dissolution of the antithesis between urban and rural, comes within range. This synthesis, which was predicted by Marx and Engels and later by scholars close to anarchist ideas (see Biehl 2010), goes along with a process of decentralization.

Decentralization describes a demographic shift from Leipzig towards its hinterland. The process of decentralization will become a necessity, when global supply chains and especially the food chain will collapse. Since Leipzig cannot provide enough food production to fulfil its demand, its inhabitants will naturally move to where there food is produced. But this form of necessary decentralization is not desirable, because steering this process actively will become very difficult due to the power vacuum after and during the actual event of capitalism's failure.

Instead of waiting for the event to happen – and to loss steering power –, the process of decentralization needs to be actively organized. The activation of the hinterland municipalities is the first and most important step. Strengthening the pull factors of the rural communities and offering space for different models of individual and societal life (land and buildings for small-scale farming), will attract a specific group of people with particular ideas on how to organize a meaningful life in community. On the other hand, the intensification of capitalism's contradictions will become most obvious in the cities. As capitalism decays, life in Leipzig will become increasingly precarious, land prizes will increase and space to live, not to mention housing, will become scarce. So the last phase

of neoliberal capitalism, which fully commodified life in the city, will create push factors. The urban reality of unleashed neoliberal capitalism will make people, especially alternative-minded and left-behind ones, leave the city and search for a different life in closer relation to the environment.

Beside the demographic perspective, decentralization also describes a conscious and desired deconcentration of the city. The activation and upgrading of Leipzig's hinterland is an important aspect of this deconcentration. It includes the deconcentration of services, economic activities, cultural life and power. The structural adjustments in the hinterland municipalities is only the first step to facilitate this deconcentration. The real deconcentration process comes with the demographic deconcentration.

Instead of the continuation of Leipzig's history of growth concentration due to its economic success under different capitalistic imperatives (see Chapter III), Leipzig must shrink with the end of capitalism, because it loses its economic attractiveness. Instead of capitalism's concentration in the city and the separation of city and its hinterland, a deconcentrated form of settlement needs to be established in order to provide self-sufficient agricultural production. In concrete terms, the decentralization and deconcentration of Leipzig will stimulate a regionalisation. Leipzig will remain the urban core this new settlement structure, but the base units will be relatively equal 30.000 people settlements and their surrounding villages.

Murray Bookchin described ancient Athens' beauty and fame, its society and democracy, as results of its balanced relation to its hinterland (Biehl 2010): "men of strong character who [...] had firm ties to the soil and were independent in

their economic position. Labor and land, town and country, men and society, were joined in a common destiny“ (Bookchin 1986: 27f). Balanced and stable relations and direct food supply were the premisses for culture, science and arts to develop. Further, ancient Athens with its 30.000 to 40.000 inhabitants had an optimal size for an embedded democracy and it could be supplied with food produced in its hinterland – the peninsular Attica.

Similar to the size of ancient Athens, relatively equal 30.000 people settlements will be created, which in their entity form the new post-capitalistic settlement type. With the average European consumption rate of 2.500m² agricultural land per person per year, those settlements need about 75km² agricultural land to provide a self-sufficient food production. Under the premisses, that Leipzig and its hinterland have an equal number of inhabitants and that the villages produce twice as much food as they need, twice the agricultural land around those new cores – a circular surface with a 10km radius – would allow their self-sufficient food supply as well as enough surpluses to supply Leipzig with agricultural products (for detailed calculations see Appendix).

On a regional scale, the decentralization will create new cores in the size of 30.000 people. On the contrary to previous deconcentration ideas, such as Howard’s Garden City or anarchist ideas (Biehl 2010), Leipzig’s decentralization has to use the existing structures. Decentralization and deconcentration, which relies on the founding of new settlements, for example in form of suburbanisation or the garden city, create serious environmental issue. Impervious surfaces, decreasing ecosystem services and increasing mobility demands are just a few aspects, which should make us careful when we consider decentralization. The key to avoid those issues as good as

possible lies in the use of existing settlement and transportation structures and the decreasing meaning of the urban core.

The new self-sufficient cores do not need to be built from scratch. They will be transformations of the existing settlement structure in the hinterland. They need to be diverse in functions, complex in structures and dense and compact in form to become the new cores in the hinterland, which combine the qualities of urban and rural life and be able to supply themselves as well as Leipzig with agricultural products.

Leipzig on the other hand will not disappear. Neither will it remain the regions strong core, as the model of the garden city promotes. Its decentralization and demographic shrinkage will allow its revitalization. Instead of an endlessly growing, sprawling city, which follows the demands of the current capitalistic accumulation strategies (see Chapter III), Leipzig will fall into parts. This disaggregation will take the form that Leipzig's development and urban life will densify and concentrate among the old city cores, which were villages in pre-industrial times and which are connected via train. In between those dense subunits, there will be space for greenery and food production. Leipzig's decentralization and disaggregation will allow its revitalization and thus a healthy life in the city.

The redistribution of 30% of Leipzig's population would not just require the growth of existing settlements – the new cores – to 30.000, but also the growth of the villages by 30% (for detailed calculations see Appendix). Similar to the new cores, the villages are already existing, but need to diversify their functions and create complex, dense and compact structures. They also offer the chance to combine the qualities of urban and rural life, while being able to supply themselves as well as Leipzig with agricultural products.

Before looking at the spatial effects of such a strategy, the region of Leipzig, its qualities and potentials, will be introduced more detailed.

The Region as a Resource

Spatial organization

The Region of Leipzig can be defined within the boundaries of the NUTS 2 classification DED5. This includes the three counties Leipzig, Leipziger Land and Nordsachsen. Within this definition of the region, one finds a great number of functional relations between the urban core Leipzig and its hinterland. This classification provides an operational frame for the region.

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E1

Similar to the most of the territory of Germany, the spatial organization of the Region of Leipzig is composed according to the spatial organization theory of Walter Kristaller's hierarchical system of central places. A network of Mittelzentren (Delitzsch, Torgau, Eilenburg, Wurzen, Grimma, Oschatz, Borna, Markkleeberg, Schkeuditz) and Unterzentren (Bad Dübener Heide, Dornitzsch, Belgern-Schildau, Dahn, Taucha, Brandis-Nauenhof, Mügeln, Colditz, Frohburg, Bad Lausick, Pegau-Groitzsch, Zwenkau-Böhlen, Markranstädt) surround the core (Oberzentrum) – the city of Leipzig. The Unterzentren (up to 15.000 inhabitants), providing basic (daily) supplies, and the Mittelzentren (up to 25.000 inhabitants), providing higher (periodical) supplies, serve as service centres for the rural hinterland. Depending on their hierarchical classification they are equipped with certain socio-political and cultural institutions and provide (public) services in order to enable spatially balanced development and equal supply for the different habitats (§2 Abs.1 Raumordnungsgesetzes). They also offered access to different markets: the Unterzentren provide access to mainly local markets, while the Mittelzentren and especially the Oberzentren provide access to transregional, national and global markets.

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E2

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E3

But this hierarchical structure does not just define the dependency of the smaller units on the larger ones; it can also be interpreted the other way around. The Unterzentren can also be seen as the first level of a supply system for agricultural products. Accumulating the agricultural goods produced in the small towns and villages (production surplus), the Unterzentren process those products and distribute them to the next higher units – the Mittelzentren and Oberzentren, where further processing and distribution takes place.

In that sense the system of central places is not a sole spatial organization pattern, which organizes the distribution of services and economic activities hierarchically. Regarding agricultural production, this system can be used to organize a self-sufficient regional food supply chain, in which the smallest units produce in order to fulfil their own and the larger units demand. The one-way dependency of the hierarchical system of central places, in which everything is focused towards the strong urban cores, can be reversed, so that the sole core comes into an active cooperation with its agriculturally productive hinterland.

However, this second organisational meaning of the system of central places is currently not present in the Region of Leipzig. With the opening of the markets and increasing globalization after the German reunification in 1990, exports and imports of agricultural products increased – Leipzig and its region became dependent on external production of agricultural goods. The new nationally and globally oriented agricultural sector needed good access to long distance transportation and was not embedded in the regional supply system of Kristaller's system of central places.

Another remarkable feature of the spatial organization of the region is its transport infrastructure. Not considering the highway system, the region's road network is the extension of Leipzig's supergrid. Or the other way around, Leipzig's supergrid is the centre of the road network. Along that network one finds the Unter- and Mittelzentren. They are directly connected to the regions core. The same appears if one looks at the region's rail network. Again Leipzig is the centre of the region's rail infrastructure, connecting the sub-centres to the core. The region's rail network runs mostly parallel to the extended supergrid. Is its electrified and rail based equivalent.

An important quality of the region's train infrastructure is that most of the network is tracked, which allows a high capacity due to the ability to run trains simultaneously, along the same route but in opposite directions. Further, this infrastructure runs parallel to the road system, hence it connects the Unter- and Mittelzentren. The existing train network allows high performance, connects the hierarchical sub-centres and is fully electrified, which means that it could be operated with renewable energy resources. Even though the linear structure of a rail system has a limited reach, the stops along the railway are quite flexible. If the use-value of such a system – the connection of as many places as possible along the railway – is considered higher than its exchange-value – economic cost efficiency under the imperative of endless profits –, a dense distribution of stops in order to connect as many people as possible to the linear network becomes feasible. In the end an intelligent operation of the rail network, which combines long and short journeys for passengers and goods, is determining.

To conclude, one has to say that Leipzig is the region's sole centre. The region's transport infrastructure – both road and rail – is oriented towards this core and connects all the sub-centres to it.

Regarding the natural features of the region, it can be said that one finds a quite diverse ecology and landscape. Large areas in the North and East of the region are covered with incoherent forest, whereas the rest of the region is characterized by agricultural land. Two large rivers, the Mulde and the Elbe, run through the region. Most of the lakes in the area are artificial. They are revitalized opencast mines and now serve recreational purposes. Further, two dams provide fresh water for the region. As the artificial lakes already indicate, the region's true natural resources are in the ground. Even though brown coal, gravel and rock mining has declined, the region's soil holds a lot of potential.

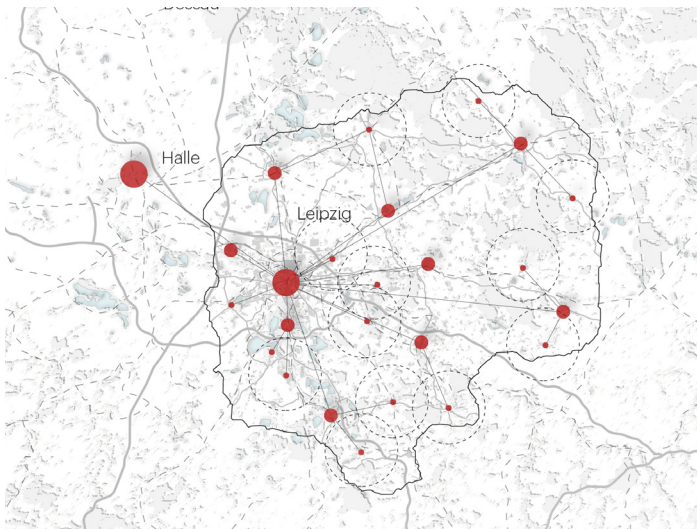


Image 28_Hierarchy of the central places in the region of Leipzig according to Walter Christaller

Soil

The soil structure of the region is quite diverse, due to the repeated glacial transformations, erosions and deposits. But in general the soil in the region consists of loess in different forms (especially luvisol and pseudogley), brown earth as well as brown earth-podsole. Along the rivers, one finds meadow soil and gley. Further, there are patches of loamy soil. Most of the soils in the region and especially the highly productive loess soils have a sandy texture, which makes farming easy but also requires special protection from erosion.



Overall, the quality of the different soils is good and even very good. Most of the soils are productive soils and thus good for agricultural production. The differences between the soils mainly influence the types of field crops and do not compromise the agricultural usage in general. But if one considers the region's climatic conditions as well, larger differences and consequences for the use become clear. The region's vegetation period is quite high and reaches its peak with about 250 days a year in the West of the region. Most of the region has a low or medium high risk of crop failure, but the North and North-East shows a high and very high risk of crop failure due to drought.

Combining the information on the different soils and the region's climate, it becomes clear that most of the territory is suited for agricultural use. Because of the good soils (loess containing black earth, luvisol and pseudogley), the long vegetation periods and the low risk of crop failure, the Western parts of the region are the most productive areas for agriculture. On the opposite, a larger area of sandy brown earth in the North and North-West of the region is less suited for agriculture. The soils in this area are the least productive in



the region and risk of crop failure is the highest. Its no coincidence, that forests are dominating this area, only disrupted by few fields.

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E9

The region's soil and climate conditions allow a large agricultural use of the territory. Under this conditions, it is possible for the region to establish a less intensive and self-sufficient agriculture. Although the agricultural land-use-rate varies quite strongly between the municipalities as well as the three counties (Leipzig: 32%, Leipziger Land: 58%, Nordsachsen: 63%; see Klüter 2014), the calculations for different agricultural land-use-rates (60%, 55%, 50% and 30%) show that a self-sufficient supply with agricultural goods is possible (see Appendix). Even in the most extreme calculation, in which the agricultural land-use-rate is 30% of the total surface and the annual consumption rate is close to the European average (2.500m² per person per year), the region is able to provide agricultural products for around 1.8 million people. For the region of Leipzig with a total population of 1.045.000 people, this means that a self-sufficient supply with regionally produced food is possible (for detailed calculations see Appendix).

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E10

Form a use-value perspective, it also means that there is no real need to use all this arable land at highest efficiency. This means, that agricultural land, which is not needed for the fulfilment of the region's food demand, can be used otherwise. Since the region does not have that many natural resources (anymore), especially regarding energy production, the spare land could be used for the production of renewable energy and the production of renewable resources, but also to improve ecosystem services in general (air and water purification, infiltration, flood protection, cooling, etc.). Reaffore-

station and the reintroduction of domestic crop plants, such as hemp, are possible. The intended growth of the hinterland settlements will also require a certain amount of this space.

It needs to be said here, that calculated land surplus cannot be an argument for further unrestraint urban sprawl and land sealing. Under the current economic circumstances the profit oriented development of this land would only serve individual profit interest. Functionally monotonous developments, based on individual car mobility would only damage the environment.

This quite large amount of agricultural land and a relatively small number of people to supply reduces industrialized agricultural production, with its need for huge plots, large-scale farms, monocultures, artificial fertilizers and pesticides, to absurdity. As I have argued before, the high land-use-pressure in the agricultural sector is rooted in the capitalistic production logic of maximum profits. The land-use-pressure is high, when the products are produced as exchange-values – if they are to be sold at highest prices on global markets. But if the product is trade on the basis of its use-value – to feed the population of the region – land-use-pressure is low. This means, that a use-value oriented production of agricultural goods does not require an industrialized agricultural sector. Instead, the region's natural conditions would allow the agricultural revolution, which would lead to a divers, less heavy machinery and fossil fuel consuming small-scale farming structure, which would improve biodiversity and soil quality, and thus result in a more balanced relation of the societal and natural metabolisms – at least regarding the agricultural production.

Finally, the spare land could also be given back to nature. Breaking the ultimately rational logic of exploitation, ecosystem services could improve.

Invisible knowledge

Beside its natural features and its settlement structure as well as transport infrastructure, the region – but especially the hinterland – holds another vital resource: its inhabitants and their knowledge and experience on who to treat the land and take care of it.

Especially the existing small-scale farmers are virtual knowledge keepers, when it comes to their land. This kind of knowledge is not necessarily formalized, written down in books. It is more of a practical and informal kind, and it is very specific in regard to the direct environment. This kind of knowledge or competence is older than capitalism. It is the essential knowledge to feed the population in balance with the natural metabolism and with the most simple methods and tools – it is interested in the use-value of agriculture, not in how to maximize its exchange-value and individual profits.

When the Soviet Union collapsed in 1989, Cuba was cut off from any oil supplies. The agricultural machines had no more fuel, but the people needed food – which on an politically isolated island like Cuba needed to be produced locally. In order to maintain agricultural production and to keep the people fed, oxen breeders and trainers became pivotal for the country. They still had the knowledge on how to farm land without the usage of heavy machinery and only due to this seemingly trivial knowledge food supply could be maintained (Hinton 2016).

It is of great importance for the region to preserve this kind of knowledge and pass it on. This can only be done in direct relations and with practical work. The solidary food cooperative Rote Beete in the small village of Sehlis, close to Leipzig, is an important example of how people with a different idea of farming can organize themselves and preserve this knowledge by daily practice in their small-scale solidary farm (see rotebeete.org).

In the end, the limits for the implementation of a self-sufficient, ecological small-scale agriculture and the diversification of the sector rely in the ownership of land. Land grabbing and the purchase of agricultural land as an investment object by large companies has become a European issue (Kay et al. 2015). As long as municipalities and private farmers sell arable land to solely profit oriented companies, they give away their power to transform their agricultural sectors into self-sufficient agricultures. In the end this means, that agricultural land needs to be deprivatized in order to get back full steering capacity. A moratorium for further land sales as well as active repurchase strategies and funds are needed. Further, leaseholds, which allow the use of land only under the condition, that the use of land serves the community and not private profit interest, should be the only form of private land ownership.

Contingency Plan

The contingency plan for Leipzig and its region aims for self-sufficient food production and an agricultural revolution. Using the existing infrastructural network, demographic decentralization of the urban core and concentrated developments in the hinterland are the keys for a self-sufficient, regional economy based on the agricultural sector. Through active cooperations between producers and consumers, this would mean to overcome the separation between Leipzig and its hinterland.



Surmounting this aspect of the capitalist settlement form – and with it the urban era – means to reorganize the region's existing spatial structures. Doing so, the spatial basis for an embedded post-capitalistic economy, which prioritises regional use-values over non-territorial exchange-values and which is based on agricultural self-sufficiency, is created.

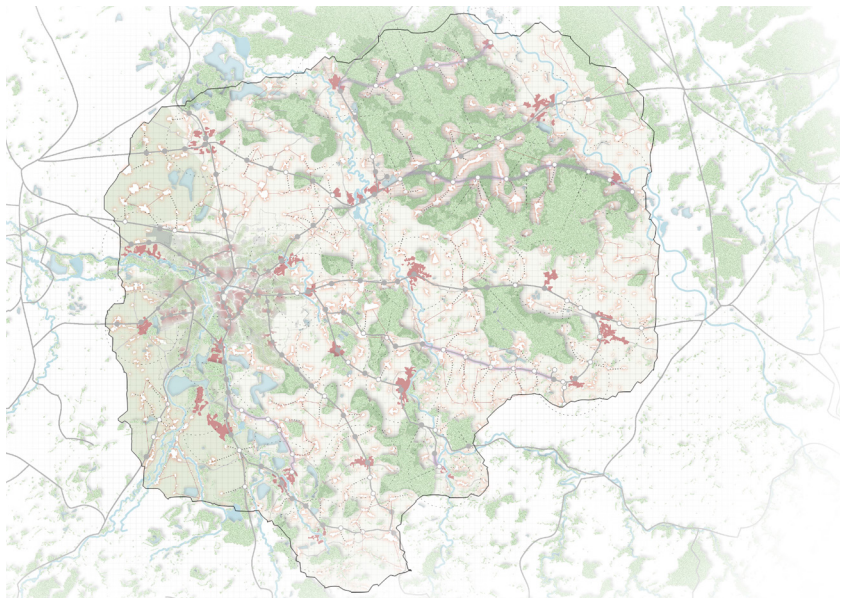


Image 29_Contingency plan for the region of Leipzig

Strategic locations

The basis for the entire contingency plan are the villages in the regions. Those are the places where most of the agricultural production takes place, and which show the greatest undersupply with public services, such as schools and health-care. Further, they show the least cultural diversity. In order to conduct the agricultural revolution as the basis for the self-sufficient food supply of the region, the villages need to be equipped to attract new inhabitants, which want to live an alternative life and work in small-scale farming. Therefore, the villages need to prepare themselves for a 30% population growth and provide the infrastructure.

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E14

With the influx, a broader cultural diversity will emerge, which needs to be supported by public meeting and community places. Those places can also be used for cultural exchange with Leipzig (theatre, concerts, etc.). Further, common meeting



Image 30_Cultural exchange in the AmViehTheater zu Beulbar
Henryk Schmidt

places should also serve the political life in the villages and foster political participation, face-to-face conflict resolution and allow the emergence of informal, non-profit socio-economic relations, such as sharing or simply helping out. Political participation is highly important, since the question of what and how much to produce is no longer a dull matter of individual profits on the market, but one that concerns the entire community. Those meeting places are also cornerstone to integrate the new inhabitants into the local community and support self-organization and management.

The villages also need to provide arable land as well as farms or at least building ground for new farms. It is important, that the community remains the land owner in order to maintain their steering capacity and to promote economic activities, which are not focused on the creation of exchange-values – individual profits. Economic activities for the common good (Felber 2018) and new forms of living together need to be supported by the community.

In negotiation with the local farmers, the agricultural production needs to be adjusted to meet the goal of producing at least twice as much as needed for the self-sufficiency of the village. In most cases, this would mean to reduce the amount of agricultural land, to compensate the farmers, which would lose land, and to subdivide the large fields into smaller plots. Further, the distribution and transport system of the agricultural products needs to be optimized. The transport can be done, using the existing railway system. The linear rail system allows a flexible positioning of the stops for passenger as well as freight transport. Especially in the least densely populated areas of the hinterland, where the road system is the only transport infrastructure, additional stops could become new centralities, which connect those areas with the entire

region and provide the switch from road to rail. That way, the agricultural products could be loaded on trains as soon as possible, and thus travel most of the distance – from the point of production to the distribution points and consumers in Leipzig – electrified and without the need for fossil fuel based transportation.

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E15

This means that the last kilometres between village and next station need to be revised: a shared and electrified transport fleet (tractors and trucks) should be implemented. A commonly used fleet of electrified tractors could cover the transportation of the agricultural goods on the last kilometres. Further, places for small-scale food processing (local demand) as well as storage need to be organized. Since the region does not offer a large supply of mineral resources, each settlement should establish recycling points. Those could be the first venue for materials and products, before consuming or producing new ones.

Finally, competence centres need to be established. There, local farmers can meet the new small-scale farmers and impart their knowledge. Those centres do not need to be highly formalized, they could also be temporal. Important is, that the practical knowledge on how to feed the community in balance with the natural metabolism is shared. Further, this action would foster the interaction between old and new inhabitants and give a new meaning to the people's knowledge. The integration of elderly people, which still have the knowledge and skills on how to process and preserve food at home, would also be a great contribution for the village's social lives and community building.

It is important to mention, that the approached growth and spatial development needs to be compact and complex in

structure and form. Existing buildings should be reused. Building entirely new should be the last solution and mainly done with regional materials. Timber and hemp would be feasible and renewable regional products, which could reduce the demand for external building materials.

The two settlement hierarchies Mittelzentren and Oberzentren can be pooled to a new spatial category: the new urban cores. Municipalities within this new settlement type need to grow till they reach a population of about 30.000 people or double their number of inhabitants. Those cores combine urban and rural qualities. This requires an appropriate provision and concentration of infrastructure and public services. Especially education, health services and conditions for a divers cultural life need to be improved in order to attract new inhabitants.

Similar to the villages, cultural diversity needs to be supported and meeting places for the community need to be created. The political participation in those new urban cores also needs adequate places. As for the villages, the new urban cores are also supposed to reorganize their agriculture to meet the goal of producing at least twice as much as needed for their self-sufficiency. For a settlement with 30.000 inhabitants, this means the cultivation of 150km² agricultural land – a circle with a radius of about 7km. Actions which attract influx and support small-scale farmers as well as alternative forms of living together also apply to the new urban cores.

In contrast to the villages, nearly all of the region's new urban cores are connected to the train network, thus to Leipzig. Only in the North-Eastern part of the region the rail network is not connecting the new urban cores Dommitzsch and



Belgen-Schildau. The expansion of the rail network to connect those two settlements is desirable, because those municipalities are located in the area dedicated for afforestation. The new train lines connecting those two settlements could be used to transport the cut timber and directly distribute it within the region.

Due to the connection to the train network and the direct link to the core city, the new urban cores have to organize the transport and distribution of the agricultural products from the villages and themselves to Leipzig. Same applies for goods, which flow the other way around. This means, that the switch from electrified last-kilometre-transport to train needs to be organized. Hubs along the train line need to be built, that serve as central distribution and switch points. Further, food processing and storage needs to be combined in those places.

Again, it is highly important that the spatial development, which facilitates the approached growth for the new urban cores, needs to be compact, dense and complex in structure and form. In order to promote rail transportation in the region, the development direction of the new urban cores should follow the linear railway lines and densify and intensify around new stops and hubs.

In cases where new urban cores are in close proximity to each other, functional clusters, which share infrastructure and services, should be formed. However, each settlement within the cluster needs to organize its self-sufficient agricultural production.

With the decentralization, Leipzig, the concentrated urban core of the region, will face demographic shrinkage about

30%. For Leipzig this means to concentrate its development and urban life to the old cores of the city – the superimposed villages of mercantile Leipzig, which became the cores neighbourhoods during Leipzig’s industrialization. All of the city’s districts and most of their old neighbourhoods, the ones which were developed during the industrial revolution, are connected to the regional rail network. Therefore, they offer good starting conditions for the supply of their agricultural demand with regionally produced products, transported via train. Further, this link to the rail network connects the inhabitants of the districts to the entire region. Increasing the number of stops along the train lines, this easily accessible transport infrastructure individual could be a feasible alternative for individual motorized mobility, while the cooperation with the hinterland and the exchange of culture becomes achievable.

Together with the tram network, which connects the city’s neighbourhoods on a smaller scale, the rail infrastructure has the potential to become Leipzig’s new supergrid. In many cases the rails run parallel to the current supergrid and their knots are in most cases similar to the knots and centres of the supergrid. Instead of the highways and arterial roads, the circular rail system with its radiating branches, linking the city to its hinterland, could become the new backbone of the city. As in any linear transport system, the amount and distribution of the stops is determining for the accessibility and thus functionality of the network. The example of Paris shows, how a dense network of metro stops (approximately 400m between the stops) can provide a highly efficient and accessible transport network. With such a high density of stops, areas between the stops become accessible for walking and biking, thus reduce the need for (individual) motorized mobility.



Supplying Leipzig with agricultural products from its hinterland, which are transported fossil fuel free via rail, would change the meaning of Leipzig's supergrid. Whereas the supergrid has been the arterial network that supplied the Leipzig, the railway could become the new determining infrastructure, which provide access to the city's substrate – its hinterland and the food produced there. At the same time, it connects the city and its region to Europe and the globe.

This change in meaning and importance would also affect the extended regional supergrid, which connects the hierarchical settlement structure. Existing rail tracks, which run parallel to the road based supergrid, would become the new and electrified arms of the regional supergrid. At least three new railways, of which one follows an old but abandoned track, need to be built in order to create a better connectivity within the settlement network. Further, the existing rail network needs more stops. The existing rail network is only valuable for the region and can only replace the road based supergrid under the premisses, that it provides as many access points as possible. No matter at which position in the network, the new stops need to passenger and freight hubs. Here the agricultural goods are loaded on the trains and are distributed among the network – fossil fuel free.

Settlements in the region, which are not connected to the rail network but to the extended supergrid, have to use the road network, which is always connected to the rail system and its stops. Transportation on those routes could be electrified in the future. In the long term rail tracks could be built along those routes. Meanwhile, electrified vehicles need to cover those relatively short distances.

Within the decentralization process, Leipzig's development and renewal processes need to be concentrated along the new stops of the rail system – no matter if train or tram. The concentration on those spots as well as on the, already connected, industrial neighbourhoods of Leipzig's districts would lead to a stronger fragmentation of the entire city. The spaces in between the fragments, which are furthest away from the rail system's stops, need to be depopulated. The gained space should be used for the expansion of Leipzig's allotment gardens. Those could become places for collective food production – especially gardening – within the city and social interaction.

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F30

On the contrary to the field plots in the hinterland, the detailed plot structure of the allotment gardens needs to be broken up, so that collectives can cultivate larger plots, which provide a higher productivity level than the current plots. Further, commonly used allotment gardens allow less resource demanding shared use of tools and buildings. Redundant spaces should also be given back to nature. New park structures and more green in general, would improve air quality, reduce flooding risks, increase eco-system-services and overall improve the quality of life in Leipzig.

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F18

The number of inhabitants of Leipzig's districts varies between 30.000 and 80.000 people. With a shrinkage of 30%, this would mean, that the districts vary between 56.000 and 20.000 inhabitants. With this number of inhabitants, those units come relatively close to the self-sufficient 30.000 inhabitant new urban cores. This means, that political participation as well as food supply becomes easier to manage. All the districts are connected to the circular rail structure, which provides access to the hinterland. Therefore, each district needs to have a larger distribution hub, where agricultural goods form

the hinterland switch to tram or electrified last-kilometre-transport and finally reach the consumers. Additionally, all of the districts, apart from the city centre, have access to arable land and could produce for their own demands.

Strategic actors

In order to be implemented, the contingency plan requires the involvement of several strategic actors on various scales and with different legal powers.

Since the main focus of the plan is the region of Leipzig, the administration of the federal state Saxony needs to be involved. First of all, they need to provide a legal frame that enables this transformation. Changes in the federal state planning and its legal documents are required. The socio-economic goal of a self-sufficient agricultural supply and the long-term approach of a self-sufficient regional economy need to be expressed in the legal constitution of the state. In addition, changes in land and ownership laws, which strengthen the municipalities, are needed. Further, the federal administration needs to provide funding for the municipalities, in order to equip them with the financial capacities to steer the desired developments and invest into their infrastructures. Possible compensations for large farmers, which give back land to the municipalities and divide their plots, should also be financed by the federal state as well as measures of renaturalization.

The three counties, that compose the Region of Leipzig, are highly important for the implementation of the contingency plan. They provide detailed information on the agricultural production and local potentials regarding the transformation of the agricultural sector. In the same way, they are the next higher government level. Therefore, they have direct contact

to the municipalities and have the knowledge to implement the decentralization strategy. In order to gain more steering power, they need to join together and form a new political body, which is to be elected by the inhabitants of the three counties and which forms a new intermediate government level with independent socio-economic goals. Regarding the decentralization and restructuring of the agriculture, this new body, Leipzig and its hinterland, is the steering power. As such, it needs to provide and distribute funding, especially for adjustments of the infrastructure and spatial developments, which support the goals of the contingency plan.

The regional planning association Westsachsen (Western Saxony) needs to become a strong institution in this new body. Right now, it is a planning body, which organizes regional planning and creates formal regional plans for the three counties. Since they are already connected to all the relevant actors in the region as well as to the neighbouring regions, their main task will be the organization, management, coordination and communication of the transformation. This task requires an increase of employees and finances. Further, they need to have to gain more autonomy regarding transport infrastructure development and coordination.

The municipalities – villages, new urban cores and Leipzig and its districts – are of vital importance, because they have the legal right to their land and planning sovereignty. This means, that on required changes can be done without their permission. The municipalities need to work out active strategies for repurchase of land and the new division of farming plots. Further, the municipalities need to organize their infrastructural upgrades in order to attract influx and at the same time provide a spatial strategy, including building law, for the intended growth. Concerning this matter, the municipalities

need to play an active role in order to create a strong social life and political participation. This does not just include the creation of community places but also face-to-face conflict resolution. The municipalities and their qualities are the key for the decentralization.

The demographic decentralization will not only be a matter of providing high quality of life and the combination of urban and rural qualities in the hinterland. It also requires more active forms of steering. Since the city and its potential job offers will attract people as long as capitalism exists, the national administration needs to create a strong pull factor, which has the potential to be an alternative for current job-driven decisions on the place of residence. First, this means that the national administration should provide a fund for transformations in the hinterlands, which contribute to decentralization and self-sufficiency strategies. Second, the national administration could start a pilot project on the contributory income. Municipalities, which apply for this project, would get funds in order to provide a contributory income for everyone, who is willing to move to the respective community and work there for the wealth of the community. First and foremost, those are the ones who organize themselves as small-scale farmers. In a second step of the project, people, which do not work as farmers but as well contribute to the wealth of the community, should be included. Determining for the contributory nature of work could be its approach towards value creation: is ones work serving profit-oriented exchange-values or community-oriented use-values?

Beside the public actors, private or semi-private actors need to be involved. The Deutsche Bahn AG and their regional subsidiaries need to be mentioned first, since they are the ow-

ners and operators of the Region's rail network. Any adjustment of the network – new stops, extensions, demand driven operation and frequency changes – needs to be coordinated with Deutsche Bahn.

But apart from the railway infrastructure provider, it is the people, which need to be involved in order to make the contingency plan work. First of all, everyone who is looking for a more meaningful life, one in which existence is not dependent on economic success but on one's individual contribution to the community, needs to be reached. Those people might be deprived, isolated, un- and underemployed, the ones stuck in pointless jobs, which suppress their natural creativity, unwilling to spend most of their time for the profits of others or simply lack dignity and appreciation. They might suffer from psychological diseases, stress and pressure, are powerless, are single parents, can barely pay rent anymore or are in need of social welfare even after working a whole life. It is the increasing number of people from different social backgrounds, which are not benefitting from the current economic model and its distribution system and have to live under increasingly precarious conditions, which will be open to try new forms of socio-economic organization.

Existing initiatives, and especially the ones in the alternative spectrum, need to be informed about the plan and the funding. Those initiatives are already self-organized and have networks to other groups, which could help to build active city-hinterland-cooperations.

Second, it is highly important to involve the local communities and the local farmers in the hinterland as early as possible. They need to be convinced of the plan and its benefits, because it is their homes, which are going to transform with

the decentralization. In the end, you want to decentralization and the restructuring of the agriculture for and with, but not against them. Further, they are the ones how have the practical knowledge regarding the particular local environment and small-scale farming methods.

The implementation of the contingency plan for the region of Leipzig will be a large and comprehensive process. But in order to demonstrate its potential, to minimize potential resistance and to get the process started, a pilot project should be started first. The following section will describe, how one of those pilot project could look like and what spatial adjustments would be needed.

Pilot Project

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F1

Sehlis, a village near Leipzig with around 170 inhabitants, could become a pilot community to implement and test the contingency plan. The village is embedded in a rolling landscape of wide open fields, interrupted by tree lines and groups of trees. In between the smooth hills runs the river Parthe.

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F3

Beside conventional farming, which structured the large fields around Sehlis, a food cooperative named Rote Beete has moved into one of the old farms. The 20 people living and working at the farm practice self-organize, small-scale organic farming and have established a distribution network to Leipzig. The Rote Beete is an experienced self-organized community, which means that they provide knowledge on alternative farming and community organization. Together with the village community, they are the starting point for the pilot.

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F6

The first step in the transformation of Sehlis is to activate its community places, such as the old pub and the church. They are meeting places where community life takes place and the issues of the community are discussed. Further, additional social infrastructure needed to make Sehlis an attractive place to live and enable the community to organize themselves. An old farm can be transformed to host a school and a day care facility. The abandoned buildings of the old pig fattening farm are transformed into a communal assembly place, a recycling point, barns, storage space and a machine park.

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F8

In order to establish active cooperations with Leipzig, a central distribution hub is needed. Here, the agricultural products from the fields are collected, loaded and collectively shipped to the next rail hub, from where they are transported to Leipzig. This local distribution hub is the connection to

the entire region and will become Sehlis' centre. A local supplier should be attached to this facility and open space for temporal markets provided.

In order to attract new small-scale farmers, the community buys farm land back and provides small plots for new community farmers. An old and abandon farm is provided to the new inhabitants to establish a community farm.

In order to transform Sehlis into a productive community, new qualities are created, access to the commons is provided and the conditions for active cooperation and self-management are created. Those transformations need to be based on community decisions and steered by the community itself.



Image 31_Sehlis in its first phase of the transformation

In a second face of Sehlis' transformation, more land needs to get back into community ownership, old farms need to be converted into community farms and fields need to be subdivided into smaller plots. In order to reach the productive level to support the agricultural self-sufficiency of the entire region, Sehlis needs to attract and facilitate a demographic growth by 40%. Together with few new farms, which need to be built, the transformation and common use of existing farms could facilitate this growth. With a new population of about 220 people, Sehlis is supposed to produce agricultural products for 450 people (doubled own supply). A community farm, such as Rote Beete, can supply 40 people with 10 ha of arable land. To meet the demand of supporting 450 people, 120 ha of small-scale farm land are needed.

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F10

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F12



Image 32_Sehlis in its second phase of the transformation

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F13

The cooperative small-scale farming will change the plot structure of the fields and with it the landscape around. The new small plots are divided by hedges and small tree rows. Those provide a habitat for flora and fauna, enforces ecologies services, such as the ecologies services, such as bees for natural pollination by bees, and increase biodiversity. Further, they are a natural protection against soil erosion.

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F18

Instead of monocultures, which are needed for maximum profits, the diverse and garden-like fields, make a larger diversity in crops and plants possible, and thus contribute to the resilience of the environment in case of crop failure or infection. The filed should provide seasonal vegetables, pasture and fruit-bearing trees, and crops. Additionally, the diversification of crops could be increased by the introduction of renewable resources, such as industrial hemp.



Image 33_Sehlis. The self-sufficient agricultural production and the small-scale farming start to change the landscape. A new landscape, characterized by small plots, hedges and divers agriculture is emerging.

Since less space is needed for the agricultural production, land use could be diversified: small patches of reforestation and natural habitats could emerge as little islands in the rolling landscape. Further, decentralised renewable energy production could be combined with the agricultural use of the land.

With the implementation of the contingency plan on this scale, the landscape will change. It will become more diverse, complex and to a certain degree natural. This will increase the differentiability of the landscape and strengthen the identification of the people with the land they take care of.

Further assumptions regarding the pilot project and the transformation of various places within the regional distribution network can be seen in the atlas:



transformation Taucha (new urban core)



transformation BMW Factory (Leipzig)



transformation Polygraph Areal (Leipzig)

Up-Scaling – The full Potential

The pilot projects, of which I illustrated just one, can easily be expanded. The key is, that each pilot project is working with very unique local ecologies and conditions. This means, that they do not produce standardized solutions, but instead are highly diverse. And it is this diversity, which allow the creation of embedded – within the natural limits and meeting the actual local demand – socio-economic relations. As an entity, those diverse relations supply the entire region and thus make it resilient.

If resilience defines a system's capacity to adapt to external changes and to maintain its functionality, the key for a resilient system lies in the creation of alternatives (Hinton 2016). The diverse structure – the different and particular pilot projects – make the contingency plan resilient, because the failure of capitalism and the global supply chains, but also local disasters or just bad harvests, could be compensated by the various support lines.

Further, the pilot projects allow easy and quick up-scaling. Once the testing of the pilot projects shows how the self-sufficient small-scale agriculture is performing and where the plan needs to be optimized or adjusted, similar projects can be applied all over the region. If they work on the small-scale – if the producers can support themselves, distribute the same amount of agricultural products to one of Leipzig's neighbourhoods and in return benefit from active cooperations – there should be no more obstacles for the proliferation of those projects. Their proliferation will be the process of deconcentration. And as an entity, those projects will make the region self-sufficient in terms of agricultural production.

Beside the self-sufficient agriculture, the contingency plan describes synthesis of Leipzig and its hinterland. Naturally, this synthesis has a very particular form due to the initial spatial situation – the spatial organization following the system of the central places as well as the transport infrastructure. Nevertheless, a closer relation between city and its hinterland, especially regarding food supply and active cooperations, can be approached anywhere but it will not have a uniform pattern. Depending on the local context, this synthesis will might look different form region to region. Ones it would be shown that the region of Leipzig could achieve this synthesis, other German regions, which are organized according to the system of central places, or regions with a similar hierarchical spatial organization could apply the principles of Leipzig's contingency plan to their particular contexts and demands.

But beside the possibilities for up-scaling, the plan's potential lies in what it offers to inhabitants. It offers alternative forms of self-determined lives, in which socio-economic relations are not dominated by individual profit interests, but where the wealth of the community is the goal. It also offers the exploration of a different relations to the environment. Taking care of the land and its ecology, producing and consuming within the region's limits, and thus preserving the existing ecologies, will generate new values and offers a moment of identification with the region. And finally, it offers the supply with fresh, non-toxic and regionally produced food and the independence of global food supply chains.

A self-sufficient agriculture for the region of Leipzig was the primary goal, which can be achieved with the contingency plan. But the same structures that the contingency plan

proposes can be used to implement a regionally embedded post-capitalistic economy. With the autonomous satisfaction of the region's agricultural demand, the base for a post-capitalistic economy is created. The decentralization, which the contingency plan requires, will lead to a diversification of economic activities in the villages and new urban cores. If those activities have the main purpose of creating use-values for the community and do not serve individual profit interests – just as the self-sufficient supply with agricultural products from small-scale farms – the region could develop a fully demand-driven regional economy.

Limitations

Naturally, any plan that works with the existing resources of a region and that stresses the importance of natural ecological limits, needs to point out its own limitations.

Intensified recycling would be a way to recover different resources and especially metal. For a region in one of the most wealth nations in the world, material abundance should not be a problem but a part of a larger solution. Reafforestation and intensified cultivation of hemp could compensate the needs for building material and textiles. Even with intensified recycling and alternative, renewable resources, the region will have to import certain materials and resources.

In terms of energy, the land surpluses from the reduced agricultural production as well as the decentralized settlement structures could bring forward renewable energy production. But even if wind and solar energy could supply the entire region, there is still a need for oil. In form of plastic, oil will still be needed, but even more important, oil will still be needed to guarantee the operational reliability of blue light services.

Even though an electrification of those services is conceivable, their independent operation can so far only be guaranteed with reasonable oil reserves.

Chances for successful implementation

The chances for a successful implementation of the entire contingency plan mainly depend on the moment of implementation. Determining are the political will and the power to put the plan into action.

Currently, the implementation of Leipzig's contingency plan would be possible. Within the current laws and under consideration of more restrictive land ownership policies it is feasible. Financing this transformation would be possible, but the question is if the funds needed would be approved. The political will becomes the barrier for the near-term implementation of the contingency plan. Since the dominant powers are always interested in maintaining and defending their power, it is unlikely to happen under current free-market friendly politics and rampant neoliberal ideology.

The implementation of the contingency plan becomes more likely, as the process of capitalism's decay continues. The increasing urgency and intensification of socio-economic, political and environmental contradictions caused by capitalism's decay will also increase the feasibility of the plan and the likelihood of its implementation. The barrier to this option is time itself. Coming closer to the final event of capitalism's end will also decrease time frame to implement, test and adapt the plan. Or in other words: while the likelihood of implementation increases, the likelihood of success decreases.

During the event of capitalism's failure the plan cannot be

implemented. No one can possibly know what exactly will happen in this time. But while virtually everything could happen, it is for sure the current power structures will change. A temporal power vacuum would vanish any power structures, which could have the steering capacities to implement the plan.

In a post-failure moment, the phase of reorganization, everything might be possible. It is imaginable, that spatial decentralization might be a natural development: in need for food, people will leave the cities and move to the hinterland communities. The problem of this natural development is the possibility of casualties and lost peace due to social distempers and distribution battles, which are likely to happen if self-sufficient agricultural production is not provided. The plan would be too late.

To conclude, the sooner Leipzig's contingency plan is implemented, the higher the chances for its success and feasibility. Beside the aspects of time and political will, the matter of land ownership remains critical. As long as the privatisation and appropriation of land for profits continues, the communities' capacities to act decrease. In order to reach the full consequence of Leipzig's contingency plan, the symbiosis of city and hinterland, land needs to be decommodified and reappropriated by the public. Land needs to become a common good.

The following chapter contains a scenario, which illustrates the full potential of the contingency plan in a larger socio-economic and political context. It will describe the changes, which would be needed – and which might happen – to deliver the plan's full potential benefits: the spatial organization of a post-capitalistic economy.

Conditions for the plan to sustain

Every system change or adaption needs certain anchor points that assure the entire system's endurance. Law and the constitution are the most powerful tools to assure a system's endurance, because they describe the basic principles for a society. They provide rights and organize a framework, in which all societal relations take place. But law is nothing neutral. It has a specific historic context, in which it was created, and it always represents the attitude of the ruling powers. In that sense, law and its respective system need to adjust in time, because it needs to be legitimized by the ones affected. If a law contradicts common social practices, resistance becomes likely and the underlying system's stability decreases due to decreasing legitimation.

In the region of Leipzig, all the changes proposed were successively transferred into applicable law, and finally a constitution for the region. This constitution and its laws were inspired by Roman politician and author Cicero, who wrote: "let the welfare of the people be the ultimate law" (Cicero *De legibus* III, 3, 8). The welfare of the people – the common good as the basis for individual well-being and freedom – was the core of the regional constitution and every legal matter. The common good offered and demanded a responsible life in community and in balance with nature. Furthermore, it fostered a self-determined life and active political participation in the community and other governance levels (see Chapter VII). It legitimized itself through the freedom and quality of life, which it provided to the inhabitants of the region.

But endurance is not simply a matter of legitimation, it also requires active reproduction and adjustment. In order to endure, law needs to be embedded in societal awareness and

daily practice. Giving back political responsibility to its people and offering responsibility and self-determination for one's own life through the well-being of the community, reproduced the common good as the ultimate law, because it meant to end paternalism and instead trust in the people.

Whereas the idea of the common good was institutionalized in law and practiced and adjusted through daily societal life, education was needed to continue the legacy of this idea. In the first instance that meant to change school curriculums, to start educating the youngest about the common good. Instead of kids, which choose curriculum profiles in the age of 12 in order to increase their chances for a specific study or job in a distant future, they were educated more holistically. Being responsible, knowing oneself and being able to take care of social relations and the environment might turn out to be the better school for life than forcing everyone to study advanced maths in high school.

The centralized knowledge institutions in the region, but mainly in the city of Leipzig, also need to transform. Instead of being those detached ivory tower, they need to be opened up and decentralized. In the region of Leipzig, the knowledge concentration in the core city needed to be tackled. This was to be reached by the introduction of knowledge institutions among the network of new urban cores, which were in cooperation to the knowledge core Leipzig. Equipping those with higher education was also a form of active cooperation between the core city and its hinterland and made the new urban cores more attractive. Furthermore, new focus points of those knowledge institutions were related to the actual location. Agriculture and forestry, alternative economies and business management, transport management as well as phi-

losophy become important pillars of the region's knowledge reproduction.

Finally, the region needed to find and test methods on how to organize informal local knowledge. This form of knowledge covers traditional methods of farming without industrial aids, food processing, storage without preservatives and forms of communal self-organization and sharing. This kind of knowledge was collected, preserved, communicated and developed. Therefore, support in form of locations for interaction and community life as well as funds for informal education processes were needed in the communities, no matter how small.

The idea of the common good in Leipzig will reproduce itself through daily practice and the active education of its people. Naturally, adaptations and changes will be needed, but if the idea of the common good and its principles are fine, no one will refuse them completely but work on their improvements. Instead of disempowering the people of the region out of fear of change, Leipzig's new constitution showed trust in the citizens and its own idea – the common good. This was probably the best strategy on how to endure the new system.

VI. SCENARIO: A HISTORY FOR THE FUTURE

A new EU – A Landscape of embedded Economies

Introduction:

The demise of capitalism and the welfare states

The world has changed. The EU has changed. Gone are the times of strong national states, controlling territory within their artificial borders.

In the rational approach for maximum efficiency and minimal production costs, artificial intelligence and automation processes were comprehensively applied within the national economies. But this corollary of the capitalistic development in pursuit of endless growth and profits did damage the soil of its own development. The increasing application of artificial intelligence was challenging the foundations of capitalism: its scarcity-based profit making mechanisms, consumerism, its legitimation and the institutional framework, which assured its hegemony.

Replacing scarce human labour with a theoretically infinite labour force (robots and artificial intelligence), the automation of the European economies rattled the very basic capitalistic profit making mechanisms (Marx 1887): through infinite labour no additional value could be added to the products' original use-value. Hence, the market prices of those goods decreased. Additionally, the profit margin decreased due to overproduction effects in the global economic concurrence. Consequently, only very little surpluses were generated.

The true meaning of this process could be observed in the information and service sectors of the European economies, in which information and data were already close to infinite: the combination of infinite labour and infinite resources al-

lowed virtual zero-cost-production (Mason 2015). The basic capitalistic function of turning use-value into exchange-value in order to generate profits was not working anymore.

Those micro-economic effects of the late neoliberal capitalism affected the national economies of the EU in a way, that only very little or no growth rates at all could be achieved. For the growth-based national economies and their social systems, the struggling micro-economies, the accumulation of various crisis, the insecurities regarding markets and socio-economic instability, meant great danger to their functionality and legitimation.

As Streeck pointed out, the legitimation of capitalism as a socio-economic system depends mainly on its ability to generate growth and on its capacity to redistribute the accumulating profits, which concentrate in the hands of few (Streck 2014).

The comprehensive application of artificial intelligence and automated production processes made large amounts of people economically useless.¹ The entire EU was impacted by an increasingly large number of un- and underemployment people. As a result of the increasing number of welfare recipient, the European welfare states were not able to finance and provide social security services, such as pensions and unemployment benefits, anymore. Additionally to the incre-

¹ Current studies on the future of work in the face artificial intelligence and automation point out, that in the next 10 to 20 years up to 50% of the jobs in the EU could be automatized (Frey, Osborne, Michael 2013; Dengler & Matthes 2015; McKinsey Global Institute 2017). Even though these studies stress the fact, that human labour – and especially high skilled labour – will always be needed and that self-augmentation as well as self-improvement will become more important, they mainly focus on the effects to the micro-economies and neglect the consequences of such developments for the low-skilled labour force, the macro-economy and the welfare state.

asing number of recipients, the number of employees liable for contributions decreased. The states' expenses increased, while their (tax) income decreased. This led to increasing budget deficits and increasing state debts in order to keep the welfare state alive.

At the same time the increasing number of un- and underemployed people, living in increasingly precarious conditions, led to a drastic decrease in individual purchasing power. The resulting underconsumption pushed the consumption-driven national economies close to collapse: companies went bankrupt or moved to other, yet still profitable, parts of the globe². Consequently, more people lost their jobs and national tax revenues decreased further.

A deep economic crisis – the final agony of neoliberal capitalism – was hitting the EU. A crisis so fundamental and striking that the old cures, such as minimal base rates, state investment programs, emergency loans and increasing (private and state) debts, which had been applied during the previous capitalistic crisis, were not working anymore.

Instead, the global, national, regional and municipal concurrence for the last bits of investments, employment, economic development and growth – the legitimization of neoliberal capitalism and its protective allies, the national states – became so cruel that even the few winners, those able to attract at least some investments, had to pay a price beyond bearable. Austerity in the nations, regions and municipalities and a sell-out mentality regarding the once inalienable commons were

² Arrighi made the point that "capitalists are interested in the expansion of production only if it's profitable" (Wallerstein 1995: 3); also see Brenner 2014b

threatening the legitimation, and thus the existence, of the democratic bodies of different scales, their institutions and constitutions and their socio-economic order – neoliberal capitalism.

The crisis of capitalism's legitimation as the dominant socio-economic order (Streeck 2014) was triggered by its failed promise for "a good life for all" (Exner & Lauk 2012). Because of the historical intertwining of national state and capital, capitalism's demise was indispensably tied to the fail of the European welfare states.

It was at the beginning of the 2020s, when the EU and its peace-guaranteeing values were in great danger. But as it has been before, every crisis of the dominant system creates the soil for socio-economic as well as political innovations (Exner & Lauk 2012).

A matter of dignity and power: Threats from below

As critics and analysts of capitalism had predicted before, the system's systematic disorders led to increasing socio-economic inequality (Streeck 2014). This inequality, which increased drastically with the automation of the European national economies, was dividing the European societies.

Repeating the old neoliberal lie, that each individual is responsible for its own success – respectively failure –, the increasing number of un- and underemployed, economically useless, people were blamed for their increasingly precarious living conditions. They were told that they only needed to augment themselves to the new demands of the labour mar-

kets: self-improvement, specialization and flexibilisation of the individual to sustain the increasing concurrence on the labour markets – to get a job on board of the titanic (Lemmens & Hui 2017 referring to Sloterdijk).

The increasing scarcity of jobs on the European labour markets – especially regarding low skill and low profile jobs – was clearly an effect of the strive for endless profits in those years. But the blame for unsuccessful participation in job markets was put on the individuals. In the spirit of the Calvinistic work ethics³, guilt and shame for unemployment and precarious living conditions were put on the economic subjects, rather than on the socio-economic system that promised a “good life for all“ (Exner & Lauk 2012). This attitude did not just reduced human dignity to a matter of economic exploitability, it also became a great threat to the EU, its democratic principles and values, such as humanity and solidarity, its constitution and institutions.

It was between 2010 and 2025 that the last and most intense waves of urbanisation and urban growth hit the metropolitan areas and urban agglomerations of the EU. Following the rule of capital (Brenner 2014b) private investments accumulated and fixed at the only remaining, seemingly profitable places – Europe’s cities and metropolitan areas.

In the hope of employment, people moved to the selling-out cities in austerity. But the continuous and rapid automation

³The Calvinists were a group of English protestants in the beginning of the industrial revolution. They believed, that labour was the self-purpose of life. Hence, individual economic success through “hard work” was seen as a measure of a good life – a life as god wanted it to be. This purely rational work ethics, which assesses the “usefulness” of a human being on basis of their economic exploitability, became the basis for neoliberal performance society and is still dominating our mindset.

of jobs did not left enough labour for the job-seeking masses. Instead, the living space within the cities ran short drastically and without proper compensation in form of low-income housing (Deutscher Mieterbund 2018).

Beside the increasing impoverishment and casualisation, caused by the large un- and underemployment, the living conditions for this increasingly large group of Europeans decreased. Accordingly to the increasing scarcity of living space and the increasing demand, private property and landowners as well as developers increased real estate prices and rents. The cities' residents – especially low-income earners but also the middle class and the middle-class intellectuals – impoverished dramatically; overcrowding and homelessness became the norm. All in all, life in the cities of Europe became more and more precarious.

Ultimately, the right to the European cities – and consequently the right to participation in the labour markets – became the right of the few profiteers of late predatory capitalism of those years. The social question of those times was no longer the Marxist one concerned with precarious living conditions of the working class due to an exploitative capitalism (Marx & Engels 1998). The European social question of the early 2020s was concerning the precarious living conditions of the un- and underemployed, the useless, (urban and rural) masses in a automated neoliberal capitalism.

The interference of social division, mass un- and underemployment, increasingly precarious living conditions, the subtle feeling of being powerless and left behind, and increasing global economic instability created a strong social tension in the EU.

This increasing tension within the societies of the EU had already been observed since the 2009 economic crisis. Nationalistic, populist, anti-European and anti-democratic parties and streams cumulated. In France Marine Le Pen and her Front National called for national autonomy. In Hungary Victor Orban manipulated public opinion and fueled fears regarding the EU and refugees. In Germany the rising AfD was playing with the subtle fears of ones who felt left behind. And in Great Britain, the Brexit in 2016 became a sign of the eruption of fear and powerlessness.

The soil for those streams and movements were the frightened, disempowered and left behind people in Europe – the ones suffering first from the increasingly precarious living conditions in the EU. The arguments of the populists, that the EU or foreigners were the reason for their personal misery, was of course far wrong. The reasons for their subtle feeling of discomfort, uneasiness, distrust and fear did not lie in any scapegoat, but in the effects of late neoliberal capitalism on the societies and their individuals. Especially in states of the former USSR, the socio-political effects were the most visible. After the fall of the iron curtain those states became unrestricted playgrounds for neoliberal experiments. Hence, the people in those areas experienced the negative effects of neoliberalism the most intense. Consequently, the discomfort, distrust and fear, as well as the anti-European and nationalistic tendencies, became the strongest in those nations.

Within its historic development capitalism had increasingly hollowed out local power structures and shifted the power towards the top. In concrete terms, the local power structures lost their capacity for self-determination and self-organization. This form of disempowerment touched an aspect,

which became increasingly important to the anti-European and nationalistic movements: the matter of home, identity and belonging. Whereas it was argued, that these attributes had been taken away or were threatened by the EU or foreigners, it were the relations of people to their habitats – social relations and relations to the environment –, which had been replaced by external dependencies and the organization of daily life based on market principles.

Further, the inherent basis for social relations – the commons – as well as most aspects of life were increasingly commodified. Solidarity within the communities was largely replaced by egoism. Neoliberal capitalism had reduced human life to being economically exploitable subjects – producers and consumers. The subtle fear of loosing something, resulted in the fact that in a capitalistic economy “livelihoods are bound to wage labor” (Exner & Lauk 2012). The premisses for existence was to sell one’s labour power and time as an exchange-value, so that one could satisfy his or her needs. According to Illich, in an industrialized society those needs were no individual but “heteronomous need” (Samerski 2016: 9) – buy and consume what advertisement tells you is needed.

In addition, the increasingly complex global networks and power structures (see Glunk 2017) increased the subtle feeling of individual insignificance towards politics and socio-economic development. But overall, the disempowerment and the systematic replacement of altruistic and solidary relations with dependencies following market principles, created the fears many Europeans shared in those days. In fact, it was the fear of loosing what it means to be human. Stiegler put it straight when he wrote that humans have forgotten how to life, work and conceptualize (Stiegler 2017).

In order to prevent radical social distempers, which came along with extreme nationalism, fascism and undemocratic as well as protectionist tendencies, the democratic forces of the member states, the European Council and the Parliament united and agreed to reform the EU from its very core. The everlasting dispute on the course of the EU – being a primarily economic body with little rights in favour of strong national states or being a strong community of (shared) values with weaker national states – was resolved in favour of the European regions.

Learning from Europe's History

One of the main reasons for the strengthening of the National Socialist movement in Germany, leading to Hitler's seizure of power in 1933, were the precarious living conditions of the Germans after World War I. The Treaty of Versailles was meant to keep the young Weimar Republic a weak state in the heart of Europe, in order to prevent any future German attempts to expand their power in Europe. But the treaty and its restrictions put the national economy under heavy pressure from the very beginning. The consequences were a weak economy, mass unemployment, several economic crisis and massive inflation. Overall, the state was instable and the living conditions of its citizens were precarious.

Those were the conditions in which nationalism, fascism and undemocratic ideologies could flourish. The socio-economic reality made the suffering people open for such ideas; for strong leadership to give them back their dignity and power.

Defending democracy and the EU: Nation is fiction, region is home

As the European politicians and the civil societies became aware, that the hollowed-out local power structures – the communities and their lost capacities for self-determination and self-organization – were the most urgent threat to the existence of the EU and its peace guaranteeing values, a great reform was initiated. The European regions became the new hearts of the new European Union.

According to Anders, who defined principles for preservation in times of populism (Anders 2017), collective self-determination and self-organization are the foundations for functioning social systems. Further, the collective management of local resources is of high importance. In contrast to a source, a resource is bound to a specific (social) system, which manages this resource for its own preservation (Anders 2017: 175). Therefore, the resource is used and not exhausted, hence it remains an object of collective and individual identification (*ibid.*) instead of being an object singular profit interests.

Social coherence and solidarity within a community, Anders continues, are created by the collective management of local resources (Anders 2017: 175). In that sense, resources are characterized by their common use and management. Those commons, which enable functioning communities, can be natural resource, technical or social infrastructures and land. Following the endless growth and profit paradigm, neoliberal capitalism had privatized, appropriated and externalized those commons. The resources of the European communities were taken away from the communities and became sources of external profit interests. It was the continuing commo-

dification, privatization and appropriation of the commons, which disempowered the communities. Without control over the commons they lost their capacities for collective self-determination and self-organization.

Exner and Lauck add the importance of self-management to this position. Through local self-management the communities can agree on what is needed for their functionality and to which extend resources can be used without destroying the local environment. Therefore, collectively self-determined and self-organized communities come closer to an ecologically responsible production (Exner & Lauck 2012). This position comes close to the Hegelian thinking that every developing system encounters limits and is part of a larger developing system, which sets the limits for the former (Biehl 2010). In that sense, the community as a developing system is part of a larger system, its (natural) resources, which sets clear limitations for the community's development.

The increasing commodification of resources and the commons, which led to the decreased capacity of collective self-determination and self-organization, as well as increasing individual and collective dependencies on external factors, were effecting life in the urban areas and the rural hinterlands equally. Access to the commons was in both cases a matter of individual financial possibilities and thus divided the urban as well as the rural societies. However, even more concerning was the social division between urban and rural societies within one region. The electoral success of nationalistic and anti-European parties and movements were made in the rural parts of Europe, where people felt even more left behind and

powerless.⁴The political cutting line, which became determining for the future of the EU, was between urban and rural population within the European regions.

Karl Marx had predicted this development as a consequence of capitalistic development. According to the economist James Steuard, Marx wrote that “[t]he foundation of every division of labour that is well developed, and brought about by the exchange of commodities, is the separation between town and country. It may be said, that the whole economic history of society is summed up in the movement of this antithesis” (Marx 1887, Section 4).

The political, social and economic differences between town and country, which occurred in the European regions during those years, were a consequence of capitalism’s development. What Marx had been saying is that the inherently urban capitalism required the division of urban core and its hinterland. This division, which revealed itself in socio-political, economical and spatial terms, is in accordance with the increasing division of labour in the capitalistic economies. The initially complex rural hinterland and its mutual relation to its urban core became a unilateral dependency. The hinterland was degraded to an exploitable source of the concentrated economic cores; with global trade agricultural production became detached from its core’s actual demand, profit oriented production changed the landscape and employment structures and the once integrated villages became a picturesque coun-

⁴ Election analysis after the Brexit 2016 had shown, that the majority of supporters came from the rural areas, whereas the younger urban populations voted mainly for remain. Likewise, the entry of the nationalistic and populist AfD into German parliament was strongly supported by electoral successes in the rural areas. (see <http://www.zeit.de/gesellschaft/zeitgeschehen/2016-08/wahlen-stadt-land-brexit-oesterreich-wahlverhalten>)

tryside idyll for the recreation of the urban dwellers living in increasingly precarious conditions. The hinterlands – resources of the local urban cores – became exploitable sources of global capitalism.

The process of increasing commodification, but especially the appropriation of agricultural land for profit-oriented production, destroyed the basis of functional communities. They were the reasons for the decreasing collective self-determination and self-organization capacities of the rural communities. This process of hollowing out local power structures, in the rural as well as urban areas, created the subtitle impotence of many EU citizens at this time: the indistinct feeling of losing control over their territory as a result of globalisation, privatization, speculation, appropriation and externalisation – the fertile soil for anti-democratic, anti-European and nationalistic movements.

In the face of those immediate socio-political threats to the EU and the increasingly instable national economies – the final eruptions of capitalism's death agony –, Europe's politicians and the civil societies had to act. Chased by the urgency of economic and socio-political threats to the EU, the democratic and pro-European forces came to the understanding that the resilience of any (natural) habitat, hence the stability of its various (sub-) systems, relies on the diversity of its (sub-) systems within their ecological niches.

For the EU this meant to change its inherent character: instead of being a union of national states, the EU became a union of its regions. In order to survive, the national states, striving for endless economic success, power and growth, had failed to provide a fair redistribution of profits (see Mandevillean promise). They had failed to secure employment for their ci-

tizens and they had failed to overcome the division between urban and rural areas. The national states were redundant.

“Nation is fiction, region is home” became the credo under which the EU was reforming (see europeandemocracylab.org/). A common European constitution⁵, which included EU citizenship, guaranteed equal rights and made the increasingly struggling national states, which had reproduced the unequal capitalistic power structures and protected capitalistic profiteers for such a long time, obsolete. The time of the vehicles of colonialism, chauvinism and fascism was over.

With increasing transnational economic concurrence, which caused national austerity, increasing socio-economic inequality and struggles to finance welfare spendings, and the effects of an increasingly automated neoliberal economy (unemployment and underconsumption) the European national states could no longer legitimize themselves (Streeck 2014). The construct of the national state was simply not appropriate to tackle the socio-economic challenges and the negative effects of global neoliberalism, including the socio-political and economic separation of urban and rural, anymore. The reflexive nationalism occurring in many European societies, which claimed to solve the symptoms of a globalized and automa-

⁵ The attempt for a common EU constitution had been made in the beginning of the 2000s. Even though a European constitution, which would have summed up all the different treaties made since the founding of the EU, had been ratified by most member states, the negative outcome of the referendums in France and the Netherlands put this project on a hold. Instead, the Lisbon Treaty – a weak reform compromise, which failed to make the EU more transparent and citizen-orientated – was introduced in 2007. (see eu-info.de/europa/eu-vertraege/EU-Verfassung/)



Image 34_Europe of the NUTS 2 regions

ted neoliberal capitalism on a national level, came along with chauvinistic and protectionist tendencies. But remembering former French president François Mitterrand, who said that “nationalism means war“, the threats of European nationalism were identified and tackled before Europe would sink into violence and chaos once again.

Whereas the national states had always been violent allies of the economic elites, disrespecting and oppressing regional particularities for a fictional national idea, the European regions within their cultural boundaries became the territory to reclaim lost political and economic autonomy – their capacities for self-determination and management. By introducing a European citizenship, the reforming EU made nationality, national states and national citizenship obsolete. Instead the homes of its citizens – the European regions – became the new vehicles of the European idea.

Directly representing the concerns and positions of the European regions, the Committee of the Regions was restructured and reinforced. Assembled out of two representatives from each region, roughly classified as the 276 former NUTS 2 regions, this body superseded the strong, course-defining European Council⁶. As such, the regions had direct influence on the executive European Commission and the legislative Council of the European Union.

The NUTS 2 regions evolved from being an advisory board to being politically equal members of the EU. That also meant their transformation from administrative and statistical subunits to politically autonomous entities, including full legislative and executive rights as well as territorial sovereignty within their – still in the spirit of the Schengen Agreement transparent and open – borders. Naturally, their new constitutions needed to be in accordance with the new EU constitution. Instead of the unequal national states those relatively small autonomous entities became the core of the renewing EU; a post-capitalistic landscape of particular, autonomous socio-economic and political entities.

The NUTS 2 classification was chosen for the size of those regions. The small territories foster direct identification of its inhabitants and direct democratic participation. Due to the small sizes of those regions and relatively small numbers of inhabitants, representative democracy was not necessarily needed and instead other, more face-to-face like forms of democracy could be applied. Even though one could argue

⁶ The European Council as well as the Council of the European Union have often been criticized for being too strong compared to the Parliament, causing national interests to be represented stronger than the concerns of the directly elected Parliament (representatives of the citizens of the EU) (see european-republic.eu)

that smaller units will not automatically prevent power concentration, the territory under control and the capacities to act – power itself – is strongly limited due to the small sizes of the regions. In the same regard, the size of the regions is also preventing forms of nationalistic tendencies on a regional level. This is due to the fact, that the small regions are virtually too weak, their capacity to act too small, to exist in protectionist isolation. They are depended on the neighbouring regions and the EU.

The fundamental reform of the European Union also had positive side effects on the political debate within the EU. With the introduction of a European citizenship, direct transregional elections for the new European Parliament, in which each

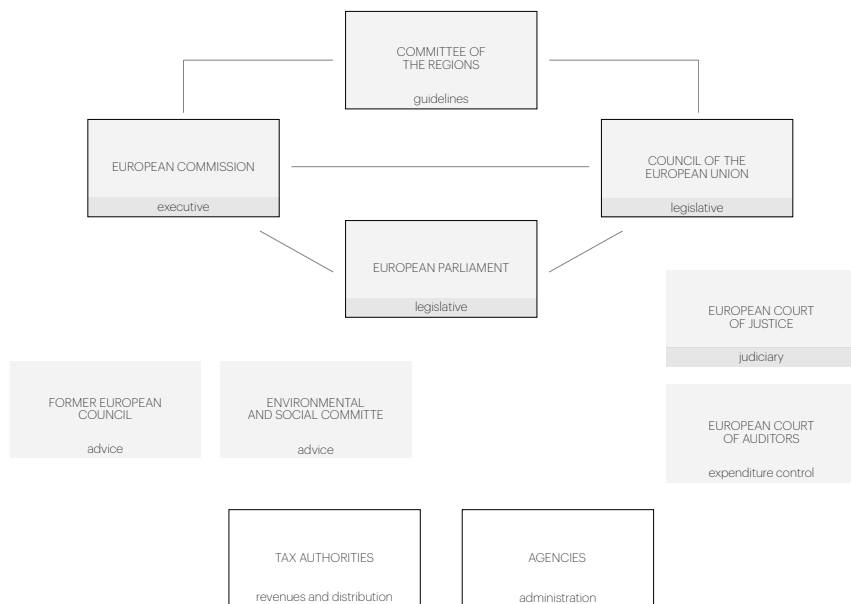


Image 35_The structure of the European Union of the Regions

person entitled to vote has the same voting power⁷, were an important step to redefine Europe as a political community based on political equality (see europeandemocracylab.org). This progressive reforms stimulated a new EU-wide political publicness. A new political discussion culture on the EU and its projects – apart from criticizing it for being a remote hyper-regulative bureaucracy, standardization obscurities or values regarding humanity – could emerge.

The more direct representation of the EU citizens in the parliament vanished the often-criticised (subjective) distance to the hyper-body and strengthened the legitimacy of the Parliament. The electoral reform for the Parliament became the cornerstone of a European citizenship, that put aside national affiliations and instead created equal EU rights.

For the EU this did not just meant a restructuring of its political body and the introduction of a common constitution, it also meant to set a framework for the autonomous and peaceful development of its regions. The autonomous regions needed to reclaim their capacities for self-determination and self-organisation. Their ability to solve problems independently, in their own discretion and according to their own capacities, was the only way to counteracted the subtitle impuissance of many EU citizens at this time – to legitimize the EU and secure its existence. The EU criticizes needed to become responsible for their homes and to feel politically influential again. A new power structure in the EU was needed.

⁷ Currently, the EU Parliament has a proportional electoral system, causing an unequal allocation of seats depending on the number of inhabitants per nation (see european-republic.eu)

European Republic

The idea of the The European Republic puts aside the nationalistic concept of the United States of Europe. Instead it rewrites the idea of Europe to be a place of well being. Doing so, it puts the common good of the European citizens in the centre of its thoughts. In order to function as a political unit, the European Republic stresses the importance of political equity among the European citizens in order to achieve peace, freedom and democracy.



european-republic.eu

European Democracy Lab

“Nation is fiction, region is home” is the central message of the European Democracy Lab. The initiative promotes a European model, in which Europe’s regions become the constitutive units of the political EU body. In this attempt it makes the common good the central value of the European Union.



europeandemocracylab.org

Power Dualism: Autonomous regions and a powerful EU

The transformation, which was initiated by the reform of the EU, changed the EU's role from a hyper-regulative bureaucracy to a restrained but protective, directly elected superbody with clearly defined task fields. The power structures within the EU needed to be reorganized in order to manage the looming power vacuum decaying capitalism and the struggling national states were about to leave behind. Fundamental to solve this issue was to transform the concentrated power of the national states upwards to the EU and down to the regions – a power-dualism was created.

In order to obtain the capacity to act, power⁸ was centralized at EU level. The existing EU institutions, which had always been an important part of the EU's concrete power, already provided a well equipped and operational government body for this new task. The existing institutions at national level were as well operational parts of the government structures. Those were integrated in EU government structures and became subordinated organs of the EU institutions. As such, they were representing the new superbody and acted as an intermediate governance level between EU and the regions. The institutions on national level were widely disempowered and became coordinative units.

⁸ In this sense, power describes a body's ability to govern. Thus, it consists of the capacity to act, political, legislative, physical, economic and fiscal power, and geo-power. Geo- or infrastructure-power describes the power over, or the sovereignty in, a defined territory. It includes the capacity for territorial organization and management, provision of knowledge as well as infrastructure. (Parent 2013)

The centralisation of power at EU level was needed in order to ensure the capacity to act – to be a legitimised and sovereign representation of the EU citizens, to grantee the common values and to put power into action. At the same time, this centralized power needed to be restricted. This restriction was achieved by the political structure of the superbody and the clearly defined task fields. Mediation between the members, supreme courts, security, tax collection and distribution, energy, large-scale infrastructure and foreign politics for example were the main task fields of the new EU. Further, control and decision making processes concerning larger (transregional) territories as well as superior goals, such as climate protection, adaptation and mitigation, remained with the superbody.

The EU's main task was to ensure the political and socio-economic autonomy of its regions. Therefore, it also set the political framework for the peaceful, equal and symbiotic coexistence of its culturally and socio-economically diverse regions. This included democratic decisions on obligatory rules and standards⁹ in order to guarantee an equal and stable frame for the autonomous development of the regions.

This new centralized government boy was the precondition for the second power concentration on regional level. Similar to the EU, the regions had their institutions, which guaranteed their capacity to act within their territory, already in place. Naturally, those institutions needed to be restructured and enforced in order to exercise their new power. Neverthel-

⁹ On the current, partly undemocratic and questionable, practice within the EU and other transnational bodies see Glunk 2017.

ess, restructuring the regional institutions was the first step to rebuilt their capacity for self-determination and management, hence to legitimize them as autonomous and sovereign regions. With the enforced institutions, the regions became functional, socio-economic and political entities¹⁰; the components of the new EU.

Due to the obvious power limitations, that come along with smaller government units, the regions started to act like cells. Just as each cell is able to function autonomously according to its DNA – in the case of the European regions their (natural and human) resources and capacities – the outstanding feature, which enables the cell to fully function, lies in the connection and communication with other cells (e.g. flows and political reconciliation). Historically related and connected through technical infrastructure, the cells acted according to their local socio-economic capacities, while they formed a global network at the same time: the body of the EU. Avoiding the contradictions of a universalized network¹¹, local particularities could develop independently, supporting and strengthening the global system and allowing (global) participation in the latter.

EU-wide free and shared information, data and knowledge flows were an important basis for this development. The free and unrestricted access to those flows enabled each region to access the knowledge and information it needed for its autonomous development. Further, even access conditions to knowledge and information prevented information imba-

¹⁰ See Read 2018: "worlds in worlds"

¹¹ Streeck argued that one of capitalism's systematic errors is its appearance as a singular and hegemonic system. It neglects differences and particularities in favour of its own universal ideology and the primary goal of endless growth and accumulation of profits. (Streeck 2014)

lances, which otherwise led to knowledge scarcity, resulting in market distortions and development monopolies – inequality between the members. The soft borders between the cell-like regions of the EU-body acted like membranes allowing unrestricted and duty free flows of goods, data and information, services and people between the regions, according to common EU standards and regulations.

A new power dualism was established: the framing and securing EU of the regions as a protective supebody, providing few but universal principles and standards for its members, and the politically and socio-economically autonomous regions. The decision for this radical shift – the reverse of historical power concentration and dependencies (Read 2018) – was triggered by the urgency of the social and political threats caused by the economic instability that came with capitalism’s death agony.

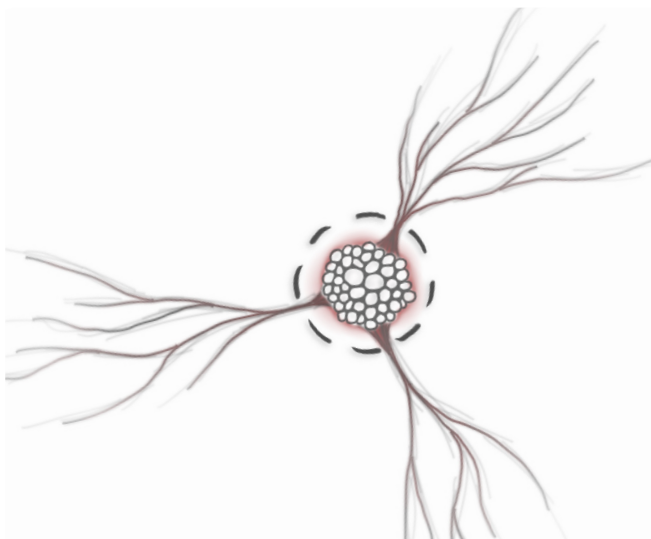


Image 36_Cell-like dualism

With the redundancy of the national states in the EU and the reorganisation of the power structures, a new chance for equality among the new EU members – the regions – emerged. Historically, the structural inequality among the old EU member states had produced a consistent power imbalance. This structural power imbalance and resulting inequality had mainly to do with different economic powers, the everlasting concurrence between the member states and the EU's representation and electoral system. This caused a power concentration at the centre of the old EU.

Throughout the history of the EU the matter of equity between the member states was an issue that had never been resolved. The increasing number of member states were too diverse in demographics and especially economic power, leading to an imbalance in political¹² and economic power. While the geographic core as well as the North of the EU were historically strong national economies, the members at the peripheries showed weaker national economies regarding GDP and export surpluses.

Strengthening competitive attributes of the economically and structurally weaker member states (e.g. infrastructure projects) in order to improve national economies had been the EU's recipe for equality and cohesion. The attempt to overcome the structural imbalance by a set of coherence policies

¹² The electoral franchise of the EU parliament – the representation of its people – joins the number of seats in the parliament directly to the member state's number of inhabitants. Therefore, nations with larger populations have a larger number of seats, thus a greater political weight. Despite the actual distribution of seats, those states have better chances to express national concerns and political bent in the parliament.

¹³ Advocates of the Brexit and other anti-European movements often referred to a seemingly unfair distribution system among the EU members. The division of the European societies due to the EU's coherence policies fostered the rise of populists and nationalist parties in Europe.

and the redistribution from richer – economically successful – to less rich – economically unsuccessful – countries did worked out to a certain extend, but also caused envy, anger and a lack of understanding. The attempt to reach equity had been the reason for a continuing dispute among the members, it antagonised the people of the different nationalities and was a serious threat to the peaceful and democratic European idea¹³.

The economic differences between the member states and their varying attractiveness for private investments also caused different development velocities. Those differences were especially critical in the Eurozone: for example Greek's over-indebtedness, resulting from the attempt to boost its lower development pace, was seen as one of the reasons for Greek's collapse in 2009, the resulting crisis of the Eurozone and the beginning of national austerity and consolidation. The other way around, the strong national economies (high export surpluses) within the EU strengthened the common currency, which made it harder for smaller national economies to sell their products outside the EU and attract investments.

The strategy of EU-wide equality by equipping member states to compete in the investment competition had failed. But equality – in terms of equal participation and the right for differences and particularities – between the members was a fundamental precondition for a European democracy and peace¹⁴.

¹⁴ "European democracy can only be achieved through equality." (europeandemocracy/lab.org)

The reforming EU of the regions changed the development as well as equality paradigms: approaching regional autonomy, equality among the regions was meant to be reached through equal political participation on EU level (including the introduction common EU constitution and transregional electoral system) and the restoration of the regions' own capacities for collective self-determination and organization (Anders 2017). Each region should have the capacities to reach its own, autonomously defined goals, within its existing resources. Instead of power hierarchies according to the geographical position, the new EU of the regions simultaneously concentrated power at the top and spread it horizontally. This way, the EU was able to approach equality, hence justice, through equal opportunities for the regions within their specific local contexts.

In order to approach regional autonomy the regions had to formulate their own socio-economic goals based on their given context. The regions were supposed to develop from the inside and apart from external measures. Hence, the conception of development was not a competitive measure of economic success and progress in GDP anymore (Jackson 2017), but the consideration of a region's progress against its self-determined goals. Just as the comparison of individual scores within one group always stresses the underdevelopment of the weaker, thus the inequality of the group, it does not respect the individual progress of each subject within this group. The consideration of the latter will show a completely different image of individual development – a more appropriate measure of success and development.

The EU of the regions turned its back on singular, hegemonic, universal and exploitative neoliberal capitalism and its

standardized ideology. Instead of further power concentration in the hands of few, economically successful national states and individual profiteers, the power within the EU was shifted to the super-body itself and its regions.

Europe's Cultural Regions

The idea of socio-economic and cultural diversity is nothing new for the old continent (Guérot 2017: 149). Referring to the territorial organization of historical Europe, Guérot stresses the initial existence of different cultural regions. Those regions, he argues, are the vehicles of Europe's treasure: its diversity. Socio-economically and politically diverse and autonomous tribes had been living in relatively peaceful coexistence before hegemonic, imperial and dynastic forces (Romans, Prussia, Hapsburgs, etc.), striving for territory, power and influence, emerged. Consequently, Guérot claims that the European culture is historically and in real life bounded to the regions and not the nations. Guérot deconstructs the nation and identifies the actual pillars of the European (network) idea: Europe's free and equal citizens inhabiting its regions and cities. Directly representing its inhabitants, the regional political structures and their institutions offer new ways of political participation in the European project; without losing their meaning – even legitimation – as opposed to the interests of the abstract national state.

Guérot, U. (2017): Die Europäischen Kulturregionen: Einheit in Vielfalt. In *Arch+Zeitschrift für Architektur und Städtebau* (211/212), pp. 148–151

Equity instead of devastating concurrence: EU-wide Taxation

When those transformations took place the representatives of the exploited and burned-out regions agreed on a EU-wide, universal taxation. Covering land tax, turnover tax (EU-wide standard VTA rate) and corporate income tax as well as social security contributions (employer), this universal taxation was meant to end the devastating concurrence that choked the continent, its administrations, its people and their moral for such a long time.

Instead of communal, regional and national taxation, all regional revenues of the universal taxation went to the EU. The Tax Authorities, controlled by the European Court of Auditors, distributed the revenues back to the regions based on their number of inhabitants and size. The package of neutral fiscal taxes had no steering effect and contributed only to the EU budget and the distributed regional budgets. While this action did not just prevented economic concurrence between the members (e.g. lower land tax rates to attract investments) and thus their suffering in austerity – consequently less tax revenues, while increasing communal spending to develop location factors in order to attract investments –, it also formed the monetary basis for the socio-economic and political autonomy of the regions. Further, it was a form of dependency that required the region's unconditional loyalty to the EU.

The regions were free to set additional regional taxes (e.g. social security contributions employees and additional regional VTA) in order to steer their development according to their individual political and socio-economic goals. Even though tax autonomy was strongly limited, the overall, but especially

the fiscal, autonomy of the regions – own budgets consisting of distributed EU tax money and additional regional taxes and other revenues – could only be accomplished by EU-wide tax equality.

Especially regarding additional taxes on surpluses, the regions differed according to their socio-economic and political agendas. Additional VTA taxation on non-local products for example became a popular way to approach and strengthen

The Tribune

The Roman Empire had a remarkable system to control its large territory. Beside the organized inhabitation of conquered territory, the strategic presence of military forces and the spread of its culture, the tax system is noteworthy. The Tribute was a form of neutral taxation, which each region in the Empire had to pay to Rome – the central administration of the empire. The administrators of the Empire's regions, thus the regions themselves, had a certain degree of autonomy. This relative autonomy was of a codependent nature and ultimately tied to the universal empire-wide tax. This system allowed the territories to be relatively autonomous regarding their administration and management, while being closely connected to and even dependent on the super-body Roman Empire. While one could interpret this system as a part of the Roman oppression and power machinery in order to control its large territory, one could also read it as a highly efficient system to provide regional autonomy within a larger super body and loyalty to the super body.

self-sufficient regional economies within the given (natural) limitations. The agriculturally strong region of Leipzig for example used an additional 20% VTA rate on conventional and imported agricultural products in order to steer consumption and production to organic and local agricultural products.

Custom duties between the regions were forbidden and duties regarding global trade were regulated by the EU to guarantee equal conditions and as little concurrence between the members as possible.

The introduction of an EU-wide tax system also meant the end of its former investment, governance and enticement strategies: the EU subsidies. Instead of universal and market-distorting subsidies, such as agricultural subvention according to farm size, which support certain forms of production disregarding regional particularities, the regions themselves decided on subsidies according to their needs and development goals. In that sense, development became a particular matter of the regions' authority within the new EU constitution.

Monetary independency instead of guilt and debts: Decentralized Finance Systems

A precondition for a common tax system and functional regions was the liberation from the clutches of the global finance elites and their debt policies. In contrast to the monetary union (Eurozone), which was based on one equalizing currency, the new EU restructured its fiscal system and installed decentralized regional fiscal systems.

A first step was an EU-wide debt relief for the regions and their municipalities. The debt burden had become an obstacle for independent development. Before the great reform of the EU, interests and interests on interests were absorbing the relatively small tax revenues of the municipalities. This led to further austerity and privatisation of communal property as well as decreasing scopes of action. In order to maintain their (financial) capacities to act, the municipalities had to advance money – partly just to pay interests – and the debt cycle continued. But a one time debt relief was not enough to break the clutches of the global finance elites. Instead of a centralized and speculative currency a non-speculative, interest-free and decentralized financial system was introduced.

This meant the creation of decentralized regional finance systems based on block chain technology. This transparent and decentralized finance and service network-technology excludes the possibility of making debts as well as making profits from non-circulating capital due to its limited availability, the proof of counter value and the limited regional use.

According to its local counter value (actual use-value; e.g. means of production or service power) the amount of money within a region was limited. The transparent block chain pre-

vented any possible fiscal evasion or other frauds, and the “non-political” regional crypto currencies were only valuable, if they were spent in their respective region. The constant money flows prevented private savings, hence (monetary) power concentration, and enabled regionally closed money flows (no external appropriation). No savings and a constant regionally limited money circulation means the availability of interest free investment money. Regional money circulation with no chance of external run-offs were the ideal condition for the creation of regional economies.

This decision on EU level broke the region’s fiscal chokehold and paved the way for their autonomous development – the regime of guilt¹⁵ was abandoned.

The de facto decommodification of money (see below) was the first step to escape the cruelties and contradictions of the collapsing predatory capitalism. Instead, the EU provided a post-capitalistic save-space for the emergence of a delicate plant: a flat, post-capitalistic landscape of different, regionally embedded economies could emerge.

¹⁵ The German word for debts is Schulden. It relates to the word Schuld, which is guilt in English. The kinship of those two words already indicates that the debt based financial system of neoliberal capitalism is in fact part of an oppressive socio-economic system operating on psychological and contractual guilt, which it created in the first place.

Block-Chain Technology

The finance world is in a flurry of excitement – block-chain technology and its monetary applications, such as Bitcoin, split the finance world. While the one side sees huge profit opportunities (aggressive speculation on the crypto currencies), others see the hegemonic power of the centralized finance sector in danger. The possibilities for both lie in the application of this technology, which has been described as a “revolution similar to the internet”.

Shortened, block-chain technology is an encrypted, decentralized network system based on distributed ledgers. As a decentralized system the participants become the controlling body in the network, which renders centralized validation and surveillance of (any kind of) transactions redundant. This means that the block-chain could become an alternative to the current, highly centralized finance system. Within this network direct trade without middleman and other third-party profiteers, such as banks, becomes possible. This would mean, that surplus extraction from money flows would become virtually impossible. The redundancy of banks would also mean the redundancy of central banks – the powerful financial institutions of hegemonic systems. Therefore, the crypto currencies could become non-political money and be decommodified.

The application of the block-chain technology as a regional currency is not explored yet. But under the premisses that regional currencies have to be designed in a way, that they must be spent in order to maintain value and that they must be spend in a defined region (a defined network of users), a decentralized monetary system, in which each unit must have a specific countervalue, validated by its network participants, seems to be an adequate solution.

Beside the finance applications, the block-chain technology also offers the chance to revolutionize and decentralize the service and communication sector, as the platform ETHERIUM explores.

Tapscott, D., & Tapscott, A. (2016). Blockchain revolution: How the technology behind bitcoin is changing money, business, and the world.



blockchain-documentary.com

Taking care – The decommodification of the Region of Leipzig

The successful implementation of the contingency plan in the region of Leipzig could be measured in the increasing self-sufficiency regarding agricultural production, the increasing number of small-scale farmers, the gradual change of the landscape and the decreasing differences between Leipzig and its hinterland. The decentralization was in progress. Food security and the incrementally transforming spatial structures – the resolution of the anti-thesis between Leipzig and its hinterland – were the region's starting-point to implement the new EU requirements.

The main goal was to form a socio-economically and politically autonomous region. For the people in the region this meant to become self-organized care takers and to transform their economy towards a self-sufficient, regionally embedded post-capitalistic economy.

The contingency plan was a spatial approach to overcome the capitalistic anti-thesis between Leipzig and its hinterland and to enable a self-sufficient agricultural. With this plan unfolding, spatial structures were created, which did not corresponded to capitalism's imperatives of endless profits and growth anymore. The emerging, decentralized spatial structures were an anticipation of a post-capitalistic economy in the region. That gave the region of Leipzig a big advantage when it started to implement the new EU requirements and form a post-capitalistic economy.

In the region of Leipzig, the decommodification of Polanyi's fictitious commodities – land, labour and money – became the central strategy to achieve its regional autonomy and to

establish a locally embedded, post-capitalistic economy. The decommodification of money was mainly tackled on EU level (decentralized and non-speculative finance system) and required the introduction of regional crypto currencies based on block chain technology. The decommodification of labour was brought into action by the introduction of a contributory income and by the transition towards a use-value based economy. The decommodification of land, and with it the restoration of Leipzig's territorial sovereignty, became the main challenge for the region's independent development towards a post-capitalistic economy.

In a greater picture, the decommodification of Leipzig also required the reconsideration of being and the restoration and empowerment of the region's communities. In order to become self-organized responsible care takers of the region, its people and environment, new political structures were needed, which would allow equal political participation, self-organization and self-management.

Decommodification

After the turbulent years of the early 20th century the Hungarian economic historian Karl Polanyi wanted to understand the reasons for the "failure of European civilization" (Sachs 2013: 19). He saw the reasons for the developments of those days – including the First World War, the following global economic crisis and the rise of fascism – in the generalization of market principles (ibid. 19). For him free and self-regulating markets were utopian, because they would destroy the human and natural substrate of society (ibid. 18). Searching for the conditions of the crisis, he identified the predominance of the markets and their insufficient reactions

to societal needs as the main issues (ibid. 20), which led to the commodification of integrated societal goods; the commons. Those were initially not (re-) produced to create individual profits, but to enable the existence of the community – they were the inalienable basis for the communities themselves.

Land, labour and money had been such integrated, inalienable societal goods that were made market segments with the beginning and development of industrial capitalism. The enclosure of common grazing grounds of the peasant communities was one of the first steps of commodification – a violent act of appropriation of common land for individual benefits and profits. By reducing the commons' use-value to an exchange-value (individual profits), the respective communities lost their basis for existence. Polanyi described this process in general as the commodification of the fictitious commodities, leading to markets being disembedded from the societies (Sachs 2013: 20).

Going back to a pre-capitalistic understanding of economy and markets as being parts of social relations and interactions¹, Polanyi claimed that the disregard of the integrated relations of the commons would cause negative effects on society and nature² – his explanation for the increasing entropy in his time and starting point for the fatal developments that would follow.

¹ Illustrating the meaning of markets taking over the fictitious commodities, which are the basis for societal existence, Polanyi wrote that "[i]nstead of economy being embedded in social relations, social relations are embedded in the economic system" (Polanyi quoted in Beckert 2007: 7f) – economic relations and their goals start to dominate societal ones. Wolfgang Sachs continued this thought when he analysed, that "economy is not embedded into social relations anymore, indeed it is the opposite that social relations are now embedded into economy" (Sachs 2013: 21). This led him to reveal one of the main misconceptions of neoliberal capitalism: "[a] society has an economy, but society itself is no economy." (Sachs 2013: 23).

² See Marx's Rift Theory in Chapter IV

Despite Polanyi's belief in the working class as agents of the decommodification (Sachs 2013: 20), the region of Leipzig took Polanyi's idea to reintegrate disembodied market segments back into the lifeworld of its societies as the starting point for its development towards a locally embedded, self-sufficient post-capitalistic economy.

Money

The framework for the decommodification of money was made on EU level with the disbandment of the Eurogroup and the mandate for the regions to create their own debt- and interest-free regional currencies based on block chain technology.

The key idea behind the decommodification of money was that no more surpluses and profits should be made from money flows (transactions), savings or assets. This means that money cannot work anymore. In part, the decommodification of money by the introduction of interest-free currencies and the ban of debts was the removal of a capitalistic base principle: the antithesis between possessors and the ones without possessions. According to Marx, the latter have no other choice than to sell their labour power on the market. The possessors on the other hand do not need to sell their labour power, because their capital, which includes money as universally transformable capital, works for them. In combination with the labour power of the ones without possessions, it generates surpluses, and thus multiplies itself, without the labour power of its owner (Marx 1887).

In concrete terms, this meant to avoid the concentration of money, thus power, in the hands of few and therefore reduced the inequality between possessors and the ones without

possessions. It meant drying out the powerful finance industry and the detachment of power, possession and financial strength. Further, it meant that constraints of the international finance and debt industry did not influence the region's development direction anymore – the region could develop autonomously and according to its own goals.

The region of Leipzig decommodified money by the introduction of its own crypto currencies. In opposition to disembedded currencies such as the Euro, which is subject to global markets and has strong impacts on production costs, trade rates and further the entire economic performance of the national economies within the Eurogroup, regional currencies allow a more stable and independent finance system. The regional currency, which is only valid within the region of Leipzig, which loses value over time and which has an actual countervalue that does not depend on market speculations, can create a closed financial system. In such, the currency cannot be influenced from outside and money flows and potential surpluses cannot be appropriated externally – they remain within the region.

The optimal state would be circular money flows within the region that end up at a zero-sum-situation. This means that every spending remains in the region's money flow, is converted and ends up as an investment in the region. In the region of Leipzig those investments were managed by regional investment banks, which provide investment capital for projects, which benefited the common wealth and not private profit interests. In that way, the countervalue of Leipzig's regional currency was linked to its use-value, which in opposition to the exchange-value, was defined autonomously by region and expressed nothing but the contribution to the common good. Therefore, the introduction of a regional crypto cur-

rency became a powerful steering tool to transform Leipzig's economy towards a post-capitalistic one.

Labour

With the beginning of industrial capitalism labour had been commodified through the massive introduction of exploitable wage labour – the ones without possessions needed to sell their labour power in order to maintain their exist (Marx 1887). Oppressing the dispossessed working class through labour dependency and surplus appropriation, the process of work became disembedded from the social relations. Marx and Engels described this process as the alienation of labour. The increasing alienation and abstraction of labour – to sell one's labour power for someone else's profits – can be seen as one aspect of the disintegration of labour from society. With the only purpose to convey use-value into exchange-value, the originally complex social interaction – the process of labour – was reduced to a mean of surplus appropriation and oppression.

Even though the cruel effects of commodified labour (12-hour-work-days, child labour, etc.) were subdued by the social innovations of the welfare state during the 20th century (unions, tariffs, minimum wages, social security services, pensions, etc.), cheap production on the costs of low worker protection had been externalised (global production where production costs are lowest) and adapted forms of exploitative wage labour emerged. Working overtime, subcontracted labour, fixed-term contracts, lax dismissal protection, increasing mental and stress related diseases, the colonisation of the private (so-called flexible work, home office, permanent availability, etc.) and an increasing number of people living and working precarious conditions (see Piketty 2014) were expressions of neoliberal commodification of work.

The pressure to decommodify labour in the region of Leipzig increased at the time, when the achievements of the social market economy became obsolete. In the face of mass unemployment due to automation processes, the city of Leipzig as well as the communities in the region could not finance social security expenses anymore. Rather than getting into new debts to finance the growing masses in need of social welfare, the mind-set regarding work was challenged.

According to Weber, the Calvinistic work ethics, which started in England at the beginning of the industrial revolution, fostered the emergence of capitalism in Western Europe and influenced its evolution strongly (Weber 2013). This form of Protestantism demanded to live a life as virtuous as possible. Since no one but God could know if one would go to heaven or descend into hell, one should live as being chosen from God. At its core, the Calvinistic work ethics was a purely rational ideology, which defined the usefulness of a human by his or her form of being. While idleness and luxury were considered sins, labour became the self-purpose of a good life. Economic success, which could be achieved through hard work, became the measurement for this good life. Even though the religious aspects of the Calvinistic work ethics as well as its connotation of material wealth and success have vanished, the idea that the usefulness of a human being is defined in terms of his or her productive labour remained till the late days of neoliberal capitalism.

This individualistic mind-set that arose out of an industrial past was deeply rooted in the capitalistic societies of the 20th and early 21st century. But the conception of labour as a necessity to maintain livelihood – to exist – was strongly challenged by the economic transformations during the 2020s. With increasing automation of Leipzig's production and ser-

vice economy, less human labour was needed. The idea to define individual human usefulness by his or her productive labour was no longer useful, since the majority of people had become useless in that sense.

Even though the transformation of such an idea, which had been taught to several generations, was a long term process, the institutional structures, which had supported the Calvinistic work ethics, were changed in the region of Leipzig. The German unemployment and social assistance provided financial assistance for unemployed people and people, which did not earn enough to support their life. As a condition to receive this welfare, the institutions force unemployed people to take vacant positions and restrict individual freedom in case of rejection. In accordance with the Calvinistic idea, unemployment was punished because it was seen to be an unproductive, hence useless, form of being.

The increasing number of useless people in the region of Leipzig became a threat to democracy. Nationalist and populist parties in the region blamed minorities for the useless⁴ misery and deprivation, and promised a quick solution for the complex global problems: national protectionism. Just as the nationalists became stronger³, the contingency plan offered a meaningful alternative for the useless, and thus supported the political struggle for a diverse, post-capitalistic Europe of the Regions and the full implementation of the contingency plan. The rejection of an external socio-economic order and the focus on the self-sufficiency of the region were useful means to resist anti-democratic and nationalistic tendencies.

³ The local election results for the parliamentary elections in 2017 show the great support for the AfD. The national populists were able to get between 17 and 29% of all the votes within the three counties, forming the region of Leipzig. (bundeswahlleiter.de)

But the key tool was the introduction of a contributive income.

The contributory income, an idea developed by Bernard Stiegler, is similar to the idea of a basic income. But instead of the unconditional claim for the basic income, the contributory income operates under the condition, that everyone who wants to receive it needs to contribute to the community (Ferreira 2016). The region of Leipzig started paying a contributory income to everyone who participated in the small-scale farming and who could proof to work for the benefits of the community instead of individual profit interests. Every person, who was willing to spend 4 hours of his or her time a day for the wealth of the community – who did not sell his or her labour power as an exchange-value – was entitled to receive the contributory income. People unable to work, such as children, disabled and elderly people, were excluded from this restriction. Similar to the basic income, the contributory income dispenses with other forms of social welfare such as child allowance or unemployment assistance. It treats each recipient equal without judging her or his way of life and regardless the her or his economic usefulness – the contribution to profit generation.

The whole idea behind the contributory income is that individual labour needs to be solidary. According to Gibson-Graham, being is constituted as being together – in community –, since all aspects of our individual lives are indispensably tied to the support and well-being of the community (Gibson-Graham 2006). In the same line Stiegler reasons in his broader philosophical concept, that personal individuation can only take place within the dynamic process of collective individuation, which is the totality of personal individuation processes (Stiegler 2017).

The idea of a contributory income tries to reduce the abstraction and alienation of labour. Contributing labour, which is dedicated to the good of the community, changes the paradigm of labour: it is no longer a necessity to maintain one's individual existence by creating exchange values for external profits, but the active social practice of being together and a contribution to the socio-cultural reproduction of the immediate society (see Gibson-Graham 2006). Any form of labour that supports the well-being of the community is particular and does not serve external purposes, therefore it is integrated in the reproduction of the community, and thus the individual itself.

For the introduction of the contributory income in the region of Leipzig, a differentiation regarding necessary and surplus labour was needed. Necessary labour included all forms of labour, which were needed to maintain the functionality of the region and its communities on different scales. The only value of this form of labour was its use-value; the individual contribution to the community, and thus oneself. Surplus labour on the other hand included all forms of labour, which contributed to individual profit interests. Since the process of decentralization and decommodification was a gradual one, this form of work was not banned, but the region of Leipzig put additional taxation on those business models in order to skim the surpluses off and make this form of economy unattractive. Consequently, all forms of exchange-value oriented business models were forced to transform, so that they would only contribute to the common good, or leave the region.

This was primarily affecting economic activities, which produced mainly for global markets, such as the car manufacturers BMW and Porsche, their suppliers in the region and the logistic sector. Rather than producing without limitations

for the highest profits, labour in the region of Leipzig became a matter of care taking and maintenance. Consequently, the production rates declined, which led to decreasing traffic volume, declining energy demand and the declining production of waste – products which only have an exchange-value but no socially embedded use-value. The combination of less production (only for the demands of the region) and a self-sufficient small-scale agriculture, made the region approach a balanced relation between its societal and natural metabolism. The region started to exist within its natural limitations.

With a lower need for surplus labour and a relatively constant demand of necessary labour, the workload for everyone receiving the conditional income decreased. Instead of creating occupation to keep people without jobs busy, Leipzig's contributory income needed to be understood as the liberation from exchange-value generating wage labour. It is the base for a free, self-determined and more meaningful life. Instead of time consuming wage labour for external profits, the people of Leipzig contributed to the benefit of their communities and the region's well-being. And further, they gained time. Time to take care of social relations, the community and the environment. Time for pleasure, joy, creativity, gardening, craft, self-expression, learning, exchange and self-organization. In combination with the contingency plan, the contributory income offered a chance to redefine being. It was an approach towards a self-organized and self-determined life in community; serving nothing else but its well-being, which is the condition for personal individuation and inextricable linked to an intact environment.

The contributory income was disbursed in Leipzig's regional crypto currency. This avoided one of the main issues with the basic as well as contributory income: its external appro-

priation in form of rents and alike. Disbursed in Leipzig's regional crypto currency, the contributory income could only be spend within the region, thus it could not be appropriated externally. This measure was actively supporting regional economic activities, which contribute to the wealth of the community.

Anecdote concerning the lowering of productivity

A tourist looks on a most idyllic picture: a fisherman dozing in the sun in his rowing boat that he has pulled out of the waves which come rolling up the sandy beach. The tourist's camera clicks and the fisherman wakes. The tourist asks: "The weather is great and there's plenty of fish, so why are you lying around instead of going out and catching more?" The fisherman replies: "Because I caught enough this morning." "But just imagine," the tourist says, "you could go out there three or four times a day and bring home three or four times as much fish! And then you know what could happen?" The fisherman shakes his head. "After a year you could buy yourself a motorboat," says the tourist. "After two years you could buy a second one, and after three years you could have a cutter or two. And just think! One day you might be able to build a freezing plant or a smoke house. You might eventually even get your own helicopter for tracing shoals of fish and guiding your fleet of cutters, or you could buy your own trucks to ship your fish to the capital, and then..." "And then?" asks the fisherman. "And then", the tourist continues triumphantly, "you'd could spend time sitting at the beachside, dozing in the sun and looking at the beautiful ocean!" The fisherman looks at the tourist: "But that is exactly what I was doing before you came along!"

Heinrich Böll

Land

The matter of land, its accessibility, use and ownership, was a central challenge for the region of Leipzig. The private land ownership structures at the beginning of the 21st century were the most obvious form of capitalism's structural inequality. They needed to be challenged in order to overcome this inequality, to reclaim power over the region's territory and hence to legitimize the region's new role within the EU.

The origins of private property and especially private land ownership are a topic, which have been discussed by many scholars and thinkers since the classical antiquity. The Roman philosopher Cicero wrote that "there is no such thing as private property by nature. It only became by appropriation, or victory or law, arrangement, contract or lot" (Cicero 1.VII.21). The origin of private property, as Cicero explains it, is the illegitimate and violent occupation and appropriation, which necessarily requires the exercise of power. At the same time, private property is an instrument of power. It determines dependency relations and creates hierarchical power structures: the difference between possessors and the ones without possessions – oppressors and oppressed.

The formation of private property, and especially the appropriation of land, can be seen as one of the fundamental injustices in the history of mankind. Land, the substrate of existence on which and from which everyone lives, was a common but has been appropriated by a small number of people. Because of the land's inestimable value and the essential dependency on access to it, the few owners became increasingly powerful. The enclosure of the peasant's common grazing grounds at the beginning of the industrial revolution illustrates, how land has been taken away from the

communities. With the commodification of land, the basis of every society became disembedded from the respective society. Since land and its soil is the most direct connection between humans and nature – between the societal and natural metabolism –, this relation also got disembedded from the societies. The effects of this privatised and disembedded relation to nature can be seen in overexploitation, poisoning and the disconnection from the environment.

The issue of fundamental injustice resulting from private ownership, and especially ownership of land, is multiplied and intensified in a capitalistic economy – a power system based on systematic inequality. The most outstanding characteristic of land is its immobility. Land can be traded, but it cannot change its location. This means, that all forms of accretion must come from rents or direct investments in the land or in its surrounding. While the owner's investments in its land are quite limited (buildings, etc.), the real increase in the land's value comes from investments into its surrounding social, transport and technical infrastructure. Naturally, those investments, from which all members of the society are supposed to benefit, are done by the public sector. But while the community is investing, the private land owner is the one who benefits most, because the investments in the surroundings increase the value and rents of his or her land. The one who does not invest but just owns, profits the most. This is how injustice due to ownership is created and enhanced. In his influential book *Progress and Poverty*, US economist Henry George summed up the entire problematic of private land ownership as the following:

“The wide-spreading social evils which everywhere oppress men amid an advancing civilization spring from a great primary wrong – the appropriation, as the exclusive property of

some men, of the land on which and from which all must live. From this fundamental injustice flow all the injustices which distort and endanger modern development, which condemn the producer of wealth to poverty and pamper the non-producer in luxury, which rear the tenement house with the palace, plant the brothel behind the church, and compel us to build prisons as we open new schools“ (George 1920: 20).

It was precisely this systematic injustice, which results from the commodification of land and which is part of a larger power system, where Leipzig’s decommodification of land started. The strategic aim was not less than to re-appropriate private land, so that it would become property of the society – a common good. Re-embedding land into society was the only way to gain full sovereignty within the territory, and thus full steering capacities for an autonomous socio-economic development.

Naturally, the decommodification of land in the region of Leipzig was a gradual process. Therefore, different sets of tools were applied to decommodify land. The first set, which was introduced together with the contingency plan, included a moratorium for land sales and land inheritance. Those tools gave the region the time to evaluate strategic properties and to prepare the second stage.

The second stage concerned the private development of common land and the absorption of private profits from the land. The private development of land, which is organized in the Federal Building Code (§11–13), was modified in a way, that leasehold became the only form of development. The permission for the leasehold became fully depended on the economic approach. Only uses and developments, which would meet the region’s requirement to benefit the commu-

nity – to reproduce common use-values instead of generating individual profits. This way, the region was not just fostering the transition towards a post-capitalistic economy, it also re-defined property rights. Instead of a private land ownership, which is the result of a illegitimate occupation and appropriation, ownership based on an individual use-right of common land was introduced.

Ownership in that sense was limited to the actual use of the common ground and its maintenance: it is mine because I take care of it and use it for the benefit of the community. A person or a group of persons would loose this temporal right to land as soon as they would stop using it according to the dedicated function. A land owner, who had an empty house on a plot and was just waiting for higher prices on the market – waiting for his profit margin to increase due to the investments of the public sector – could not call this land his own any longer. The people moving into that house on the other hand could call the house and the plot their own, as long as they use and take care of it.

During the implementation process, the absorption of private profits from the land was one of the key tools to conduct the entire decommodification of land. Land taxes on private properties, but especially on the ones used for private profit creation, were increased. The returns were feeding the investment funds of the municipalities, which enabled them to perform the main task of the decommodification of land in the region: repurchase land from private owners, starting with agricultural land. In accordance with contemporary law, the municipalities always have the right of first refusal (Federal Building Code §24). Further, the municipalities have the right to dispose if it serves the common good (Basic Law for the Federal Republic of Germany Art.14; Federal Building Code

Henry George's single tax

Henry George developed the idea of a single tax on land as the only form of taxation. Abolishing all other taxes, the state is supposed to skim off all surpluses resulting from land ownership. Those include rents as well as increased land value due to public investments in the surrounding infrastructure. In George's model, private land ownership remains, but all surplus from it are re-appropriated by the society in form of the single tax.

In 1977 former chief economist of the World Bank and recipient of the Nobel Memorial Prize in Economic Sciences Joseph Stiglitz together with Richard Arnott published the paper *Aggregate Land Rents, Expenditure on Public Goods, and Optimal City Size*, in which they showed, how and under which conditions George's single tax on land (aggregate urban land rents) could finance public expenses on local public goods.

George, H. (1920). *Progress and Poverty*: Library of Economics and Liberty.

Arnott, R. J., & Stiglitz, J. E. (1979). Aggregate land rents, expenditure on public goods, and optimal city size. *The Quarterly Journal of Economics*, 93(4), 471-500.

§87–90). A dispossession is legal as long as compensations are paid and the municipality tried to purchase the property before.

In the end, the tools applied for the decommodification of land enabled the region of Leipzig to reclaim the sovereignty over their territory, hence the steering capacities for their base of existence. Further, this process fostered the transi-

tion towards a use-value oriented post-capitalistic economy and redefined land as a public good, to which free access became a right to everyone. The decommodification and with it the transition towards a post-capitalistic economy could only take place due to the contingency plan: the resolution of the anti-thesis between Leipzig and its hinterland, the demographic deconcentration and self-sufficient agricultural production.

In order meet the new EU requirements and to allow the democratic and independent political articulation of its citizens, the governance structures in the region of Leipzig needed to be reformed.

Political Structures

The region's sovereignty required the autonomous political articulation of its socio-economic needs. This meant to restore the region's, as well as its municipalities', capacities for self-determination. Forms of political decision making needed to be tested, which allowed equal participation in decisions concerning the region or a particular community, their goals and how to reach them within the given resources. Therefore, the political structures and decision making processes had to be reformed.

The demographic decentralisation, which was initiated by the contingency plan, strengthen the small communities and the new urban cores in Leipzig's hinterland. That required the formation of new political and governance structures: each community was considered as an autonomous political subunit. Functionally related communities formed clusters, which were at the same hierarchical level as the new urban cores and the districts of Leipzig. Inspired by the agricul-

turally self-sufficient and politically self-determined ancient Athens – home of women and “men of strong character who [...] had firm ties to the soil and were independent in their economic position” (Bookchin 1986: 27f) – the size of those subunits (around 30.000 inhabitants) was considered to be optimal for a participatory political life and autonomous articulation of their needs and capacities. At the top of this government structure was the regional assembly.

But the autonomous articulation of needs was in fact beyond the limits of current parliamentary democracy, which operates based on simple majorities – oppressing the concerns of the minorities. Within the parliamentary democracy, political decision making is based on particular personal, respectively party, interests and opinions, which are not necessarily exclusively dedicated to the common good. So, one could say that the goal is to enforce particular party interests and opinions of the majority on the others. The question arising from this situation is, if a representative party system is flexible and open enough to find solutions for complex problems in highly diverse societies, exclusively serving the common good (see Kratzwald 2018)?

So, if the initial goal of a parliamentary democracy, to win political discussions instead of finding the optimal solution disregarding particular interests, was one of the issues, it needed to be challenged. Therefore, nothing but “[t]he common good [...]” became “[...] the purpose and goal of the political community. In it the needs, interests and happiness of all citizens [were] realised through a virtuous and just life” (Plato *The Republic (Politeia)*; quoted in ecogood.org). This means that individual or party interests should not have the power to dominate the common good. This put the reproduction and management of the regional and local commons at the

core of Leipzig's new political system, which demanded new government structures and forms of political participation.

Democracy itself offers various forms of political participation to reach this goal. Leaving the realm of sole parliamentary democracy, one will find more flexible and less oppressive ways to form majorities for different topics, but always exclusively for the common good.

Contrary to popular opinion, direct democracy, as partly practiced in Switzerland, offers no alternative. Even though it participates the political community way stronger than the parliamentary democracy, it is still based on the simple majority of particular individual or party interests. Instead of working together to find a solution that would be acceptable for all parties involved, the opinion, which is articulated the loudest and with the bigger campaign, will dominate the rest (see Kratzwald 2018).

Going back to ancient Athenian democracy, the Irish Citizens' Assembly was an experiment started in 2016, which tried to practice a more participatory democratic approach. Similar to the Athenian council of 500, the representatives of the people are randomly selected for a fixed period (originally one year). This way, power concentration is limited, leadership cannot be approached for power itself and the representatives do not serve particular interests of any electorate, but only the common good. Further, this system offers less chances for corruption and more direct control, due to the participants' short period of duty (see citizensassembly.ie).

But above, and in contrary to a parliamentary system, each member of the political community needs to be responsible

in case she or he is selected. This forms a whole different understanding of politics in general, and triggers a higher degree of public political participation in particular. Again close to the Athenian democracy, in which only key positions in the government were occupied by professional politicians, the Citizens' Assembly knows professional politicians only as moderators for the decision making processes.

In an interview with the Irish Times in 2016, author and political commentator David Van Reybrouck asked provocatively “[w]hy educate the masses if they are still not allowed to talk?”. He continued and stated that “[i]f people are only allowed to vote they will behave as voting cattle but if people are allowed to speak – and you treat them as adults who are responsible – then they start behaving like responsible adults” (Reybrouck in Humphreys 2016). The entire process of political participation in the region of Leipzig needed to be reformed. Austrian economist Christian Felber offers an alternative to the current participation and decision making models. He promotes a voting system, which operates with least resistance instead of oppressive simple majorities. First of all, this means that every opinion matters, needs to be considered within the discussion and put to vote. Instead of voting for or against proposals of the political majority (government), the participants decide on all proposals. But what really matters is that the participants can only vote against, and not for, the proposals. This way, individual or party interests cannot dominate others as easy and instead of a compromise, which is an agreement of the ones constituting the simple majority that oppresses the rest, the least overall resistance becomes the basis for a decision. A result is created, that is accepted by all the participants involved; everyone could articulate her- or himself, express their degree of resistance and nobody’s con-

cerns are oppressed by a simple majority (see Economy for the Common Good; ecogood.org).

The region of Leipzig applied a three-stage governance system, which combined representative and direct democratic approaches on the different levels of governance and political decision-making.

On communal level, all inhabitants were entitled to participate in the communal assembly. Active political participation at that level was not just a guaranteed right, but a civic duty. The communal assembly elected a mayor of the community. She or he was the official representative of the community and chief of the communal institutions. The mayor's period of service was limited to 2 years. Further, he or she could only be reelected once. Beside the mayor, two representatives of the community were elected, which would represent the concerns of the community at the next higher level, the cores' assemblies. Task fields of the communal assemblies were basically all local concerns of the community. But especially (agricultural) land use, building law, resource management, energy production, stock and supply management, production volumes and compositions were discussed and organized at this level. Further, the community's daily life was organized and conflicts resolved. The communal assembly was the core of the communities self-determination and self-management.

At the next governance level were the core assemblies. Each new urban core, as well as clusters of communities without a new urban core and Leipzig's city districts, had a core assembly. One third of the participants in the core assembly were elected representatives from the communal assemblies

and the mayors. The other two thirds were representatives of the respective core, selected by lot for one year. The core assembly elected a master. She or he was the official representative and chief of the core's institutions. The master's period of service was limited to 2 years. Further, the master could not be re-elected. Same applied for the core's elected representatives at the regional assembly in Leipzig. Task fields of the core assemblies were the organization of transport and transshipment, as well as processing, of the agricultural goods. Further, resource and energy management, distribution, education and health care were organized at this level. Conflicts between communities within one core were solved at this level. Also, information on the communities' needs and capacities were collected at this level. That enabled the core to assess its situation and take balancing measures if needed. Further, the regional assembly could be informed on the state of its cores. The core assemblies and their institutions played an important role, because they were the first concentrations of capacities and power.

Above the core assemblies was the regional assembly – the supreme political organ of the region. This body was equally assembled out of representatives of the core assemblies and their masters and representatives of the whole region, selected by lot for one year. The regional assembly elected a head of the region. She or he was the official representative and chief of the region's central institutions. The head's period of service was limited to 1 year without the option of re-election. Beside the head, two representatives of the community were elected, which would represent the region on EU level. The regional assembly was located in Leipzig. Its was the legislative body of the region, which guaranteed freedom and rights to the people of the region. In order to defend those rights and to be able to act as the sovereign of the region,

power needed to be concentrated at this level. This power included the right to collect the universal EU-wide tax and regional taxes and their distribution in form of contributory incomes and investments. It was also the only instance allowed to run and command the region's security forces. From this power concentration arose the need for strong control, which was achieved by half of the participants being randomly selected and the short periods of duty. The assembly's and its institution's main tasks were the organization of the self-sufficient agriculture, distribution of benefits and the management and support of city-hinterland cooperations. The regional assembly was also in charge of the operation and maintenance of the transport infrastructure and the creation of land use plans for the region. Doing so, they also were in charge of the regional resource and demand management. This included the supply with external goods and the maintenance of diplomatic relations to the neighbouring regions and on EU level.

Entitled to vote or to be selected were all people living in a community of the region over 18 years old, regardless of origin, sex or religious beliefs. In all of the governance levels, a team of moderators was supporting the assemblies. The moderators were professionals trained in political sciences, communication and psychology. Their role was to support the decision-making processes, resolve conflicts and guarantee democratic principles. In this role they were not entitled to vote. Further, experts from all fields would provide input and professional opinions regarding the topic of discussion to the assemblies.

Giving political responsibility back to the people was an actual approach to counteract the hollowed out power structures capitalism had created (Read 2018). Being responsible

for political decision concerning everyone's life, but especially socio-economic needs in the communities as well as in the region, was an important step towards self-determination and self-management. And if the base for those decisions is reason – the understanding that the community is the substrate for individual being – and not personal or party interest, the well-being of the communities and the common good will benefit. In the region of Leipzig it was agreed, that “if growth means to reach a societal state, for which self-seeking and consumption are the basis, we do not want to grow“ (Jackson 2017: 23; own translation). Furthermore, it was decided that the region's post-capitalistic economy needed to be based on solidarity and resilient development (ibid.).

In the end, this approach challenged the disenchantment with politics and reduced the subjective distance between politics and the ones affected, because “[a]ll the policy decisions of the polis [were] formulated directly by a popular assembly” (Bookchin 1986: 24). Naturally, those new forms of political participation required places for assembly. From Leipzig's districts, to the new urban cores to the villages assembly places were built, in which the political communities discussed and expressed their will. Those new assemblies were not just symbols of the region's new autonomy, they were also part of the technical infrastructure, which were needed for the operation of the different government levels, hence the self-determination and self-management of the region and its communities.

Returning political decision-making power, which currently lies in the hands of a few elected representatives and strong players with no legitimacy but with particular interests (Glunk 2017), back to the inhabitants of the region and their local communities meant to reclaim their sovereignty, to enable

them to express their needs and to organize development collectively. Giving back this responsibility also meant to demand active participation in the community, its self-organization and management – to be responsible for one's own life and the good of the community.

More than representative democracy



Irish Citizens Assembly



Christian Felber on the Economy of the Common Good and decision making processes based on least resistance (from minute 12)

The Region's Embedded Economy

The reformed EU of the Regions provided Leipzig's political autonomy, which included and demanded the articulation of its autonomous socio-economic needs. Those autonomous needs were based on the given capacities and resources of the region and on the democratic decision-making processes, defining the socio-economic development direction of the region. For the region of Leipzig, this meant to transform its export oriented production and service economy to a regionally embedded, reproductive subsistence economy.

“Bonum commune melius est quam bonum unius”⁴ (Thomas Aquinas Summa Theologica; quoted in ecogood.org) became the guiding principle of the region's embedded economy. Any economic activity should serve the common good, rather than individual (profit) interests. Hence, the goal of Leipzig's regional economy was the good of its people, including an intact environment as their basis of living. Since individual being had been connoted to the well-being of the community, any economic activity needed to benefit the community and reproduce or maintain its foundation – the commons. This meant the rejection of the capitalistic surplus economy: instead exploiting labour and natural resources for endless profits, the economic input was limited by the actual demand. Labour and natural resources were directly and exclusively used for the reproduction of the common good.

This economic approach did not consider the common good as a side effect of the individual accumulation of profits (see Chapter III; Streeck 2014: 48), but made it the goal. At the

⁴ The common good is better than the individual good (own translation).

core, the use-value of a product (or service), which is always particular because it refers to a specific local need, was placed over its universal and non-territorial exchange-value. Every economic activity in the region, which relied on its resources, needed to produce a use-value, meeting a concrete demand. Instead of endless production for potential profits on global markets, the reproduction of use-values, which included recycling and sharing, was the goal.

The basis for this post-capitalistic economic approach was the contingency plan. It provided and organized the region's self-sufficient agriculture, using the existing resources, such as fertile soils, forests, settlement structure and transport infrastructure, and thus respecting the environmental limitations of the region. The self-sufficient agricultural production and the symbiosis of Leipzig and its hinterland were the foundation for the region's subsistence economy.

Since all economies are always based on territory, the de-commodification of land was an important strategy to reclaim territorial power, which made it possible to establish a use-value oriented, regionally embedded economy. Due to its use-value orientation, this form of economy had a non-exploitive character regarding environment – especially soil – and labour. Instead of global profit interests, the region's needs and resources defined the production volume, and hence the input (labour and resources) needed. The region of Leipzig defined its own economic limitations through its own capacities – it embedded its economy within its social and environmental limitations.

Naturally, the region did not had enough resources to supply all of its demands independently. But the increased use of alternative, renewable resources, such as timber and hemp,

could compensate external resource dependencies. Further, the recycling, repair and reuse economy became an important pillar of the region's economy. The material abundance, a product of capitalism's consumption driven production, which had piled up in the region, offered a variety of possibilities to recover rare materials and resources. But above, the rediscovery of the community and the natural limitation of resources stimulated a boom of the sharing economy. Instead of one laundry machine for one household, an entire house would share two machines and organize a demand driven utilization.

The new regional economy approached a state of subsistence, in which its needs could be satisfied by its own means and resources. This also meant, that closed money flows were approached, which would not accumulate in the hands of few, but refinance the common good. Nevertheless, the region of Leipzig was still – but explicitly less – dependent on fair and equal trade relations to its neighbouring regions. In that sense, the production of export goods was not an independent goal, but a requirement to be enabled to trade – not for (individual) profits, but for the common good. Further, Leipzig remained an infrastructural hub for European-wide rail based transportation. Operation and maintaining this infrastructure network became a key economic sector, co-financed by EU budget.

The formerly strong large-scale industrial production in the region was largely automated and the production volume connected to actual demand. Since the large structures of the globally oriented large-scale manufacturers became abandon and the people searched for new ways to contributed to the common good, the entire economy became smaller, more diverse and detailed.

The knowledge industry also needed to adapt to the new economic paradigms. Instead of treating knowledge as a source of profit, which knows access limitations, unilateral benefits, monopolies, dependencies and power concentration, knowledge was treated as a common. Free data and knowledge access, as well as open-source collaborations, became important means for the self-organizing and self-managing communities. In here it would show, that shared knowledge and collective intelligence would still generate innovation but with less dependency and less inequality than any form of concurrence.

Due to the overall reduction of the production volume (only for regional demand) and productivity in general the region's economy had less destructive impacts on its environment. The economic reorientation triggered a decrease in energy demand and pollution due to the shrinkage of the globally oriented industrial production and the transport sector. Further, the deindustrialized agriculture sector reduced its negative environmental impacts due to less intensive farming methods, the gradual electrification and short transport distances between producer and consumer.

Still the question of equal distribution remained. Naturally, resources – one of the basis of economic activities – are unequally distributed among the territory. One could speak of a structural inequality, which has its roots in the inhomogeneity of nature itself. Capitalistic markets have tried to solve this natural inequality through concurrence, which did not resolve any distribution issue, but on the contrary increased inequality, since the one who already had more would always gain more. So, could a planned economy be an approach towards an equal distribution within the region of Leipzig?

In 1933 the German architect and planner Martin Wagner,

who went into exile in the following years, made a sufficiency plan for Berlin, which understood the city and its region as one economic unit. In his extensive description of his vision for an agriculturally self-sufficient Berlin and a prosumer economy he pointed out that “planned economy is precisely not the dull, technical-material provision to process constraints“. On the contrary, he continued that it is “not the hell of constraint, but the paradise of freedom”. For him planned economy, the collectively organized production to fulfil the common good, was the condition to “become human again and give us back time; time to form the timeless, the spiritual, the dominical, the ethical and the truly artistical“ (Trezib 2017: 84; own translation).

Indeed a planned economy, which collectively organizes the supply of basic needs as articulated by the communities, might be the most appropriate solution for Leipzig and its region. An economic system, which claims to exclusively serve the common good, which is organized adjusted and controlled directly by the inhabitants of the region, and which is based on regional capacities and respects environmental limitations, might be the best option on the table. It is certain, that the common good, the basis for individual being in community, cannot simply be a by-product of markets, driven by individual interests. The common good and a balanced relation with nature need to be the goals of any economy. This goal is a mission, which requires long term planning, limitations and responsibility. And while that is achieved, and freedom is no longer a matter of individual economic success but a matter of the common good, autonomous individuation can take place. New forms of exchange platforms will emerge, that do not serve private profit interests any longer, but provide a just distribution and fair trade relations, which are all directed to the common good.



Approaching alternative economies

Austrian economist Christian Felber has developed the idea of an Economy for the Common Good. Coming from a micro-economic perspective, this model promotes for the evaluation of businesses regarding their conditions of production. Based on a set of values that represent the common good, the Common Good Matrix offers the evaluation of a company's contribution to the local community, employees and suppliers. This approach has been adapted to evaluate municipalities and in 2011 the first municipalities joined to become a Common Good Municipality. Felber's idea to question one's own conditions of production, challenges the general idea exclusively profit-oriented economic activity. Instead it puts the common good of the employees, the local community and even remote suppliers at the core. It is a practical approach towards a use-value oriented economy and has the potential to be transferred and up-scaled.



Economy for the Common Good

VALUE	HUMAN DIGNITY	SOLIDARITY AND SOCIAL JUSTICE	ENVIRONMENTAL SUSTAINABILITY	TRANSPARENCY AND CO-DETERMINATION
STAKEHOLDER				
A: SUPPLIERS	A1 Human dignity in the supply chain	A2 Solidarity and social justice in the supply chain	A3 Environmental sustainability in the supply chain	A4 Transparency and co-determination in the supply chain
B: OWNERS, EQUITY AND FINANCIAL SERVICE PROVIDERS	B1 Ethical position in relation to financial resources	B2 Social position in relation to financial resources	B3 Use of funds in relation to the environment	B4 Ownership and co-determination
C: EMPLOYEES	C1 Human dignity in the workplace and working environment	C2 Self-determined working arrangements	C3 Environmentally friendly behaviour of staff	C4 Co-determination and transparency within the organisation
D: CUSTOMERS AND BUSINESS PARTNERS	D1 Ethical customer relations	D2 Cooperation and solidarity with other companies	D3 Impact on the environment of the use and disposal of products and services	D4 Customer participation and product transparency
E: SOCIAL ENVIRONMENT	E1 Purpose of products and services and their effects on society	E2 Contribution to the community	E3 Reduction of environmental impact	E4 Social co-determination and transparency

Practicing communal self-organization, achieving community

The small village of Hawes in the North of Manchester, England, is practicing an interesting approach to provide the common good for the community. Hawes was suffering from demographic shrinkage, unemployment and withdrawing public services. In order to provide services for the community, the municipality started to become active. They started to invest in the biggest employer in the village – a dairy processing company – to keep the business alive. After being cut of from the national railway system, the municipality started to organize and operate public services, such as an independent bus network, a post office, a library and a bank, independently and with the help and contribution of the inhabitants. They started a local investment program to buy real estates and land, needed for the development of the village. Further, a great sense of community could be achieved because everyone is contributing to the well-being of the village and its community. Hawes is a great example to see how self-determination and self-organization of a community can benefit the common good and how this can stimulate people to participate and contribute to those processes.

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VII. CONCLUSIONS

Answer research questions

This research and design thesis addressed the transition towards a post-capitalistic economy and explored a corresponding spatial development perspective for Leipzig (Germany) and its hinterland. It explained the becoming of Leipzig as the spatial consequence of the mutual relation of urban and capitalistic development. The development of Leipzig's spatial structures revealed how the different investment strategies of capitalism's cyclic development caused adaptations in network structure, morphology and typology of the city. The capitalistic concentration processes caused extend development of the region's urban core and disconnection of the city from its initial supplier, Leipzig's hinterland.

The contingency plan is a possible spatial development perspective for the region of Leipzig, which corresponds to the socio-economic transformation towards a post-capitalistic economy. Based on agricultural self-sufficiency, this transition strategy for the region of Leipzig proposed a demographic decentralization and active cooperation, leading to the symbiosis of the city and its hinterland. Reinterpreting the existing settlement structure and transport infrastructure within the region's ecological limitations, the plan represents a resilient strategy for Leipzig to face the economic transition and start to support and implement post-capitalistic socio-economic relations. Instead of contributing to endless individual profit accumulation, the sole purpose of this economy is the common good.

In order to initiate a transformation towards a post-capitalistic economy, the relation between the city and its hinterland needs to be understood as mutually dependent. In symbiosis, both form one region, that is agriculturally self-sufficient and has a high degree of organisational capacities, and thus becomes the base for a post-capitalistic development.

A self-sufficient agriculture calls for a new relation between humans and their land. It could be shown that small-scale farming can supply an entire region and above become the solution to many of the current global problems. A fossil-fuel-free agriculture with minimal transport distances and clear production limits, could contribute to biodiversity, healthy soils and an environment, that's ecosystem-services are not as compromised as under current neoliberal production imperatives.

Approaching a post-capitalistic economy means to decentralize the spatially concentrated urban cores and initiate a regionalisation. The settlements in the hinterland need to facilitate the decentralization of the urban core, concentrate capacities to act and become self-organized communities. With their increasing importance, the government structures have to adapt as well. Post-capitalistic spaces need to be organized along the rail infrastructure, since those networks are already in place and are not entirely dependent on fossil fuel. Along this transport network new concentrated hubs will emerge, where working and living will take place at the same time. An important component of the spatial transformation towards a post-capitalistic economy is the resolution of the functional separation – the spatial manifestation of the division of labour and its alienation. Life as a complex process needs to find its spatial manifestation in the diversification, functional superimposition and reinterpretation of the built environment.

In the end, my proposal prepares the region of Leipzig for the failure of capitalism by implementing structures that offer alternatives to the current destructive economy. It offers a way to supply the people in the region with healthy and regionally produced food and to find a meaning in life that goes

beyond labour and consumption. It shows how a life in balance with nature, in which we are less harmful inhabitants on this planet, could look like. The reinterpretation of the spatial structures would allow us to become more holistic people; taking care of our social relations, our communities, our environment and our land. It is a strategy that uses the existing potentials of a city-hinterland-region, respects its ecological limitations and thus offers a way to become resilient.

The spatial decentralization counteracts the capitalistic concentration processes. A more even spatial organization with less power concentration and more self-determination could be achieved. In that sense, the regional decentralization revitalizes the hollowed out local power structures, because it requires the formation of self-organized communities. And as such, the proposal offers equality and freedom. Once the economy stops exploiting labour for exchange-values and profits, we will have the time to enjoy the attested freedoms we already have.

Definition post-capitalism

Throughout my thesis, capitalism has been defined as a singular, hegemonic form of comprehensive socio-economic organization. It is based on the principles of scarcity, rationality and concurrence, and has the sole purpose of endless private profit accumulation. At its core is the creation of use-value through the process of labour. The complex and dynamic historical phenomenon operates as an economic order, a social order and an ideology.

In contrast, post-capitalism will be defined as a pluralistic and non-hegemonic socio-economic system, in which a variety

of different economic models and forms of societies can exist parallel and in symbiosis. As such, this flat landscape of different economies produces a variety of locally grounded socio-economic needs and values. Thereby, those embedded economies contradict the singular, hegemonic blueprint logic of maximum profits and endless growth. A post-capitalistic economy must be particular and not universal.

Instead of endless individual profits, the common good – defined by local needs – must be the goal of a post-capitalistic economy. Therefore, the particular use-value for a defined society is the core of this economy. A post-capitalistic economy prioritizes regional and local use-values over non-territorial exchange-values and protects inherent aspects of life, such as land labour and money, from commodification and exploitation. This also means, that labour is valued by the contribution to the community – by its usefulness.

Instead of endlessness, a post-capitalistic economy knows clear limitations, which are defined by its subjects – self-determined communities – and the natural environment. It operates within the limits of the natural metabolism, because the common good, which is tied to an intact natural environment, is the only goal of this form of economy. A post-capitalistic economy understands itself as part of larger system and not as something independent.

Thinking about a post-capitalistic economy, we should not fall into the trap of thinking a deglobalized world without markets. Globalization cannot, and should not, be reversed, because it enables global communication, interaction and knowledge exchange. Being a distributive system, markets will be an important part of a post-capitalistic economy but

their character will change. Not profits, but the well being of the communities will define market relations and thus the distribution patterns. Micro-economic approaches, such as the economy for common good might be a way of practicing economy beyond endless growth and individual profit accumulation.

A key aspect in capitalism's development has always been technical innovations. Those were tapping new profit opportunities, so that innovation itself became a driving factor for profit accumulation. Of course, technical innovation will continue, but its pace and direction will change, because a post-capitalistic economy is based on the existing. In a post-capitalistic economy, technical innovation will only rise from a particular need and not out of greed for profits. This also means, that a post-capitalistic economy will literally produce less waste, because every innovation or product has an initial use-value, which is the good of the community and not profits. In that sense products in a post-capitalistic economy need to be made in a way that they can be repaired and reused and to be trashed so that consumption can continue.

Finally and in opposition to other hegemonic systems and ideologies, post-capitalism does not require opponents, oppression, systematic inequality and exploitation as a precondition of existence. Therefore, economy will not be a mean of power anymore, but instead enable equality and freedom.

Reflection and Limitations

The relation between research and design

All of my designs were inspired and informed by two sources: Leipzig and its region and my research. My thesis was entirely in the speculative, nevertheless possible if not even inevitable, realm beyond capitalism. Therefore, all my spatial responses to post-capitalistic socio-economic developments were based on my understanding of capitalism, its spatial implications, its ramifications, its systematic errors and its inevitable failure, the threats, which would come with such a development, and ideas or practice examples for alternative forms of socio-economic organization.

The other way around, the design helped me to understand what I have learned from the literature. Especially the analysis of Leipzig's spatial structures in accordance to the capitalistic cycles, the tracing through time and the observation of the changes, was revealing the spatial outcomes of the complex processes, which I was reading about. This knowledge again brought me to the understanding of the city, and its separation from its hinterland, as a product of the mutual relation of economic and spatial development.

The design itself also became a source of knowledge regarding a post-capitalistic economy. Illustrating and visualizing the spatial demands of a post-capitalistic economy, and the region's transition towards that, helped to identify the strategic locations and infrastructure. Further, the design showed that a European region could establish a self-sufficient and less environmentally harmful agriculture, by changing the production paradigm and reorganizing the spatial structures. Therefore, the design is also a form of communication for the research I have done.

The relation to the research studio and the master program

In different stages of my thesis I felt like going back through the quarters of the urbanism master track: I applied analysis and design methods from Q1 to my project. I tried to continue my visualization experiments from Q2 and I could confront myself with my personal regional-planning issue – the suspicion that regional planning in a neoliberal context will always serve economic interest first, while other societal and environmental benefits remain side products –, which remained unsolved after Q3. Going through those phases I realized the questions I left open and aspect I did not consider back then, but which I could reconsider from a new – one year later – perspective.

During my master thesis I also came closer to my personal understanding of the city, my subject of study and habitat of many people around the world. The understanding of how economic development, the techosphere, power and spatial development are linked, and how out of this nexus the development of a city can be explained, added a whole new dimension to my understanding of the city in general. I understood the previous development of Leipzig, the importance of its supergrid – backbone of Leipzig’s development – and the inherent relation between the city and its hinterland; and how they got disconnected. But I also realised, that this distinct settlement type, the current city, is part and manifestation of the problem we are facing: destructive neoliberal capitalism, which is founded on structural inequality.

For me, an urban planner and designer must be committed to the common good. This position has been established during my entire studies, but culminated in my thesis. A true commitment to the common good, is the unrestricted com-

mitment to the good of people and the environment, as the basis for all life. As such, it must be the task of a planner and designer to search for resilient alternatives for the current destructive form of human being, and hence contribute to pass something on to the next generation: a future.

Elaboration on research methodology and approach

Looking back, I would say that my entire thesis rests on the approach to understand and explain the current city and its structure through a historical and economical perspective. Understanding the becoming of my subject of my studies might prepare me to design its future development. The structured analysis of Leipzig's spatial development in relation to capitalism's cyclic development helped to realize the powers, which were at force in the back. The changes in Leipzig's infrastructural network, its morphology and typology illustrated the spatial adaptations to the city, which each new capitalistic cycle provoked. I would say, that the set of methods I choose to study the mutual relation between spatial and economic development were appropriate to give me an understanding. They could be applied to other case studies. Especially the analysis of the infrastructure network helped me to understand the supergrid as the consistent backbone of the city. Restricting, I need to say that the set of methods I applied were not paying respect to micro-economic process and their changing spatial manifestations through time. Further, even though the supergrid analysis was an excellent method to analyse and understand the changes in Leipzig's infrastructural network, a more extensive space syntax analysis could have been applied, in order to reveal small-scale changes due to the networks adaptation.

I also consider the normative-narrative scenario technique to

be an appropriate method to explore a highly complex and speculative future and to design in it. Creating this detailed normative state of the future, which is rooted in the literature research, helped to give my design a direction and frame. At the same time, the feasibility of the resulting design ideas restricted the scenario. Apart from the use of the normative-narrative scenario in the design process, it also helped to explain the final design, to put it into a greater picture and to illustrate the possibilities, which the contingency plan contains.

At this moment, I would like to point out how important I consider it to study the socio-economic history and its affects on the spatial environment. I would also like to stress the relevance of a clear theoretic perspective and a philosophic location. Abstracting helps to handle the size and complexity of the issues we are confronted with and to understand the relations between the different parts within a system. Further, I think it is very important to become aware of the ideas, which stand behind one's own thoughts. Getting into ideas and thoughts of Streeck, Stiegler, Marx and many others challenged my own thought concepts and broadened my horizon concerning the conception of causal relations. This helped to argue for certain aspects of my work, which otherwise might seem unrealistic. But this is precisely the point from which I think we can benefit: dealing with such meta concepts helps us to explore alternatives and stress their feasibility.

Reality is nothing fixed, static or universal. Reality has different integrated scales and their reproduction is depended on our individual and collective actions and conceptions. Thus, reality is only what we as individuals and as collectives consider possible. The possible, in turn, could be misunderstood as the simple feasibility of desires, but in fact the possible is less dependent on the human than one could think. The pos-

sible is in a dynamic relation with larger systems, such as the natural environment, which are only driven by natural laws and forces. Therefore, the possible and with it reality, are tied to the most fundamental principle of nature: change as the only, inevitable constant. From this perspective, the feasibility of alternatives cannot be limited by reality, since it is embedded in larger systems and a subject of change.

This broader thinking also helped me to get closer to the bottom and limitations of my own thought patters. Dealing more extensively with Marx, I discovered how much I am influenced by and attracted to Hegel's systematic thinking, which is in fact the core of my entire argumentation. Looking from that distant abstraction, it becomes obvious that current production and consumption patterns and their spatial expressions, which are the concentrated city separated from its hinterland, are at the heart of the problem: the strive for endless profits no matter the costs.

The relation to the wider social, professional and scientific framework

Personally, I consider my project to be fully integrated into a larger socio-economic context: it concerned the spatial and socio-economic conditions of a future after capitalism. I think as researchers, professionals, societies and individuals, we have to take care of our future. It is our responsibility to pass this future on to next generations. Therefore, we must search for alternatives to the current destructive system. In my eyes, it is not enough anymore to describe, explain, categorize and criticize. As professionals, as scientists, as societies and individuals we need to actively search for alternatives, show possibilities and their qualities, and find ways to practice those. Especially the science must have the duty to show

practical ways out of the misery, because it is still the most free, liberal and progressive institution, which could deliver holistic and practical solutions on how to organize societies and space differently. Creating and applying such solutions would also contribute to what is missing a lot in this world: hope for a better future. In that sense, I hope that my thesis and its ideas about the spatial organization of Leipzig in a post-capitalist economy was a contribution to my own claims to science and our profession.

Because of the historical and economical perspective I took, my project has been driven by its own local context – Leipzig and its region. Furthermore, my entire perspective on the issue, as well as my site of study itself, is fully embedded in a Western European context. Especially regarding the socio-economic development, my work is strongly tied to Europe's specific context and its central position in the development of global capitalism. The same applies to the specific German context. Its diverse history – which in the case of Leipzig included a socialist period – has created the unique context and the spatial structures, on which my whole project was based. Further, one needs to consider that my proposals were made in one of the – in a Western understanding – most developed, wealthy and economically successful nations in the world. This state of development needs to be understood as an important condition for my proposal. In the end, all of my proposals were built on the existing structures and resources, the region's capacities and limitations. Therefore, the concrete transformations and adaptations I proposed cannot simply be transferred to any other context.

Nevertheless, I certainly consider my approach, to challenge the separation of the city and its hinterland through processes of decentralization and the establishment of a self-sufficient

regional agriculture, to be transferable. The idea to implement a contingency plan, which works within existing structures and resources and which respects local particularities, could be an interesting approach for other cities and their hinterlands. The quite simple idea behind is to supply basic human needs; even if global supply chains fail. Those seemingly unremarkable supplies fundamentally include fresh and healthy food. This requires an intact natural environment, which can only be achieved within natural limitations and through a balanced relation with the natural environment. But even this is not enough. Since everything in nature changes constantly, the creation of resilient socio-economic and spatial system, which can adapt to changing conditions without compromising their functionality, is a fundamental necessity. Therefore, the approach to tackle those issues by a new relation between city and hinterland, based on the existing, can be transferred.

But above that, considering an economic system, which respects particularities and diversity and which exclusively serves the common good, offers so many possibilities and solutions to problems, which otherwise might appear too big. It could mean the liberation from constraints of the capitalistic performance societies; a real approach towards equality and the promise for unimpeded human development. Considering post-capitalistic forms of socio-economic organization and their spatial requirements also contains the relocation of the common good in our value systems. Further, it offers a holistic and feasible approach to achieve a balanced relationship with the natural environment; maintaining its intactness as the basis of life. The idea of a regionally specific contingency plan, which is based on an ideally self-sufficient agriculture, could be applied everywhere.

Ethical issues and dilemmas

Thinking about alternatives for capitalism is necessarily a call for equality and justice. Post-capitalism is an attempt to liberate the majority of people, which – consciously or not – are oppressed by and suffer from capitalism. A self-determined, meaningful and free life in community and in balance with the natural environment is an altruistic approach in opposition to the egocentrism of capitalism's reality. From this perspective, means such as dispossession appear reasonable. But even though the altruistic approach is ethically and morally unobjectionable, the transition from an egocentric to an altruistic approach raises the question what will happen to the current few profiteers; the one percent? Is it morally right to dispossess, to take away private land? Theoretically the answer is clear: private land must have been violently appropriated from the community in the first place. Therefore, its private possession is unjustly and ethically not right. If the dispossession serves the common good and the dispossessed receives compensation, I do not see any further ethical constraints. But is this argumentation practical? Can I use the same line of argumentation and reason to dispossess someone, who worked her entire life to call her little house and plot her own? Would that still be ethically right? This ethical dilemma arises from the unintended or unconscious participation of the individual in a larger system that is the problem itself. For me personally, a white male who comes from a middle-class background but who never owned property, the common good matters more than particular interests. But this is just my personal subjective view. However, also objectivity, which is collective subjectivity, can and must inevitably change. So, if we as a society would relearn to trust the community and not our individual transient success, there would be no more need for private property. If land would be a common and

the cultivation and management of it would define a use-right, I would not hesitate impose the common good. If one uses the property and takes care of it, one should call it his or her own. Thereby a temporal dimension is added to the possession of common land, which is tied to the actual use and management and not to remote financial power. At the end of the day, no one would loose anything, but everyone would gain all.

Another ethical concern came across my mind, when I imagined the social consequences of my ideas regarding decentralization and regionalisation. Putting myself into an unfamiliar position, my proposal could be misunderstood or purposefully filled with nationalist – or more precise regionalist –, protectionist, chauvinist and fascist ideologies and social organization patterns. On the contrary, my proposal for a EU-wide regionalisation rests entirely on the appreciation of socio-economic, cultural diversity and peaceful. Open exchange and communication between the communities within a region, and between the regions, inalienable condition for the feasibility of my proposal. And even though my whole idea is about self-sufficient and self-determined regions, one should not forget the inalienable dependency of one region on the EU and its peace guaranteeing values, thus all the other regions. Furthermore – and not necessarily coincidental –, I consider the European regions as I proposed them to be unable to establish full autonomy. Due to their size and unequal resource distribution, they need to be open and practice peaceful and mutual benefitting relations to their neighbours. Especially in the case of Leipzig, the size is optimal to provide a self-sufficient agricultural production and to practice new forms of political participation and governance. But at the same time the region is too small to concentrate power to an extent that the region would become hegemonic,

oppressive and imperialistic. It is simply too small to cause serious threats and damage to others.

In the end, I would say that my approach and my methodology worked out in so far, that I was able to do exactly what I wanted to do: even though I did not consider the complications that came along and I was unable to predict my final findings and outcomes for a long time, I was able to explore post-capitalism and its spatial implications for Leipzig and its region. In my eyes, the methods I choose during the analytical part were appropriate to explain my argumentation that the city is a product of the mutual relation between spatial and economic development. Even though the methods I applied were by far not complete to explain this complex argumentation to its full extend, I still consider it to be sufficient to explain Leipzig's spatial becoming within the capitalistic development. The supergid analysis has been shown to be an excellent method to understand the city's continuing structure that constitutes Leipzig's current form, organization and function. In relation to the economic development of the city, it provided a new understanding of the city to me. Furthermore, I consider the literature studies as absolutely essential for my thesis. I gained knowledge about economy and its relation to space, and in particular capitalism and its impacts on Leipzig, that showed me a new approach to the city.

My mentors were an important foundation of my thesis. Looking back, I found myself quite often in unfamiliar research territories, so I was in need of their guidance and experience. It should also be said, that I often felt like a swinging pendulum between two poles. Certainly, I was not able to fulfil both expectations. But the attempt to combine the theoretical and the design perspectives to the project supported and strongly

contributed to my work. The feedback I received was always more like a conversation on eye level. Fair and open, I felt confident to share my thoughts and develop them together with my mentors. Generally, all thoughts were inspired by the exchange with my mentors, teachers and colleagues. Especially the literature advices, but also the informal exchange of input and thoughts were very beneficial to my thesis. Even though I am sure that none of us knew where exactly my work would lead, both my mentors accompanied and guided me on my endeavour, which brought me closer to understand my subjects of studies; space and the city.

APPENDIX

Calculations

the regions agricultural land
(varying total numbers)

land demand for different consumption rates

land demand for a self-sufficient agricultural production in the region of Leipzig under consideration of different consumption rates and area supply

Sources:

Cassidy, E. S., West, P. C., Gerber, J. S., & Foley, J. A. (2013). Redefining agricultural yields: from tonnes to people nourished per hectare. *Environmental Research Letters*, 8(3)

2000m2.eu

access: 03.2018

oya-online.de/article/read/1281-wieviel_erde_braucht_der_mensch.html

access: 03.2018

1 ha = 10.000 m²
 10.000 m² = 0,01 km² x100
 1km² = 1.000.000 m²

$$1.045.000 < A / C$$

$$A = L_t - L_c - L_i$$

C = CONSUMPTION AGRICULTURAL LAND PER PERSON PER YEAR

$$L_t = 15.340 \text{ km}^2$$

$$L_c = 1/4 L_t = 3.883 \text{ km}^2$$

$$L_i = x$$

$$x_1 = 15\% L_t \longrightarrow A_{x1} = L_t - L_c - x_1$$

$$= 2.301 \text{ km}^2 \qquad = 60\% L_t$$

$$= \underline{9.156 \text{ km}^2}$$

$$x_2 = 20\% L_t \longrightarrow A_{x2} = L_t - L_c - x_2$$

$$= 3.068 \text{ km}^2 \qquad = 55\% L_t$$

$$= \underline{8.389 \text{ km}^2}$$

$$x_3 = 25\% L_t \longrightarrow A_{x3} = L_t - L_c - x_3$$

$$= 3.835 \text{ km}^2 \qquad = 50\% L_t$$

$$= \underline{7.622 \text{ km}^2}$$

$$A_o = 30\% L_t$$

$$= \underline{4.602 \text{ km}^2}$$

$$C_{EU} = \underline{2.500 \text{ m}^2} / 1 \text{ person} / 1 \text{ year}$$

$$1 \text{ ha} / C_{EU} = 10.000 \text{ m}^2 / 2.500 \text{ m}^2$$

$$= 4 \text{ p/y}$$

$$1 \text{ km}^2 / C_{EU} = 1.000.000 \text{ m}^2 / 2.500 \text{ m}^2$$

$$= 400 \text{ p/y}$$

$$C_S = \underline{2.000 \text{ m}^2} / 1 \text{ person} / 1 \text{ year}$$

$$1 \text{ km}^2 / C_A = 1.000.000 \text{ m}^2 / 2.000 \text{ m}^2$$

$$= 500 \text{ p/y}$$

$$C_A = \underline{1.667 \text{ m}^2} / 1 \text{ person} / 1 \text{ year}$$

$$1 \text{ km}^2 / C_A = 1.000.000 \text{ m}^2 / 1.667 \text{ m}^2$$

$$= 600 \text{ p/y}$$

$$C_B = \underline{1.250 \text{ m}^2} / 1 \text{ person} / 1 \text{ year}$$

$$1 \text{ km}^2 / C_C = 1.000.000 \text{ m}^2 / 1.250 \text{ m}^2$$

$$= 800 \text{ p/y}$$

A AGRICULTURAL LAND
 L_t TOTAL LAND SURFACE
 L_c LAND COVER: SETTLEMENTS, FORESTS, LAKES
 L_i LAND INFRASTRUCTURE: ROADS, RAILWAY LINE, RIVERS
 A_o AGRICULTURAL LAND EXTREM: DIFFERENT SOIL PRODUCTIVITY,
 UNPRODUCTIVE AREAS ON FIELDS

C_{EU} EU
 C_S GLOBAL AVERAGE
 C_A VARIABLE A
 C_B VARIABLE B

A_{x1}

$$A_{x1} / C_{EU} = 9.156.000.000 \text{ m}^2 / 2.500 \text{ m}^2 \\ = \underline{3.662.400 \text{ p/y}}$$

$$A_{x1} / C_S = 9.156.000.000 \text{ m}^2 / 2.000 \text{ m}^2 \\ = \underline{4.578.000 \text{ p/y}}$$

$$A_{x1} / C_A = 9.156.000.000 \text{ m}^2 / 1.667 \text{ m}^2 \\ = \underline{5.492.501 \text{ p/y}}$$

$$A_{x1} / C_B = 9.156.000.000 \text{ m}^2 / 1.250 \text{ m}^2 \\ = \underline{7.324.800 \text{ p/y}}$$

A_{x2}

$$A_{x2} / C_{EU} = 8.389.000.000 \text{ m}^2 / 2.500 \text{ m}^2 \\ = \underline{3.355.600 \text{ p/y}}$$

$$A_{x2} / C_S = 8.389.000.000 \text{ m}^2 / 2.000 \text{ m}^2 \\ = \underline{4.194.500 \text{ p/y}}$$

$$A_{x2} / C_A = 8.389.000.000 \text{ m}^2 / 1.667 \text{ m}^2 \\ = \underline{5.032.393 \text{ p/y}}$$

$$A_{x2} / C_B = 8.389.000.000 \text{ m}^2 / 1.250 \text{ m}^2 \\ = \underline{6.711.200 \text{ p/y}}$$

A_{x3}

$$A_{x3} / C_{EU} = 7.622.000.000 \text{ m}^2 / 2.500 \text{ m}^2 \\ = \underline{3.048.800 \text{ p/y}}$$

$$A_{x3} / C_S = 7.622.000.000 \text{ m}^2 / 2.000 \text{ m}^2 \\ = \underline{3.811.000 \text{ p/y}}$$

$$A_{x3} / C_A = 7.622.000.000 \text{ m}^2 / 1.667 \text{ m}^2 \\ = \underline{4.572.285 \text{ p/y}}$$

$$A_{x3} / C_B = 7.622.000.000 \text{ m}^2 / 1.250 \text{ m}^2 \\ = \underline{6.097.600 \text{ p/y}}$$

A_e

$$A_e / C_{EU} = 4.602.000.000 \text{ m}^2 / 2.500 \text{ m}^2 \\ = \underline{1.840.800 \text{ p/y}}$$

$$A_e / C_S = 4.602.000.000 \text{ m}^2 / 2.000 \text{ m}^2 \\ = \underline{2.301.000 \text{ p/y}}$$

$$A_e / C_A = 4.602.000.000 \text{ m}^2 / 1.667 \text{ m}^2 \\ = \underline{2.760.648 \text{ p/y}}$$

$$A_e / C_B = 4.602.000.000 \text{ m}^2 / 1.250 \text{ m}^2 \\ = \underline{3.681.600 \text{ p/y}}$$

variance

MIN: 1.840.800 p/y

MAX: 7.324.800 p/y

—————> > 1.045.000

$$1 \text{ ha} / C_{\text{EU}} = 10.000 \text{ m}^2 / 2.500 \text{ m}^2 = 4 \text{ p/y}$$

$$1 \text{ km}^2 / C_{\text{EU}} = 1.000.000 \text{ m}^2 / 2.500 \text{ m}^2 = 400 \text{ p/y}$$

$$1 \text{ ha} = 10.000 \text{ m}^2$$

$$10.000 \text{ m}^2 = 0,01 \text{ km}^2$$

$$1 \text{ km}^2 = 1.000.000 \text{ m}^2 \quad \times 100$$

SURFACE DEMAND FOR AGRICULTURAL SELF-SUFFICIENCY

self-sufficiency
1.000 people (C_{EU})
 $A_s = 2,5 \text{ km}^2$

$$A = b^2$$

$$b = \sqrt{A}$$

$$\underline{b_{As} = 1,6 \text{ km}}$$

Core
30.000 people
 $A_{\text{core}} = 75 \text{ km}^2$

$$A = \pi r^2$$

$$r = \sqrt{A/\pi}$$

$$\underline{r_{\text{AcCore}} = 5 \text{ km}}$$

Core + supply Leipzig
Core $\times 2 = 60.000$ people
 $A_{\text{AcCore}2} = 150 \text{ km}^2$

$$\underline{\underline{r_{\text{AcCore}2} = 7 \text{ km}}}$$

1:750.000
1cm = 7,5km
0,13cm = 1km



$$A_s = 2,5 \text{ km}^2$$

$$b_{As} = 0,21 \text{ cm}$$



$$r_{\text{AcCore}} = 0,65 \text{ cm}$$



$$r_{\text{AcCore}2} = 0,91 \text{ cm}$$

number of inhabitants in the region of Leipzig according to the system of central places

demographic growth potentials of the categories Mittelzentren, Unterzentren and Villages

distribution of inhabitants among the Mittelzentren, Unterzentren and Villages for a loss of 30% of Leipzig's inhabitants

Source:

Statistisches Landesamt des Freistaates Sachsen (2017). Statistisches Jahrbuch Sachsen 2017. Statistisches Landesamt des Freistaates Sachsen.

Degrowth Leipzig (L) 30% = -187.000

30% growth MZ+UZ+V

$(MZ+UZ+V) + (1/3MZ + 1/3UZ + 1/3 V)$

MZ + 60.000

< max. potential growth (89.000)

UZ + 40.000

< max. potential growth (120.000)

V + 51.500

152.500

187.000 - 152.500

34.500 not distributed, but negligible
= 5,5% Degrowth Leipzig

Category	Name	Inhabitants current	Development	Potential growth (-30,000 or dubble)	30% growth	
Leipzig Region	County Leipzig (city)	560.500	*	*	*	
	County Leipzig	258.500	*	*	*	
	County Nordsachsen	197.500	*	*	*	
	total Region (Rt)	1.016.500	*	*	*	
Oberzentrum (L)	Leipzig	560.500	-	*	*	
	Mittelzentrum (MZ)	Deltzsch	25.000	+	5.000	8250
		Torgau	20.000	+	10.000	6600
		Eilenburg	15.500	+	14.500	5115
		Wurzen	16.500	+	13.500	5445
		Oschatz	14.500	+	15.500	4785
		Grimma	28.500	+	1.500	9405
		Borna	19.500	+	10.500	6435
		Markkleeberg	24.000	+	6.000	7920
		Schkeuditz	17.500	+	12.500	5775
			181.000		89.000	59730
Untierzentrum (UZ)	Markranstädt	15.000	+	15.000	4950	
	Taucha	15.000	+	15.000	4950	
	Frohbürg	10.000	+	10.000	3300	
	Brandis	9.500	+	9.500	3135	
	Zwenkau	9.000	+	9.000	2970	
	Colditz	9.000	+	9.000	2970	
	Naunhof	8.500	+	8.500	2805	
	Bad Lausick	8.000	+	8.000	2640	
	Bad Dübén	8.000	+	8.000	2640	
	Belgern-Schildau	8.000	+	8.000	2640	
	Böhlen	7.000	+	7.000	2310	
	Mügelín	6.000	+	6.000	1980	
	Dahlen	4.500	+	4.500	1485	
	Dommeritzsch	2.500	+	2.500	825	
			120.000		120.000	39600
Villages (V)	*	Rt - L - MZ - ZU	+	*	51480	
		1016500 - 560500-				
		180000-120000			51.480	
		156.000				

Contribution to the St. Gallen Wings of Excellence Award's Essay Competition 2018

Competition Question:

“Robots are coming for your job. How do you augment yourself to stay economically relevant?”

Author Yuval Noah Harari claims that the rapid progress of artificial intelligence technology will render the human species economically useless within decades. Imagine a world in which humans fight back, harnessing AI and other technologies to stay economically indispensable – and, ultimately, competitive against the computers. Describe the job you aspire to in the future, how it will potentially be influenced by AI, and how you would augment yourself technologically if necessary to prevail in your chosen career.”

<https://www.symposium.org/competition>

Robots are coming for my job. Will they?

So, robots are coming for my job, rendering me economically irrelevant...

But anyway, what does it mean to stay *economically relevant* in an automatized future? I guess that is just a matter of perspective. If we think about being relevant in an economy defined by the imperatives of endless growth, private profit accumulation and rationality, it means to compete with technology *deliberately* designed to perform and produce better and more efficient than the human being. In such an economic model the idea of augmenting oneself to compete superior algorithmic technology is reduced to absurdity. But if we think about *being relevant* in a different, more embedded economy or even a landscape of different economies, a whole new understanding of *being* arises.

The proceeding automation of the current economic production patterns is nothing else but the consequential and rational approach for minimal production costs and higher efficiency. As such, automation is a logical corollary of the economic development in pursuit of endless growth and profits. But thinking this thought to the very end, automation challenges the foundation of our understanding of capitalism. By replacing scarce human labour with a theoretically infinite labour force (robots and AI), automation rattles the very basic capitalistic profit making mechanisms¹: through infinite labour no additional value can be added to the product's original use-value – no surpluses can be generated.

The true meaning of this reveals itself if we look at this process in the light of AI, where information or data act as infinite resources within the basic profit making mechanisms. The combination of infinite labour and infinite resources allows theoretically zero-cost-production and thus counteracts the entire capitalistic value and profit making process.² But above that, the *useless* – the less rational and thus less profitable – labour forces will fundamentally challenge the welfare state, while their individual purchasing power will decrease drastically, challenging neoliberalism consumption engine. This development will not just render me as an economic subject (producer and consumer), but neoliberal capitalism itself, obsolete.

Regarding the industry full automation enables production at lower costs and thus stimulates increasing turnovers through lower sale prices in favour of higher profit rates. But this production and growth boost comes at the price of increasing resource demand, hence further environmental exploitation, pollution and destruction – ultimately and in the worst case the destabilization of the Earth System.³ Even though this aspect of automation would be way more dramatic than mass unemployment and the collapse of neoliberal capitalism, the results for me as an individual regarding my economic relevance as well as the current economic model would be the same: we would be irrelevant.

So, in the face of automation and in direct concurrence to a deliberately supreme AI in an ultimately rational economy I might be doomed – no matter how I augment *myself*. The entire idea of augmenting humans in order to remain *economically relevant* becomes nothing but the illogic attempt to “secure jobs on board the Titanic⁴”. If we really want to think about staying economically relevant, we should rather ask in what kind of economy we could stay relevant, since neoliberal rationality will always be in favour of the more efficient and profitable – the AI – solution. So, let us start to think about economy as something different, nothing sole and universal but something more diverse than what we can imagine within the limits of individual profit accumulation and endless growth. Let us think economy as for what it is: a form of social relations.

¹ Marx, K. (1894). *Capital. A Critique of Political Economy. Volume III. The Process of Capitalist Production as a Whole*. Edited by Friedrich Engels. New York: International Publishers. Part I

² Mason, P. (2015). *PostCapitalism: A Guide to Our Future*. Allen Lane.

³ Ahmed, N. (2015). *Beyond Extinction - Transition to Post-Capitalism is Inevitable*

⁴ Peter Sloterdijk (2016): *Selected Exaggerations: Conversations and Interviews 1993 – 2012*. Polity

First, think about your own social relations. Most of them will be rooted locally, connected to a physical space and evermore maintained through a virtual one. Each of those relations will show peculiarities, which make them all different; each developing an own character with own demands and rules. And above that, all of them can only be as much as the respective society – you and the persons concerned – want them to be. And now think about economy as such an *embedded* relation, one that respects local peculiarities and identities, one that acts within mutually defined limitations to meet local needs, not just striving for endless growth on the costs of socio-economic inequality and environmental destruction.

Now, let us go one step further and not just think about your individual social relations, but the present diversity of those manifold relations. Just as in any other biosphere, the richness and diversity of our social relations might have been the key component that made humankind as resilient and consequently as successful so far. But in contrast the currently dominant global socio-economic order constitutes itself as a singular, hegemonic and universal blueprint, disrespecting local socio-economic as well as environmental needs. But if we think economy the same way as any other social relation, we abandon the transcendental perception of one sole and ultimate economic model and arrive at a flat *landscape of divers economies*⁵, in which different economic models can coexist parallel and not in concurrence.

In such a scenario of diverse coexisting economies, different aims and imperatives beyond endless growth and rationality become possible. So, let us ask ourselves if automation and AI would *necessarily* render me economically irrelevant in a landscape of diverse economies. Can we think of an economic model outside neoliberal logics that allows full automation and AI without its own systematic failure, the potential failure of the welfare state, entire societies and the Earth System?

An embedded economy within this landscape would need to reconsider the human as something else than just an economic subject, acting as producer and consumer. It would have to define *being* differently than by economic relevance. Further, it would have to reconsider itself as one – and not the only – form of socio-economic relation. Rather than aiming for *individual* profits out of social concurrence, the aim of such an economy could be the creation of communal benefits – healthy communities as the basis for individual freedom.⁶ Therefore, the respective community would have to negotiate its values autonomously and hence redefine the relation to its techniques. That means to define AI's role – for example application and access – within the local socio-economic system. As such, the *pharmacology* of technology – being poison and cure at the same time⁷ – could be challenged and in consequence a local debate on being with rather than in concurrence to technology could take place.

Rather than dividing societies by a paradoxical concurrence situation with a superior competitor, the application of automation and AI could be used to benefit the entire community according to its own needs. The question of *being* in such an embedded economy⁸ would not be the one of *economic relevance*, but of being in community⁹ and thus of being *socially relevant*.

In order to approach such an embedded economy – and thus reclaiming local autonomy and control over definition – we have to think beyond the neoliberal connotation of work as economically exploitable, productive *wage labour*. Fundamentally characterized by perpetual concurrence, indispensable economically exploitable labour within the current mode of production renders its subjects and itself highly vulnerable to automation processes. But, these threats only exist within current neoliberal capitalism and not necessarily in a landscape of diverse economies, in which autonomous communities form their own embedded economies and thus define *work* differently.

⁵ J. K. Gibson-Graham (2006). *A Postcapitalist Politics*. University of Minnesota Press

⁶ See J. K. Gibson-Graham (2006): *A Postcapitalist Politics*. University of Minnesota Press in contrary to Streeck's definition of capitalism as a process of individual accumulation, reproducing the collective as side product (Streeck, W. (2014). *How will Capitalism End?* New Left Review, 87, p.48)

⁷ Stiegler, B. (2013). *What makes life worth living: On pharmacology*. John Wiley & Sons.

⁸ See Karl Polanyi's outline on embedded economies through the decommodification of land, labour and money (Polanyi, K. (1940). *The Great Transformations*) as the basis for stable social relations and the expression of a community's autonomous socio-economic needs

⁹ J. K. Gibson-Graham (2006): *A Postcapitalist Politics*. University of Minnesota Press

In contrast to the narrow, neoliberal conception of labour, a locally embedded economy could define work for itself as the process of reproducing and externalizing culture and society. Hence, non-productive, unpaid or *not economically exploitable* work would not necessarily and by definition render the respective subjects useless. Instead of sweatshops, 60-hour-weeks, depression and burnouts in the age of 24, a richer understanding, practice and value of the broader process of socio-cultural reproduction could challenge the anticipated effects of automation such as mass unemployment, fierce competition on the labour markets, divisions of societies and increasingly precarious living conditions.

Understanding the process of work differently brings us closer to our very human core: *being*, constituted through socio-cultural reproduction and (technical) externalisation¹⁰. If we follow French philosopher Bernard Stiegler that “humans are only *by default*, [which] means, they are only in as much as they *become* [original emphasis]”¹¹, automation and AI have the potential to liberate us from time-dominating wage labour and thereby prepare the ground to become more than just economically relevant or irrelevant subjects. It includes the possibility to rediscover our own desires and to “reconstitute knowledge on how to live, do [ME: work] and conceptualize”¹².

Rather than simply adding value within the process of production enabling individual profit accumulation, taking care of the manifold social relations could become the core of our daily work. Rather than competing against supreme competitors, automation and AI could act as the technology liberating us from the burden of wage labour and thus enable us to work for communal instead of individual benefits, to participate stronger in political processes, to gain knowledge and ultimately to take care of one another and our environment. From this a new role of the human in the age of the Anthropocene becomes possible: instead of being profiteers on the costs of socio-economic inequality and environmental damage, sovereign communities with embedded economies, applying AI and automation to their very own socio-economic needs rendering wage labour redundant, enable us to become *care-takers* of one another and our environment.

In *being in community*¹³ lies the chance to negotiate ethical values regarding the socio-economic orientation and the use of technology locally, enabling the respective communities to act as care-takers. Individual augmentation of myself is pointless as long as it operates within the neoliberal concurrence. In result only few will benefit from such an individualistic strategy, while the majority will be left behind – *useless*. On the contrary, *communal augmentation* – the creation of locally embedded economies, local autonomy on the use of technology, the liberation from wage labour and the reconsideration of being relevant as care-takers – might be the only useful augmentation; our chance to “fight back”.

So the question is not how *I* could augment myself in order to stay *economically relevant*, but how *we* augment ourselves to stay *relevant*. The answer to that question might be to rethink our current sole, global economic model, to base socio-economic decisions on the needs of embedded economies and to respect socio-economic differences just as we do in our daily, often irrational, social relations.

And if you want to know how my day looks like in such an embedded economy, in which we have augmented ourselves as communities by taking care of one another and our environment, just imagine me sitting under a tree in the garden of our house: my hands are still a bit dirty from helping my neighbour. I am finishing an essay on my future economic relevance for an international essay competition. Just a few more words before I leave for communal work – my daily contribution to our community. Today I am off to my grandma's retirement home helping to prepare dinner and after that I will stay a little longer to spend some time with her.

¹⁰ Turner, B. (2017). *Ideology and Post-structuralism after Bernard Stiegler*. Journal of Political Ideologies, 22(1). p. 92-110

¹¹ Stiegler, B. (2004). *Philosopher par accident*. Paris: Galilée. p. 43

¹² Stiegler, B. (2017). *Automatic Society: The Future of Work*. John Wiley & Sons. p. 22

¹³ J. K. Gibson-Graham (2006). *A Postcapitalist Politics*. University of Minnesota Press

References

Ahmed, A. (2015). Beyond Extinction – Transition to post-capitalism is inevitable

Access: <https://medium.com/insurge-intelligence/beyond-extinction-12daed1bc851> (09.2017)

Anders, K. (2017): Prinzipien des Selbsterhalts im Zeitalter des Populismus. In *Arch+ Zeitschrift für Architektur und Städtebau* (211/212), pp. 174-175

Arnott, R. J., & Stiglitz, J. E. (1979). Aggregate land rents, expenditure on public goods, and optimal city size. In *The Quarterly Journal of Economics*, 93(4), 471-500.

Arrighi, G. (1994). *The long twentieth century: Money, power, and the origins of our times*. London: Verso.

Bartetzky, A. (2015). *Die gerettete Stadt: Architektur und Stadtentwicklung in Leipzig seit 1989 – Erfolge, Risiken, Verluste*. Lehmstedt Verlag.

Beckert, J. (2007). *The Great Transformation of Embeddedness – Karl Polanyi and the New Economic Sociology*. Max Plank Institute for the Study of Societies Cologne.

Biehl, J. (2010). *Mumford Gutkind Bookchin: The Emergence of Eco-decentralism*.

Braudel, F. (1984). *Civilization and Capitalism, 15th-18th Century. The Perspective of the World (Vol. 3)*. New York: Harper & Row.

Brenner, N. (2014a). *Implosions/explosions: towards a study of planetary urbanization*. Jovis.

Brenner, N. (2014b). Understanding Urbanization. Centenary Lecture Series.

Access: <https://www.youtube.com/watch?v=xTk2aRFIKus> (01.2018)

Bookchin, M. (alias Lewis Herber) (1955). *A Follow-up on the Problem of Chemicals in Food*. CI, 6(21).

Bookchin, M. (alias Lewis Herber) (1965). *Crisis in Our Cities*. Prentice-Hall.

Bookchin, M. (1986). *The Limits of the City: With a New Introduction*. Black Rose Books.

Cassidy, E. S., West, P. C., Gerber, J. S., & Foley, J. A. (2013). Redefining agricultural yields: from tonnes to people nourished per hectare. In *Environmental Research Letters*, 8(3)

Cicero & Miller, W. M. (2014). *De Officiis (English Edition)*. Harvard University Press

Crutzen, P. J. (2002). Geology of mankind. In *Nature*, 415, p.23.

Dengler, K. M., B. (2015). *Folgen der Digitalisierung für die Arbeitswelt. In kaum einem Beruf ist der Mensch vollständig ersetzbar*. Institut für Arbeitsmarkt- und Berufsforschung

Einert, M. (2015). *Zum Beitrag kommunaler Bildungsinfrastruktur für die Entwicklung benachteiligter Stadtteile Untersuchung am Beispiel der Diskussion um ein Gymnasium im Leipziger Osten*. Bachelor Thesis Bauhaus University Weimar

Engelen, E., Johal, S., Salento, A. & Williams, K. (2014). How

to build a fairer city

Access: <https://www.theguardian.com/cities/2014/sep/24/manifesto-fairer-grounded-city-sustainable-transport-broadband-housing> (10.2017)

Engels, F. (1954). *Anti-Dühring: Herr Eugen Dühring's revolution in science*. Moscow: Foreign Languages Pub. House.

Engels, F. (1956). *On Marx's Capital*. Moscow: Progress Publishers.

Engels, F. (1975). *The Housing Question*. Moscow: Progress Publishers.

Engels, F. (2004). *The Origin of the Family, Private Property, and the State*. Sydney: Resistance.

Exner, A. & Lauk, C. (2012) *Social Innovations for Economic Degrowth*.

Access: <https://libcom.org/forums/theory/social-innovations-economic-degrowth-andreas-exner-christian-lauk-17082012> (03.2018)

Faber, K. (2017). Regionale Kooperativen. Selbstbewusstsein durch Stadtland. In *Arch+ Zeitschrift für Architektur und Städtebau* (211/212), pp. 176-181

Felber, C. (2018). *Economy for the Common Good. An economic model of the future*.

Access: <https://www.ecogood.org/en/> (02.2018)

Ferreira, E. (2016). For a "disruption, European style". Access: <http://www.makery.info/en/2016/09/12/disruption-a-leuropeenne-a-la-fete-de-lhuma/> (02.2018)

Foster, J. B. & Magdoff, F. (2009). *The Great Financial Crisis: Causes and Consequences*. New York.

Foster, J. B. (2013). *Marx and the Rift in the Universal Metabolism of Nature*. *Monthly Review*, 65(07 (December)), 27.
Frey, C. B. & Osborne, M. A. (2013). *The future of employment: How susceptible are jobs to computerisation?*

George, H. (1920). *Progress and Poverty: Library of Economics and Liberty*.

Gibson-Graham, J. K. (2006). *A Postcapitalist Politics*. University of Minnesota Press

Glunk, F. (2017). *Schattenmächte: Wie transnationale Netzwerke die Regeln unserer Welt bestimmen*. dtv Verlagsgesellschaft

Guérot, U. (2017): Die Europäischen Kulturregionen: Einheit in Vielfalt. In *Arch+ Zeitschrift für Architektur und Städtebau* (211/212), pp. 148-151

Gutkind, E. A. (1974). *Community and Environment: A Discourse on Social Ecology*. Haskell House Publishers.

Grossmann, K., Haase, A., Kullmann, K., Hedtke, C. & Einert, M. (2014). *Governance arrangements and initiatives in Leipzig, Germany*. Leipzig

Hinton, S. (2016). *Research Accelerating Transition in the Stockholm Region*.
Access: <https://stephenhinton.org/2016/01/14/research-accelerating-transition-in-the-stockholm-region/> (04.2018)

Humphreys, J. (2016). Why Ireland's citizens' assembly is a model for Europe. In *The Irish Times* (online).

Access: <https://www.irishtimes.com/culture/why-ireland-s-citizens-assembly-is-a-model-for-europe-1.2876808> (1.2018)

Illich, I. (1975). *Tools for Conviviality* (1 ed.). London: Fontana.

Institut der deutschen Wirtschaft Köln (2013). *Städteranking 2013*.

Deutsche Großstädte im Vergleich

Jackson, T. (2017). *Wohlstand ohne Wachstum - das Update. Grundlagen für eine zukunftsfähige Wirtschaft*. München: oekom verlag.

Kay, S, Peuch, J. & Franco, J. (2015). *Extent of Farmland Grabbing in the EU*. Brussels: Transnational Institute

Klüter, H. (2014). *Die Landwirtschaft in Sachsen im Vergleich mit anderen Bundesländern. Endbericht*.

Kosow, H. & Gaßner, R. (2008). *Methoden der Zukunfts- und Szenarioanalyse*. Überblick, Bewertung und Auswahlkriterien Werkstattbericht (Vol. 103). Berlin: Institute for Futures Studies and Technology Assessment.

Latouche, S. (2009). *Farewell to Growth*. Polity.

Lemmens, P. & Hui, Y. (2017). *Apocalypse, Now! Peter Sloterdijk and Bernard Stiegler on the Anthropocene*.

Marx, K. [1867] (1887). *Capital: A Critique of Political Economy*. Volume I. London: Lawrence & Wishart.

Marx, K. [1894] (1994). *Capital: A Critique of Political Economy*. Volume III. London: Lawrence & Wishart.

Marx, K. [1887] (1976). *Capital: A Critique of Political Economy*. Volume I. London: Penguin

Marx, K., & Engels, F. (1988). *Collected Works*. Volume 30. London: Lawrence & Wishart.

Mason, P. (2015). *PostCapitalism: A Guide to Our Future*. Allen Lane.

McKinsey Global Institute (2017). Jobs lost, jobs gained: What the future of work will mean for jobs, skills, and wages
Access: <https://www.mckinsey.com/featured-insights/future-of-organizations-and-work/Jobs-lost-jobs-gained-what-the-future-of-work-will-mean-for-jobs-skills-and-wages> (12.2017)

Merrifield, A. (2014). *The New Urban Question*. London: Pluto Press.

Nussli, H. & Rink, D. (2005). Suburbanisierung und Flächeninanspruchnahme (Urban Sprawl) unter Schrumpfungsbedingungen: Das Beispiel Leipzig. In *Altrock (Ed.), Jahrbuch Stadterneuerung 2004/2005*, pp. 95-112. Univerlag tuberlin.

Parenti, C. (2014). The Environment Making State: Territory, Nature, and Value. *Antipode*, 1-20.

Petrin, J. (2017). Die Verantwortung der Raumordnung. In *Arch+ Zeitschrift für Architektur und Städtebau* (211/212). pp. 137-139

Piketty, T. (2014). *Capital in the Twenty-First Century*. Harvard University Press.

Kratzwald, B. (2018). *Partizipative Demokratie – Mitentscheiden und Mitgestalten auf allen Ebenen*.

Access: <http://commons.at/2018/02/09/demokratie/> (2.2018)

Polanyi, K. [1944] (2001). *The Great Transformation: The Political and Economic Origins of Our Time* (2nd ed.). Beacon Press.

Read, S. (2009). Acting Across Scales - Describing Urban Surfaces as Technical 'Fields of Action'. In Koch, D., Marcus, L. & Steen, J. (Eds.). *Proceedings of the 7th International Space Syntax Symposium*. Stockholm: KTH.

Read, S. (2018 (forthcoming)). *Making space for development*.

Rink, D., Haase, A., & Schneider, A. (2014). *Vom Leerstand zum Bauboom? Zur Entwicklung des Leipziger Wohnungsmarkts*. *Statistischer Quartalsbericht 1/2014*, p.25-28.

Rodale Institute (2018)

Access: <http://rodaleinstitute.org/> (03.2018)

Sachs, W. (2013). Karl Polanyi und seine „Great Transformation“. *Politische Ökologie*, 133, 18-23.

Sachs, W. [1992] (2010). Introduction. In Sachs, W. (Ed.), *The Development Dictionary. A guide to knowledge as power* (2 ed., pp. XV-XX). London & New York: Zed Books.

Samerski, S. (2016). Tools for degrowth? Ivan Illich's critique

of technology revisited. In *Journal of Cleaner Production*, 1-10.

Schader-Stiftung (2006). *Praxis des Stadtumbaus Um- und Rückbau*

eines Stadtbereichs in Leipzig/Sachsen

Access: http://archiv.schader-stiftung.de/wohn_wandel/733.php (02.2018)

Spence, J. (1983). The Roots of Modern Capitalism: The Weels of Commerce. Civilization and Capitalism. 15th-18th Century. Volume Two. by Fernand Braudel. *The New York Times*.

Access: <http://www.nytimes.com/1983/07/10/books/the-roots-of-modern-capitalism.html?pagewanted=all> (10.2017)

Statistisches Landesamt des Freistaates Sachsen (2017). *Statistisches Jahrbuch Sachsen 2017*. Statistisches Landesamt des Freistaates Sachsen.

Steffen, W., Richardson, K., Rockström, J., Cornell, S. E., Fetzer, I., Bennett, E. M., Biggs, R., Carpenter, S. R., de Vries, W., de Wit, C. A., Folke, C., Gerten, D., Heinke, J., Mace, G. M., Persson, L. M., Ramanathan, V., Reyers, B. & Sörlin, S. (2015). Planetary boundaries: Guiding human development on a changing planet. *Science*, 347(6223).

Access: <http://science.sciencemag.org/content/347/6223/1259855.full> (09.2017)

Stiegler, B. (2004). *Philosopher par accident*. Paris: Galilée.

Stiegler, B. (2017). *Automatic Society: Volume 1: The Future of Work*. Cambridge-Malden: Polity.

Streeck, W. (2014). How will Capitalism End? *New Left Review*, 87, 35-64.

Tapscott, D., & Tapscott, A. (2016). *Blockchain revolution: How the technology behind bitcoin is changing money, business, and the world*.

Taibbi, M. (2009). The Great American Bubble Machine. *Rolling Stone*, 23, 2009.

Time Magazine (1999). The Committee To Save The World. *Time Magazine*, 153:6, 1999. New York

Trezib, J. (2017): Das "Neue Berlin II" von Martin Wagner. Modell einer Post-Wachstums-Ökonomie. In *Arch+ Zeitschrift für Architektur und Städtebau* (211/212), pp. 82-89

Turner, B. (2017). Ideology and Post-structuralism after Bernard Stiegler. *Journal of Political Ideologies*, 22(1), 92-110.

Wallerstein, I. (1995). Review, Giovanni Arrighi: The Long Twentieth Century (Verso, 1994). *Journal of World-System Research*, 1.

Wallerstein, I., Collins, R., Mann, M., Derluquian, G. & Calhoun, C. (Eds.) (2013). *Does capitalism have a future?* Oxford: Oxford University Press.

Weber, M. [1919] (2004). *The Vocation Lectures Indianapolis*. Hackett.

Weber, M. (2013). *The Protestant ethic and the spirit of capitalism*. Routledge.

Zizek, S. (2014). Lecture at the University of Buenos Aires,
2014