The Bauhaus as a designer of transition

Post-growth approaches in East Germany after reunification – between false growth and unwanted non-growth

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In the upheaval following the German reunification, spaces and initiatives emerged that launched alternative approaches to sustainable and independent regional development: post-growth initiatives, although they were not yet known as such. Much of what was trialled and tested is today discussed as part of post-growth approaches. Since the 1990s, the Bauhaus in Dessau has proved itself an institution that provides important creative and cultural impulses for this transformation process. This thinktank and creative institution has accumulated knowledge on issues related to a 'different modernity', produced images and narratives of change and instigated concrete interventions for real change. With what is, in retrospect, amazing continuity, processes of change have been designed in keeping with a post-growth approach, setting an example for other cities, landscapes and regions. This chapter reflects on this experience, venturing to draw conclusions about the framework conditions, (planning) instruments and infrastructures that can support the development of a post-growth economy, using the example of an East German region, the Dessau-Wittenberg-Bitterfeld area.

Bauhaus and post-growth

In the midst of the weeks marking the fall of Berlin Wall in autumn 1989, the Bauhaus in Dessau launched a project named 'Industrial Garden Realm' (*Industrielles Gartenreich*), pursuing approaches towards a post-growth economy. Only nobody described it in this way, indeed the term did not yet exist. At that time, the concept targeted regional renewal, aiming to improve and utilise the endogenous potentials of the region and adhere to the ideal of sustainability. The goal was to initiate an 'Ecological Model Region' directly on the doorstep of the Bauhaus, in the triangle formed by the towns of Dessau, Wittenberg and Bitterfeld.

This idea was born in the 'Walter-Gropius-Seminar' that began on 4 November 1989, the day of the ground-breaking demonstration on Alexanderplatz in Berlin, and ended with the fall of the Berlin Wall on 9 November 1989. The rapid transformations kindled hope for a renewal of the region, one that would change the catastrophic ecological conditions, take care of the cultural heritage, prevent further decline of the inner cities and use architecture, landscape design and urban planning to create an environment worth living in.

The term 'Industrial Garden Realm' spatially and conceptually combined two historical reforms that had affected the region: the Garden Realm of the Enlightenment, and the Bauhaus and industrial culture of Modernity. Thinking about this reform heritage created a conceptual space in which approaches appropriate for the social challenges of the closing Industrial Age could be developed. The 'Limits to Growth' by the Club of Rome (1972) and the Brundtland report 'Our Common Future' (1987) were also read in East Germany (published by the state publishing house of the GDR as a book in 1988) and provided a backdrop for the model approach with its goals of sustainability and ecological improvement. The analogy to the reforms initiated by the historical Bauhaus, which had emerged in the upheaval following World War One, was quickly established: the end of the GDR represented another 'historical upheaval' that demanded and enabled reform.

That's right: the concept for this programme of independent – sustainable – regional development was conceptualised in the Bauhaus Dessau. Since the mid-1980s, the Bauhaus had once again existed as an institute of design, a 'Centre of Design' (*Zentrum für Gestaltung*) as it was officially called. In the early days, people were searching for spaces in which they could use

planning and design to work towards change – despite political restrictions like the GDR's housing programme and in the face of dilemmas such as the decay of the inner cities, the catastrophic environmental problems and an inefficient economy. Concrete design issues of relevance to GDR society were negotiated, including design workshops, architectural projects intended to improve industrial housing, and urban planning issues. It should also be mentioned that from 1987 the Bauhaus again hosted students, who were 'delegated' to the foundation by universities with design disciplines (Weimar, Berlin, Halle, Dresden) and who became involved in the new Bauhaus design projects.

The self-image of the 'new' Bauhaus as a thinktank dealing with questions about the future found its way into the legal act that established the foundation in 1994. The goals recorded included not only conservation of cultural heritage and educational tasks but also 'contributions towards designing today's living environment' (translated from German). In line with the three objectives of the foundation, it has three departments: the Collection, the Academy and the Workshop. The Academy and the Workshop took an interdisciplinary approach from the very beginning and brought people from architecture, urban planning, landscape planning, regional planning and sociology together with cultural scientists, art historians and artists.

A popular rhetorical question intended to trigger discussion about current design tasks was: What would Gropius do today, what would the members of the Bauhaus do? While in the 1920s the Bauhaus found itself in a growing, up-and-coming industrial city with new tasks in housing development, serial design and urban development, in the present day it is confronted with the challenges of post-industrial change. Just like the historical Bauhaus helped to change society at the height of industrialisation, today it is called upon to help deal with problems at the end of industrialisation. Since 1989, highly politicised 'long-term projects', each planned to continue for about ten years, have been established to tackle urgent tasks and discourses:

- 'Industrial Garden Realm' ('*Industrielles Gartenreich*') (1989-1999)
  Projects for sustainable and independent - sufficient - regional development in the Dessau-Wittenberg-Bitterfeld region
- The 2010 International Building Exhibition on Urban Redevelopment – (*Internationale Bauausstellung (IBA), Stadtumbau*) (2002–2010)

Research, expertise and experience from practice for planning without growth

- Post-fossil Spatial Design (*Postfossile Raumgestaltung*) (2010–2014) Scenarios and experiments with the model projects on the city, climate and landscape: Energy Landscapes 3.0 (*Energielandschaften 3.0*) / Active Mobility (*Aktive Mobilität*) / Productive UrbanLandscapes (*Produktive StadtLandschaften*)

In retrospect – and from the perspective of the post-growth discourse – it can be said that in all three project phases, growth-critical positions were adopted and strategies developed for alternative spatial development paths leading beyond growth. The projects opened perspectives for spatial development that focused on sustainability, regionality and a new concept of work that regarded individual fulfilment, creating and making as just as important as productivity and securing a livelihood.

From the very beginning, it was important not only to think in terms of concepts and scenarios, but also to use concrete projects to visualise how change could be possible – to try things out, to initiate a joint search for solutions. Such concrete project experience allows the process to become comprehensible for individuals, it then leaves the abstract canon and touches their own lifeworlds. People who are involved in this way become actors themselves.

Another important aspect was the creation of institutions, i.e. the institutionalisation of new spatial actors. Who negotiates which goals and how? The old institutions cannot successfully negotiate future goals. A whole spectrum of 'negotiating bodies' has thus been developed and implemented including planning workshops, charters, a contract for the area surrounding the waterbody known as '*die Goitzsche*', (regional) forums, a 'watershed master' and temporary advisory councils (for further reading see Scurrell 2002).

Interim conclusion

While the transformation of the old industrial REGION of Dessau-Wittenberg-Bitterfeld provided the spatial framework for the 'Industrial Garden Realm', the focus of the 'International Exhibition on Urban Redevelopment' was on the transformation of URBAN AREAS against a backdrop of demo-

graphic change. Finally, the scenarios of post-fossil spatial development were inspired by the idea of new URBAN-RURAL structures in which new spatial relationships are established, with more decentralisation, regionality and the self-empowerment of actors.

Post-growth approaches in the individual project phases

The Bauhaus project 'Industrial Garden Realm' For sustainable urban and regional development

'Industrial Garden Realm' and 'Environment-Expo 2000' (Umwelt-Expo 2000) → Planning sustainable regional development, developing and testing methods and instruments for independent - sufficient - regional development

Growth vs. deindustrialisation

If you were a planner in the 1990s and started to talk about non-growth, independent regional development and sustainability then you were quickly sidelined. Everywhere was booming, growth was demanded (and promoted!) everywhere, fast growth moreover. Although much emerged in this time that we can be glad about (e. g. urban conservation, inner-city renewal), the 'Upswing East' programme also bore strange fruits: huge commercial areas and shopping centres in the suburbs and peripheries of the cities, a gigantic wave of suburbanisation accompanied by the construction of new residential estates on the outskirts of the city, the exorbitant expansion of transport infrastructure as an economic development measure, the designation of peripheral areas for – tax-incentivised – single-family homes, the construction of new swimming pools, leisure facilities and hospitals regardless of demand. This false growth has come at a high cost in some places, as is seen just a few years later. One extreme example concerns the suspension of planning laws, e. g. when construction was allowed in floodplains, developments that are now having to be demolished.

This false growth occurred at the same time as widespread deindustrialisation, which was accompanied by new ecological maldevelopments. Instead of investing in existing structures – and thus protecting them – the nature conservation provisions and regulations protecting historic buildings were often circumvented. Many of the new investments led to the sealing of new

surfaces, interventions in the natural water regime and new environmental damage. Such measures were politically flanked by, for instance, 'investment facilitation laws'.

In everyday professional life, 'planning' then primarily involved forming alliances to fight against the destruction of the landscape or built heritage, to organise resistance and to avoid negative developments. It quickly became clear that the classical planning instruments like land-use plans or landscape master plans were not able to withstand the pressure of 'wrong' investments.

In face of the massive job losses and recognition that labour-intensive industries would no longer exist in the future, it was important, and indeed necessary, that an institution like the Bauhaus focused on 'new work' and new jobs in a deindustrialised society. This included all the issues associated with such a change and the development of new perspectives and concepts. Developmental and educational workshops focused on new professional prospects and new job profiles for an 'economy of sustainability' in which gainful employment and personal and community work were to be of equal status.

Employment figures for the Wolfen film factory

31.12.1989	15.380
31.12.1990	11.500
01.11.1991	7.050
01.11.1992	3.796
01.11.1993	1.300
01.01.1994	964
01.09.1994	799

Source: Stein 1996: 190

Figure 1: Protestors demonstrating against the closure of the Dessau rail-car construction works

Source: Jänicke, K.-D., *Lokalanzeige Dessau* on 24.12.1994, in: Stein, M. (1996): 193

Figure 2: Discarded excavator

Source: Stiftung Bauhaus Dessau, Archiv Industrielles Gartenreich, 1992

Figure 3: Wounds in the landscape, open-cast lignite mine Goitzsche

Source: Brückner, Stiftung Bauhaus Dessau, 1995

How can new developments be set in motion on the remains and traces of former industrial use? The following topics formed the programmatic cornerstones of the 'Industrial Garden Realm' project:

- 'New work'
- The ecological repair of wounds left by the industrial society
- The re-establishment of ecological cycles
- Dealing with industrial heritage
- A different economy focused on sufficiency

What emerged and how it continued

In the period between 1989 and 1999, 16 projects emerged, all of which were designed as experimental fields for sustainable regional development: large and small, investment and culture, constructional and conceptual, spectacular and common projects. While a great deal became clear and developed its own momentum, certain things had to be put on hold and are still waiting to

be picked up again. Much has been successful and is now celebrated as positive transformation, e. g. FERROPOLIS, an open-air museum of industrial machines also used as an event location, and the renovation and revegetation of the open-cast mine Goitzsche.

There are also less well-known examples. For instance, the conservation and restoration of the factory housing estate in Wittenberg-Piesteritz, which was linked to a 'car-free' concept very early on (a concept that continues to be successfully applied today). Or the far-reaching plans that viewed the Dessau-Wörlitzer Garten Realm not only as a tourist attraction but also as a source of inspiration and impetus for ecological agricultural reform. Or the priority zones for wind energy that were designated at a very early stage in Saxony-Anhalt, so as to open up the prospect of a renewable energy supply after the closure of coal-fired power plants. The first wind farm was built in 1999 in sight of the Zschornewitz lignite-fired power plant and owes much to the commitment of the Bauhaus to new economic fields for the time after coal.

Other goals could not be realised due to a lack of political support but remain at the top of the agenda of post-growth regional development. These include the recultivation of an open-cast mine without artificial flooding with river water, and an ecological flood protection system for the Elbe and Mulde rivers.

In 1995, the 'Industrial Garden Realm' was accepted as an additional location for the Environment-Expo 2000 in Hannover. This gave the project a significant boost – and recognition beyond the region. With the resources provided by EXPO, many plans could be realised professionally and access to funding was made possible. It should be noted that in the process some developments or projects that aimed at slow and cautious recultivation were very quickly transformed into event locations, which was actually rather contrary to the idea of ecological sustainability.

The 2010 International Building Exhibition Urban Redevelopment

Less is More – Less is Future

The 2010 International Building Exhibition Urban Redevelopment Saxony-Anhalt: Planning non-growth. Research, expertise and experience from practice for planning without growth (including the research project 'Shrinking Cities' and the international exhibition 'Less is Future').

After the collapse of the old industries led to whole swaths of land falling into visible disuse in the 1990s, the problem of vacancies and decline spilled over into the cities in the early 2000s. Planners had pointed out that there was no long-term demand to justify the construction of a surplus of new offices, housing and commercial buildings, estates of single-family homes and shopping centres – all developed with (tax) subsidies. However, these warnings of the new problems being created were ignored. A change in approach was only seen once the housing industry itself came under pressure and in turn brought pressure to bear on politicians. An expert commission known as the 'Lehmann-Grube Commission' was established to consider structural change in the housing industry in the new federal states. They predicted a surplus of over a million vacant dwellings in East Germany. Politicians reacted and set up the 'Federal Programme for Urban Redevelopment in the East' ('*Bundesprogramm Stadtumbau Ost*').

Reacting to an initiative by the Bauhaus Dessau, the state government of Saxony-Anhalt decided to hold an International Building Exhibition on the topic of urban redevelopment. The exhibition was based on investigations and studies by the Bauhaus workshop, which approached the topic of shrinkage not only in terms of demolition programmes to ensure housing market adjustment but aimed to change the urban planning and development paradigm to focus on greater sustainability and less consumption of resources.

How do we conduct planning without growth? Which instruments and methods must planning use and which spatial models result from this?

The contrast between a 'motorboat' and 'sailing boat' provides a powerful image here. The 'motorboat' symbolises the old system of unrestrained, constant growth. With the outboard motor – i.e. with external investment – I can reach any destination and determine my course very independently and precisely. If there is no external investment then development – moving forwards – must be organised very differently, by using existing resources. This is what the image of the 'sailing boat' symbolises. The course is not straight but needs to be repeatedly adjusted and adapted to the concrete situation. The passengers in the boat are part of the system. With their actions they rebalance the boat again and again – and they have to be very agile, react very flexibly and adapt to the circumstances (Oswalt/Overmeyer 2001).

Small and medium-sized towns as a focus of the International Building Exhibition

The federal state of Saxony-Anhalt is deep blue on the map of demographic change in Germany. Blue stands for a declining population – and thus for negative development, shrinkage. Apart from the two cities of Magdeburg and Halle, there are no areas that are not characterised by a shrinking population. However, if we look more closely at the settlement distribution it becomes clear that this is not an abandoned or empty space. On the contrary, it is an area that is characterised by many small settlement structures, creating a lively populated network of villages and small and medium-sized towns. And it was precisely these small and medium-sized towns that formed the focus of the International Building Exhibition Urban Redevelopment. Such settlements are often important anchors and support points for rural areas. With between 20,000 and 70,000 inhabitants, they house over half of the population of Saxony-Anhalt. In Germany as a whole, about two-thirds of the population live in small and medium-sized towns (BBSR 2007), a fact that receives insufficient attention both qualitatively and quantitatively in current political and strategic debates on social cohesion, and is not given the space it deserves in considerations of the future of urban areas.

Ultimately, seeing these shrinking small and medium-sized towns as pioneers of sustainable and post-fossil urban development was one of the core ideas of the International Building Exhibition, and resulted in three spatial scenarios. These scenarios for the future focused on the topics of urban areas, (agricultural) landscapes, and climate and energy. They aimed to create new urban-rural structures with 'cluster-cities' and 'rural republics' (MLV 2010).

Gaining new actors for sustainable spatial development

The traditional actors, however, tended to take a wait-and-see approach to these changes and tried to preserve their vested interests. New actors had to be found who saw an opportunity in the redevelopment processes and wanted to participate with openness, creativity and new ideas. This required a different kind of planning. Planning that targets invitation, activation and enabling. Planning that helps to initiate and shape processes, even ones with unclear outcomes. Planning that no longer prescribes something that just

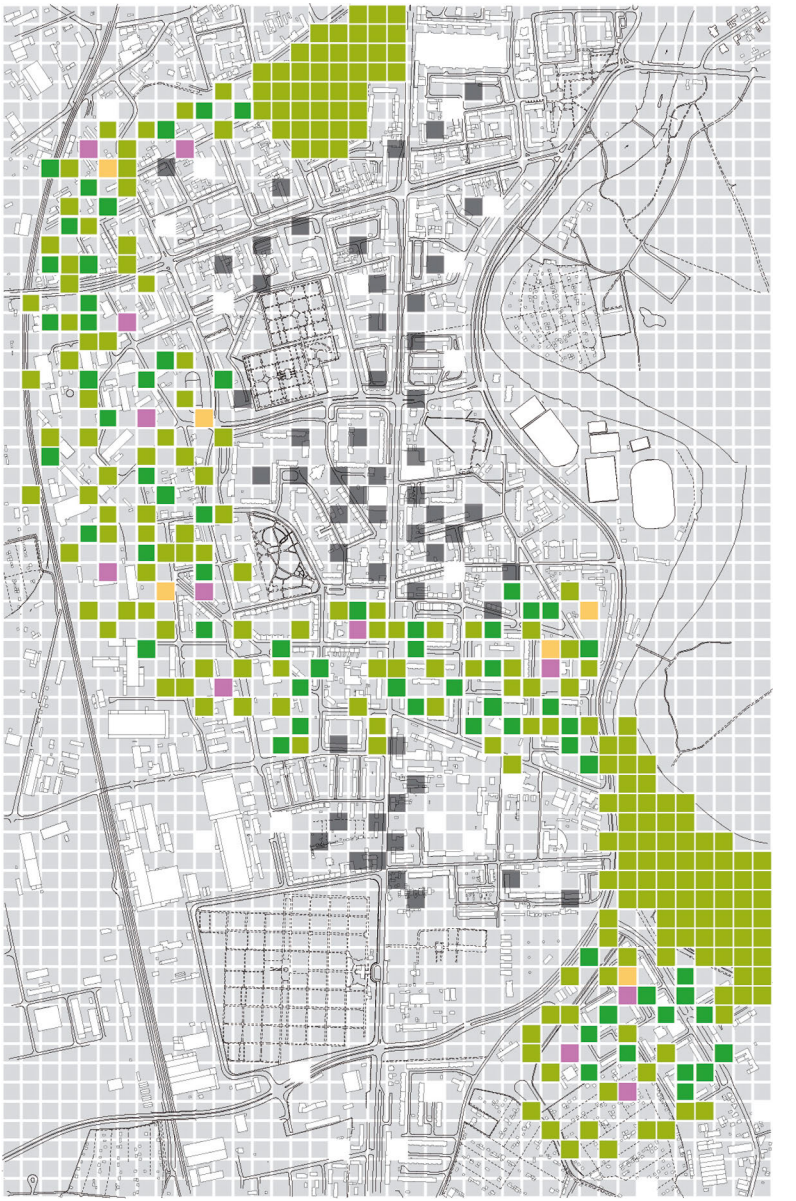
needs to be implemented but aims at the gradual cultivation of urban or rural spaces that have fallen into disuse.

This is well-illustrated in the example of Dessau, where one of the most advanced city-wide redevelopment projects was realised as part of the International Building Exhibition. As this is where the Bauhaus is located, it seemed obvious that the city and the foundation should together try out new paths. In addition to a long-term urban strategy based on the island theory, the focus was on new ways of mobilising the public to open up opportunities for direct participation. An 'Urban Redevelopment Planning Workshop' was launched, inviting new – different – stakeholders to become involved in the redevelopment process, such as the sponsors of cultural institutions or initiatives, the providers of supply and disposal systems, associations and private citizens.

Figure 4: Citizen claims '400 m² of Dessau'

Source: Reckmann, Stiftung Bauhaus Dessau 2006

Figure 5: Pixels & Claims: for a culture of interaction and exchange



Source: Brückner (graphics: Faber), Stiftung Bauhaus Dessau 2004

Correspondingly, the spatial scale was 'broken down'. The city was symbolically pixelated. Using grids of 20 x 20 m, areas of 400 m² were created, which approximately corresponds to the smallest average plot size. The areas were given to private citizens, associations or firms to cultivate, no matter whether as a garden, as a three-dimensional business card or for sport and leisure etc. Analogous to the goldrush atmosphere that once characterised North America, these areas were named 'claims'.

Claims are important elements in the transformation of the city. Wherever an actor is willing to undertake something concrete then site ownership, usage contracts and design considerations must be clarified. This always accelerates the redevelopment process.

The grid used here is a method that can also be widely transferred – to other cities and other spaces. It gives structure and order to the emerging diversity and the spatio-temporal uncertainty. The structure of the pixel grid also creates an aesthetic but nonetheless systematic way of juxtaposing the planned and the unplanned, the small and the large, the conventional and the unconventional, etc. The uses and functions of the space are not programmed 'from above', rather its character is determined by the process of cultivation by the actors involved.

The claims were originally intended for temporary use, in the meanwhile a number of them have become long-term garden projects, educational sites or leisure areas, and some have been extended. The 'Urban Farm Dessau', which is in the process of establishing a 'neighbourhood farm' on brownfield sites, also sees itself as a further development of the claims, providing necessary infrastructure. With grow-your-own strategies and local supplies of renewable energy, water and food in the middle of the city, it aims to establish productive land uses in urban neighbourhoods.

Post-fossil spatial design

Urban areas, the climate, (agricultural) landscape

At the end of the 2010 International Building Exhibition Urban Redevelopment, three spatial scenarios were developed that outlined visions for a post-fossil society. They formed the starting point for further work by the Bauhaus Dessau on urban areas, the climate and (agricultural) landscape.

The Bauhaus Master Plan of 2011 states that 'the present is characterised by manifold crisis phenomena: the financial crisis, climate change and demography are indicative of the serious global structural problems of contemporary societies. They are at the centre of the upcoming design tasks…' And it continues: 'In order to strengthen the ability to shape the future, scenarios are being developed that reach far into the future and from there reveal possible paths for solutions to the present problems' (Stiftung Bauhaus Dessau 2010, translated from German).

The spatial scenarios are dedicated to the relationship between urban and rural, landscape and agriculture, climate and energy. Under the heading 'Less is Future', they demonstrate strategies for alternative spatial development paths beyond growth.

The focus is on the region, specifically the region with its interplay of urban and rural structures. One core idea is that the disintegration of society is reflected in space. We are dealing with the juxtaposition of growing urban areas and shrinking rural regions, with cleared agricultural landscapes and scattered villages whose inhabitants cannot find work locally and therefore have to commute to the nearest town or even really long distances. We are dealing with areas where the economy is booming and with leftover areas where nobody can earn a living and which are being abandoned as people move away. Linked to this is a spatial 'decoupling': the decoupling of production and consumption, of work and housing, of the cultivation of the land and the settlement of the land. 'Although 54 percent of the population in Saxony-Anhalt live in rural regions, agriculture provides employment for only about one percent of the people' (Veihelmann/Overmeyer 2010, translated from German).

Re-regionalisation

How can processes of reintegration be designed that include perspectives for sustainable transport, a renewable energy landscape and productive urban landscapes, as well as promoting strategies of renewal from within?

The old instruments are no longer sufficient: '… already in the past too much emphasis was placed on infrastructure and equipping structurally weak areas with transport infrastructure did not help to stabilise them. On the contrary, the reduction of spatial resistance actually accelerated the abandonment of the area. … It sounds paradoxical, but it seems to make

more sense to increase spatial resistance again and to look for endogenous development potential' (Rettich/Dolata 2010, translated from German).

The keyword in all three scenarios is 're-regionalisation': a regionalisation which relies on each locality's unique qualities and makes them productive in the most diverse ways. This is linked to an image of space organised in a decentralised manner, with structures for local supplies and self-sufficiency, where nature, resources and the landscape are protected, and where people negotiate with one another about what is done when, where and how in regionally anchored networks and forms of organisation.

Spatial models for the post-fossil society

These scenarios have managed to find strong images and terminology for spatial models that enrich the discourses on services of general interest, future sustainable energy supplies, a changed farming culture and the reorganisation of transport and mobility. They make existing knowledge accessible, also for non-planners and laypersons. The scenarios can be understood as a kind of 'visual thinking' intended to bring together technicians, designers and other experts, such as those specialising in climate and energy.

Working on new 'spatial images' for a post-fossil society helps to focus the discourse, while the scenarios demonstrate different options for action. They can open up spaces for models and experiments. Ultimately, they can strengthen relevant approaches, increasing their influence on society. They are not 'exclusive' truths based on research findings, nor are they 'target photos'. They are rather primarily 'images for communication'. If we assume that in a post-fossil society, prosumers (see Kurzja/Thiele/Klagge, Bürkner/Lange and Lamker/Schulze Dieckhoff in this volume), who design their own life processes, will be the most significant actors for many areas of life and the economy, then this 'learning to design' will be an important educational challenge for the Bauhaus (Stiftung Bauhaus Dessau 2011).

The spatial scenarios serve to demonstrate what the status-quo is, what is going wrong and how things can be done differently:

- The status-quo: Energy Avantgarde Anhalt
- What is going wrong: Energy Landscapes 3.0
- How things can be changed: Productive UrbanLandscapes

The status-quo: Energy Avantgarde Anhalt

Saxony-Anhalt is a pioneering state in renewable energies. The first wind farm was established on a spoil heap of a former open-cast mine as early as 1999. In the same year, solar cell production was initiated in Thalheim near Bitterfeld. In July 2001, the first solar cells rolled off the production line at Q-Cells and continued until the slump in 2012.

However, not only large investments were made. The initiatives were primarily small ventures, organised privately or collectively, which – it should be emphasised – still exist today. They are remarkable in their continuity. Such initiatives include the revitalisation of a historical (protected) watermill, which today provides about 400 households with electricity. In Dessau there is also the first citizen-led solar power plant in Saxony-Anhalt, which has been supplying electricity to the grid as a 10 kWp system for over 15 years. Youth education projects have also been set up to encourage learning about the principles of self-sufficient energy supplies, as have a number of architectural projects involving showcase energy efficient buildings and solar modules integrated into buildings. One example is the Federal Environmental Agency in Dessau, a new build designed by the architects Sauerbruch Hutton. There is little public awareness of these projects, so the initial task was to map and make visible what is there. Re-evaluating what exists is often the first step towards initiating transformation processes.

Bringing together this wide variety of actors led to founding of the network Energy Avantgarde Anhalt. This network of artists, sociologists, private citizens, technicians and companies from the region was founded at the Bauhaus and has since established itself as an independent association. It focuses on working on a regional electricity system that makes it possible to turn private, public and civil society institutions and private citizens into producers and consumers of regionally generated energy. This provides an alternative to dicussion about major power transmission lines.

What is going wrong: Energy Landscapes 3.0

Revealing what is going wrong is also part of 'visible thinking'. Around 2010, the project DESERTEC hit the headlines. An international consortium planned to build enormous solar farms in North Africa and southern Spain and to transport the 'desert electricity' produced there via major transmis-

sion lines to Europe and elsewhere. Even at the time, Herman Scheer (2010) criticised the plan for creating a structure for renewable energies 'that would be even more centralistic than the conventional energy system, at least in part' (translated from German). A Bauhaus summer school took up the topic, focusing on the cultural, social and socio-economic dimensions because until then the issue had been viewed mainly from a purely technical perspective.

The opinion of the students at the summer school was unanimous: producing energy sustainably requires alternative economic approaches and lifestyles. 'Production with the goal of continuous capital accumulation cannot be social, sustainable and re-productive' (translated from German). They drew up concepts for decentralised supplies of renewable energies that involved as many actors as possible in a cycle of energy production, storage and use. They advocated the development of a prosumer culture in which reconnecting to social spaces, self-sufficiency, frugality and moderation would become the objectives of social action. The current energy supply model with its split between production and consumption is to be replaced by the model of prosuming, in which diverse actors enter into exchange with one another and practice new models of negotiation (Brückner 2011).

In contrast, projects like DESERTEC 'are conceived purely in terms of the energy business and not in terms of the overall economy, certainly not in terms of the regional economy. They reduce the number of actors producing renewable energy instead of increasing them' (Scheer 2010, translated from German).

Immediately after the summer school, the findings were communicated at a festival entitled 'On the art of living / Survival art' ('*Über Lebenskunst)*'. Visitors to the festival could not get enough of the wonderful graphics, diagrams and maps. There was a great deal of animated discussion in front of the displays. This indicates the importance of visualisations of this kind that open up a space for discourse about the right and wrong approaches and allow joint learning.

How things can be changed: Productive UrbanLandscapes and Urban Farm Dessau

The Urban Farm Dessau project aims to produce healthy food and renewable energies where they are needed, in the cities and the urban neighbourhoods. The transition to non-fossil energy sources means that local supply strategies and self-sufficiency approaches are gaining significance. In the context of the 2010 International Building Exhibition Urban Redevelopment, unused spaces in Dessau were made available, initially temporarily, for new productive forms of land use, such as an energy crop plantation and 'claims' that could be used as gardens. This success of these claims and the increasing number of brownfields led to the vision of Productive UrbanLandscapes.

The aim of Productive UrbanLandscapes is to cultivate more and more green spaces in urban areas as gardens, making them productive for local economic cycles (for further reading see Brückner 2016). The Dessau urban development concept provides a good basis for this: in line with the island model the city was divided into a number of neighbourhoods (see Stadt Dessau-Roßlau 2013). Between these 'urban islands', a landscape runs through the city that can be used in a variety of ways: as a climate-productive space, for food production, as retention areas to provide protection against flooding, for energy bands, for community activities by urban actors. The products are processed and used in the neighbouring districts. Neighbourhoods become 'urban factories' where value is created.

In order for these goals to be realised and flourish, institutional support and structural opportunities are needed. 'Neighbourhood farms' provide the infrastructure for cultivating the surrounding land. They are the control centres that coordinate the economic activities, provide social exchange and organise negotiations about what should be done where and how.

The idea of initiating a 'neighbourhood farm' of this sort in a Dessau neighbourhood was born in the Bauhaus Dessau. With the support of the Robert Bosch Foundation and their Land Reclaimers programme, it was possible for the project to flourish and a network to develop with people from the neighbourhood. Since 2016, the project has been running independently and has been gradually extended both spatially and in terms of focus.

Figure 6: Future vision: Productive UrbanLandscapes

Source: Brückner, Stiftung Bauhaus Dessau/Urbane Farm 2014

What comes next: Post-growth and spatial planning

Here we come full circle: initiatives like the 'Urban Farm Dessau' are infrastructural projects that can develop and test post-growth economies in practice. What conclusions can be drawn from them for the spatial implementation of post-growth scenarios? What contribution can spatial development and the planning disciplines make to the emergence of a post-growth economy?[1]

1 Also see here Brückner 2020.

Civil society actors are the drivers of a post-growth economy. Associations, co-operatives and private citizens are looking for alternative modes of living and alternative economic approaches in order to promote more sustainable development focused on the common good – in urban and rural areas alike. Actors and projects no longer want to wait for someone 'from above' (see Lange/Bürkner in this volume) to change course in order to tackle societal challenges such as climate change, the energy and food issue and social cohesion. Instead, they are taking action themselves, with their own resources, their own networks and their own alliances, in a very concrete and local way.

With their networks, these actors create real alternatives to the dominant economic system. The networks of eco-villages and transition towns, of Community Supported Agriculture (CSA) and permaculture, of repair culture and citizen-led energy co-operatives, social housing projects, etc. – all show ways of operating in a different economic mode, beyond the classic logic of exploitation and growth convictions. They abstain from consumption, operate in small cycles, develop step-by-step investments. They work in solidarity, collectively, ecologically. They act according to the principles of a post-growth economy – today.

The aim should therefore be to develop (management) instruments for spatial planning that support growth-critical approaches and open up spaces in which post-growth economies can flourish.

Projects led by private actors, initiatives and associations tend to be 'fine-grained'. They are imaginative and creative. Rather than following a grand plan, they trigger creative chain reactions. Instead of big, spatially dominant investments, there are a multitude of small steps that focus on what is available and what can be made productive locally – so instead of the one big solution, there are a multitude of small solutions.

Citizen-led, civil society initiatives thereby develop a momentum that cannot be planned for or managed using conventional planning instruments. The classical plans are too sluggish, too formal, too functionally specific and divisive. 'Open planning processes' and 'informal plans' are needed instead, ones that are flexible in time and space and which allow the repeated renegotiation of goals, tasks and wishes so that interaction between actors is encouraged. Instead of a finished plan that describes a final vision, we need planning tools that are understood as part of the processes being managed and designed.

What I have learnt in the long-term projects at the Bauhaus is that developments of this kind can be stimulated, encouraged, guided and qualified with a structural impulse 'from above'.

What could that be? A federal ministry for the promotion of post-growth economies? Why not? Let us imagine that the federal government takes up our suggestion and creates a POST-GROWTH Ministry. What would it have to do, what tasks would we give it?

Planning shrinkage and growth together

Shrinkage in one place always produces growth in another place. Rural regions characterised by infrastructural weakness, outwards migration and a declining population stand in contrast to growing metropolises. People go where they can find work. This leads to a shortage of housing and land in the large cities. Life grows increasingly expensive there and new social inequalities emerge. As a result, more surfaces in urban areas are being sealed, which is not good for the climate or for human health. What is needed is to put both developments in the same context – the shrinking in peripheral regions and the enormous growth in the metropolises. Urban and rural then move closer together, become neighbours. And that occurs in smaller spatial units that are manageable and negotiable.

Keeping land available for reproductive economic activity

Local supplies and self-sufficiency in terms of water, energy and food are essential to post-growth. The prerequisite for this is that land is available that can be cultivated sustainably. However, current land speculation is an absolute obstacle to this – just like the sealing of urban land. While a great deal of public money continues to be used to demolish buildings in declining regions, the conditions in the cities are less and less suitable for reproduction. Here, active soil protection should be implemented, so that land can be deliberately and structurally kept free for climate protection, urban agriculture, water management and social interaction, especially in metropolitan neighbourhoods. These areas of a new urban commons could be cultivated, managed and negotiated by a communally run 'neighbourhood farm'.

Planning 'free spaces' for self-empowerment

My third thought relates to the many initiatives that are committed to the post-growth idea and, indeed, are already living it. They still receive too little attention in the guiding principles of spatial planning. The classic discourse on the provision of services of general interest focuses on the state ensuring equivalent living conditions. In parts of the post-growth discourse the focus is completely different: it is about strengthening structures for self-empowerment and creating conditions within which these structures can flourish.

One possibility is to use the coal phase-out programme here. Former mining areas can be recultivated so that the land and water is used for small-scale ecological agriculture and forestry and made productive again. In between, climate productive potential can be created with evaporation areas, a small-cell water regime and measures to build up humus in the soil. This also involves correcting mistakes made when recultivating the open-cast mining areas in the past and introducing measures that help to repair the entire water regime and allow it to recover.

Local initiatives and actors would gain access to resources like land but also to empty buildings. They should receive support if they pursue goals aligned with sustainable economic activity and focus on sufficiency and public welfare. Citizen support structures can help strengthen the projects initiated by local actors. This approach promotes people's ability to self-organise and cooperate and creates incentives for collective action – thus shaping a post-growth society from within.

The character of the area changes in such a process. It is not programmed by designations and uses assigned 'from above' but by what people actually do locally. This active appropriation grows out of the concrete behaviour of those involved and gains its value from the real actions of many. The area loses its static quality. It becomes more and more of a living structure in which different things happen simultaneously and design options emerge again and again.

Conclusion

There is no one master plan for post-growth. As it becomes clear that post-growth develops in small spatial units then the role of spatial planning also changes. It is no longer about an authority that prescribes (or regulates) and thus triggers reactions; planning rather becomes part of the processes. Process-oriented planning focuses on creating structures, occasions and opportunities in which creative spaces and creative forces can emerge. It is not about setting a linear course towards a final plan, but about continuously configuring and reconfiguring knowledge, forms and alliances. The planner then has the role of facilitating these processes, of providing focuses, aesthetic ideas and economic impulses – and of stimulating creative enthusiasm!

Figure 7: Creative enthusiasm

Source: Stiftung Bauhaus Dessau, Archiv Industrielles Gartenreich

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