RETHINKING THE URBAN-RURAL

Explore Lab Graduation Studio

Hai Tom Nguyen

TU Delft 2024-2025

Delft University of Technology

Department of Architecture
Julianalaan 134
2628 BL Delft
The Netherlands

AR3EX115

Explore Lab
Msc3/4 Graduation Studio

Author:

Hai Tom Nguyen

Guidance:

Christopher de Vries Nikos Katsikis

25.06.2025

ABSTRACT

This research rethinks spatial development in shrinking urban-rural regions through the lens of post-growth. Departing from conventional planning logics grounded in expansion and densification, the paper explores how theoretical concepts—such as Zwischenstadt, Stadtlandschaft, and the Horizontal Metropolis—can be reinterpreted within a degrowth paradigm. By critically contrasting growth-oriented and sufficiency-driven models of the circular economy, it highlights the need to shift from technocratic efficiency to communal, localised practices of

care, maintenance and material reuse. These insights are synthesised into a spatial design framework, culminating in a territorial network model where urban and rural nodes are reconnected through soft infrastructure, shared institutions, and bioregional cycles. This network, situated between the logics of the urban and the rural, challenges hierarchical spatial planning and offers an alternative vision of territorial resilience, interdependence, and sufficiency in postgrowth contexts.

GLOSSARY

Urban-rural

The transitional and interconnected zone where rural and urban characteristics overlap, blending agricultural, residential, and industrial uses. Sometimes also referred to as intermediate regions.

Shrinkage

A demographic and economic process characterised by population decline, aging, and economic contraction, often resulting in underutilised infrastructure and disinvestment—especially in rural and post-industrial regions.

Polycentricity

A spatial configuration in which multiple centers of activity or governance coexist and interact within a territory, challenging traditional central-periphery hierarchies.

Stadtlandschaft

A German term meaning "city-landscape," describing regions where urban and natural environments integrate, forming a hybridised spatial entity.

Zwischenstadt

A German concept meaning "in-between city," referring to areas between traditional urban and rural zones characterised by dispersed development, such as suburban sprawl.

Central Place Theory

A spatial theory explaining the organisation of settlements as "central places" that provide goods and services to surrounding areas in a hierarchical pattern.

Regional Pattern

The spatial arrangement and distribution of land uses, settlements, and networks across a defined region, shaped by geography, economy, and infrastructure.

Post-Growth / Degrowth

An urban and economic paradigm emphasising sustainable development, reduced consumption, and ecological balance over traditional growth-centric models.

Circular Economy

An economic model aimed at minimising waste and maximising the reuse, repair, and recycling of materials. In mainstream applications, it is often framed within progrowth paradigms; in this paper, it is contrasted with degrowth-oriented circularity.

TABLE OF CONTENTS

Introduction	02
Fascination	04
Problem statement	05
Research question	06
Methodology	07
Significance	07
Chapter 1:	10
The urban-rural condition	10
Territorial typologies	11
Shrinking regions	13
Germany	17
Policy responses	21
Intermediate regions as an opportunity	22
Chapter 2:	24
Explaining urban-rural landscapes	24
Stadtlandschaft	25
Zwischenstadt	27
Central Place theory	31
The new regional pattern	33
The horizontal metropolis	37
Weak urbanisation	39
Comparative overview	43
Chapter 3:	46
Political Economy in shrinking regions	46
Decoupling development and growth	47
Post-growth concepts & degrowth agendas in urban-rural regions	48
Degrowth circularity	51
Values for a new urban-rural design framework	53
Conclusion	56
Bibliography	61

INTRODUCTION



FASCINATION

The Ideal

by Kurt Tucholsky (1927)

"Yes, you would like that:
a mansion in the green with a big terrace,
the baltic sea afront, behind the Friedrichstraße;
with a nice view, rurally-mundane,
from the bathroom, the zugspitze is visible you dont have to walk far to the cinema in the evening.

[..]

Every fortune bears a little mark.

We want to own so much: Own. Be. And Mean.

That someone has all of these things:
that is seldom."

1

Having grown up in Stadtroda, a small German town located in Thüringen, but living abroad multiple times in the past years, I started developing my appreciation for my 'Heimat' as this place has all I want for my home. Some urban amenities, but coupled with benefits of the periphery, best of both worlds so to say. Sometimes I feel strange, when talking to people who are praising the busy city life with almost limitless opportunities for both work and leisure, because to me, there is something so special about these small towns that I could not fully grasp before. I

began to pay more attention every time I would return for family and holiday celebrations, but what I noticed was the ongoing decline of that small town. Shops closing down, buildings dilapidating, some even completely demolished. I wanted to know why exactly this was happening and more importantly if there was anything I could do to help. This initial fascination and the observations I have made during my visits are the starting point of this research, as I am trying to understand this issue from a larger territorial point of view, which is also apparent in many other countries.

^{1 &#}x27;Tucholsky: Das Ideal', n.d., accessed 15 October 2024.

PROBLEM STATEMENT

RESEARCH QUESTION

How can post-growth design frameworks help revitalise stagnating or declining urban-rural regions?

Across Europe, and especially in eastern Germany, urban-rural areas are experiencing a gradual but persistent decline characterised by demographic shrinkage, economic stagnation, and territorial obsolescence. These intermediate regions, neither fully urban nor fully rural, occupy a liminal position within the European spatial hierarchy. As such, they often fall between the cracks of policy attention, theoretical understanding, and design intervention.2 Their dichotomous character - offering some urban services but lacking the critical density and infrastructure of cities - makes them particularly vulnerable to the systemic failures of growth-oriented planning. The core problem addressed in this paper stems from the shortcomings of conventional planning paradigms - still largely based on economic expansion and urban development - to provide sustainable or socially just responses to regions that are structurally not growing, and are unlikely to grow again.

This paper proceeds from the hypothesis that a post-growth design framework needs to fundamentally oppose the current planning practices which continue to associate development with expansion, growth and densification. Instead such a framework should be grounded in the principles of sufficiency, decentralisation, polycentricity and community-driven territorial care. Rather than treating shrinking urbanrural regions as failures that need correction by artificially inducing growth, the post-growth approach could establish them as spatial laboratories for a new planning ethos that embraces decline as a condition to design with. While current practices optimise for efficiency and economic throughput, establishing a post-growth design strategy that rejects the common notion of growth as the metric for success, ultimately repositioning planning as a curatorial discipline rather than an expansionist one.



² cf. Ilona Raugze, Gavin Daly, and Marjan van Herwijnen, 'Shrinking Rural Regions in Europe', 2017, 3.

METHODOLOGY

To answer this question, the paper unfolds through a methodological approach grounded in literature review, drawing on urban theory, spatial planning, and political economy to construct a theoretical framework that informs a forward-looking design logic. The research is structured around three intersecting themes: First, an analysis of shrinking urban-rural regions in Europe, with East Germany serving as a primary case of inquiry due to its unique socioeconomic post-reunification trajectory; Second, a critical overview of territorial theories and urban concepts that aim to conceptualise intermediate space - such as Stadtlandschaft (Rudolf Schwarz), Zwischenstadt (Thomas Sieverts), and Central Place Theory (Walter Christaller); and and third, the exploration of the post-growth approach as a political and ecological alternative to the shrinkage/ growth dichotomy, with particular attention to how its values of autonomy, finitude, and habitability

While earlier design models such as Hilberseimer's New Regional Pattern, Branzi's Weak Urbanization, and Viganò's Horizontal Metropolis offer compelling visions for urban-rural configurations, they are not specifically oriented toward contexts of shrinkage or the demands of post-growth transformation. This paper builds on these frameworks, but goes further to translate post-growth principles into a spatial design language suitable for shrinking intermediate territories. The political economy of post-growth, which challenges the entrenched coupling of urban development and economic growth, is central. The paper argues that by decoupling the idea of development from that of economic accumulation, and by embracing sufficiency, repair, and territorial care, shrinking urbanrural regions can be reimagined not as peripheral remnants of an outdated model, but as testbeds for a more equitable and ecologically responsible future.

SIGNIFICANCE

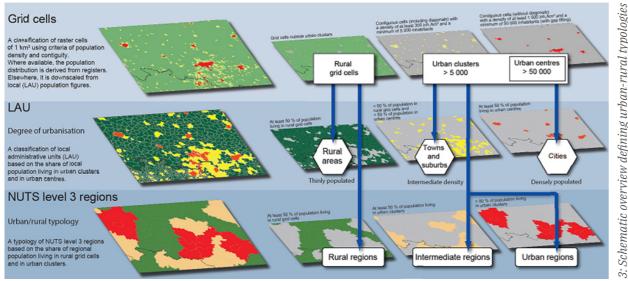
Addressing the challenges of urban-rural regions are crucial to preserving the cultural landscapes of these areas but also to prevent their potential demise. If unaddressed, the continuous population decline could result in further isolation of these communities, as well as the growing deterioration of buildings. Revitalising these spaces at the example of East Germany, holds the unique opportunity to create a model for similarly depopulating regions across the globe.

Ultimately, this research contributes to the emerging discourse on spatial expressions of degrowth by offering a conceptual and design-oriented framework for post-growth design in stagnating urban-rural regions. It sets the stage for a different kind of planning and architecture - one that does not fear decline, but rather seeks to design with it, creatively and critically.

CHAPTER 1: THE URBAN-RURAL CONDITION

Generally, regions can be categorised as either urban, intermediate and rural. This paper primarily focuses on the intermediate regions, which are especially interesting due to their dichotomous nature of lacking urban amenities but still not being completely rural. This chapter aims to outline the phenomena of the stagnation or decline of these urban-rural areas on an European scale.

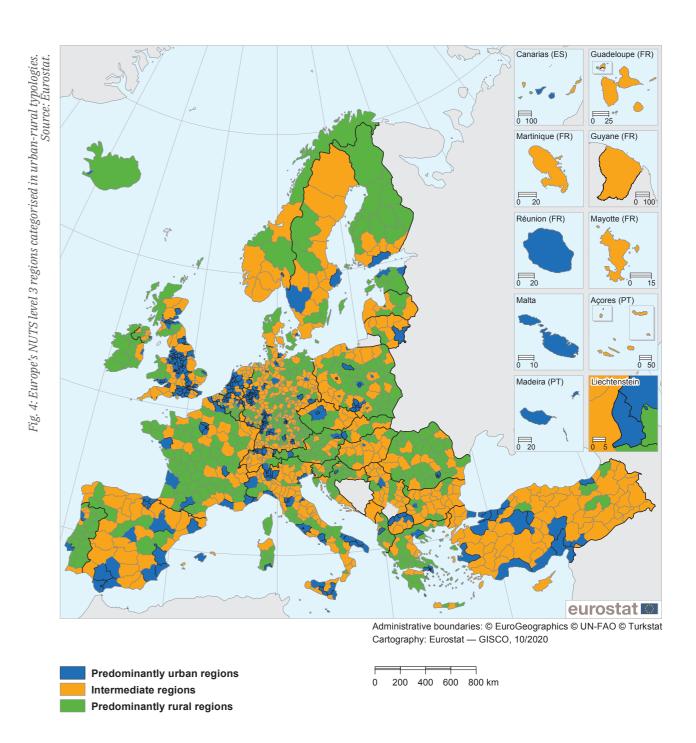
TERRITORIAL TYPOLOGIES



The European Union uses the so-called urban-rural typology to distinguish regions into three categories: predominantly urban regions, intermediate regions and predominantly rural regions. The definition happens in three steps, wherein the first step classifies between rural cells, urban clusters and also urban centres.3 For their identification, a grid of 1 km² comes into play. All the contiguous grid cells with a minimum population of 1500 inhabitants per km² create a cluster and if that cluster's total population exceeds 50 000 inhabitants it is considered an urban centre. Urban clusters are made up similarly, out of the contiguous grid cells that have a population density larger than 300 inhabitants per km² and the total cluster needs to have a minimum of 5000 inhabitants.4What then remains are basically the rural cells, most of the time with a population density below 300 inhabitants per square metres and less than 5000 inhabitants. In the second step, the ratio

of the population that resides in the urban clusters is calculated within the scale of NUTS⁵ level 3 regions, which are the 'smallest' regions (= municipalities) in the European system for statistical units. If 80% of the population of that region resides in urban clusters, the region would be considered urban, between 50% and 80% it would be an intermediate region and below 50%, the region would be classified as rural. The 1 km² grid allows for a fair and rather accurate classification in comparison to possible disproportions that arise with the local administrative units, which sometimes differ vastly in size. In the third and final step, some adjustments can be made if there is a city present. So if a city with a population of at least 200 000 people is present in a NUTS level 3 region and makes up at least one fourth of the region's population, a predominantly rural area becomes an intermediate region and an intermediate region could then also become a predominantly urban region.

11



³cf. 'Territorial Typologies Manual - Urban-Rural Typology', accessed 19 April 2025, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Territorial_typologies_manual_-_urban-rural_typology.

cf. 'Territorial Typologies Manual - Cluster Types', accessed 20 April 2025, https://ec.europa.eu/eurostat/statistics-explained/index.php? title=Territorial_typologies_manual_-_cluster_types.

⁵ Abbreviation for "Nomenclature of territorial units for statistics"

SHRINKING REGIONS

Average annual projected population change, by urban-rural typology, EU, 2023–50 (%)

	Predominantly urban regions	Intermediate regions	Predominantly rural regions
2023-25	2.6	-0.4	-3.3
2026-30	1.9	-0.7	-3.2
2031-35	1.3	-1.0	-3.1
2036-40	0.8	-1.2	-3.1
2041-45	0.4	-1.6	-3.3
2046-50	-0.2	-2.1	-3.6

ig. 5: Projected population change in Europe Source: Furostat

General shrinkage

Historically, the world has gone through many phases of growth and decline, due to different circumstances around political, social, economic factors and many more.⁶

The phenomenon of shrinkage is therefore not necessarily new, but a very contemporary one right now, when looking at the current population developments across the globe. Today, around 45 percent of the entire world's population resides in cities, while 35 percent live in towns and semi-dense areas and 20% live in rural areas.

The UN projects that by 2050, two thirds of the world's population will reside in predominantly urban areas, implying that the intermediate and rural regions are in decline, while cities are experiencing growth.⁸ The case of Europe in this context can be deemed of great interest in this regard, as according to the European Investment Bank, it has evolved from a predominantly rural and

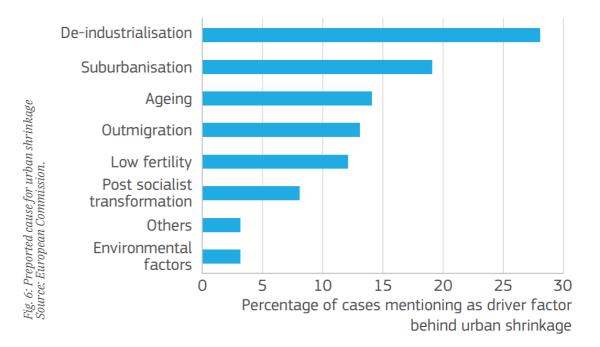
industrial continent towards an agglomeration of urban systems in the past fifty years.9 The population projections by Eurostat elaborate on this a bit further as it tracks the trajectory of the population development from 2023 until 2050 for the three urban-rural typologies. While the demographics are usually seen as the main indicator for determining if a region is shrinking, depopulation might only be a symptom of a systematic condition. The problem likely stems from the combination of generational demographic trends, poorer infrastructure (energy, transportation), lack of services (public spaces, education and health-care) and also fewer job opportunities, which are challenges that most likely (but not exclusively) occur in regions that have been 'left behind', whether it be cities, small towns or villages.¹⁰ It can be understood that a region is shrinking, if it is experiencing a loss of population coupled with economic recession or social issues.

Shrinkage in urban areas

As established, urban regions are expected to keep growing for the most part, but that trend will supposedly slow down further down the line, even starting to decline from 2047 onwards.¹¹ Urban shrinkage occurs due to a combination of local and regional factors, which at the forefront include deindustrialisation, suburbanisation, ageing and also low fertility rates (see Fig. 6). Depending on the severity of the decline, the effects may be an abundance

in dwelling vacancy due to lower demand, diminishing quality of public spaces or even the disappearance of smaller local businesses due to low economic activity. Given the high visibility these effects have in the image of cities, the case of shrinking metropolitan areas has been widely covered already and multiple strategies to either counteract or attempts to accommodate this decline have been investigated.

14



⁶ cf. Jean-Philippe Aurambout et al., 'Shrinking Cities', European Union, The Future of Cities, JRC126011 (2022): 1.

⁷cf. Jean-Philippe Aurambout et al., 2.

 $^{^{}g}$ cf. United Nations, '68% of the world population projected to live in urban areas by 2050, says UN', United Nations (United Nations), accessed 25 December 2024,

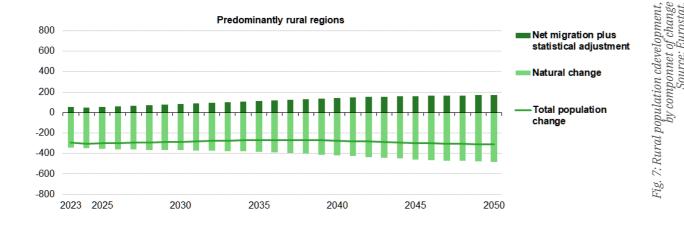
⁹cf. 'Europe and Its Urban Development, 1970 to 2020', European Investment Bank, accessed 23 March 2025, https://www.eib.org/en/essays/the-story-of-your-city.

¹º cf'Urban-Rural Europe - Population Projections', accessed 22 January 2025, https://ec.europa.eu/eurostat/statistics-explained/index. php?title=Urban-rural_Europe_-_population_projections.

¹¹cf. 'Urban-Rural Europe - Population Projections'.

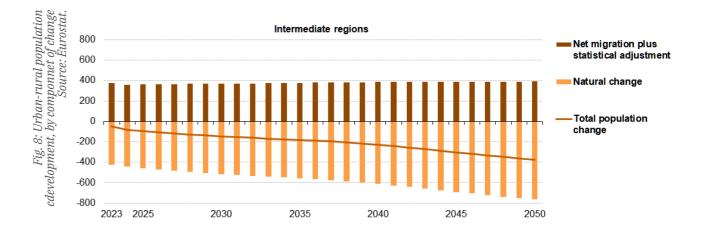
¹² cf. Jean-Philippe Aurambout et al., 4.

¹³ cf. Jean-Philippe Aurambout et al., 5.





The same goes for shrinkage in the predominantly rural areas, even though the circumstances and effects differ from those of cities. While there are some similarities on how the decline of both regions plays out, the main difference of their projected development is that the predominantly rural areas will decline at a rather constant pace with an average decline rate of around 3.3% per year (= 270 000 - 311 000 inhabitants per year).¹⁴ Rural shrinkage is primarily characterised by outward migration, an ageing population and the collapse, if not the total absence of services. Services and infrastructure are already quite scarce in these areas, so losing them fuels this vicious cycle of the countryside gradually hollowing itself out as more and more people start moving to regions that offer better quality of life, opportunities and economic prosperity. The depopulation also affects the built environment, leaving single-family homes either too large for the remaining inhabitants or empty entirely. Although there are benefits to living in the countryside, such as more space, less noise, less pollution and more, the challenges tend to outweigh the benefits.¹⁵



Shrinkage in urban-rural territories

Intermediate regions bring upon a new complexity, as they are at tension between urbanisation and sprawl.¹⁶ It is particularly challenging due to the combination of persistent structural decline and limited development prospects, often triggering the vicious cycles which have negative implications on socio-economic factors, the built environment and the territory's resilience.¹⁷ The rate at which urbanrural regions are declining is, comparably, accelerating fast, starting at a 0.4% decline rate in 2023 and rapidly increasing towards 2.1% by 2050.18 Analogue to how urban-rural regions appear to combine elements from both city and countryside, shrinking in these areas can also be characterised by a combination of the aforementioned effects of both predominantly urban and predominantly rural areas. It should be noted though that the proximity to a larger urban centre can significantly influence how shrinkage affects small towns and suburban areas: those

integrated into major urban agglomerations might be at an economic advantage than more isolated, polycentric and autonomous towns. While over half of Europe's smaller urban areas are declining, those near major capitals are growing, representing ongoing suburbanisation.¹⁹ A lot of the challenges of the declining urban-rural settlements stem from economic restructuring processes like deindustrialisation, causing unemployment and eventually also the job-driven migration (e.g. Poland, Germany,...). Further, the demographic change is largely driven by the outmigration of younger, educated, and skilled people who not only leave behind a vacuum of entrepreneurial initiative, but also leave housing units vacant and decaying.²⁰ As the remaining population grows poorer and scarcer, reduced demand forces local businesses and infrastructure to close, further stressing the complicated dilemma of either reducing services or maintaining them, but at uneconomical costs.21

¹⁴cf.'Urban-Rural Europe - Population Projections'.

¹⁵ cf. 'Urban-Rural Europe - Population Projections'.

¹⁶ cf. Europäische Kommission, ed., Policy Atlas of Sustainable Urban Development for Small Urban Areas, EUR 31440 (Luxembourg: Publications Office of the European Union, 2023), 18, https://doi.org/10.2760/64829.

¹⁷cf. Europäische Kommission, 20.

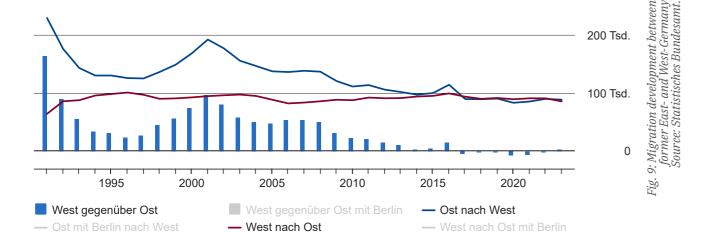
¹⁸cf. 'Urban-Rural Europe - Population Projections'.

¹⁹cf. Europäische Kommission, 18.

²⁰ cf. Europäische Kommission, 19, 20.

²¹cf. Europäische Kommission, 27.

GERMANY



In relation to the metrics of the earlier established urban-rural typology, Germany's population distribution indicates that around 42% resides in predominantly urban areas, 42% in intermediate regions and only 16% in the rural areas.²² Additionally an interesting territorial observation can be made, when looking at a density map of the country: The former border that once divided Germany into east and west. East Germany's population structure is far less dense than that of West Germany, while one might think that is due to the former separation of the country, that is only partially the case. The eastern part was already less dense before the separation of the country and the industrialisation under the communist influence during the DDR (German Democratic Republic) was not necessarily prospering. After the reunification, Germany had to deal with

17

Instead of a geographical migration of all East Germans to the BRD (Federal Republic of Germany), it was a structural migration and adaptation. The East Germans were promised 'prospering landscapes', but were unfortunately met with deindustrialisation and mass layoffs. The downfall of the industry left many of the factories abandoned, leaving plenty of them vacant until today. The hardships, caused by the structural transition, drove many to migrate to the West in search of better opportunities, which kick-started two decades of constant population decline throughout East Germany, up until a few years ago, where both the migration from east to west and west to east has come to somewhat of an equilibrium (Fig. 9). Although this might come across as a sign of stagnation, according to the federal statistical bureau, depopulation is still projected to continue far into the

an hitherto unprecedented situation: future. ²² cf. 'Eurostat / Regions and Cities Illustrated (RCI)', Eurostat, accessed 23 April 2025, https://ec.europa.eu/eurostat/cache/RCI/. Another remnant of the DDR are the socalled 'Plattenbauten', which are primarily large dwelling complexes (WBS 70, P2, ...) or educational buildings constructed out of standardized prefabricated concrete elements. They follow a very dogmatic and rigid system that made it possible to finish buildings quite efficiently.²³ But over the years, it became apparent that the system had major flaws that mostly had to do with thermal issues due to insufficient insulation, necessitating a lot of renovations and repairs. While many of them are still actively in use or have undergone major modernisations, some municipalities or private stakeholders (i.e. Leipzig, Stadtroda, Orlamünde, Arnsdorf, Mahlsdorf, Hagenow, ...) have

decided that it is more economical to just build a replacement building instead of renovating/retrofitting the existing structures. The main problems that come with a renovation proposal are usually permanent damages from the thermal bridges and infusion of harmful building materials such as asbestos. But it can be argued that a large amount of these concrete elements can be, with enough effort and care, demounted and separated so that they retain their structural function.²⁴ So although these building typologies come with plenty of problems and are sometimes even on the verge of obsoleteness, they are still of value especially in terms of the embodied energy that can be reactivated through renovation or reuse.

18



Fig. 10: A typical 'Plattenbau' in Stadtroda, Thüringen. own photograph (2025).

²³ cf. Angelika Mettke, 'Rückbau Industrieller Bausubstanz – Großformatige Betonelemente Im Ökologischen Kreislauf', n.d.

²⁴ cf. Mettke, 'Rückbau Industrieller Bausubstanz – Großformatige Betonelemente Im Ökologischen Kreislauf', 35–38.

Throughout the region there are also cases of buildings, which either are or used to be privately owned but abandoned and derelict to the point where they have actually become a safety hazard for the public. In 2014 the federal agency for urban planning published a guideline that outlines the problem of abandoned and/or dilapidated real estate and the possible legal instruments that can help to counteract this.²⁵ It mentions some possible reasons for why these buildings end up in a poor state, such as negligence by the owner and unwillingness to take action or missing demand due to economic and structural challenges. The paper does not necessarily focus on any urban-rural typology specifically, urban, intermediate and rural examples are taken into account. The cases located in the suburban areas and the countryside, often show to be under complicated ownership situations, where the buildings in question have been inherited to individuals or groups, which have already moved away and have only little relation left to the place of interest. The building substances oftentimes

show rough signs of dereliction, which not only have a bad visual effect on a community, but also pose a heavy safety concern for the public. 26 In these cases there are different ways to take action, such as pressuring the owners through court orders or foreclosures, but in some cases it also tends to happen that all action comes too late, ultimately leading to their unfortunate demolition. This results in empty lots, leaving gaps within the image of a town or village, arguably even worse than a derelict facade of a vacant building.

The described condition that is quite apparent throughout East Germany, but not exclusive to it, proves that it can be considered as a prime example of the current urban-rural condition of constant decline and stagnation and the implications this has on the built environment (Fig. 11). But with its obsolete spaces it could also serve as a potential field of experimentation and exploration of urban-rural mediation between city and countryside that has hitherto been rather overlooked.

Fig. 11: Another demolition lot, full of potential, in Statdroda.



²⁵cf 'Verwahrloste Immobilien - Leitfaden zum Einsatz von Rechtsinstrumenten beim Umgang mit verwahrlosten Immobilien "Schrottimmobilien", Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit (BMUB), November 2014.

 $^{^{26}}$ cf. 'Verwahrloste Immobilien - Leitfaden zum Einsatz von Rechtsinstrumenten beim Umgang mit verwahrlosten Immobilien "Schrottimmobilien", 13.

POLICY RESPONSES

The challenges of urban and rural shrinkage are well recognized by the EU, as they have set up initiatives, studies and agendas on urban decline and the development of rural territories, such as ESPON²⁷, the 'EU rural vision action plan', 'EU Shrink Smart' (2012) 'The New Leipzig Charter' (2007) or the 'New European Bauhaus' (2020), just to name a few.²⁸ These approaches usually tend to cover either exclusively predominantly urban or predominantly rural regions, but often overlook the intermediate areas, seeing little to no potential future for them.²⁹ Previous research has pointed out essentially three ways of response to the shrinkage problem (in rural regions):

- **1. Doing nothing**, out of denial of the problem or simply choosing to do so
- **2. Reversing** population decline by attempting to stimulate growth
- **3. Accepting** decline and proactively trying to **adapt**

Out of these responses, policy makers are said to have the choice between a conservative, growth-oriented approach or a radical approach, which aims to accept the condition and mediate it through new methods.³⁰ The policy brief by ESPON especially recommends exploring the radical approaches, coming up with multi-dimensional and multi-scalar solutions to accommodate the complex nature of the dichotomous urban-rural territories.³¹

The decay of the built environment is addressed in initiatives that exist on both national and European scale, yet they are oftentimes specifically concerned with sustainable *urban* development, primarily focused on cities, perhaps overlooking that the regions that urbanisation has already 'left behind' are also in need of a renewal.

INTERMEDIATE REGIONS AS AN OPPORTUNITY



The occurrence of urban-rural regions is a widespread global phenomenon, which was, among others, covered in Thomas Sieverts' 'Zwischenstadt'.32 The German title translates to "in-between city" which describes how these regions do not exactly fit the description of either a city or a village, but are rather its own category, hence the special term Zwischenstadt". (This concept will be further elaborated in chapter 2) In comparison to predominantly rural areas, intermediate regions and especially small towns have the rather obvious advantage of being able to provide some urban elements, such as

supermarkets, small retail stores, gastronomy and health services. So, within the polycentric settlement structure of Europe, these small urban centres are basically the spine which holds the region together and connects it to the metropolitan areas.³³

Their dichotomy makes them the ideal mediator between city and countryside, which in turn also holds the great potential of these regions acting as a testing ground for new development approaches, also closely concerned with obsolete spaces in our built environment.

²⁷ ESPON = European Spatial Planning Observation Network

²⁸ cf. 'Inforegio - EU Helps Breathe New Life into Neglected Buildings and Spaces', accessed 23 April 2025, https://ec.europa.eu/regional_policy/whats-new/panorama/2022/02/02-09-2022-eu-helps-breathe-new-life-into-neglected-buildings-and-spaces_en.

²⁹ cf. Europäische Kommission, Policy Atlas of Sustainable Urban Development for Small Urban Areas, 20.

³⁰ cf. Raugze, Daly, and van Herwijnen, 'Shrinking Rural Regions in Europe', 7.

³¹ cf. Raugze, Daly, and van Herwijnen, 10.

³² Thomas Sieverts, Zwischenstadt: Zwischen Ort und Welt, Raum und Zeit, Stadt und Land, 3rd ed, Bauwelt Fundamente, v. 118 (Basel: De Gruyter, 2012).

³³ Europäische Kommission, Policy Atlas of Sustainable Urban Development for Small Urban Areas, 3.

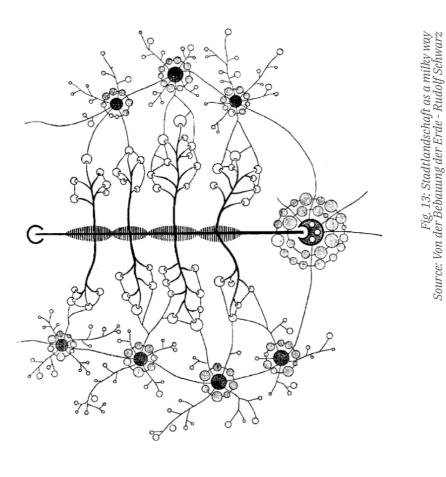
CHAPTER 2: EXPLAINING URBAN-RURAL LANDSCAPES

Regions with a lower population density tend to work differently than cities and largely urbanised regions in general. In the past, there have already been multiple concepts that help explain these areas from a territorial and functional perspective. The most prominent ones include Rudolf Schwarz' Stadtlandschaft, Thomas Sieverts' Zwischenstadt and Christaller's Central Place Theory. Although they each differ in some details and ideas, their common ground is usually found in the fact that they describe conditions that are neither entirely urban nor entirely rural. This chapter will summarise the most important concepts, regarding intermediate regions, of our time, to help gain a broader understanding how low-density regions can be read, understood and how they function.

In order to envision a new approach and design new solutions, two more contemporary examples come into play: Ludwig HIlberseimer's New Regional Pattern, Andrea Branzi's concept of 'weak urbanisation' and 'The horizontal metropolis' by Paola Vigano.

These put the discussion into a context that is much closer to today, unlike the first few references and can even provide indications on how a new revitalisation scheme of the urban-rural can be realised in a design concept.

STADTLANDSCHAFT



Rudolf Schwarz

Rudolf Schwarz (1897-1961) was a German architect and urban planner. Architecturally he was mostly known as a church builder, but he was also well recognised for his extensive contribution to the post-war reconstruction in Germany, most notably in Cologne.³⁴ His publications, such as "Wegweisung der Technik" (1928), "Vom Bau der Kirche" (1938) & "Von der Bebauung der Erde" 35 (1949), the latter of which he wrote after being released from french imprisonment at the end of the war, can be considered as the most essential theoretical works of the modern period.36

Stadtlandschaft

Schwarz' interpretation of the Stadtlandschaft suggests a symbiotic relationship between city and countryside under low-density conditions. In a fragmented, clustered, yet organised fashion, nature and the built environment merge to create a new (sub-) urban system that is made up of new and modified elements, which are organised around networks of infrastructure. These mentioned elements include first and foremost historical town centres, especially their integration and preservation, but also the landscape, new residential zones and industrial areas. He introduced 'elastic

35 Rudolf Schwarz, Von der Bebauung der Erde, Um einen Einl.-Teil erw. Neuaufl (Salzburg München: Pustet, 2006).

planning', as a strategy focusing on an urban configuration with flexibility rather than a predefined urban form. This way it provides potential for a wider variety of urban forms to take shape, but all within an organisational framework. Colloquially, 'Stadtlandschaft', literally translated to 'city-landscape' is used as an expression of the visual appearance of a city. Panos Mantziaras explains in his article "Rudolf Schwarz and the concept of Stadtlandschaft" (published in Planning Perspectives), that term has been used by a number of other researchers that preceded Schwarz, including Johann Heinrich von Thünen, Max Eckert, Bruno Taut, Martin Wagner and more.³⁷ Most interestingly, Wagner's perspective on the city-countryside dichotomy as a dialectical antithesis, was somewhat of a preamble to Schwarz' concept. So in this context and coincidingly this paper, the term 'Stadtlandschaft' explains the special potential within the relationship between city and countryside. As he did not share the opportunistic enthusiasm and zoning strategy of some of his peers during the reconstruction period, he set four intangible & dominant elements that should be present nearly everywhere: sovereignty, education, worship and economy.³⁸ Schematically these four elements are divided into four individual pillars that make up a larger whole and consist of even smaller pillars at the same time (Fig. 13). In Schwarz' thinking, this would allow for a more complex topological hierarchy, which suggests multiple centres that can be changed. Unlike Christaller and Lösch,

who proposed strategies, where functional areas are allocated in the periphery, Schwarz' concept recognised the individual quarters as part of a larger system.³⁹

Significance

Schwarz' concept is still concerned primarily with the city but sets up the fundamental knowledge about how city and countryside can, when combined, become a valuable low-density environment. With a certain flexibility, through the possibility of alternating centres, it is an antithesis to the centrality-approach for developing regions during the time of the industrialisation and reconstruction. The term Stadtlandschaft may not be an original invention by Schwarz, but with the influence and the involvement of other significant names in architectural and planning history, his concept 'Stadtlandschaft' serves as an invaluable contribution to regional planning that can be deemed relevant in the contemporary urban-rural discussion.

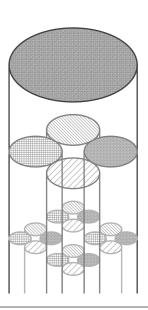


Fig. 14: Schematic hierarchy model. Source: Own drawing, based on original by Rudolf Schwarz

26

³⁴ cf. 'Katalog der Deutschen Nationalbibliothek - Rudolf Schwarz', Text (Deutsche Nationalbibliothek), accessed 29 December 2024, https://portal.dnb.de/opac.htm?method=simpleSearch&cqlMode=true&query=idn%3D118612018.

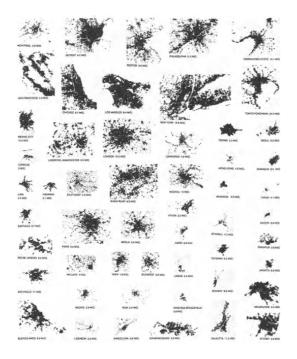
³⁶ cf. Wolfgang Pehnt, 'Rudolf Schwarz | Portal Rheinische Geschichte', accessed 29 December 2024, https://www.rheinische-geschichte.lvr. de/Persoenlichkeiten/rudolf-schwarz/DE-2086/lido/57c94d23094702.06412014.

³⁷ cf. Panos Mantziaras, 'Rudolf Schwarz and the Concept of Stadtlandschaft', Planning Perspectives 18, no. 2 (2003): 157, https://doi.org/10.1080/0266543032000055748.

³⁸ cf. Mantziaras, 153.

³⁹ cf. Mantziaras, 155.

ZWISCHENSTADT



Thomas Sieverts

Thomas Sieverts, born 1934 in Hamburg, was a German architect and an urban planning consultant. He is considered as a renowned German university teacher for post-war urban planning and became internationally known for his work on the phenomenon of the Stadtlandschaft, or as he coined it, the Zwischenstadt (in-between city).⁴⁰ He was appointed the director of the Internationale Bauausstellung (IBA) Emscher Park, where he worked on the revitalisation of a post-industrial region in West-Germany, which led him to write the book 'Zwischenstadt'.41

Zwischenstadt

As already mentioned in the first chapter, the expansion of European cities also brought upon the diffusion of these cities at their outskirts or in other words, urban sprawl. It was the dawn of a new urban form, which he describes as something that possesses the properties of both city and countryside, while simultaneously being neither one of the two. For simplification he continues to call this condition 'Zwischenstadt', as a name for this phenomenon did not exist previously. 42 The emergence of a Zwischenstadt is usually the result of countless decisions, causing it to appear chaotic. Examples around the globe show that there are multiple different reasons for the occurrence of such diffuse cities, but they would usually start out with a dependency on the socalled core cities, until they grow to the point where they establish their own services and facilities and reach selfsufficiency. This decoupled them from

the urban hierarchy of the main city, which is what is known as the urban sprawl.

In 7 theses, Sieverts gives a concrete explanation of his concept, outlining the most essential potentials: The Zwischenstadt emphasises the evolving nature of urban regions as interconnected living environments, encouraging greater interaction between cities. As metropolitan areas become more cohesive, people develop a stronger sense of belonging to the entire urban region. This is especially true as traditional family structures shift and new relationships emerge under uncertain conditions. As work becomes less central for many people, the home becomes an important social and cultural anchor. Environmental challenges stress the need for regional collaboration, while the risk of isolated communities highlights the importance of integrating economically disadvantaged groups. To make these regions livable, their internal appearance must convey locality and reduce the perception of distance. A sense of community and pride in the city-region is crucial, transforming it from a mere functional network into a vibrant space where people engage with their environment, fostering a sense of home and even encouraging intraregional tourism.43

Sieverts points out an important conflict of the Zwischenstadt: System versus agora. In this case the 'system' is a

placeholder for the general globalisation, goods & services and consumerism, while the agora stands for the cultural and location-based habitat.44 Both systems required a new thought approach, due to the societal changes at the time, such as the development of different living styles or the dissolution of place-based communication. Agora and system have a tendency to separation and isolation, but in order to meet the needs of a balanced habitat, they need to refer to one another as well as overlap at times.⁴⁵

In the third chapter of his book, Sieverts points out that the Zwischenstadt is the pinnacle of unculturedness, as it is both urban periphery and urbanised landscape. 46 As a relatively new territorial concept, he deems it necessary to explore new potential perspectives to understand the Zwischenstadt as a field of design. He emphasises and calls for the exploration of the para-aesthetic: an aesthetic that challenges itself, sometimes also disordered. As an irregular emergence of countless different decisions, the Zwischenstadt can take this paraaesthetical position to offer a chaotic yet rich diversity in space, material and time.47 Ultimately Sieverts called for a policy reform on the regional scale, because he felt that, at the time, regional planning was stagnating. Especially politically, but also intellectualscientifically and administratively, as those structures have remained the same since the sixties and seventies.48

⁴⁰ cf. Sieverts, Zwischenstadt.

⁴¹ cf. Fabienne Schneider, 'Die Zwischenstadt birgt ungehobene Schätze', accessed 30 December 2024, https://www.wbw.ch/de/online/ artikel/2019-6-zwischenstadt.html.

⁴² cf. Sieverts, Zwischenstadt, 14–15.

⁴³ cf. Sieverts, 74–77.

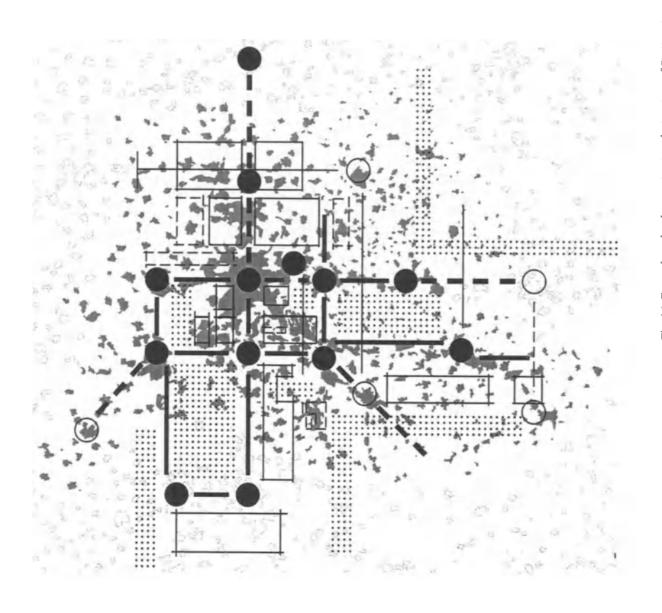
⁴⁴ cf. Sieverts, 85.

⁴⁵ cf. Sieverts, 90.

⁴⁶ cf. Sieverts, 103.

⁴⁷ cf. Sieverts, 107.

⁴⁸ cf. Sieverts, 143.



Development axis Development area: settlement landscape development focus

Significance

Thomas Sieverts offers an insightful explanation towards the urban-rural regions and how they originate from urban sprawl. Although he does not necessarily plea for the urban sprawl, as he is also in support of the historical european city and its cultural landscape, his work on the Zwischenstadt and inherently also the IBA Emscher Park,

create an awareness for these intermediate conditions that now exist around core cities. Rather than labeling the urban sprawl as an urban problem, he emphasises its significance and the potential it holds as a relatively untapped design field. Therefore he deems it also essential to reform policies regarding these regions to react to their polycentric nature.

29

CENTRAL PLACE THEORY

Walter Christaller

Walter Christaller (1893-1969) was a German geographer and economist that became internationally acclaimed for developing the Central Place Theory in 1933.49 It is a model that explains the hierarchical organisation and distribution of settlements and services, and provides a framework for analysing how economic functions and population density determine the location and size of urban centres. His work remains fundamental to urban and regional planning, influencing fields such as transportation, retail location, and spatial economics. Christaller's central place theory remains a cornerstone of human geography, widely studied and further developed.⁵⁰ His contributions provide critical insights into the spatial organisation of human settlements.

Central Place Theory

The Central Place Theory provides a systematic framework for understanding the spatial organisation of settlements and services. It helps explain how and why settlements of different sizes are distributed across a region, and the economic significance of their location and functions. As a theoretical model it is based on an idealised space, which is a homogeneous region where all properties, such as population density, consumer needs and buying power, are all the same throughout. Additionally

transportation is simplified to only one type of transportation, wherein the costs are proportional to the distance travelled.51

Christaller defines centrality in means of the relative significance a place holds in regard to its surrounding region, which is not necessarily determined by its geographical placement but more importantly by its function as a centre.⁵² This entails the distribution of goods and services from a central place. He sets up three different categories, creating a hierarchical order for products, including the rendering of services. Product categories are classified based on the frequency and necessity of goods and services, which influence the centrality of a place. Daily necessities are essential, frequently purchased items such as food or basic health care. Periodic need products are less frequently needed, such as clothing, appliances, or specialised health care. Episodic need products include rare or luxury items, as well as specialised services such as higher education or high-end medical care. This categorisation sets up the following hierarchy of centrality, which is most commonly used now:53

- 1. Small centre: only offers daily products
- 2. Lower-order centre: only offers daily & periodical products (Unterzentrum)
- 3. Intermediate-order centre: offers daily & periodical products of a higher order

distance consumers are willing to travel for a good or service in terms of the costbenefit ratio, and the threshold, describing the minimum demand required to support a product.

periodical and episodic products of the

The boundaries of these places are set by

4. Higher-order centre: offers daily,

highest order

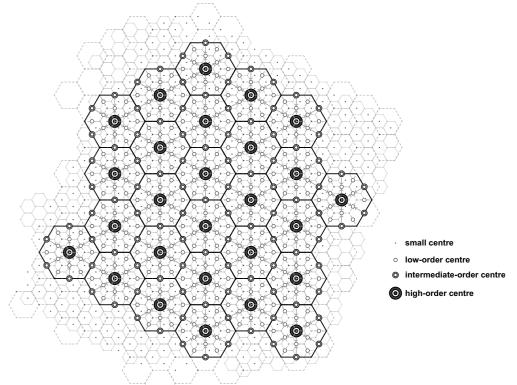
Significance

Christaller's Central Place Theory fundamentally explains and categorises settlements in their economic and functional significance towards their surrounding region, creating a hierarchy of centrality. It shows that the arrangement of settlements is not random but follows specific principles. Even though he developed this model based on the real-world condition of southern Germany, it is a very idealised scheme of highly theoretical nature and

additionally quite old. Even since the 1980s there have been attempts to retrofit the theory, as it was criticised for being static, inapplicable on postindustrial regions and lacking a political angle. In its original form it was difficult to apply in modern Germany due to the many differences of the federal states, which is why nowadays, only the 3-4 hierarchy grades mentioned earlier, are used.54

Although the hierarchical concept contradicts the polycentric nature of intermediate regions, it still provides the first steps for new spatial planning policies, regarding this condition. Categorising the centrality of a place according to specific metrics, that can address the needs for a region to sustain itself, might be a way to (geographically) determine insertion points for interventions.

Fig. 17: Idealised network model of central places. Source: Own drawing, based on original by Walter Christaller.



the range, which is the maximum

⁴⁹ Fun fact: The first edition of the book was published in Jena, 20 minutes from my hometown.

⁵⁰ cf. Ruth Hottes, 'Walter Christaller', Annals of the Association of American Geographers 73, no. 1 (1983): 51–54.

⁵¹ cf. W. Christaller and C.W. Baskin, Central Places in Southern Germany (Prentice-Hall, 1966), https://books.google.de/books? id=5opCAAAAIAAJ.

⁵² Christaller and Baskin, 18–19.

⁵³ cf. Hans Heinrich Blotevogel and Akademie für Raumforschung und Landesplanung, eds., Fortentwicklung des Zentrale-Orte-Konzepts, Forschungs- und Sitzungsberichte / ARL 217 (Hannover: Akad. für Raumforschung und Landesplanung, 2002), XXIX.

⁵⁴ cf. Blotevogel and Akademie für Raumforschung und Landesplanung, XIII.

THE NEW REGIONAL PATTERN

Ludwig Hilberseimer

The main fascinations of Ludwig Hilberseimer (1885-1967), a German architect and urban planner, were settlements and urban centres, which can be observed throughout his oeuvre. The 'Residential City' (Wohnstadt) and the 'Highrise City' (Hochhausstadt) just to name two of the perhaps most well known works of his early career.⁵⁵ Some years after publishing these projects Hilberseimer taught at the Bauhaus during its last stage before World War II. He emigrated to Chicago in 1938, where he would go on to be a professor under Ludwig Mies van der Rohe.⁵⁶ Although these earlier projects show more of a metropolitan densification nature, he later on became a critic on densification and encouraged decentralisation in his work and publications.⁵⁷

The new regional pattern

Released to the public in 1949, the new regional pattern is on one hand an attempt by Hilberseimer to explain how to define regions in a territorial sense and on the other, a counter proposal to centralised urbanism, for new approaches towards regional planning and a way to organise new settlements. He views a region as an organic entity which can be defined by not only the artificial administrative boundaries, but also through natural, geographical and topographical metrics such as landscape

defining elements like rivers or mountains and even climate or soil. Depending on human activity, they can also be classified as industrial or agricultural regions.58 Within such regions, settlements would be diversified, self-sustaining but also interdependent, ensuring that neither urban or rural are excessively specialised or too dependent on external systems.⁵⁹ Instead of relying on marketdriven urban growth, he proposed a balance of agriculture, industry and settlements, rooted in local needs and aware of the ecological limits.60 Another essential aspect of his model are networks of smaller and integrated settlements, which conceptually oppose both urban congestion as well as rural isolation by distributing them across the landscape. Favoring this polycentricity over dense urban cores makes it possible to develop flexible and resilient regions. This approach aims to stabilise the economy and the population number without over concentrating resources and people. Hilberseimer adds that his initial definition of how a region is constituted of static metrics, also needs to consider the dynamic factors of social organisation, economy, technology, infrastructure, markets, and politics. He emphasises the ecological challenges such as pollution, soil exploitation or finite resources, which are apparent throughout cities, suburbs, towns,



villages and even our landscapes. Pointing out that these destructive and exploitative practices can not continue, he calls for the planned integration of industry and agriculture to discourage the specialisation of regions and to balance the economic life. 61 His design proposals for 'The new regional pattern' actually include three planning systems for the different conditions: urban, rural and urban-rural. Taking a closer look at his urban-rural planning system, it shows a very systematic distribution of the specific functions along one main traffic artery that connects commercial, agricultural, industrial and residential

zones. Smaller side-roads and parallel roads then subdivide land and organise economic functions. Although, in the overall scheme, industries are differentiated between expandable, non-expandable and air-polluting industries, they make up an industrial zone that for example allocates more space towards air polluting industry. Residential areas are situated in accordance to their size and adjacent to the industrial zones, but are also in close proximity to agricultural farmland. Overall this planning system manages to systematically diffuse the dichotomy of urban and rural.

⁵⁵ cf. 'Urbanism in the Bauhaus. Ludwig Hilberseimer | METALOCUS', 29 April 2019, https://www.metalocus.es/en/news/urbanism-bauhaus-ludwig-hilberseimer.urb

⁵⁶ cf. 'Ludwig Hilberseimer', accessed 3 January 2025, https://bauhauskooperation.de/wissen/das-bauhaus/koepfe/biografien/biografie-detail/person-Schunke-Deinhardt-Lis-1182.

⁵⁷ cf. Ludwig Hilberseimer, 'Neue Literatur über Städtebau', 1930, 520, https://doi.org/10.11588/DIGLIT.13711.146

⁵⁸ cf. L. Hilberseimer, The New Regional Pattern: Industries and Gardens, Workshops and Farms (P. Theobald, 1949), 89, https://books. google.de/books?id=omsvAAAAMAAJ.

⁵⁹ cf. Hilberseimer, 104.

⁶⁰ cf. Hilberseimer, 90.

⁶¹ cf. Hilberseimer, 110.

⁶² cf. Hilberseimer, 157.

Significance

Ludwig Hilberseimer's takes a strong position with his proposals, even though they would mean a large-scale and resource-intensive process of restructuring existing settlements.

According to him the ideal way to undertake this is a comprehensive planning process in which all endeavors fittingly form a framework to create a better and integrated life. It has to be considered that his planning system was especially developed at the example of

US american settlements, which can differ from their european counterparts. Especially in today's European context, where the urban fabric and built environment partially carry long histories, it would be a shame to risk losing that through either reconstruction or population decline. Perhaps his planning system might function better as a scheme of ideas and zoning rather than a literal regional plan, emphasising the impact decentralisation can have along with the integration of both industry and agriculture.

⁶³ cf. Hilberseimer, 193.

THE HORIZONTAL METROPOLIS

Paolo Viganò

Paola Viganò (1961) is an Italian architect, urban planner and professor at EPFL (Lausanne) at IUAV (Venice). Her work, both in research and design, emphasise the ecological and social transition of cities, landscapes and territories. 64 She pleads for a more open and fair urban model that goes beyond (or even counter) the tradition of singlecentric planning. Natural factors such as green spaces and waterways play a key role in not only the design of cities but also to interrelate the peripheral spaces of the countryside. One of her most recent works is 'The Horizontal Metropolis' which advances and reevaluates the discussion on the urban, suburban and rural fabric.65

The horizontal metropolis - a radical project

Viganò's horizontal metropolis is a research project that reveals an alternative to the usual dichotomy between densified centres and the periphery. The title is a juxtaposition of two rather contrasting terms of metropolis - a dense and centralised urban situation with hierarchy, and horizontality - a diffuse and a-centric condition that blurs urbanity and periphery. The Horizontal Metropolis as a concept imagines the city as a continuous fabric where urban, suburban and rural areas weave into each other.

The research is structured into three episodes, where the first one lays the foundation for the possibility of 'The Horizontal Metropolis' as a project by dissecting contemporary theories and literature that thematise similar topics that assist in intertwining urban and rural areas on the topics of spatial organisation, governance and economy. The chapter concludes with the consensus of necessitating a new imaginary, that hopefully leads to a general reconsideration of the territorial status quo and perhaps also a more radical change in perspective on how to read and understand urban, suburban and rural regions altogether.⁶⁶ The second episode is first of all an investigative cartographic documentation on different cities as case studies around the globe. First, the example cities of Boston, Lausanne, Valais, Venice and Hangzhou are put in direct comparison through territorial metrics, such as the built fabric, water, transportation infrastructure, creating a set of maps in which similarities and differences can be evaluated. A second set of maps visualises the more complex social-spatial relations, which require alternative forms of representation through an addendum of different mediums such as social and economic statistics, geographical data and on-site impressions.⁶⁷ The culminating third episode takes the considerations of the previous two and outlines 'The Horizontal Metropolis' as a design project. A framework of a

- Establishing specific figures of space: urban-territorial figures, such as roads, water systems; edges, centralities, grids, fields or even enclaves and more.
- Reflection on socio-spatial prototypes for the Horizontal Metropolis, including the urban fabric, open spaces, zones of production and diffuse infrastructures

These two strategies eventually set up some design rules, which follow an open research approach, for the development and implementation scheme for the future metropolitan, urban-rural realm that breaks free from the hierarchical territorial organisation.⁶⁸ This proposed 'design metamorphosis' is centralised around the themes of reusing. reconditioning and recycling, where urban and territorial space can also become a renewable resource if designed adequately.⁶⁹ It implies that such a design understands the past, its deconstruction and reconstruction to create a fitting reinterpretation, ultimately adding a new layer to a palimpsest that can accommodate emerging values of ecology and social awareness. Urban territorial forms are in need of a fresh perspective regarding the societal needs of the contemporary, where territorial agents (morphologies and forms) are designed with horizontality in mind instead of hierarchy. Viganò concludes that the developed spatial figures are conceptually weak structures that are

resilient to the contemporary challenges but are also able to retrospectively unify the 'thrown together' nature of the urban tissue.⁷⁰

Significance

The Horizontal Metropolis framework directly addresses the complexity of declining urban-rural territories by offering a promising proposal in which decentralisation, ecological integration and socio-spatial equity are prioritised. The foundational principles of establishing spatial figures, encouraging infrastructural resilience and reconditioning spaces are essential for the present and future challenges that society is facing. It is an open-ended diffusion of the binary distinction of city and countryside, leaving room for further adaptation and development. However the project remains as a highly theoretical discourse, as it critically reflects on the governance and calls for an extensive restructuring and attitude shift. Viganò herself subtitles it as 'a radical project', and as established in the first chapter already, these more radical visions are essential to necessitate a new approach towards the urban-rural regions.

metamorphosis is developed through the reiteration of two operational procedures:

⁶⁴ cf. 'Infos – Paola Vigano', accessed 25 March 2025, https://www.studiopaolavigano.eu/.

⁶⁵ cf. 'Paola Vigano', Schelling-Architekturstiftung (blog), 2022, https://www.schelling-architekturpreis.org/de/awardee/paola-vigano/.
66 cf. Paola Viganò, Chiara Cavalieri, and Martina Barcelloni Corte, eds., HM, the Horizontal Metropolis: A Radical Project (Zurich: Park 2010) 24, 27

⁶⁷ cf. Viganò, Cavalieri, and Corte, 16.

⁶⁸ cf. Viganò, Cavalieri, and Corte, 122.

⁶⁹ cf. Viganò, Cavalieri, and Corte, 123.

⁷⁰ cf. Viganò, Cavalieri, and Corte, 128.

WEAK URBANISATION

Andrea Branzi

Italian architect Andrea Branzi (1938-2023), born and educated in Florence, was a founding member of the italian avant-garde collective Archizoom Associati (a reference to the british paper architecture group 'Archigram') in 1966. The group's approach was 'antidesign', showcasing that extreme rationalism eventually leads to antirationalism, which is perhaps most notable in 'No-Stop City' (1970).⁷¹ Branzi would go on to start his own design studio in 1973 and continued to design furniture as well as some unbuilt design concepts. For this paper the most interesting are probably 'Agronica'72 and the 'Philips masterplan for Eindhoven'73 in which he incorporated the idea of weak urbanisation.

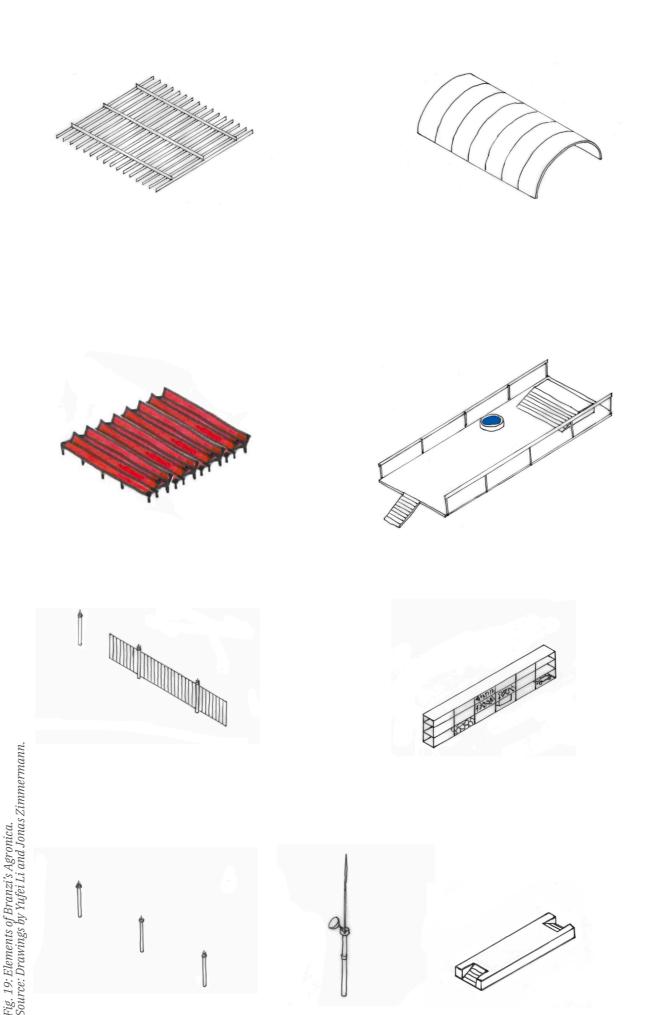
Weak urbanisation

Andrea Branzi introduced the idea of weak urbanisation for the first time in his project 'Agronica' in 1995. The concept itself centralizes seven specific points:⁷⁴

- Separation of technology and form
- Separation of function and form
- Overcoming the tradition of urban planning
- The urban as an intangible condition that matches the market
- The distinction between material and

- virtual metropolis
- Hybridization between town and country
- Absence of a symbolic apparatus

Agronica specifically deals with the hybridization between rural and urban and is a model that can be added to existing cities and villages. This model of weak urbanisation aims to support/ revitalize agricultural and natural landscapes next to the ever-developing urban services in order to mediate between city and countryside.75 The base structure is a light and adaptable system of columns that is able to accommodate a diffuse territorial organisation. Arranged in a strict grid, these columns provide the framework to be equipped with different elements, like platforms, solar panels, sunshades, antenna, pergolas, walls and roof (see Fig. 18 & 19). These items are only connected to the columns, so they are elevated from the ground to avoid surface contact and create a sense of universal application and reversibility. This way the landscape remains untouched and ironically, the architecture itself actually loses its architectural and typological connotation, becoming an empty but definable slate, an adaptable box of opportunities.⁷⁶ In this regard, weak urbanisation heavily supports ecological urbanism in terms of the flexibility, reversibility, minimal intervention and





⁷¹ cf. 'Andrea Branzi - Biografie Und Angebote - Kauf Und Verkauf', accessed 26 March 2025, https://www.kettererkunst.de/bio/andrea-branzi-1938.php.

⁷² cf. 'Andrea Branzi | Agronica', accessed 26 March 2025, https://www.andreabranzi.it/portfolio/agronica/.

⁷³ cf. 'Andrea Branzi | Favela High-tech. Masterplan per Eindhoven', accessed 26 March 2025, https://www.andreabranzi.it/portfolio/favela-high-tech-masterplan-per-eindhoven-andrea-branzi/.

 $^{^{74}}$ cf. Andrea Branzi, Weak and Diffuse Modernity: The World of Projects at the Beginning of the 21st Century, 1. ed, Architecture Essays (Milano: Skira, 2006), 134.

⁷⁵ cf. Branzi, 134.

⁷⁶ cf. Pablo Martínez Capdevila, 'Towards a Weak Architecture: Andrea Branzi and Gianni Vattimo', Cuadernos de Proyectos Arquitectónicos 6 (March 2016): 148.



rıg. 20: Model oj Agronica. Source: Andrea Branzi.

the possibility to accommodate a changing environment.⁷⁷ Branzi's model acknowledges the autonomous nature of the landscape while promoting this light infrastructural logic, enabling technological infrastructure, human habitation and ecological process to coexist.⁷⁸

Significance

Less concerned with governance structures and only to little extent dealing with economic challenges, Andrea Branzi's model of weak urbanisation can ultimately serve as more of a design reference which might even play a key role in how we need to approach planning processes in the future. Similar to Rudolf Schwarz'

'elastic planning', which was already proposed decades earlier, the implementation of a flexible planning scheme will be essential to accommodate the uncertainty that lies with the future of the urban-rural. Although his proposals only remained on the drawing board, they show attempts to create hybrid structures that fades the boundaries between rural and urban and are concrete design concepts that can inform us of potential ways of how to design resilient regions. Weak urbanisation stands as a more contemporary prototype of a more experimental, open-ended and ecological urban design.⁷⁹

⁷⁷ cf. Waldheim, Charles, 'Weak Work: Andrea Branzi's "Weak Metropolis" and the Projective Potential of an "Ecological Urbanism", in Ecological Urbanism, ed. Mohsen Mostafavi and Gareth Doherty, Revised edition (Zürich: Lars publishers, 2016), 118–19.

⁷⁸ cf. Waldheim, Charles, 120.

⁷⁹ cf. Waldheim, Charles, 120.

Concept	Core Idea	Limitations	Directly Addresses Shrinkage?	Transferable Aspects for Shrinking Urban-Rural Regions
Stadtlandschaft	A low-density, flexible urban form blending city and countryside with multiple centers, structured by elastic planning.	Oriented towards reconstruction-era growth, not contraction. More conceptual than operational.	Indirectly. focuses more on post-war reconstruction and the structure of urban-rural environments.	 Supports distributed development and decentralized centrality. Emphasizes historic cores, landscape integration, and multiple functional nodes. Introduces elastic planning as a method adaptable to decline.
Zwischenstadt	Describes polycentric, in-between cities formed from urban sprawl - neither city nor countryside.	Assumes continued urban transformation, not population loss. Weak on economic decline response.	Not focused on shrinkage but rather hybrid urban conditions.	 Advocates regional cohesion and policy reform. Promotes identity-building in diffuse areas. Encourages design experimentation through the idea of paraaesthetics.
Central Place Theory	A hierarchical model explaining the distribution of settlements based on services, population thresholds, and spatial range.	 Highly idealized and dated. Doesn't account for non-economic factors (e.g. social cohesion). Requires updating to reflect mobility changes, networked living, and digital infrastructure. Very hierarchical & not polycentric 	No. Designed as a growth-oriented economic model.	 Offers a framework to categorize centrality, useful for identifying where limited services should be retained or consolidated. Helps define regional service hubs and intervention points in shrinking areas. Can inform resilience-oriented planning based on thresholds.
The New Regional Pattern	A decentralized, polycentric regional plan integrating agriculture, industry, and settlements. Emphasizes ecological balance and systematic spatial organization along main transport corridors.	 Developed for U.S. context; less compatible with historic European urban forms Requires large-scale restructuring Risk of overly rigid zoning if applied literally 	Yes. Promotes regional stability and ecological integration.	 Decentralization helps mitigate urban overconcentration and rural isolation Integration of land uses supports multifunctional regions Applicable as a flexible planning framework in shrinking territories
The Horizontal Metropolis	A diffuse, a-centric urban-rural continuum, diffusing city, towns and the countryside, as well as challenging hierarchical territorial models, prioritizing ecological and social integration.	 Conceptual and theoretical in nature; practical implementation strategies are limited Requires significant rethinking of governance structures and planning practices Relies on strong institutional and participatory frameworks that may be difficult to establish in shrinking or resource-scarce contexts 	Yes. It offers a comprehensive framework that rethinks territory organization and addresses demographic shifts.	 Promotes spatial equity through decentralization Reuse, recycling, and reconditioning of space fit shrinking territories Flexible design logic supports long-term adaptation
Weak Urbanization	Urbanisation as an ecological, reversible, and infrastructurally light condition integrated with agriculture and landscape.	Conceptual and speculative; lacks operational or governance mechanisms for implementation.	Indirectly. reframes urbanisation without dependency on density or growth.	• Emphasizes minimal intervention; adaptable for low-demand regions; supports hybrid urban-rural identity.

While each of the outlined concepts have their own distinct historical and theoretical contexts, they can provide several transferable elements that are relevant to shrinking urban-rural regions within a post-growth paradigm. Hilberseimer's New Regional Pattern and Viganó's Horizontal Metropolis directly engage with demographic and

ecological decline, offering strategies, which focus on decentralisation, versatility or adaptive reuse.

Stadtlandschaft and Weak urbanisation do not directly address shrinkage, but can still provide some essential spatial qualities: flexibility, reversibility and ecological integration, which are crucial for uncertain futures and in regard to the

limits to growth. Sieverts' Zwischenstadt introduces some cultural and spatial complexity of spaces, proposing a paraaesthetic and policy lens to advocate for heterogeneity and hybridity. The Central Place Theory is, on the other hand, a growth-oriented and hierarchical concept, but nevertheless, as an analytical tool it remains useful for

identifying resilient service hubs and potential points of intervention for reactivation. Collectively, these frameworks allow for a shift from the traditional growth-oriented models toward a sufficiency-driven practice, that recognizes decline not as failure, but as a generative condition for rethinking the territory.

CHAPTER 3: POLITICAL ECONOMY IN SHRINKING REGIONS

Discussion about political economy in the planning context is nothing new, as planning processes are directly linked to the economy in one way or another (well, the financing has to come from somewhere), as already hinted at in the previous chapter with Christaller's Central Place Theory. Planning and economy especially come together in urban development schemes, which are usually strategies oriented around economic growth. But with the challenge of shrinking or stagnating regions, new approaches are necessary to accommodate this condition both territorial and economically. Simply said, smaller towns that are declining are not just easily saved by developing new additional housing complexes and commercial areas. So, based on Federico Savini's research into postgrowth planning strategies, this chapter seeks to outline the most important points that need to be considered when trying to establish alternative solutions on how to account for no-growth futures in urban-rural regions and give some directions to how this can be translated into architectural design.

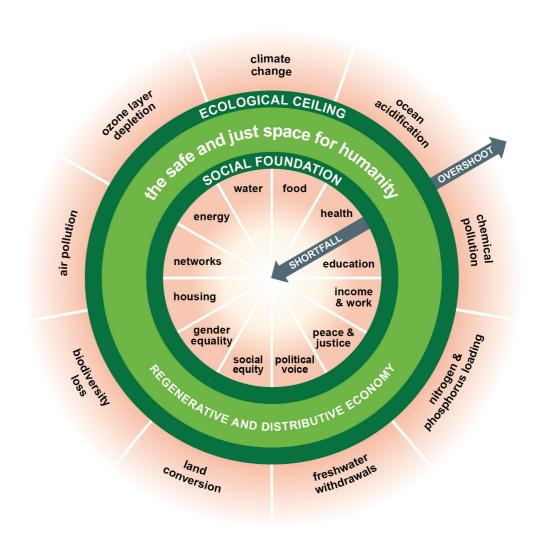
DECOUPLING DEVELOPMENT AND GROWTH

The current political economy in cities is generally considered growth-oriented, characterised by a strong emphasis on economic growth (measured by GDP) as the primary objective.80 This focus on growth has led to the development and implementation of planning instruments and tools designed to encourage urban development and economic expansion. However, this growth-centred approach has also resulted in significant environmental and social challenges, including increased resource consumption, greenhouse gas emissions and social inequalities. Despite attempts to integrate sustainability into planning practices, the pro-growth agenda remains deeply embedded in institutional and mental frameworks. making it difficult to shift towards more sustainable and equitable alternatives. The pursuit of growth continues to dominate policy objectives, often overshadowing long-term

environmental effects and social wellbeing.81 Especially in the intermediate and rural regions, pro-growth becomes problematic in terms of how political schemes try to tackle depopulation. As already mentioned in chapter 1, the more conservative and perhaps even intuitive responses are to deploy growthoriented development. In structurally weak regions this becomes a difficult endeavour as they struggle to sustain such growth due to the obvious lack of infrastructure. In order to escape this potentially endless cycle of development and decline, an alternative response might be necessary, where the progrowth agenda and its negative implications for urban-rural regions are rejected. The preceding connotation of growth and development should be decoupled from each other, so that potentially, development can exist beyond economic prosperity.

POST-GROWTH CONCEPTS & DEGROWTH AGENDAS IN URBAN-RURAL REGIONS

Fig. 21: Environmental doughnut infographic. Source: Wikimedia Commons.



Post-growth, as an economic concept, is centred around the finiteness of resources, recognizing that there are certain limits to growth. It counters the status quo of measuring growth through an increasing GDP and shifts the emphasis towards improving human well-being within the resource-based limits of our planet. Eror this concept to work it is essential that in the mental framework development and growth are already decoupled, as established in the

previous subchapter.

Urban degrowth is already a well researched topic among scholars.

Therefore we can take some of their considerations in an attempt to project and readjust them so that degrowth strategies can also be applied to regions that already have been shrinking or stagnating, rather than the usual case of cities that need to stop growing. In this context, post-growth serves as a foundational approach that rejects the

⁸⁰ cf. Daniel Durrant, Christian Lamker, and Yvonne Rydin, 'The Potential of Post-Growth Planning: Re-Tooling the Planning Profession for Moving beyond Growth', Planning Theory & Practice 24, no. 2 (15 March 2023): 288, https://doi.org/10.1080/14649357.2023.2198876.

⁸¹ cf. Durrant, Lamker, and Rydin, 288.

⁸² Durrant, Lamker, and Rydin, 289.

dominant belief that green technologies alone can allow for continuous economic expansion while solving environmental problems.83 Instead, it argues that we must fundamentally rethink the structure of our economy and its relationship to ecological systems.84 While widely referenced in policy discussions, post-growth remains largely conceptual and non-prescriptive, offering no clear tools or course of action on its own.85 This is where a degrowth agenda needs to provide strategies that can help reduce destructive economic activities and even redistribute resources, respecting planetary and social boundaries. Savini centres this agenda around polycentric autonomy, finity and the habitability of regions.

Polycentric autonomy

Polycentric autonomism offers structurally weak urban-rural regions a path to empowerment through regional interdependence rather than competition. Rather than reinforcing a hierarchy in which smaller towns are dependent on dominant urban centres, this approach envisions a federation of autonomous communities, each capable of managing basic needs-such as food production, renewable energy, care services, and water supply-within its own territorial boundaries.⁸⁶ These communities would cooperate through horizontal coordination rather than

market-driven specialisation.⁸⁷
Shrinking settlements could pool resources and share infrastructure while maintaining decision-making autonomy, thereby reducing dependence on distant, unsustainable systems. For example, a regional alliance of agricultural cooperatives, community energy producers, and health care mutuals could replace failing state and private services, turning perceived decline into an opportunity for democratic localism and ecological stewardship.

Limits & Finity

Finity reframes the shrinking condition as an opportunity to recalibrate local development within ecological and social limits. By setting limits on housing density, rent levels, land speculation, or even tourism intensity, shrinking communities can take control of land use and resist exploitative redevelopment strategies that may seem like quick fixes.88 Instead of pursuing growth to attract outside investment, these regions can define what is "enough" for long-term well-being and focus on maintaining existing infrastructure, reusing vacant properties, and preserving ecological assets. Through finity, shrinking regions can become laboratories for sustainable land use practices, where the focus shifts from expansion to repair, maintenance, and sufficiency.89

Habitability

Rather than using zoning to assign property rights based on exchange value, a habitability-centered approach organizes land use around a place's capacity to sustain life and community, focussing on the relationship between humans and their environment. This means identifying and protecting the socio-ecological functions of space clean air and water, access to health care, mobility, food systems, and cultural connectedness-on a context-specific basis. 90 In practice, this could entail repurposing derelict buildings as cooperative housing or public kitchens, restoring degraded land for regenerative agriculture, or formalizing common spaces for collective care and recreation. Planning for habitability elevates the right to a livable environment over the right to profit from land, and helps shrinking regions reorient themselves around the values of care, reciprocity, and environmental health rather than market viability.91

⁸³ cf. fedemira, 'Post-Growth, Degrowth, the Doughnut and Circular Economy: A Short Guide.', Planetary Crises, Amateurish Actions (blog), 7 November 2022, https://planetamateur.com/2022/11/07/post-growth-degrowth-the-doughnut-and-circular-economy-a-short-guide/

⁸⁴ cf. Federico Savini, António Ferreira, and Kim Carlotta Von Schönfeld, Post-Growth Planning: Cities Beyond the Market Economy, 1st ed. (New York: Routledge, 2022), 3, https://doi.org/10.4324/9781003160984.

⁸⁵ cf. fedemira, 'Post-Growth, Degrowth, the Doughnut and Circular Economy'.

⁸⁶ cf. Federico Savini, 'Towards an Urban Degrowth: Habitability, Finity and Polycentric Autonomism', Environment and Planning A: Economy and Space 53, no. 5 (August 2021): 1085, https://doi.org/10.1177/0308518X20981391.

⁸⁷ cf. Savini, 1086.

⁸⁸ cf. Savini, 1088.

⁸⁹ ibid.

⁹⁰ cf. Savini, 1088.

⁹¹ cf. Savini, 1089–90.

DEGROWTH CIRCULARITY

Circular economy has emerged as a prominent sustainability strategy that aims to reduce waste and maximize material reuse. It was originally developed within the framework of industrial ecology and environmental economics. However, it has since gained widespread attention in urban policy as a means to reconcile ecological concerns with economic growth. 92 Yet the mainstream model of circular economy tends to mask the tension, that it remains tethered to capitalist growth logic, functioning as a "spatial fix" of urban capitalism rather than a departure from it.93 While the circular emphasises efficiency and revalorisation of waste, it often does so through technocratic and managerial means, privileging market-based solutions and reinforcing consumer responsibilisation.94 In this case, waste is monetised, circulated and given a profit-based value, effectively serving a growth model rather than a structural ecological transformation.

In contrast, degrowth perspectives challenge these assumptions by reframing waste as a symptom of growth, rather than as a potential input for growth. Waste is described as the material expression of an economy dependent on constant production - an unavoidable byproduct that needs to be reduced, not optimised. From this perspective, the concept of circularity can meaningfully contribute to sustainability only if it is embedded within a post-growth paradigm that prioritises sufficiency, care, and democratic resource governance over efficiency and productivity.

Savini provides a detailed institutional comparison between the two imaginaries. Conversely, the prevalent circular economy is characterised by global supply chains, corporate ownership, and monetary valuation of waste. In contrast, a degrowth circularity model would entail a shift in responsibility towards a localised collective, operating at a bioregional scale, reframing

waste in socio-ecological rather than economic terms. ⁹⁶ It would not seek to maximise the profitability of circularity, but to reduce material flows and foster communal repair, reuse and redistribution practices.

In this sense, shrinking urban-rural regions could actually provide ideal testbeds for degrowth-informed circularity. Their low-growth characteristics, their integration within local landscapes, and their relative autonomy from high-speed capitalist metabolisms render them particularly well-suited to experiments in communal waste recovery, bioregional material cycles, and the revaluation of maintenance, repair, and care infrastructures.

The implementation of such a vision would necessitate a rethinking of governance structures. It is imperative for policies to shift from incentivising circular "innovation" for growth and instead establish institutional mechanisms that promote communal

responsibility for material flows. This could entail civic repair networks, embedding circular planning in spatial planning, and establishing frameworks that recognise waste as both a burden and a regenerative material commons.⁹⁷

Ultimately, the circular economy discourse needs to evolve to align with post-growth strategies. It needs to turn away from the current reliance on efficiency narratives and embrace a radically different value system, that understands circularity not as a means to sustain growth, but as a pathway to downscale the consumption of materials and regenerate social-ecological relations.⁹⁸

⁹² cf. David Bassens, Wojciech Kęblowski, and Deborah Lambert, 'Placing Cities in the Circular Economy: Neoliberal Urbanism or Spaces of Socio-Ecological Transition?', Urban Geography 41, no. 6 (2 July 2020): 893–97, https://doi.org/10.1080/02723638.2020.1788312.
⁹³ cf. Bassens, Keblowski, and Lambert.

 $^{^{94}}$ cf. Federico Savini, 'Futures of the Social Metabolism: Degrowth, Circular Economy and the Value of Waste', Futures 150 (June 2023): 1–2, https://doi.org/10.1016/j.futures.2023.103180.

⁹⁵ cf. Giorgos Kallis, 'Radical Dematerialization and Degrowth', Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences 375, no. 2095 (13 June 2017): 5, https://doi.org/10.1098/rsta.2016.0383.

⁹⁶ cf. Savini, 'Futures of the Social Metabolism', 5–7.

⁹⁷ cf. Joanna Williams, 'Circular Cities', Urban Studies 56, no. 13 (October 2019): 2746–62, https://doi.org/10.1177/0042098018806133.

⁹⁸ cf. Savini, 'Futures of the Social Metabolism', 9

VALUES FOR A NEW URBAN-RURAL DESIGN FRAMEWORK

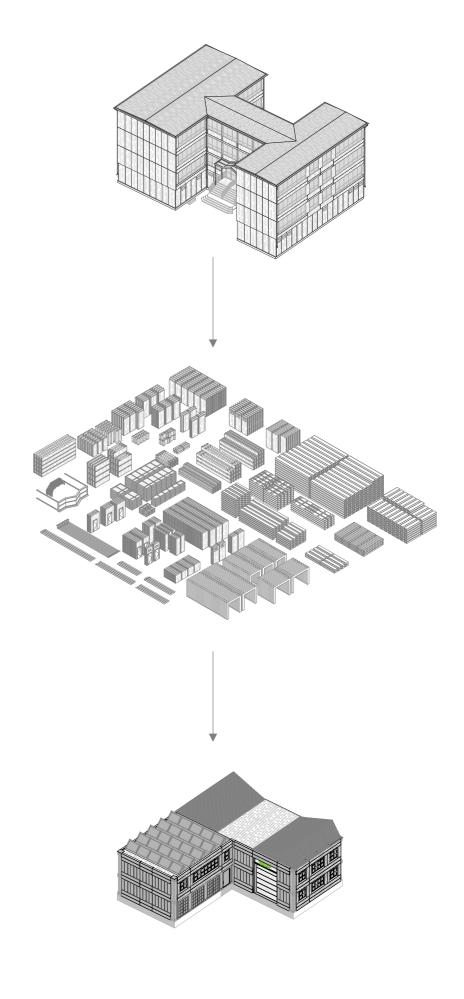
Architectural design in shrinking urbanrural regions must be reoriented toward the post-growth values of autonomy, finitude, and habitability, offering a fundamental shift away from the pro-growth paradigms that have historically defined planning and development. Drawing on Savini's concept of polycentric autonomism, architecture should also be able to help reduce destructive economic activities and even redistribute resources, respecting planetary and social boundaries within a federated regional logic, similar to how it was even proposed in 'The horizontal metropolis' or Andrea Branzi's model of weak urbanisation. At the same time, embracing finity as a guiding value means designing within ecological and social limits - prioritizing adaptive reuse, reducing material throughput, and resisting speculative development in favor of sufficiency.

Especially in shrinking regions where growth is already absent, post-growth thinking, coupled with a degrowth-informed circular economy, offers an opportunity not to reverse decline through growth, but to redefine prosperity in terms of sufficiency, equity and ecological balance. Through resilient and participatory programmes, as mentioned in the design references of chapter 2, we can start formulating a clearer set of design values that could enable a fresh

53

perspective and a break from the previous ineffectual practices. Rather than continuing the extractive logic of demolition and replacement, buildings should be treated as material banks: carefully demounted rather than destroyed, with components reintegrated into local economies of reuse and repair, extending life cycles and reducing resource consumption. In the specific example of East Germany, there is an abundance of prefabricated concrete buildings that are slowly becoming obsolete due to the dated and insufficient building standards. Instead of demolishing them to make space for replacement buildings, it should become normative to either renovate as much as possible or at least salvage parts of the building through conscious and controlled demounting. Architectural practice in intermediate regions needs to revitalize the existing built environment, capitalizing on the embodied energy of obsolete structures left behind by demographic decline through thoughtful reuse, adaptive transformation, and ecological restoration. Only then, a degrowth urban-rural imaginary could, specifically in the shrinking regions of urban-rural Europe, treat the symptoms and challenges left by decade-long decline where policies usually fail to repair the damage that has already been done.

Fig. 21: Example of demounting a building to turn it into a different one. Source: Own drawing. (2025).



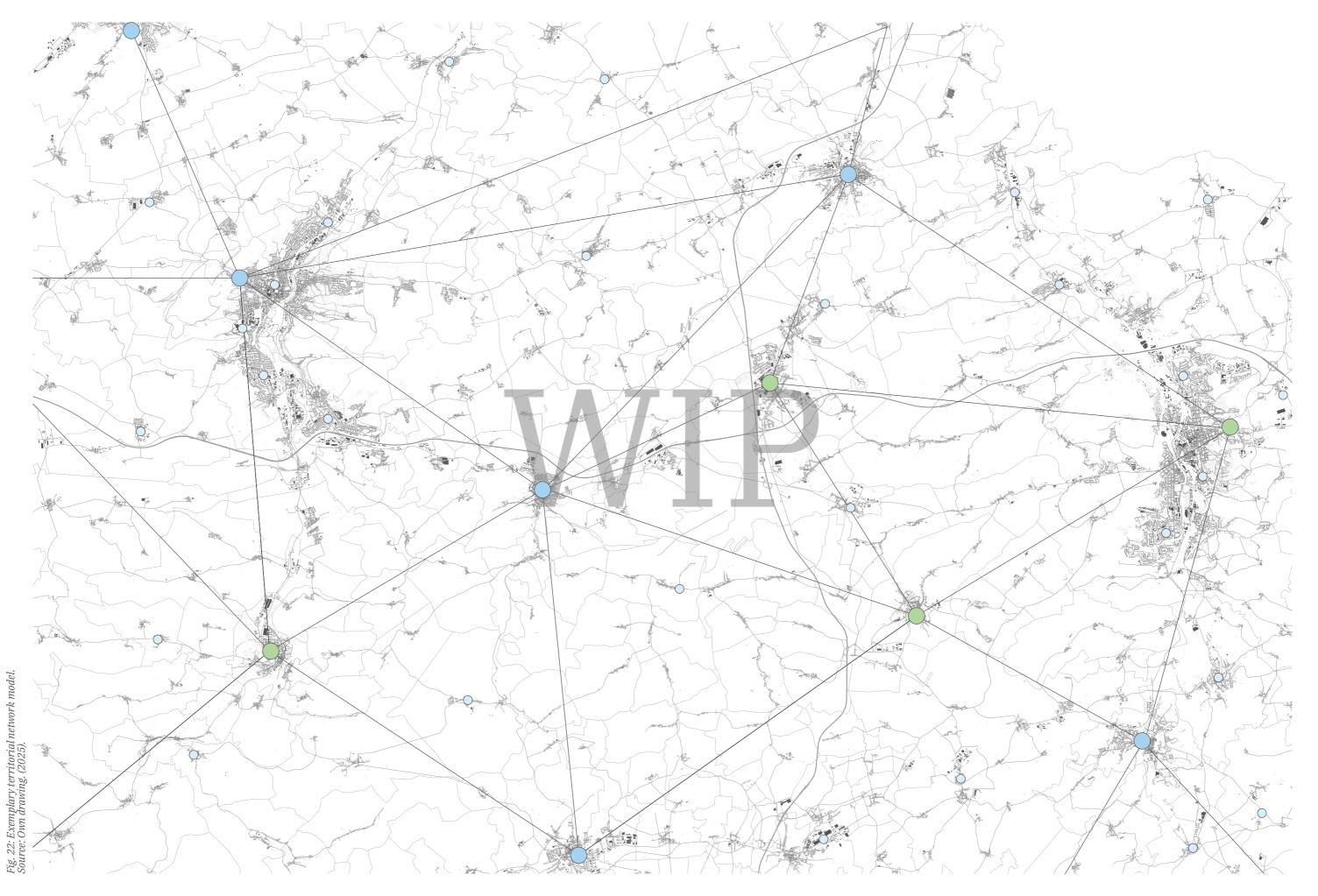
CONCLUSION

This paper has explored how a post-growth design framework can serve as a transformative lens for reimagining stagnating, low-density urban-rural regions in East Germany - territories characterised by their hybrid spatial character and persistent demographic and economic decline. By reframing these intermediate areas not as peripheral failures of growth but as the potential testing grounds for alternative development models, this research positions urban-rural regions as a promising terrain for architectural experimentation beyond pro-growth paradigms.

Together, the first and third chapters demonstrated that these regions, with their fragmented infrastructures and obsolete spaces, can play a critical role in advancing post-growth thinking, particularly when design is reoriented toward values like autonomy, finitude, and habitability. The second chapter established the theoretical foundation by examining various territorial models, including Stadtlandschaft, Zwischenstadt, and Central Place Theory. These models demonstrate the potential of polycentric, networked, and elastic spatial logics in facilitating comprehension and restructuring of low-density geographies. This understanding was further enriched by engaging with forward-thinking planning frameworks such as Hilberseimer's New Regional Pattern, Branzi's Weak Urbanisation, and Viganò's Horizontal Metropolis. Although these frameworks were not explicitly developed for shrinkage, they provide a foundation for post-growth spatial strategies. These strategies include decentralization, ecological integration, reversibility, and territorial equity.

The paper synthesizes these insights and proposes a spatial framework for post-growth architecture. This framework advocates for polycentric autonomy, repair and reuse over replacement, and the commoning of regional resource

infrastructures. Rather than employing obsolete growth imperatives to resist decline, design should strive to align with existing conditions. This entails the revitalization of obsolete structures, the capitalization of embodied energy, and the integration of controlled demounting as a fundamental element of a circular construction ethos. By facilitating community-led initiatives, decentralized governance, and infrastructural interdependence, the process of shrinking urban-rural territories can be transformed into models of sufficiency, resilience, and ecological responsibility. Consequently, this post-growth design agenda does not merely address the deficiencies of unsuccessful growth policies; it presents a vision of spatial justice and adaptive prosperity grounded in the constraints of planetary boundaries and regional capabilities.



BIBLIOGRAPHY

- · 'Andrea Branzi | Agronica'. Accessed 26 March 2025. https://www.andreabranzi.it/portfolio/agronica/.
- 'Andrea Branzi | Favela High-tech. Masterplan per Eindhoven'. Accessed 26 March 2025. https://www.andreabranzi.it/portfolio/favela-high-tech-masterplan-per-eindhoven-andrea-branzi/.
- 'Andrea Branzi Biografie Und Angebote Kauf Und Verkauf'. Accessed 26 March 2025. https://www.kettererkunst.de/bio/andrea-branzi-1938.php.
- Bassens, David, Wojciech Kębłowski, and Deborah Lambert. 'Placing Cities in the Circular Economy: Neoliberal Urbanism or Spaces of Socio-Ecological Transition?' Urban Geography 41, no. 6 (2 July 2020): 893–97. https://doi.org/10.1080/02723638.2020.1788312.
- Blotevogel, Hans Heinrich and Akademie für Raumforschung und Landesplanung, eds. Fortentwicklung des Zentrale-Orte-Konzepts. Forschungs- und Sitzungsberichte / ARL 217. Hannover: Akad. für Raumforschung und Landesplanung, 2002.
- Branzi, Andrea. Weak and Diffuse Modernity: The World of Projects at the Beginning of the 21st Century. 1. ed. Architecture Essays. Milano: Skira, 2006.
- Christaller, W., and C.W. Baskin. Central Places in Southern Germany. Prentice-Hall, 1966. https://books.google.de/books?id=5opCAAAAIAAJ.
- Durrant, Daniel, Christian Lamker, and Yvonne Rydin. 'The Potential of Post-Growth Planning: Re-Tooling the Planning Profession for Moving beyond Growth'. Planning Theory & Practice 24, no. 2 (15 March 2023): 287–95. https://doi.org/10.1080/14649357.2023.2198876.
- Europäische Kommission, ed. Policy Atlas of Sustainable Urban Development for Small Urban Areas. EUR 31440. Luxembourg: Publications Office of the European Union, 2023. https://doi.org/10.2760/64829.
- European Investment Bank. 'Europe and Its Urban Development, 1970 to 2020'. Accessed 23 March 2025. https://www.eib.org/en/essays/the-story-of-your-city.
- Eurostat. 'Eurostat / Regions and Cities Illustrated (RCI)'. Accessed 23 April 2025. https://ec.europa.eu/eurostat/cache/RCI/.
- fedemira. 'Post-Growth, Degrowth, the Doughnut and Circular Economy: A Short Guide.' Planetary Crises, Amateurish Actions (blog), 7 November 2022. https://planetamateur.com/2022/11/07/post-growth-degrowth-the-doughnut-and-circular-economy-a-short-guide/.
- Hilberseimer, L. The New Regional Pattern: Industries and Gardens, Workshops and Farms. P. Theobald, 1949. https://books.google.de/books?id=omsvAAAAMAAJ.
- Hilberseimer, Ludwig. 'Neue Literatur über Städtebau', 1930. https://doi.org/10.11588/ DIGLIT.13711.146.
- Hottes, Ruth. 'Walter Christaller'. Annals of the Association of American Geographers 73, no. 1 (1983): 51–54.
- 'Inforegio EU Helps Breathe New Life into Neglected Buildings and Spaces'. Accessed 23 April 2025. https://ec.europa.eu/regional_policy/whats-new/panorama/2022/02/02-09-2022-eu-helps-breathe-new-life-into-neglected-buildings-and-spaces_en.
- 'Infos Paola Vigano'. Accessed 25 March 2025. https://www.studiopaolavigano.eu/.
- Jean-Philippe Aurambout, Marcello Schiavina, Michele Melchiorri, Fabrizio Guzzo, Carlotta Fioretti, Ine Vandecasteele, Paola Proietti, Boyan Kavalov, Francesco Panella, and Giorgos Koukoufikis. 'Shrinking Cities'. European Union, The Future of Cities, JRC126011 (2022).
- Kallis, Giorgos. 'Radical Dematerialization and Degrowth'. Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences 375, no. 2095 (13 June 2017): 20160383. https://doi.org/10.1098/rsta.2016.0383.
- 'Katalog der Deutschen Nationalbibliothek Rudolf Schwarz'. Text. Deutsche Nationalbibliothek. Accessed 29 December 2024. https://portal.dnb.de/opac.htm? method=simpleSearch&cqlMode=true&query=idn%3D118612018.
- 'Ludwig Hilberseimer'. Accessed 3 January 2025. https://bauhauskooperation.de/wissen/das-bauhaus/koepfe/biografie-detail/person-Schunke-Deinhardt-Lis-1182.

- Mantziaras, Panos. 'Rudolf Schwarz and the Concept of Stadtlandschaft'. Planning Perspectives 18, no. 2 (2003): 147–76. https://doi.org/10.1080/0266543032000055748.
- Mettke, Angelika. 'Rückbau Industrieller Bausubstanz Großformatige Betonelemente Im Ökologischen Kreislauf', n.d.
- Pablo Martínez Capdevila. 'Towards a Weak Architecture: Andrea Branzi and Gianni Vattimo'. Cuadernos de Proyectos Arquitectónicos 6 (March 2016): 147–50.
- Pehnt, Wolfgang. 'Rudolf Schwarz | Portal Rheinische Geschichte'. Accessed 29 December 2024. https://www.rheinische-geschichte.lvr.de/Persoenlichkeiten/rudolf-schwarz/DE-2086/lido/57c94d23094702.06412014.
- Raugze, Ilona, Gavin Daly, and Marjan van Herwijnen. 'Shrinking Rural Regions in Europe', 2017.
- Savini, Federico. 'Futures of the Social Metabolism: Degrowth, Circular Economy and the Value of Waste'. Futures 150 (June 2023): 103180. https://doi.org/10.1016/j.futures.2023.103180.
- ——. 'Towards an Urban Degrowth: Habitability, Finity and Polycentric Autonomism'. Environment and Planning A: Economy and Space 53, no. 5 (August 2021): 1076–95. https://doi.org/ 10.1177/0308518X20981391.
- Savini, Federico, António Ferreira, and Kim Carlotta Von Schönfeld. Post-Growth Planning: Cities Beyond the Market Economy. 1st ed. New York: Routledge, 2022. https://doi.org/10.4324/9781003160984.
- Schelling-Architekturstiftung. 'Paola Vigano', 2022. https://www.schelling-architekturpreis.org/de/awardee/paola-vigano/.
- Schneider, Fabienne. 'Die Zwischenstadt birgt ungehobene Schätze'. Accessed 30 December 2024. https://www.wbw.ch/de/online/artikel/2019-6-zwischenstadt.html.
- Schwarz, Rudolf. Von der Bebauung der Erde. Um einen Einl.-Teil erw. Neuaufl. Salzburg München: Pustet. 2006.
- Sieverts, Thomas. Zwischenstadt: Zwischen Ort und Welt, Raum und Zeit, Stadt und Land. 3rd ed. Bauwelt Fundamente, v. 118. Basel: De Gruyter, 2012.
- 'Territorial Typologies Manual Cluster Types'. Accessed 20 April 2025. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Territorial_typologies_manual_-_cluster_types.
- 'Territorial Typologies Manual Urban-Rural Typology'. Accessed 19 April 2025. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Territorial_typologies_manual_-_urban-rural_typology.
- Tucholsky: Das Ideal', n.d. Accessed 15 October 2024.
- United Nations. '68% of the world population projected to live in urban areas by 2050, says UN'. United Nations. United Nations. Accessed 25 December 2024. https://www.un.org/uk/desa/68-world-population-projected-live-urban-areas-2050-says-un.
- 'Urbanism in the Bauhaus. Ludwig Hilberseimer | METALOCUS', 29 April 2019. https://www.metalocus.es/en/news/urbanism-bauhaus-ludwig-hilberseimer.
- 'Urban-Rural Europe Population Projections'. Accessed 22 January 2025. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Urban-rural_Europe_-_population_projections.
- 'Verwahrloste Immobilien Leitfaden zum Einsatz von Rechtsinstrumenten beim Umgang mit verwahrlosten Immobilien "Schrottimmobilien". Bundesministerium für Umwelt, Naturschutz, Bau und Reaktorsicherheit (BMUB), November 2014.
- Viganò, Paola, Chiara Cavalieri, and Martina Barcelloni Corte, eds. HM, the Horizontal Metropolis: A Radical Project. Zurich: Park Books, 2019.
- Waldheim, Charles. 'Weak Work: Andrea Branzi's "Weak Metropolis" and the Projective Potential of an "Ecological Urbanism". In Ecological Urbanism, edited by Mohsen Mostafavi and Gareth Doherty, Revised edition. Zürich: Lars publishers, 2016.
- Williams, Joanna. 'Circular Cities'. Urban Studies 56, no. 13 (October 2019): 2746–62. https://doi.org/ 10.1177/0042098018806133.

62

