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Vulnerability and Resilience

Vulnerability and Resilience – the Perspective of Social-
Scientific Spatial Research ... **Labor market, Water supply,**
Urban Development – Vulnerabilities coin our Life

Vulnerability and Resilience in Social-Scientific Spatial Research

Hazards and risks have many faces: unemployment and social decline, floods and heat waves, negative images and stigmatisation of cities and regions, financial and economic crises. Notwithstanding the fact that concrete threats differ considerably between the abovementioned fields, their perception and the ways they are handled tend to follow similar patterns. A hitherto stable system is thrown off balance due to shifts in framework conditions and must change to regain stability.

The extent to which certain shocks or gradual changes are able to throw a person, the global climate, or the financial sector off track is largely a question of vulnerability. At the same time, counter measures – like the renaturation of rivers or the taking out of insurance – may help to increase resilience. From 2010 to 2012, several IRS departments coop-

tion, Knowledge, and Spatial Development”.

There is broad consensus among natural scientists that climate change will result in rising sea levels. While Poland and the Netherlands are both confronted with the danger of flooding, the latter is particularly vulnerable on grounds of its landscape’s

to examine vulnerability and resilience. The integration of ecological and social science explanatory approaches may help to foster interdisciplinary dialogue. Moreover, it serves as a sound basis for developing more effective political reactions to threats and strategies to mitigate negative impacts. This edition’s featured topic provides an overview of both these concepts’ theoretical development and their application in numerous fields, from labour markets to river basin management.

The IRS approach is characterised by three key aspects: social constructedness, a dynamic perspective and the overcoming of contradictions in the understanding of the influences of natural vs. social factors on vulnerability and resilience.

erated in the exploration of the perceptions and handling of hazards as well as the strategies to deal with them. While the concepts of vulnerability and resilience had hitherto been outlined in field such as developing countries research and ecological studies, IRS scholars have reformulated these concepts from social and spatial science perspectives. This complementary pair denotes a complex conceptual bundle that integrates a number of social, individual and natural factors. The IRS approach is characterised by three key aspects: social constructedness, a dynamic perspective and the overcoming of contradictions in the understanding of the influences of natural vs. social factors on vulnerability and resilience. This is shown in research on emblematic cases conducted within the department “Dynamics of Communica-

topography. Thinking purely in physical geographical exposure to growing hazards does not, however, provide a complete definition of the vulnerability of coastlines and their inhabitants. IRS researchers have found that perceptions of risk differ considerably with regard to cultural spaces. For example, Poland is considered to face a high degree of risk, as it largely lacks traditional knowledge on how to deal with flooding. By contrast, the Netherlands have coped for centuries with such risks and, as a result, rising sea levels provoke less fear. Risks are therefore defined by both natural and social factors. They are modified by our own actions and, as a consequence, become real only by way of perception and identification.

This example helps to demonstrate the potential of the system-oriented framework developed by the IRS

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Resilience Research – The State of the Art

To those research disciplines dealing with the factors that threaten the functioning of complex systems, the concepts of vulnerability and resilience are well known terms. Originating from human ecology and psychology, the social sciences have gradually adopted and adapted these concepts. In the social sciences, the main task has been to provide answers to the question of how people perceive and come to terms with the multifaceted risks connected to their existence. Over the past three years, the IRS has engaged with and further refined the concepts to render them applicable to social, political and economic contexts. At a conference entitled “Constructing Resilience”, jointly hosted with HafenCity University Hamburg (HCU) in Berlin (17-18 January 2013), researchers discussed their findings with international experts.

In the majority of cases, applying the concepts of vulnerability and resilience in a social scientific context implies transferring an ecological understanding (according to which an element set as central is evaluated in relation to its environment) to social risks. In doing so, vulnerability is defined by the conditions and processes that determine an element’s (be it an individual person’s role in the labour market or a peripheralised medium-sized town) exposure and sensitivity to certain hazards. Against this background, vulnerability analyses can help identify the degrees of vulnerability of a person or a city. In doing so, both external and internal factors will exert a certain influence. Further, social vulnerability takes into consideration that not all stakeholders in a certain context show comparable degrees of vulnerability or are able to develop comparable resilience strategies. Such vulnerability analyses allow us to create a link between material and

immaterial as well as between natural and social factors of influence.

social constructedness of risks has hitherto not been adequately taken into account and that there has been

“Despite these attempts to integrate the dimension of social differentiation into the concepts of vulnerability and resilience through social science research, some theoretical shortcomings remain.”

“Despite these attempts to integrate the dimension of social differentiation into the concepts of vulnerability and resilience through social science research, some theoretical shortcomings remain”, Gabriela Christmann (IRS) emphasised in her keynote speech at the conference “Constructing Resilience”. For the IRS, these existing gaps were the main motivation to conduct a three-year cross-departmental research project and to develop a new approach to defining vulnerability and resilience from a socio-spatial perspective. “We recognised that the

a certain oversight as regards theoretical understanding of the connectedness of material and immaterial factors. Similarly, implications for governance have hardly played a role in the academic discussion on vulnerability and resilience thus far.”

To the idea that sensitivity to external influences differs according to social factors, the social construction of vulnerability adds the aspect that people, urban societies, or regions also tend to develop diverging perceptions. They consider themselves vulnerable or resilient and, in doing

so, contribute to the construction of their vulnerability. Regardless of the fact that these differences in perception are frequently highlighted in the literature, theoretical conclusions have largely been absent from resilience research to date. This in turn has helped to preserve the dichotomy between the seemingly contradictory natural and social determinants. While on the one hand the material threats appeared as theoretically given, risk perceptions were regarded as purely projected and, for the most part, entirely subjectively experienced threats. There also exists a historical explanation for the fact that the concepts of vulnerability and resilience have long been shaped by somehow interrelated, but de facto separated, spheres. "In fact, an essentialist perspective on threats and risks lies behind all this", Christmann points out. "They are regarded as an objective given, which are merely modified

situated entity deemed worthy of protection on the one hand and all determinants influencing this entity on the other hand. In doing so, a main objective was to discover a relational model that considers freely associating entities with substantially differing dispositions (e.g. reg-

ulate hazardous situations, as well as the positioning of the central element therein. "This network is not natural, though. Instead, all these connections are of a highly artificial nature and therefore are fundamentally socially constructed", stated Professor Dr Oliver Ibert (IRS), summarising the ben-

Being human is not only based on social ties with other people, but is also shaped by numerous objects, artefacts and machines that have been developed over the course of our cultural history.

ulations and technical provisions) on one and the same level and with an equal status. Actor-Network-Theory (ANT), as formulated by Bruno Latour, provides such possibilities in that it replaces the restrictive view of the social as interpersonal relations with a "sociology of associations".

efits to the vulnerability discussion. "The network is both dynamic and agency-oriented. Accordingly, resilience designates the ability to modify the network by adding, removing, or altering certain elements." Accordingly, Ibert concluded that resilience is continuously being constructed.



David Stark, Gabriela Christmann and Jörg Sydow



Ash Amin

by means of social processing. However, this no longer does justice to the state of the art on social-scientific risk research. Insights from social construction literatures suggest that there is no such thing as a "de facto" and objective threat. Instead, our analyses need to take into account all determinants of a certain hazard in an equal manner."

Based on these considerations, the IRS project group developed new conceptualisations of vulnerability and resilience, which rested largely on the relations between a centrally

In his concluding statements at the conference, Professor David Stark (Columbia University) explained: "Sociology is not about human beings, it is about being human." Being human is not only based on social ties with other people, but is also shaped by numerous objects, artefacts and machines that have been developed over the course of our cultural history. With regard to vulnerability to threats, ANT implies the establishment of a relational, socio-technical network that consists of those natural, human, material, and immaterial entities connected to con-

For this reason, the concept of construction was an overriding concern of the conference. In three sessions, IRS and HCU researchers discussed with a number of invited international experts the construction of perception, the systematic construction of adaptability as a resilience strategy as well as the associated governance-related implications. Proposals by the IRS for a theoretical expansion of these concepts were well received and prompted a dialogue across disciplinary and contextual boundaries. At the same time, however, several speeches illustrated that

there are also limits to how far the resilience concept can be extended. The limits of a network-based understanding of vulnerability and resilience arise from the conservative character of its basic orientation. Ibert noted that even if priority was given to the adaptability of systems (which would also allow for substantial change), an overhaul of long-standing principles lies beyond the concept of resilience. For the same reasons, Stark focused particularly on the concept of “valued entity” in his concluding statement. He stressed that there is always something worth protecting and we should not distance ourselves from its core content. With regard to the political implementation of resilience strategies, he therefore recommended maintaining the polyphony concerning these things worth preserving and, moreover, taking even the slightest differentiations in defining vulnerability seriously. According to Stark, these differences do not present a problem for governance, as they simply represent reality. Once they are taken into consideration, this will enhance the overall system’s resilience.

Apart from theoretical reflections, the conference also provided insights to practical contexts of action. For example, Dr Guru Banavar (Vice President IBM Global Public Sector, New York) reported on the establishment of an urban operation centre in Rio de Janeiro which pursues the aim to increase the resilience of the city and its inhabitants against all kinds of unexpected events (congestions caused by accidents, flooding, etc.). By means of pooling information and competences, the centre strengthens the general ability to respond. The demand for such precautionary measures may also be explained by the fact that the issue of resilience is ever more delegated to the local scale – a tendency highlighted by many of the speakers at the conference. Making reference to

the medieval concentration of power in cities, David Stark characterised this tendency as “medievalisation”.

Prof Christian Berndt (University of Zurich) and Prof Jon Coaffee (University of Birmingham) even aired the notion of an individualisation of resilience. Accordingly, resilient societies are increasingly understood as societies consisting of resilient individuals. Prof Ash Amin (Cambridge University) explained in his keynote that most threats appear as exogenous shocks, while resilience becomes increasingly limited to crisis management. While several speakers referred to particular system properties (such as structural redundancy and well developed infrastructures) as important elements for resilience strategies, they also pointed out that in the future, particularly public stakeholders would be less and less able to make use of these resources in cases of emergency. As a consequence, Professor Dr Gernot Grabher (HCU) stressed that effects of hierarchies and the superordinate territorial entities responsible for concentrating scarce resources in the really needy areas will remain important in the future – despite all tendencies towards decentralising responsibilities. In doing so, he referred to the interplay of hierarchy and decentralised self-responsibility as “heterarchy”.

The conference contributed to a better anchoring of the constructed character of vulnerability and resilience in scholarly debates on (how to deal with) threats and risks. As Heiderose Kilper, director of the IRS and head of the three-year project, concluded: “The social-scientific foundation of these concepts has proven successful for integrating ecological, technological, social, political and very practical perspectives on vulnerability and resilience. We received encouraging feedback from the scientific community and therefore can look back with pride upon our research and the conference.”

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Physically and vocally demanding – competition for roles in the musical production “Dirty Dancing”, Stage Entertainment.

The Labour Market for Musical Actors as a Creative Laboratory for New Working Environments

A physically and mentally challenging activity, one with considerable uncertainty as regards health, income, financial security in old-age and social ties. Actors use various strategies to respond to these challenges. They have the option to adapt to the requirements of their working environment in an effective way, but they might also create alternative employment options to protect themselves against perceived uncertainties.

It appears to be only a subtle difference between whether one adapts to a competitive labour market or whether one strengthens his or her own adaptability. In fact, however, clearly distinguishable action patterns lie behind this apparently semantic differentiation. “Younger actors in particular try to assert themselves in their new working environment by means of adapting themselves”, explains Dr Suntje Schmidt, who has conducted 23 in-depth interviews in this sector. Adaption implies that they almost

exclusively react to advertised job offers and, moreover, especially focus on being well-prepared for upcoming auditions. Accordingly, they subordinate many of their interests to the needs of their profession. They spend a lot of time establishing networks with colleagues, producers and directors, and frequently willing to relocate in order to be able to perform their engagements. The prevailing view is that those who are not ready to make these sacrifices are ultimately bound to fail. “Due to these patterns of action, especially

young actors tend to build up a ‘telescopic identity’”, says Schmidt: they have a very clear notion of an ideal-typical career as a musical actor.

In her interviews, Schmidt was, however, also able to identify actors who pursue an alternative strategy. Instead of concentrating all activities on the next audition for a musical production, they have decided to diversify both their private and working life as broadly as possible so as to cushion the blows caused by frequent rejections. “We refer to this

as ‘prismatic identity’. Actors take turns marketing themselves as singers, dancers, actors and choreographers. They might also explore new fields of employment (like teaching or consulting) both within and outside their sector.” Instead of restricting themselves to reacting to existing demands, this kind of flexibility helps to yield new demands. This, in turn, helps to mitigate the pressure to network and renders private networks more important compared to professional ones. In this way, breaks between two engagements can be used meaningfully for advanced training or for developing a second career. Moreover, these prismatic identities allow them to accept temporary positions in other cities without changing a settled domicile. This kind of flexibility proves an actor’s true capability to adapt in that his or her strategy is not tied solely

to the demands of the labour market for musical actors. Instead, they have learned to develop adaptability in a number of areas. Notably, this might also comprise an exit-strategy for situations where it becomes impossible to continue the present career.

Schmidt found out that experienced actors are more often likely to develop such action patterns than younger colleagues. Thus, we can conclude that over time, people professionally involved in acting often learn to change their way of dealing with uncertainties of the labour market by gradually replacing adaptation with adaptability. Nonetheless, depending on the career stage, it must be stressed that both of these tactics have their place as appropriate solutions to such a demanding employment market.

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My Resilience is your Vulnerability - From Constructions of Vulnerability to Resilience Conflict

Studies on perceptions of vulnerability and strategies of resilience sometimes reveal paradoxical situations. This is the experience Frank Sondershaus has made during his studies on conflicts in the field of water resource management. “The seemingly simple concept according to which apt measures can help to turn a vulnerable system into a resilient one does in fact ignore that both vulnerability and resilience are results of social constructions rather than objective and absolute properties”, says Sondershaus. Instead, constructions of vulnerability and resilience are mutually dependent and may contribute to certain conflicts.

In his doctoral project, Sondershaus examines a water use conflict on a watercourse in Brandenburg, which has periodically dried out at its lower reaches for centuries. At the heart of this conflict we find two municipalities (one located at the upper and one at the lower reaches) and a weir which discharges water from the municipality located in the upper reaches so as to use it for environmental protection, fishing and local recreation. In the past, this weir was sometimes been regulated in unauthorised ways and manipulated by force. This, in turn, eventually led to a public dispute between the mayors involved.

“From a social science perspective, the conflict is more than just the result of a zero sum game in a context of scarce resources. It is also the result of diverging constructions of vulnerability and resilience strategies”, says Sondershaus. He points out that such a perspective helps to reveal the fact that the strategies of action adopted by water users are not geared towards adapting specific types of water use to temporary droughts. Instead, these practices are mainly aimed at ensuring one’s own water supply during dry periods. Moreover, Sondershaus found that vulnerability constructions of downstream riparians are linked to

the resilience strategies of upstream riparians – and vice versa. People in downstream riparians consider the regulation of the weir at the upper reaches as both unfair and integral to their vulnerability. For these reasons, the resilience strategies of downstream riparians are targeted at regulating the weir and modifying the corresponding standards to their own benefit. In turn, this modification of the weir to the advantage of the municipality located at the lower reaches is seen as unjust by those living at the upper reaches and makes them feel more vulnerable to the resilience strategies pursued by those living downstream.



Low water in a small stream in Brandenburg

“From a social science perspective, the conflict is more than just the result of a zero sum game in a context of scarce resources. It is also the result of diverging constructions of vulnerability and resilience strategies”

This example case demonstrates both the normative and limited nature of the concepts of vulnerability and resilience in practical life. Resilience strategies are not “good” per se – they may also conflict with each other and induce vulnerabilities for third parties. In the present case, social constructedness is strongly shaped by spatial aspects. Both upstream and downstream riparians are dominated by perspectives which remain limited to the particular municipal-

ity and deliberately ignore essential hydrological, ecological and social interdependencies. Besides, the area’s administrative division into several districts inhibits the development of an overarching, socio-ecological perspective for action that helps to better integrate the river basin. Such an approach would, however, be of crucial relevance to the effective management of water as a natural and public good.

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"Self-determination instead of putting on a participation-show" – a banner at an IBA discussion meeting in Hamburg-Wilhelmsburg reveals the subtleties of local vulnerability.

The Weakness of Strong Identity?

On the Ambivalent Character of Resilience in Neighbourhood Development

To date, the history of Hamburg-Wilhelmsburg has been characterised by the interplay of negative economic, social, ecological and cultural development trends. Over a long period, urban quarters have evolved between harbour, industrial plants and large thoroughfares, and inhabitants are constantly struggling with marginalisation and stigmatisation and feel exposed to domination by outside forces. Among the local population, these circumstances have led to pronounced perceptions of vulnerability – with problematic effects as to the resilience-building measures of external actors.

The problems in Wilhelmsburg have been reinforced over the course of generations, especially with regard to social stability. A high percentage of recipients of social security payments, challenges related to social diversity and intercultural cohabitation, but also the decay of consumption and leisure infrastructures have all shaped this quarter throughout recent decades. "These trends have had grave consequences for the image of the entire district and its inhabitants' identity", says Tobias Schmidt, who has researched Hamburg-Wilhelmsburg for four years now. "Moreover, discourses in both

the media and the general public are characterised by negative images of this district. The often positive voices from the local public mostly go undetected in the light of this prevailing negative image. This urban space is therefore exposed to stigmatisation and such 'communication-based exclusion' helps aggravate already existing problems even further. Many of the residents engaged in civil society regard themselves as marginalised in social and political terms, as they are believed incapable of acting and living in a self-determined way." Against such perceptions related to their own vulnerabil-

ity, these actors have, however, come to take on a self-confident and critical attitude towards processes of neighbourhood development. Time and again, they have demonstrated successful empowerment against marginalisation and stigmatisation.

It was the strong protests of many residents around the millennium that helped to lend new urgency to local problems and place them on Hamburg's urban development policy agenda. Ever since, there have been collaborative efforts to build up resilience against perceived vulnerabilities. In 2006, these developments

resulted in an International Building Exhibition (IBA). Apart from concentrating on urban development measures to boost the district's attractiveness on the real estate market, the IBA also focused on improving the image of the quarters as well as on developing solutions for social problems. While at first there was a broad consensus among civil society stakeholders and the IBA as regards the perception of the addressed problems, the ideas on adequate measures to promote resilience formation have increasingly drifted apart ever since. After 2008, a certain division could be detected, and in 2010 some cooperative ventures between local initiatives and the IBA even broke down. "From the perspective of numerous committed residents, many IBA measures simply represent a continuation of the long-known top-down planning policies, which many local actors deem a part of the problem. Once again, the locally engaged residents feel cut off from the development of innovation measures for their own district. They once more feel that external forces determine the development of their urban space", says Schmidt. "The point is, however, that these experiences of exclusion have a long history there. They constitute a core element of local perceptions of vulnerability – and as such represent part of the problem. They are integral reference points in social knowledge in these

districts and as such are etched into the local self-image. Sometimes, this self-image is, however, also stylised into some kind of victim role – especially when it comes to mobilising allies against undesired outside interferences." As Schmidt continues to explain, it was the counter-reactions to 'top-down planning measures' that eventually yielded empowerment processes, which in Hamburg-Wilhelmsburg can be understood as a social resilience structure. At the same time, however, resilience in the shape of strong local identities always tends to create certain path dependencies in exactly those fields for which an innovative actor (as, for instance, the IBA) seeks to develop new development paths for a certain district.

For urban quarters, it is impossible to answer the question of whether a measure eventually results in the promotion of resilience, a reinforcement of vulnerabilities (or even a generation of entirely new forms of resilience and vulnerability) without first taking into account the key points of reference in local knowledge. As shown by the example of Wilhelmsburg, it is essential for neighbourhood development initiatives to be mindful of locally specific perceptions and to understand discourses as well as socio-spatial identities within their particular contexts.

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Sangerhausen: Bergmann housing estate

Stigmatisation of Towns and Cities

“Poorhouse”, “bankrupt city”, “dying city” – many cities struggling with shrinking processes face substantial problems related to their structural economic weakness, demography (negative migration balance), ageing, municipal fiscal crisis, as well as negative coverage in the national media. These forms of stigmatisation have considerable effects on stakeholders as well as their perceptions of vulnerability, and contribute to accelerating this downward spiral.

“Pessimistic and negative images are likely to exacerbate existing peripheralisation processes – and particularly so if they contribute to deterring investors, visitors, or immigrants”, Dr Manfred Kühn sums up his experiences of studying German medium-sized towns. “Ever since the publication of Erwin Goffman’s groundbreaking works, we have come to speak of stigmatisation whenever the communicative ascription of negative characteristics leads to social exclusion and marginalisation.” Not only is it possible to refer to particular disadvantaged districts as ‘ghettoes’, this term may also be applied to entire towns and cities. For instance, Sangerhausen in Saxony-Anhalt has a proud history as a mining city within the Mansfeld region.

Since the 1990s it has, however, been plunged into a structural crisis due to the decline of the mining industry. As a result, this town at times ranked at the very top of the federal unemployment statistics. Throughout the

“Against this background, we found ourselves facing the question of how such kinds of stigmatisation are likely to affect a town’s identity, and how the people affected will deal with it”, Kühn explains. On that note,

„[...] we have come to speak of stigmatisation whenever the communicative ascription of negative characteristics leads to social exclusion and marginalisation”

last decade, magazines and television reports periodically stigmatised Sangerhausen by referring to it as the “capital of the unemployed”. Hand in hand with this went journalists’ statements on public despair, dreariness and overall urban decline.

stigmatisation can be regarded as an attack on local identity (defined here as the collective interpretation of a place’s history) and as such particularly offends political and public administration actors and other active stakeholders. The empirical

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case studies the department “Urban Regeneration” has conducted on middle-sized towns in peripheralised regions have helped to reveal that local identities are vulnerable in a threefold way. First, to attack on cognitive self-perceptions; second, in terms of wounded pride or self-esteem; and third, as regards weakened capacity to act due to a fractured relationship to one’s own town (“love-hate”).

As the effects of stigmatisation demonstrate, towns and cities are not only vulnerable to physical disasters like earthquakes, floods, or terror attacks. Instead, their vulnerability

extends to wholly immaterial aspects such as social constructions in societal discourses. Historically, the concept of “stigma” originally referred to physical wounds or burns. It is for exactly this reason that the idea of stigmatisation appears to be apt for shifting the debate on vulnerability to socially constructed processes. In today’s world, towns and cities facing structural crisis turn out to be particularly vulnerable as soon as peripheralisation occurs in people’s minds. This usually happens as soon as a place becomes renowned for a certain negative feature, which is then (over-) generalised by the media.

New Bridging Project Key Figures as Driving Forces in Spatial Development



The completion of the project “Vulnerability and Resilience: A Socio-Spatial Perspective” (the featured topic of this issue) also marks the beginning of a new three year IRS bridging project. The choice of subject springs from an experience shared by all departments at the IRS, despite the differences in research contexts: particular individual actors are often regarded as major driving forces in spatial development processes. Departing from well-trodden paths, they try out new problem-solving approaches to societal problems or provide decisive incentives for institutional change.

Key figures may come in different guises: it might be an entrepreneur who breaks new ground with an innovative business idea, networks actively with other companies and thus succeeds in breathing new life into an entire region. It may also be a mayor who develops and implements a vision for his or her municipality located in a rural area. Another example is a spatial pioneer who follows his or her own concept of living in a village or urban quarter and thereby – virtually as a by-product – makes a substantial contribution to shaping the development of their surroundings.

Researchers in the field of economics and social sciences have long

been aware of the existence of individuals that are able to exert a special influence on social processes. At the same time, however, it has been particularly hard for social scientists to integrate such an individual (i.e. extra-social) component into their models. While current research has time and again detected such key figures in urban and regional development, these characters hitherto remain insufficiently researched and understood in terms of their social functions as well as the opportunities and restrictions on their ability to act. “This is exactly where the new project comes in”, says Dr Gabriela Christmann, who heads the project together with IRS director Prof Dr Heiderose Kilper. “Thus far, empirical research has shown only marginal interest in the ways these stakeholders affect spatial development processes.”

Until the end of 2015, and by means of case studies in the fields ‘innovative companies’, ‘urban restructuring East’ (Stadtumbau Ost), and ‘spatial pioneers in neighbourhood development’, IRS researchers will examine the origins and spatial attachments of key actors, their societal attributes and challenges they encounter, as well as their options and strategies for action.

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“It is important to give a face to GDR planning and building”

In the framework of the DigiPortA project (Digitalisation and Analysis of Portrait Holdings), nine different institutions of the Leibniz Association are currently busy digitalising portraits of scholars, technicians, planners, pedagogues and architects. The IRS participates actively with 4,000 photographs covering the entire spectrum of GDR building and planning. Starting from portraits, the emerging database provides huge potential for biographical-

as well as spatial identities and cultures. Moreover, the project contributes to a better understanding of the GDR's building history as a specific system and the overall context. Gaining a better understanding of socio-spatial development processes constitutes a key part of the IRS agenda. By means of archival research, it is now further complemented by a historical perspective. Obviously, there are other IRS research projects characterised by



Examples of portraits of key actors in GDR building and planning displayed in the project: Gerhard Kosel (1909-2003), often described as the “system-builder” of GDR industrial building, Landscape architect Reinhold Lingner (1902-1968), here shown as the director of the East Berlin Central Office for Green Area Planning; and, finally, the architect Richard Paulick (1903-1979)

and network-oriented research. Here is an interview with project manager Dr Harald Engler (IRS Department for Historical Research).

Mr Engler, how does the digitalisation of GDR architects' portraits fit together with the IRS agenda of social-scientific spatial research?

I can see three main connections here. Every space is characterised by historical events and processes. These processes determine regional cultural spaces, whose structural shape, in turn, has been influenced considerably by architects and planners. This is particularly true for the “New Länder” with their GDR history. Due to the more marked disruptions in the past, the historical imprint is still very present and tangible there. For this reason, historical approaches have very much to say about present structures

a duality of actor-related and structural explanatory approaches. The DigiPortA project is also meant to depict exactly this duality.

Why do you think portraits are such an important focal point for this kind of database?

In the first instance, such an approach indicates that biographical research has regained importance in historical scholarship. The GDR once systematically stripped planners of their relevance and then, after reunification in 1990, a lack of interest further exacerbated this trend. Against this background, it is our aim to help planners regain some of their lost relevance. The GDR's planning collectives allowed hardly any room for, and showed little appreciation of, individual planning achievements. This is why it is also important to show the faces of

these architects. It is, however, even more important for us to highlight the relevant archives and to make them available. In doing so, we can help to reveal the potential benefits for researchers.

What kinds of information will we find next to the pictures in the database and where does this information come from?

Generally, we provide the applications for admission to the GDR's Association of Architects. These documents are amongst the most frequently requested collections of the archive, especially since a large share of this information is not available anywhere else. Apart from this, we also scan photographs from both lifetime and posthumous bequests, or group pictures taken on special occasions. Each portrait is then linked to basic personal data, district residence, institutional affiliation, professional specialisation, fields of activity, employers, as well as important works and other objects. We also portray prominent persons in more detail, as the need for information is certainly more pronounced in their case. All others are recorded with basic data. This is, however, a great step forward – previously, it was virtually impossible to get any information about them.

Where exactly do you see the scholarly potential of a database on GDR planning and building?

The potential lies mainly in the interplay of biographical- and network-related information contained in a database. Apart from the option to explore biographies of single persons, it also becomes possible to gather information on their careers and joint projects with other colleagues. In this way, it is also possible to gain an insight into the functioning of the GDR system of planning and building. For example, applications for admission to the Asso-

ciation of Architects had to be proposed by two mentors and, as a consequence, we can always tell who recommended who. We make use of this resource in our everyday work – for instance for preparing a presentation on the role of women in planning within the Brandenburg region. For the future, however, we have also set our sights on getting research projects off the ground that depend and focus on the information provided by the database. More concretely, the question about network connections in space will arise, particularly since the database offers excellent potential in this respect. It is also possible to identify typical collective biographies. This is definitely something achieved much better with the aid of mass analysis than individual applications in paper form. Generational developments and interplay are certainly another exciting topic. After completing the database, we will conduct two workshops to evaluate the project. One of these workshops will be designed explicitly to further substantiate and shed light on the research perspectives.

Are there any plans to interlink the database of the previous project, Digi-PEER?

Yes. Where appropriate and feasible we are, however, also planning to integrate a couple of further electronic archives of the IRS, such as the documents on GDR competitions in architecture and planning. Moreover, we will also feed the database into larger biography-portals such as the Munich-based Bavarian Academy of Science's "Neue Deutsche Biographie". We hope that this will provide our work with many benefits in terms of the synergies likely to emerge.

Will the database be made available to the general public?

In principle, yes. The protection of personal rights – particularly of planners

and architects still alive – does, however, necessitate restrictions here. For a start, we will only allow free access to basic and non-critical data. When it comes to important personalities of contemporary history, we will, however, render significantly more information publicly accessible. In any case, access to the basic data will allow external users to realise that the IRS provides information on a particular person. On this basis, they will then have the opportunity to get in touch directly.

What meaning does this project have for the IRS collections?

First, the database provides us with internal research opportunities. Owing to the online publication of contents, it also becomes possible for external users to search and retrieve information quickly and easily. Filters allow users to search across the database so as to identify connections (like regional linkages or overviews of certain professions). For planning historians like us, the opportunity to create links between persons, institutions and works opens up a huge reservoir of research. From the perspective of the archive, the conservational aspect certainly plays a role – some of the applications for the GDR Architect Association (BdA) are only preserved on brittle paper. The creation of a database can thus make a useful contribution to preserving the cultural assets of a certain historical period. Once these documents are electronically available, physical contact with the original source is no longer necessary to obtain the desired information. Moreover, we also hope an increased external demand for these sources will create further stimuli for research.

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Project Completion
Guidance for Spatial Planning
Measures in German Coastal
Towns and Municipalities



After a three-year duration, the project “Societal Handling of Climate Risks” was completed at the end of 2012. It was conducted at the IRS and based at the Potsdam Research and Technology Association for Natural Hazards, Climate Change and Sustainability (PROGRESS). Funded by the BMBF as part of the programme “Top-Level Research and Innovation in the New ‘Länder’”, IRS researchers explored the ways the inhabitants of coastal cities located at the German North Sea or Baltic Sea Coast perceive climate change: what kind of local threats and opportunities do these inhabitants discern (perceptions of vulnerability) and in what ways are they planning to equip themselves for potential threats (constructions of resilience)? As regards the issue of resilience formation, the aim was to identify the institutional forms that help us coordinate the challenging climate-related tasks among various actors. Another objective was to identify the most important pending spatial planning measures.

On 26 October 2012, the IRS conducted the workshop “Coordinating Climate Change” as a final event together with project partners from the University of Potsdam. The purpose of this event was to present results and to discuss recommendations related to the coordination of action and local communication on climate issues together with political, public administration and business actors. Apart from the University of Potsdam’s chair for political sciences, administration and organisation (Prof Dr Werner Jann), the Climate Platform Bran-

denburg-Berlin and the IHK Potsdam were also involved as joint organisers.

In the meantime, the IRS research group also submitted its guidelines for spatial planning. Our knowledge about climate change and its potential effects on the spatial development of German coastal cities and towns is characterised by a high degree of uncertainty and variegated options for action. For these reasons, the IRS used a Delphi-survey to organise an exchange of information among German experts on climate change and spatial development so as to examine to what extent consensus exists on certain kinds of measures. For this purpose, the IRS invited 2,000 German experts from academia, administration, politics, civil society, and business to take part in a written survey on climate change-related questions and management options. Based on expert views on both the North Sea and Baltic Sea regions, the scholars distilled recommendations for action with regard to current planning and coordination processes.

The core results of the Delphi-study can be summarised as follows:

Potential challenges: “new” problems will be just the same as the old ones.

According to the experts, the “new” problems for German coastal municipalities in the 21st century will hardly differ from the already well-known ones – namely floods and storm events, whereas while climate warming is mostly considered a minor problem.

Coastal flooding: no experiments in coastal flood protection.

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While the majority does not expect any serious problems with coastal flooding until 2025, there is more concern about the likely situation at the end of the century. At the moment, only traditional coastal protection measures are met with broad acceptance. “Soft” coastal protection measures (e.g. by creating new retention areas) are not really seen as necessary before 2025.

Inland flooding: creating more space while avoiding “living with water”.

For almost half of all interviewed persons, heavy rainfall events are likely to constitute a problem for coastal cities and municipalities already before 2025. Accordingly, inland waters should be given more space without, however, infringing upon settlement areas. In contrast, the expansion of dikes and inland protection facilities are not seen as appropriate.

Storms: higher intensities in the North Sea and Baltic Sea regions expected in the long term, while measures along the North Sea coast should be given priority until 2025.

There is widespread consensus that higher intensities of storm events will lead to massive problems in German coastal regions until the end of the century. On the whole, the need to adapt to storms is expected to be more

pronounced for the North Sea coast than for the Baltic Sea coast.

Warming and drought: “No-Regret” measures are seen as sufficient until 2025.

Hot and arid periods are barely seen as a problem for German coastal cities and municipalities. There is a small majority in favour of “No-Regret” measures, i.e. measures that also serve other intended goals like energy efficiency or flood protection.

Climate protection: necessary, therefore improve strategies for local practicability.

Climate protection measures are meant to forestall long-term climate changes. As a possible pre-2025 course of action, they are met with broad acceptance among experts. The interviewed persons ascribe high priority to many of these measures. At the same time, they often highlight the problems connected with their practicability. For cities and municipalities, there is often a lack of clear concepts for putting these strategies into practice.

With this project, the research department “Dynamics of Communication, Knowledge and Spatial Development” also made a considerable contribution to the IRS bridging project “Vulnerability and Resilience: A Socio-Spatial Perspective”.

Macro-Regionalisation in the European Union

Macro-regionalisation has become increasingly apparent. As early as 2009, the EU adopted its Baltic Sea Region Strategy, which was then followed by the EU Strategy for the Danube Region. Further strategies are currently in preparation. For instance, the European Council charged the Commission with drafting a EU-Strategy for the Adriatic and the Ionian Sea by the end of 2014. Strategies for the Alpine Region and the North Sea Region are expected to follow.

The issue of the EU's macro-regionalisation has also gained importance at the national level. This is, for instance, shown by the first international annual forum for the Danube Region Strategy, which was held in Regensburg at the end of November 2012. Apart from senior international and EU representatives such as the EU commissioner for regional policy Johannes Hahn, also national representatives like Bavaria's Minister-President Horst Seehofer and German Federal Chancellor Angela Merkel attended the forum. Macro-regional strategies are closely connected to the lead initiative EUROPE 2020 aimed at intelligent, sustainable and integrative growth. Beyond that, the Treaty of Lisbon complemented the goals of social and economic cohesion anchored in the European Treaties by adding a territorial dimension. In terms of content, the macro-regional strategies point to an intensified cooperation in the fields of environmental protection

as well as economic and infrastructure development.

The emergence of macro-regional strategies is due to several factors. First, all the macro-regions chosen so far represent transnational ecosystems (Baltic Sea, Danube and Alpine Region), i.e. (macro)regional community assets, whose protection requires collective action. Second, the current dynamic can be understood as a result of necessary cooperation between established member states, new member states and non-members (such as Russia in the case of the Baltic Sea Region). Third, the economic integration of macro-regions plays a decisive role. Already today, the two German Länder participating in the Danube Strategy – Bavaria and Baden-Wuerttemberg – have established close economic ties with the countries located along the Danube's upper reaches. Fourth, macro-regions are characterised by shared historical and cultural roots, such as the Hanseatic tradition in the Baltic Sea Region. Finally, the increasing transnationalisation of cities (e.g. in the Union of the Baltic Cities) and the activities of civil society organisations (such as the Danube Civil Society Forum) further contribute to promoting the formation of macro-regions.

Thus far, the macro-regionalisation of the EU has not contributed to creating new institutions, EU-law, or new financing instruments. The implementation of these strategies does, however, have direct impacts on existing framework conditions. Synergies may emerge from the institutional interplay of new strategies with existing institutions such as the Baltic Marine Environment Protection Commission ("Helsinki Commission"). Macro-regional strategies may also help to better implement existing EU law (e.g. the Marine Strategy Directive). Finally, the fact that projects will have to be adapted to macro-regional strategies in the future will also help to modify the EU's structural policies.

Apart from the impacts within the macro-regions themselves, EU macro-regionalisation will also help to initiate changes in Brussels, since the affec-

from left to right: Johannes Jung, Attila Agh, Igor Studennikov, Gabor Schneider, Doris Orgonas, Stefan Gänzle, Katja Vonhoff, Stefan Barth, Kristine Kern, Dieter Kies



ted Directorates-General will have to cooperate more closely. On the national scale, macro-regional strategies are conducive to the formation and reinforcement of independent foreign policies (para-diplomacy), especially in cases of well-financed and economically strong states like Bavaria or Baden-Wuerttemberg. This will, in turn, have further effects on the relationship between the federal level and the "Länder". In summary, it can thus be said that macro-regional strategies have the potential to bring lasting change to the existing architecture of the EU multilevel system.

Irrespective of their increasing importance, macro-regional strategies have remained largely under-researched. Prof Dr Kristine Kern, Research Department "Institutional Change and Regional Public Goods", has now taken initial steps to address this gap. Most particularly, she par-

ticipated in the first annual forum on the strategy for the Danube region in November 2012, the drafting of a position paper for the state ministry of Baden-Wuerttemberg and the organisation of a first international workshop on comparing already existing macro-regional strategies with macro-regional strategies in preparation. This workshop took place on 13-14 December 2012 in Kristiansand, Norway and was jointly organised with associate professor Stefan Gänzle (University of Adger). A second international workshop will follow in June 2013.

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