

URBAN FUTURE-MAKING: SITUATING AGENCY WITHIN THE BUILT ENVIRONMENT

International conference

Book of Abstracts

Stream 1: Drivers in Urban Future-Making

Panel I: Controlling Space, Mastering Time, Driving Change - PART I

Monday: 11.15 - 12.45, Session I, Moderation: Louis Volont

The Actual Existing City of the Future: How Urban Visions of the Future Serve Political and Economic Interests Using the Example of The Line

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Keywords: capital circulation; economic interests; future cities; neoliberalism; the line; urban planning; urban visions

This paper examines the importance of urban development in addressing the challenges of the 21st century and is seen as a plea for a more realistic vision of the cities of the future. The concept of the city of the future is approached not as a theoretical construct but as a foundation for actionable planning. The article attempts to analyse the extent to which neoliberal interests influence the image of the city of the future and what role these visions play in shaping urban projects. Using The Line as a case study, the work analyses how urban future visions are strategically employed to advance political and economic interests. The Line is presented as a self-sufficient, sustainable, and technologically advanced city, aiming to create a smart community. However, this article tries to analyse what interests were pursued in the planning and to what extent the dimensions of the project shape the quality of life inside and outside of it. To contextualise these developments, the theoretical framework of David Harvey's capital circulation model is applied. Harvey explains how over-accumulation leads to investments in the built environment and technology, which can be observed in Saudi Arabia's efforts to diversify its economy through projects like The Line. These investments serve as symbols of modernity and innovation but often obscure underlying social and ecological issues. The analysis reveals that despite promises of sustainability and technological advancement, projects like The Line seem to exacerbate existing inequalities and exclude marginalised communities by creating a specific image of urban society. The construction preparation of The Line has already led to significant human rights violations, highlighting how such projects can serve as tools for social control under the guise of progress. In this paper an inclusive and participatory approach to urban planning is advocated. It argues that sustainable urban development must go beyond economic profitability to prioritise the needs and rights of all residents. Cities must be understood not only as economic hubs but as living spaces defined by human and ecological interactions. Finally, this work pleads for a more realistic reimagining of urban future visions that prioritises social equity, ecological sustainability, and the wellbeing of all inhabitants over economic growth and technological prestige. Cities must be understood as dynamic ecosystems shaped by human and non-human interactions, requiring participatory and inclusive planning processes to ensure that the needs of all residents are addressed. While technological innovations can support sustainable development, they should not overshadow deeper structural challenges. Future urban visions should focus on creating spaces that foster social connection, cultural vitality, and environmental harmony, moving beyond economic and technological metrics to enhance the quality of urban life. In addition, a strong focus on social justice and environmental balance can create long-term economic value by promoting a livable environment, supporting public health, and enhancing productivity and efficiency. Only through a holistic and integrative approach can cities become spaces that can meet the challenges of the 21st century.

Performing Real Estate Value: Elbtower and the Politics of Future

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Institution: RWTH Aachen University, Germany

Keywords: iconic architecture; imagined futures; performativity; real estate value

This paper investigates the development of the Elbtower in Hamburg through the lens of economic value theory and argues that real estate value is socially constructed through the active management of stakeholders' "imagined futures" (Beckert, 2016). From its inception as part of the 1997 architectural vision for HafenCity to the construction halt following the 2023 insolvency of the Signa Group, the Elbtower project illustrates the interplay among stakeholder expectations, economic valuation, and architectural design. Over nearly three decades, the imagined futures associated with the project have transformed, altering expectations about its economic value. Applying the method of dramaturgical analysis, this paper argues that real estate value is not an inherent quality derived from the material attributes of an object but is instead "performed" (Callon, 1998) by stakeholders through the active management of expectations about the future. In this process, the iconic qualities of high-profile architecture are particularly significant as they enable developers to transcend standard real estate

valuation practices. By elevating developments such as the Elbtower to the status of unique objects - or even works of art - developers can bypass standard appraisal methods, which rely on market comparisons, and claim a monopoly on what Arantes (2019) describes as the “rent of form.” As one of the most expensive office buildings in Germany, the Elbtower serves as a paradigmatic example of how one-of-a-kind architectural forms - symbolizing the promise of a unique future - influence stakeholders' expectations and, consequently, the performance of economic value. By discussing the current construction halt as a “performative breakdown” (Butler, 2010), this paper explores the role of material and temporal inertia of the built environment and the development process in imposing significant constraints on the performativity of imagined futures in the present. This paper highlights the crucial role of architecture in imagining the future and thus contributing to the construction of real estate value.

The Big-Tech Corporation as a Driver and/or Maker of Urban Futures: Amazon.com

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Institution: University of Luxembourg, Esch-sur-Alzette Luxembourg

Keywords: amazon.com; big tech; corporate geography; governance; power

This paper is about the big-tech corporation as a driver and maker of urban futures. My thoughts are inspired by two different types of literature: First, the paper is situated in economic geography and follows Walker (1989), who once proposed a ‘requiem for corporate geography’ as a result of the deconstruction of industrial organization. Today, e-commerce, digitalization and the platform economy have gained momentum and thus drawn our attention back to the geography of the (large) firm. Second, big tech has re-cently emerged as a phenomenon that not only accumulates wealth and economic power, but also increasingly engages urban practices and imaginations. In previous work, we have argued that companies such as Alphabet (Google) or Amazon can also be understood as modern power brokers of urban development (Carr and Hesse, 2020). The case I propose to discuss here is Amazon.com, whose mission is the digital and logistical transformation of the city. Its corporate attitudes and practices affect system-wide scales of development and have enormous structural and geographical implications, also for cities. At the forefront of technological innovation and mere presence as an ‘everything store’ & service, there is little doubt about the company’s role as a future maker. The focus of this talk will be its variegated temporalities: The past: Garnished with the myth of “Day 1” (referred to in the very first letter to shareholders that accompanies all subsequent editions) and the commitment to become the world’s most customer-focused company, the company started with selling books. It soon began a unique journey of entrepreneurship, diversification and the perfect marriage of digital and analogue. The future: Data and material flows, AI-driven, comprehensive demand forecasting and stimulation, labour control and replacement. In contrast, present corporate operations are more mundane, politically questionable. The techno-capitalist machine subordinates the city to the interests of the corporation: by shaping centralities and peripheries, exploiting labour, avoiding taxes, seeking monopolies that allow the company to become the market rather than just dominating it. It is an open question whether alternative futures are possible here at all, and what they might look like. Two conclusions can be drawn: First, we can discuss whether this is a case of a driver, a maker or an overarching supra-structure in urban future-making, and who, if not the company alone, actually controls its complexity, sheer power and externalities. Second, the totality in which Amazon.com appears and the company’s reluctance to share relevant information with third parties make this case unusually difficult, if not impossible, to study.

Advancing Long-Term Transformative Agendas in Disruptive Times

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Keywords: adaptability; adaptation; disruption; future expectations; transformation

A key challenge in urban future-making is to organize transformative processes. ‘Transformation’ here denotes a long-term agenda encompassing ‘adaptive actions that have the reach to shift existing systems (and their component structures, institutions and actor positions) onto alternative development pathways, ... before the limits of existing adaptation choices are met’ (Pelling et al., 2015: 114). While it is little disputed that transformative policies that radically change existing systems and development trajectories are necessary, some challenges are underestimated. In particular, the idea of adaptation rests upon the assumption that social actors have accurate expectations about the future at the point in time when they make decisions about transformative projects in the present. This assumption, however, has become more and more problematic in the light of recent social scientific literature on the ‘fictional’ (Beckert, 2016) character of future expectations and increasing empirical observations that suggest we are witnessing ‘disruptive’ (Ibert et al., 2022) times characterized by uncertainty, surprise and urgency. In the presentation, a heuristic of disruption is unfolded highlighting features such as (perceived) accelerated change, radical uncertainty, surprise, emotionality, or public attention, in order to re-interpret transformative agendas in the light of disruptive change. The presentation will explore promising avenues towards approaches of future-making in which one of the existing certainties about the future is that more disruption will

most likely take place. When planners 'expect the unexpected', in other words, transformative policies can no longer be based on adaptation alone, but need to incorporate the idea of adaptability as well. The presentation seeks to make a conceptual contribution but frequently draws on empirical material on transformative policies applied in recent urban development policies. Qualitative data has been collected during a one-day workshop with practitioners representing municipalities with different structural conditions across Germany. This data sheds light onto what kinds of disruptions these practitioners faced and expect to face in the future, the effects of these disruptions on long-term agendas and tentative tactics and strategies that are regarded as promising to face them. It presents among other smart use of digital planning tools, permanent prototyping, discriminating between permanent values and adaptable goals and connecting progressive policies with organizational change as possible paths towards a greater appreciation of adaptability.

Panel II: Controlling Space, Mastering Time, Driving Change - PART II

Monday: 13.45 - 15.15, Session II, Moderation: Hanna Göbel

From Simple to 'Dataist Modernity': Technoscience and the Quest for Control

Author(s): Zehner, Nicolas; Presenter(s): Zehner, Nicolas

Institution: Technical University Berlin, Germany

Keywords: dataist modernity; Edinburgh city region; reflexive modernisation; urban future-making

How have 'scientific tools' of ordering society changed over time? How does the emergence of big data and artificial intelligence – key ingredients for imagining contemporary 'smart' futures in the Edinburgh city region – relate to previous planning regimes such as scientific management and management cybernetics? This paper provides a meta-level analysis of the relationship between technoscience and planning by mobilising two historical examples: Le Corbusier's high modernism from the 1920s and Salvador Allende's cybernetic socialism from the 1970s. Both cases – on the city and the nation level – demonstrate how technoscience is mobilised in the management of complexity, how it is invoked in the attempt to order society. Both cases present utopian visions of how the city and the nation respectively ought to develop and reveal important insights for the use and dissemination of techno-scientific knowledge in contemporary urban-regional development. Building on these two historical reference points, the paper develops the notion of the 'neo-scientisation of urban-regional planning' against the background of what Beck, Giddens, and Lash (1994) call 'reflexive modernisation'. In doing so, it contextualises the emergence of Edinburgh's innovation apparatus with earlier attempts to steer society and situates the empirical findings within a contemporary moment referred to as 'dataist modernity'. The latter denotes a form of modernisation that is rooted in an ontology of knowability and overestimates the power of data in solving complex social problems. Crucially, this mode of scientisation resembles a re-orientation to the past rather than a reflexive engagement with the future. Drawing on 50 expert interviews with policymakers, planning officials and university bureaucrats as well as documentary analysis, I argue that higher education institutions such as the University of Edinburgh become key agents in managing contemporary urban-regional complexity. What used to be the master planner in the early 20th century and the planning state in 1960s and 1970s, are now 'sub-political' organisations such as universities that assume – knowingly or unknowingly – responsibility in shaping smart urban-regional futures. Interrogating science as a major driver in urban future-making, this paper demonstrates how past and present futures intersect and reveals the persistent – rather than changing – nature of technoscience-politics configurations in contemporary urban-regional planning.

A Neoliberal Tale of Urban Housing: Bias, Control, and the Justice of Right-to-Rent in Berlin

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Institution: Free University of Berlin, Institute of Sociology, Germany

Keywords: neoliberalism; rent control; socio-spatial segregation; urban governance

This paper critically examines the temporal dimensions of agency in urban future-making, with a particular focus on Berlin's neoliberal rental housing market. Adopting a sociological framework, it investigates how historical trajectories, contemporary regulatory scopes, and future bargaining powers shape the role of intermediaries – particularly rental brokers, real estate professionals, and agencies – in structuring access to housing. The past is marked by post-reunification socio-democratic reforms that prioritized commodification over inclusivity, reinforcing a free-market ideology that continues to shape Berlin's urban landscape. These policies entrenched path dependencies, particularly through the growing influence of intermediaries in tenant selection processes. By controlling tenancy via strenuous screening, waitlists, and selective filtering, these actors have disproportionately disadvantaged relatively deprived individuals and families, exacerbating segregation and inequitable housing options. The present is presented through interplay of legal-forcible coordinators, economic players, and purchasers (tenants) who are to bear the market-determined prices. Rent-control measures, such as the 'Mietpreisbremse' (2015) and 'Mietendeckel' (2020), were introduced to curb price surges and address hous-

ing affordability. However, continuous interventions have led to unintended consequences, including restrained housing allocations, rising speculative investments, and salient socio-economic disparities. The asymmetric power dynamic between landlords, intermediaries, and prospective tenants has collectively set a high bar for anyone of newcomers, foreigners, and international students. Segregation has deepened through practices like informal 'contract inheritance', which opens only to members within localized social-capital networks. Empirical analyses, employing mixed methods and a difference-in-difference (DiD) approach, reveal significant correlations between rising rental prices, demographic polarization at the street-block level, and intermediary-driven spatial exclusion, underscoring the market's inherent neoliberal gentrification tendencies. The future of Berlin's rental housing market is shaped by competing urban imaginaries, ranging from teleological-utopian aspirations of sustainable urbanism to dystopian concerns over worsening socio-economic stratification. The financialization of housing markets and the influx of global capital have entrenched neoliberal paradigms, further commodifying rental housing and undermining the right-to-rent as a fundamental urban entitlement. As these pressures intensify, the tension between profit-driven market logic and civil autonomy advocacy continues to shape policy debates. This paper contributes to the discourse on agency and capacity in urban future-making through the lens of housing sociology, particularly in relation to housing justice, civil autonomy, and multicultural inclusivity in urban potentials. By discussing Berlin's ongoing case, it calls for integrative policy approaches that transcend temporal constraints, ensuring equitable housing access and fostering a more inclusive urban future.

Planning Futures of the Past: Contradictory Temporalities in Governing Urban Water Scarcity in Germany's Transitioning Coal Mining Regions

Author(s): Nettelbladt, Gala; Presenter(s): Nettelbladt, Gala

Institution: HafenCity University, Hamburg

Keywords: coal; futures; governance; planning; sustainability; temporalities; transition; water

Planning embraces discourses on fast project delivery in the global transition towards a fossil-free and sustainable future, reflecting the discipline's close ties to modernist rationalities and concomitant ideas of planning with foresight and efficiency, envisioning the future as something that lies ahead, not behind. Contrary to this linear temporality, this paper inquires how proposed urban futures are stuck in the past. Dwelling on the ponderous nature of bureaucratic planning systems with regards to the governance of urban water scarcity, it illuminates previously overlooked situations where the pace of climate change overtakes planning's sustainability visions, rendering planned futures obsolete. The paper aims to break new conceptual grounds in debates on urban futures by weaving together emerging urban studies literature on temporalities with sociological approaches to urban water management. This allows for exploring the making of temporalities in the planning for urban water scarcity with special attention to the power relations embedded in this process. Empirically, the paper focuses on the planned Lusatian Lake District in Eastern Germany, which is set to become Europe's largest artificial lake district through the flooding of abandoned coalfields. The region's future after coal is imagined as one of lush lakes, where tourism is hoped to fill the economic gap created by the coal exit, triggering the reconfiguration of urban spaces in adjacent towns, which are developing marinas and harbour districts, hoping to attract tourists and new residents. But today, lakes stay dry, and marinas abandoned. The regional plan upon which these new developments are built dates to 2002, based on environmental projections from the late 1990s. They failed to project the overlapping consequences of mining and global warming-induced water scarcity now starkly characteristic of the region. Water scarcity is thus introducing a whole conundrum of temporal dynamics into the planning of the Lusatian Lake District, stirring up questions about how, when and where the future should be built. Analysing documents and interviews with key actors, I scrutinize what happens when climate change overtakes planning processes in place to mitigate it. Which temporal drivers characterise this process? What are the power relations embedded in the making of these temporalities? My line of argument unfolds across three mutually contradictory temporal dynamics that shape how water scarcity impacts planning: First, 'sticky bureaucracies' holding on to outdated plans, characterised by extremely slow regulation and approval processes. Second, growth-driven forecasts, which entail economically motivated projections of the future that skew decision-making towards economic goals (e.g. in planning for tourism) at environmental costs. Third, the attempts by environmental activists to 're-orchestrate' these powerful temporal dynamics.

The Future of Local Democracy under the Authoritarian Siege of Central Government: A Case of Istanbul's Planning Agency

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Institution: Istanbul Technical University, Urban and Regional Planning, Turkey

Keywords: authoritarianism; Istanbul; local democracy; municipality; neoliberalism; opposition; planning agency; urban politics

In 2019, despite an uneven struggle against a populist and authoritarian central government, the opposition co-

alition won municipal elections in Istanbul, along with other major cities in Eastern Europe, such as Warsaw and Budapest. For those closely following the damage inflicted on urban areas by neoliberal policies over the past quarter-century, the election results brought a wave of optimism. This shift was seen as one of the 'chinks in the armor,' eroding the foundations of authoritarian rule (Lucardi, 2016) and fueling the narrative that democracy could rise from the local level (Gilley, 2016) to achieve collective liberation (Coskun et al., 2024). In Istanbul, the collective desire to safeguard this victory drove a unified movement, consolidating civil society, academia, and urban opposition groups around the Istanbul Metropolitan Municipality's (IMM) administration. After the 2024 elections, in which the opposition again won majorities in municipal councils, pre-existing counter-hegemonic struggles (Ucar, 2024) deepened. However, the narrative of a complete break from the past obscured continuities in neoliberal policies adopted by the new IMM administration. This allowed the municipality to implement controversial spatial and social projects with minimal resistance. This study explores the dynamics that enabled these trajectories, hypothesizing that the practice of 'springboard politics' (Lucardi, 2016) made the city more vulnerable to the influence of capital and paralyzed social control by framing political struggle as a dichotomous conflict between good and evil, in line with a broader post-political context (Mouffe, 2005). It aims to expand on Oktem's (2019) findings that municipalities under authoritarian pressure may need to bend rules, act non-transparently, and resort to informal channels to create projects and social services. To examine the complex negotiations and struggles between local and central governments controlled by different political parties, this study focuses on the Istanbul Planning Agency (IPA) as a case study. Established seven months after the 2019 elections, the department's dual role as both advisor and implementer provides an explanatory framework for understanding the city's contradictions. This approach will clarify the logic behind the Vision 2050 strategic plan, projecting Istanbul's future, and the master plan in development, within their broader economic, political, and social context. It will also highlight key continuities between the IPA and its predecessor, the Istanbul Metropolitan Planning Center (IMP), founded in 2004 by an Erdoğanist mayor, in terms of cadres, perspectives, methods, and agendas. The study employs an interpretative phenomenological approach. Although the fieldwork is not yet completed, it is based on 12 in-depth interviews. Having previously worked at the IPA, I also incorporate my insights through an autoethnographic lens. This is combined with content analysis of policy documents and spatial plans, and discourse analysis of actors at different parts of the political spectrum. By focusing on planning agencies, the study underscores the importance of considering both ruptures and ongoing connections between the past, present, and future.

Panel III: Imaginaries, Narratives, and Visions as Drivers

Monday: 15.45 - 17.15, Session III, Moderation: Katharina Manderscheid

Visions of the Future for Shaping Transformative Infrastructuring

Author(s): Pillen, Jonathan; Deffner, Jutta; Frick-Trzebitzky, Fanny; Nitschke, Luca; Sattlegger, Lukas; Presenter(s): Pillen, Jonathan

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Keywords: future-making capacity; infrastructure development; social-ecological transformation; visioning; spatial planning; science and technology studies; sustainability research; transformative change

Visions of the future shape the ways in which spatial developments and infrastructures are planned, built, maintained and used. As collective ideas of desirable future states, these visions are central to driving social-ecological transformations of and with infrastructures. But how can future visions and visioning processes be used as instruments for transformative 'infra-restructuring' (Kropp 2018)? Here, a field of tension arises between the role of future visions as a framework for action and a shaping instrument on the one hand, and the effectiveness of established social narratives on desirable futures (sociotechnical imaginaries - Jasanoff 2015) on the other. The participatory development of future visions and utopias as a process (visioning) enables the imagining of social-ecological transformations, but can hardly be reconciled with the validity claims of planning instruments for context-specific implementation. Instead, different visions of the future often compete with each other and influence how an explicitly formulated vision is interpreted and used (Libbe et al., 2018; Kropp, 2018; Acksel, 2024). In this context, future-making agency - the capacity of urban actors to shape their futures - plays a crucial role in how future visions are utilized in processes of infrastructuring. On the one hand, these visions may enable agency as collective imaginaries, guiding the actions of urban stakeholders by fostering a shared understanding of possible futures. On the other hand, when future visions are formulated more explicitly to guide planning processes, they can become actively used instruments for shaping infrastructures and policy, allowing for more directed interventions in the present. This tension between collective future-making and the active, goal-oriented use of future visions is central to the discussion of how future visions can be integrated into infrastructure design. By shaping the scope of action available to urban future-makers, future visions can broaden the range of possibilities for action, but it can also limit them by reinforcing existing power dynamics and societal norms. In this sense, the role of future visions in infrastructure processes and their potential to enable as well as constrain

transformative change requires careful consideration. How visions of the future relate to infrastructure planning processes is addressed differently across academic disciplines, such as spatial sciences, science and technology studies (STS), and sustainability research. In order to answer the question of how future visions can be used to shape transformative infrastructuring, it is necessary to first clarify and integrate concepts from these different strands of understandings. This paper aims to provide a structured approach to these issues.

Running Ahead or in Circles? Front-Running Cities and Progressive Urban Imaginaries as Drivers of Urban Futures

Author(s): Counihan, Marian; Lamker, Christian; Presenter(s): Counihan, Marian

Institution: University of Groningen, University College, the Netherlands

Keywords: urban futures; urban imaginaries; front-running cities; urban planning; sustainability futures

As we hear often, the world is increasingly urban; the majority of people live in cities, and we speak of an 'urban age'. Yet our ideas of what constitutes 'the urban', our future imaginaries for it, and our conceptualisations of specific spatial and political agency of cities, vary vastly. Urban imaginaries, while often more implicit in urban theory and the associated self-understanding of urban planners and city makers, form important drivers of urban development, as well as potentially valuable immaterial resources for urban future-making. In this paper, we investigate the urban imaginaries present in front-running cities. We recognise front-running cities as setting ambitious future goals, often exceeding national targets: cities taking the lead in terms of their sustainability goals, governance and democracy. Examples from the Dutch setting are Amsterdam's adoption of the doughnut model, and the recent introduction of emission free zones in several city centres. In the setting of the EU, recent selected examples are the Cities for Sustainability Governance URBACT project, and the new European Capital of Democracy initiative, aimed at fostering climate action and participatory governance respectively. We relate these urban future-making initiatives to two prominent imaginaries in urban studies: the city as polis and the city as urbe. The city as polis is a root site for democracy, active citizenship and the making and claiming of rights. The city as urbe focusses on the function of urban areas as hubs for circulation, sites of economic activity, (imagined) opportunity and capital accumulation. We investigate the entanglement of these two conceptions of the city, and relate this to the growing realisation that cities need to take the externalities of urban development into account. This often comes into view as a result of these ambitious climate goals. Both from a spatial and a relational perspective, cities are not closed, but deeply intertwined with hinterlands, remote areas, the systems necessary for their own existence and reproduction. Are urban future-makers able to take on board this realisation? Where do we see the self-understanding of urban planners expand to do so? Imaginaries like those embodied in 'The Line' in Saudi-Arabia, but also many development projects in Europe, pay little attention to industry and production, do not further engage with externalities, with democracy and governance, and render a political dimension invisible. The question arises whether such models can be called sustainable at all or if they are merely a recent iteration of a growth-addicted world. Thus we ask: can front-running cities indeed get us somewhere closer to a sustainable future? Can urban future-making engage with the city as polis and as urbe, to develop truly sustainable visions of our urban life? What needs to change in the self-understanding of planners and city makers in order to achieve this?

Real Estate Developers as "Developmental Heroes"? Examining the Role of Development Narratives in Shaping Mumbai's Urban Future

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Institution: Erasmus University Rotterdam, Institute for Housing and Urban Development Studies, Netherlands

Keywords: developer narratives; land commodification; Mumbai real estate; urban development; developmental heroism

In a city like Mumbai where project delays due to land acquisition and government approvals are commonplace, it is intriguing that developers and financiers commit to real estate development—an endeavor that not only requires significant upfront investment in land but is also oriented far into the future. Drawing on concepts from economic sociology, I argue that the narratives surrounding developers are pivotal in understanding the actions and decisions of land market actors. While traditional views emphasize 'future imaginaries' or 'fictional expectations' as tools for managing uncertainty (Beckert, 2016; Beckert and Bronk, 2018; MacKenzie, 2008), my findings suggest that immediate concerns—particularly disputes over land titles and the lack of transparency in planning processes—play a more crucial role in shaping decisions in Mumbai's urban development. Success in this environment relies on a shared perception of land as a contested commodity, which developers actively cultivate to create their own market niches. The role of a developer, and more so, the narratives surrounding their heroic entrepreneurialism to deliver development against all odds, is pivotal to Mumbai's urban future making. Participation in Mumbai's urban development, as I demonstrate in this paper, is pinned to the expectation of a developer's ability to commodify land, made determinate through narratives of the 'developmental hero'. Drawing on an exhaustive eighteen-month ethnographic study, combined with discourse analysis of Indian mass media, I find

that the work of developers is perceived as acts of heroism in a context where development would otherwise be impossible (Kamath, 2016; Mendes, 2020). Developers are therefore seen as deliverers of progress—one whose job it is to turn Mumbai into Singapore—achieved through persistence, entrepreneurship, and willingness to get their hands dirty to achieve India's developmental goal (Anand, 2006). Furthermore, I argue that the narrative of the developer as a developmental hero serves three significant functions in shaping Mumbai's urban future: 1. Commodification of Land: this narrative reinforces the idea of land as a tradeable commodity, encouraging market actors to engage in speculation despite its socio-political complexities; 2. Obscuring Inconvenient Realities: heroic portrayals of developers often mask the risks associated with untested development models, including potential ethical concerns such as bribery and coercion; 3. Rationalizing Failures: when projects fail, these narratives allow developers to frame setbacks as necessary sacrifices for the greater good, thus maintaining their heroic status. In conclusion, this paper contributes to the discourse on urban future-making by revealing how the ethos of the developmental hero shapes Mumbai's urban landscape. It highlights that the construction of a developer's heroism extends beyond mere competence and reputation; it involves strategically navigating the uncertainties inherent in Mumbai's urban environment. Such an exploration invites further inquiry into the drivers of urban planning and development in rapidly developing, speculative cities.

Designing 'Hope' as a Collaborative Driving Force from Below for Future-Making in the Global South

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Keywords: designing hope, future, collaboration, emotions

The Global South grapples with urban development challenges shaped by colonial legacies, socioeconomic inequalities, authoritarian interventions, and environmental risks. Amid these complexities, hope emerges as a transformative and collective force, driving grassroots innovation and participatory urban futures. This paper examines hope as an intentional design through deliberative processes and emotional engagement, framing it as a structured and actionable approach to shaping the future. Designing hope involves participatory processes that align present needs with future aspirations, creating a shared vision of possibility. Through inclusive deliberation, hope shifts from an abstract sentiment to a framework for collective action, fostering equitable, sustainable, and culturally relevant urban futures. This approach empowers local agencies, helping communities overcome systemic barriers and reimagine development on their terms. A case study analysis of award-winning projects recognized by the International Observatory in Participatory Democracy (OIPD) over the last 15 years illustrates how hope is deliberately cultivated in urban planning. These projects demonstrate how structured dialogue and collaborative planning enable communities to articulate shared aspirations and translate them into concrete strategies. Participatory forums become spaces where frustrations are acknowledged, optimism is cultivated, and collective resilience is built. Through trust, empathy, and solidarity, communities transform individual anxieties about the future into collective action. The emotional dimension of hope is central to shaping urban futures. By embedding emotional engagement into participatory practices, communities sustain their capacity to imagine and realize inclusive futures. Designing hope redefines the relationship between the present and the future, emphasizing agency and collaboration rather than passive anticipation. Communities actively envision and co-create futures that challenge externally imposed development paradigms, reclaiming autonomy over urban priorities. This paper critiques top-down urban development models that neglect the role of emotion, collaboration, and localized agency in shaping futures. It argues that intentionally designing hope through deliberation and emotional engagement provides a foundation for equitable and sustainable urban futures in the Global South. Ultimately, designing hope as a collaborative driver enables communities to imagine futures that are not only aspirational but also actionable. By integrating participatory and emotional dimensions, hope becomes the medium through which communities shape their collective future, fostering resilience, empowerment, and justice from below.

Algorithmic Urban Future-Making through Housing (Post-)Platforms

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Keywords: platform urbanism, post-platform, disruption, speculation, infrastructure, artificial intelligence

Digital platforms such as Airbnb, Zillow, and co-living applications are driving housing systems by both constantly disrupting existing structures and embedding themselves infrastructurally in all aspects of housing: from assetisation, renting to new forms of co-living. Moreover, the housing platforms speculate on the future of urban housing not only by facilitating financial ventures but also by algorithmically shaping socio-spatial interactions. Meanwhile, emerging post-platforms - decentralized, AI-driven, and blockchain-enabled urban systems - transcend traditional user-driven platform logics, introducing new paradigms in housing agencies through automa-

tion and machine-to-machine (M2M) communication. In this regard, we think that disruptive, infrastructural and speculative are three main roles that (post-)platforms play in driving urban housing. Meanwhile, building on Emirbayer and Mische's (1998) temporal framework of agency, we argue that platform urbanism operates across the temporalities of the past, present, and future. Although platforms inherit and reinforce the path dependencies of capitalist housing systems, they simultaneously disrupt the performativity of 'what has been'. Besides, they structure the 'what is' by embedding infrastructural logics that regulate housing access, surveillance, and trust through algorithmic frictions. Finally, platforms project speculative visions of 'what could be,' often imagining intelligent systems that reconfigure agency among human and non-human actors. Emerging post-platforms intensify these dynamics, introducing new forms of agency that further mediate urban housing futures. This paper examines how digital platforms and post-platforms as agential drivers are reshaping urban housing through the interconnected dynamics of disruption, infrastructure, and speculation. Our preliminary argument is that (post)platform-driven housing presents both challenges and opportunities for urban future-making. While platforms disrupt traditional housing markets, they also create space for alternative imaginaries and practices to emerge. At the same time, post-platform developments demonstrate how AI-driven technologies can enhance decision-making while reinforcing socio-spatial stratifications through surveillance and data extraction. By interrogating the intersections of technology, agency, and space, this paper contributes to critical debates on the role of digital and post-digital platforms in future governance of urban housing.

Panel IV: Local Cultures and Aesthetics as Drivers

Tuesday: 09.00 - 10.30, Session IV, Moderation: Christine Hentschel

A City Frozen In Time? Law, Aesthetics, and Material Transformation In Post-Colonial Urban Future-Making: A Case Study Of Chandigarh, India

Author(s): Khanna, Ruchika; Presenter(s): Khanna, Ruchika

Institution: Jawaharlal Nehru University, Centre for the Study of Law and Governance, New Delhi, India

Keywords: aesthetics; heritage urbanism; judicial urbanism; post-colonial urbanism; urban futurities; urban materiality; urban segmentation

Existing research on megacities in India explores how urban materiality is reshaped to align with the imagined futures of 'global' or 'world-class' cities. However, these overlook cities like Chandigarh, a unique case study where urban future-making is framed by 'looking to the past'. Herein, urban planning prioritises the futures once-envisioned by Mayer, Nowicki, and Le Corbusier, relying on the aggressive preservation of 1950-60's aesthetics and heritage architecture. This paper explores the existing legal frameworks that constrain the urban future-makers' agency and pushes them to operate within this historical aesthetic. This aesthetic regime extends beyond visual appeal (i.e, making everything look 'pretty'), and is intertwined with materiality (tangible, sensible or temporal), where the preservation of Corbusian aesthetic and architecture function as a 'tool of governance' that shape urban planning, space organisation, and urban segmentation. This research employs three complementary methodologies to examine the same: first, a critical historical legal analysis tracing the evolution of urban imaginations in Chandigarh from the 1950-1960's vision of 'city of exchanges', to 1970-90's vision of 'world-class cities', culminating in the late-2000s with calls for a return to the 1950-60's vision, driven by environmental and heritage considerations. This historical lens highlights the ongoing influence of these early aesthetics on the city's urban planning trajectory. Second, a doctrinal and institutional analysis investigates key court cases where the judiciary endorsed a return to the Corbusian vision, particularly through the establishment of the Chandigarh Heritage Conservation Committee (CHCC). Contextualized through historical analyses of urban policies and masterplans, this study examines how early aesthetic ideals shape conservation, construction, and re-densification, while governance structures mediate material transformations through legal and institutional channels. Third, a multi-sited ethnographic approach using a distended case method examines how legal and administrative frameworks - particularly CHCC's graded heritage zoning and the disputed Periphery Control Act - leverage aesthetics to shape urban segmentation. The study briefly explores informal governmentalities and alternative urban imaginaries in these peripheral areas, highlighting how inconsistent classifications and legal ambiguities reinforce marginalisation and exclude these spaces from mainstream urban planning. This study critically explores how the historical urban visions of pioneering architects continue to exert agency over contemporary urban future-making. It examines the interplay between law, aesthetic regimes, and urban planning, illustrating how materiality - encompassing both physical structures like buildings and spaces, and the sensory experiences they evoke - actively influences urban governance strategies. By emphasising how decisions surrounding preservation, repair, and development of these material elements (here, heritage buildings and architectural styles) reflect broader power dynamics, the study reveals the ways in which these processes enable or constrain social order and interaction, shaping urban imaginaries and life in postcolonial contexts.

Steering a Melting Future: Development Paths of Winter Tourism-Dependent Mountain Resorts

Author(s): Goluža, Maruša; Presenter(s): Goluža, Maruša

Institution: ZRC SAZU, Anton Melik Geographical Institute, Ljubljana, Slovenia

Keywords: climate change; collective agency; path development; peripheral regions; regional development; sustainable transition; winter tourism

Climate change poses a significant threat to mountain resorts, which are often small, peripheral towns reliant on winter tourism. The winter tourism industry has become unstable due to changing and inadequate snow conditions, with far-reaching impacts on the social, environmental and economic fabric, such as population decline, erosion of cultural identity, reduced availability of essential services and negative real estate trends. The implementation of tourism diversification strategies sometimes also exacerbates environmental degradation. These challenges are pushing mountain resorts to rethink their future development paths as their dependence on winter tourism becomes unsustainable. However, systemic lock-ins and path dependencies impede the conception and execution of viable alternatives. In this context, scholars, particularly evolutionary economic geographers, have increasingly examined how regions change their development paths and provided a framework for studying these dynamics. While the majority of economic geography research focuses on the economic transformation of industrial or former industrial regions, significant gaps remain in understanding the development paths of smaller, peripheral and non-industrial environments, such as mountain resorts. Relational perspectives, focused on human agency, have also gained prominence in recent years, catalysing research on the role of individual and collective agency in regional development. Addressing the question of how actors are conditioned in their social actions requires a deeper engagement with intangible dimensions. Institutional theories have been developed to recognise the role of informal institutions, such as norms, rules and habits, in shaping economic development. However, these theories have been criticised for their inability to capture the complexity of informal structures, which are often rooted in the historical evolution of towns and cities. A more profound focus on informal structures such as identity, values, and norms is therefore required. It is evident that cultural predispositions significantly influence regional development trajectories. However, economic geographers often avoid addressing cultural and behavioural factors. The integration of cultural, behavioural and institutional factors is therefore essential for the advancement of regional development studies. The present study examines the developmental pathways of mountain resorts, paying particular attention to the cases of small, peripheral towns reliant on winter tourism. This investigation occurs within the broader context of climate change and its increasingly significant threat to traditional winter sports tourism. The study explores how climate change on the one hand and deep-rooted winter tourism traditions on the other, both shape local development choices. The research focuses on two Slovenian resorts, Kranjska Gora and Rogla, which have distinct organisational structures and cultural ties to ski tourism. The study then compares their path development and future planning visions, thus enhances understanding of collective agency, its interaction with regional socio-cultural dynamics, and how cultural practices influence the adaptability in climate-vulnerable areas.

Negotiating the Cramped Space of the Present: Lessons from Belfast, Northern Ireland

Author(s): Gilmore, Robert; Presenter(s): Gilmore, Robert

Institution: Durham University, Geography Department, United Kingdom

Keywords: contested space; sustainable cities; urban politics

Belfast is a city which often seems to be trapped, between the weight of a violent past, ever threatening to return, and the potential of a peaceful future, always just out of reach. This paper will make use of two contrasting case studies, from Belfast's northwest, to explore the way which urban space can be reconfigured to erode, maintain, and mobilise boundaries between the past, present, and future. In doing so, it will ask the question: how do attempts to remake temporal boundaries condition the agency of actors, trying to create new, and more sustainable urban futures? One of these case studies is a piece of green infrastructure, created by a consortium of state actors, supported by the European Union, and a variety of professional services firms. The other is a low-carbon housing project, being developed by a grassroots network of community gardeners, human rights activists, and groups of asylum seekers. To analyse these two cases, this paper will draw upon two contrasting but interlinked sets of literatures, which have explored the way which urban space can be materially reconfigured, to affect the relationships between the past, present and future. First, literatures which have explored the power of infrastructure, to structure temporal boundaries in particular ways (von Schnitzler, 2016; Mitchell, 2020), and promise better futures (Larkin, 2013; Bowker et al., 2018). Second, literatures which, building upon the work of Michel Foucault, have explored the way in which 'heterotopic' sites can be created, and used, to try and disrupt temporal boundaries (Foucault, 1986; Johnson, 2013; Edwards and Bulkeley, 2018). Drawing on more than 12 months fieldwork and more than fifty interviews with a range of actors associated with these projects, this paper will demonstrate how these different modes of spatial reformation shape the agency of actors in Belfast today. In doing so, it will contribute to the limited body of research which has explored the interaction between Belfast's

spatial and temporal divisions (Mitchell, 2011; Coyles, 2017), in addition to providing broader insights into the way which transitions towards greener, and more sustainable, futures are shaped by the weight of the past and the potential of the future in places with particularly traumatic and/or complex political histories.

Learning from the Reflexes of Solidarity in the Periphery: Weaving the Urban Future

Author(s): Bayrak, Ali Rıza; Presenter(s): Bayrak, Ali Rıza

Institution: Izmir University of Economics, Department of Architecture, Turkey

Keywords: community-driven initiatives; revolutionary movements; solidarity practices; urban agency; urban inequality

The center-periphery tension in metropolises has undergone transformation over time, but it remains a critical space for examining multilayered social and spatial relationships. The effects of neoliberal urbanisation have intensified the interactions that sustain this tension. This paper focuses on solidarity practices and their organizational dynamics in the periphery of metropolises. Peripheral solidarity is seen as an essential link for engaging urban dwellers, particularly in cities where individualism has grown due to neoliberal transformation. Given the increasing visibility of urban inequality, this issue is urgent. While neighborhoods on the outskirts of cities are often labeled as deprived, they also hold potential for fostering innovative forms of solidarity. The key question of this study is to observe these practices, explore their possibilities, and learn from local dynamics. By understanding these experiences, can they guide the creation of new models applicable across the entire city? The first part of the paper analyses revolutionary movements in Turkey during the 1970s and 1980s, highlighting their role in fostering solidarity within suburban neighborhoods like 1 Mayıs, Küçük Armutlu, and Gazi. It traces revolutionary practices such as establishing slums, neighborhood committees, and solidarity houses, which played a key role in grassroots mobilization. This historical analysis, termed 'What Has Been,' provides a foundation for understanding present dynamics. Despite their suppression following the 1980 coup d'état, these movements left a lasting legacy on suburban spaces. For example, even in the 2000s, resistance actions against gentrification continued in these neighborhoods. Today, many of these neighborhoods have significantly changed in demographics and infrastructure. Formerly peripheral areas have become sub-centers of the metropolis. While most revolutionary organizations were dismantled, new solidarity practices have emerged in the periphery. The second part of the paper, 'What Is,' analyzes these practices through case studies. It categorizes agency into three levels: builder agents (founders), constructive agents (locals contributing), and driving agents (residents participating or identifying with the network). Face-to-face interviews explore individuals' connections to solidarity practices and define this agency phenomenon. The research focuses on the Çiğli workers' basin in İzmir, shaped by internal migration, with a demographic largely from eastern Turkey, reflecting broader socio-economic shifts. The paper concludes by discussing how peripheral solidarity practices could inform wider urban strategies. From historical and current examples, it shows how these practices may foster solidarity across the metropolis. The final section, 'What Could Be,' avoids abstract theoretical or utopian frameworks. Instead, it advocates for learning from 'distant' yet relevant solidarity practices to shape the urban future. The findings suggest that 'distant' solidarity examples offer lessons for urban future-making and participatory approaches in governance, showing the transformative potential of collective agency in modern urbanization.

Alternative Urban Visions: Ecological Lessons from the Unbuilt History of Belgrade

Author(s): Heidari Afshari, Arian; Nheili, Mona; Presenter(s): Nheili, Mona

Institution: Politecnico di Milano, School of Architecture Urban Planning Construction Engineering (AUIC), Milan, Italy

Keywords: Belgrade; urban history; urban landscape; urban resilience; urban visions; waterscape

As pointed out by Lefebvre, the investigation of history must include both representational spaces and representations of space and, above all, their interrelationships and links to social practice. The need for such reflections is imperative in an age when urbanization has drastically altered the geography of territories under consumption and their ecological systems, leading to the disappearance of the historical land and waterscapes in contemporary cities whose geological past has been deeply related to them. This article explores significant city-landscape visions that emerged during critical geopolitical shifts in Belgrade's history, which led to radical socio-economic and political transformations in the city. It seeks to move beyond ideologized interpretations of historical urban futures to identify constructive environmental frameworks offered by each vision, regardless of whether they were realized or remained theoretical. It illustrates how deviations from the norms of the mainstream urban practices allowed the proposed visions to evolve from mere geometric designs into meaningful alternative urban qualities, although, unfortunately, most of those were never realized. Moreover, the article explores the importance of the relationship between geography and historical events in Belgrade's transformation – the idea borrowed from Lefebvre and Humboldt and recently explored by scholars such as Blagojević and Ćorović in the context of Belgrade. In particular, the article focuses on a selected set of conceptual ideas, theoretical frameworks, and practical applications of the past urban visions following two major geopolitical shifts in Belgrade's history: the political change of status from an Ottoman Empire border town into a capital of a Eu-

ropean nation-state in the 19th century, and the formation of the first Yugoslavia in the 20th century when the rivers finally ceased to be the border, and the historical core on the right (east) bank and empty marshlands on the left (west) bank of the Sava River became part of the same state. The research, further in-depth, examines the visions of two key figures: Emilijan Josimović, who envisioned the reconstruction of historical Belgrade from an Ottoman to a European planned city, and Nikola Dobrović, who drafted the first sketches of the modernist city New Belgrade on the left bank of Sava. Finally, the article argues in favour of their visions by revealing traces of pragmatic ecological philosophy, which may still serve as drivers of a sustainable future for historical, modern, and contemporary Belgrade. Lessons that may be site-specific but also ought to be universal, as interpreting superimposed historical and natural strata is essential in contemporary urban practices that aim at sustainability and resilience. The extended goal of this article is to open the debate on anticipatory thinking about urban resilience, drawing lessons from unbuilt urban history and redefining the critical lens through which we may read the territory of contemporary cities. The territory that we must understand profoundly and in synergy with its long-term eco-socio-spatial complexity for any adaptation or mitigation of climate change challenges, in the case of Belgrade, means to co-live with the waterscape!

Stream 2: Arenas of Urban Future-Making

Panel I: Arenas of Urban Mobilities and Transport

Monday: 15.45 – 17.15, Session III, Moderation: Gernot Grabher

Urban Arenas of Transformation: Cycling Infrastructure and Marginalized Communities in Fortaleza

Author(s): Girão, Ana Carolina; Presenter(s): Girão, Ana Carolina

Institution: Federal University of Ceará, Department of Transportation Engineering, Fortaleza, Brazil

Keywords: urban cycling; gender inequities; marginalized communities; urban accessibility; urban futures

Urbanization in Latin American cities has been marked by rapid expansion and urban sprawl, with population growth concentrated in peripheral zones and opportunities like jobs clustered in central areas (Pinto et al., 2023). This dynamic exacerbates structural inequalities (Ferrari et al., 2021), creating challenges in urban planning and transportation. Bicycle-oriented planning has emerged as a potential solution to promote sustainable mobility and active transport. Cycling patterns in Latin America contrast from those in the Global North. In Northern countries, cyclists are typically white, high-income, and highly educated men. In contrast, a systematic review conducted for this research indicates that urban cyclists in Latin America are predominantly men, non-white, and from lower income and education levels (Avila-Palencia et al., 2023; Ferrari et al., 2021; Harkot et al., 2017; Higuera-Mendieta et al., 2021; Mora et al., 2021). Across both contexts, women remain underrepresented among cyclists. Fortaleza, a major Latin American city, has significantly expanded its cycling infrastructure over the past decade, increasing from 72 km of cycling lanes to nearly 500 km in 2024 (Fortaleza, 2024). This growth has positioned Fortaleza as an international reference for promoting cycling and reducing traffic fatalities. Costa Lima (2022) notes that this expansion has boosted utilitarian cycling trips. Yet, despite these advances, women remain marginalized, representing only one-fourth of the city's cyclists (Fortaleza, 2020). This research aims to highlight two contexts in the construction of the urban future. On one hand, there is an arena formed by the cycling planning in Fortaleza, which, after 10 years of development, has brought significant advances, yet remains permeated by invisible conflicts. These conflicts arise when streets and the city prioritize certain groups, raising the question: why, despite prioritizing marginalized groups, are women cyclists still in the minority? On the other hand, precarious settlements, as arenas of resistance and community, are present throughout the city, but their housing is constantly threatened by gentrification processes, forcing these communities to the more distant peripheries. Understanding the complexity and differences between these two arenas, a critical analysis of accessibility for women in precarious settlements is proposed. The goal is to prioritize these areas and raise awareness about the need to involve them in cycling planning. Urban accessibility plays a crucial role in people's access to work, education, health, and leisure (Pereira and Herszenhut, 2023). By representing precarious settlements and their connection to urban opportunities, the research reveals stark structural differences among women. Therefore, cycling infrastructure has expanded, it does not adequately meet the safety and accessibility needs of all users, particularly women. These findings challenge the assumption that urban cycling is inherently equitable and underscore the importance of inclusive planning practices. This research advocates for transformative cycling planning. By prioritizing inclusivity and equity, it seeks to ensure that marginalized voices are integral to shaping the urban futures we build.

'Making' or 'Breaking' Future Mobility: Urban Traffic Experiments as Arenas of Negotiation

Author(s): Günay, Melis; Presenter(s): Günay, Melis

Institution: HafenCity University Hamburg, Germany

Keywords: arenas; professional agency; sustainable mobility; traffic experiments; urban experimentation; urban future-making

In an effort to reduce climate emissions, German cities are increasingly implementing experiments that aim to reduce car traffic. Many of these experiments are promoted by civil society actors and purport to test a redistribution of street space in a way that deprioritizes automobility and gives space to more active forms of mobility, leisure activities or greening. Against the backdrop of advancing climate change and growing uncertainties, urban experiments have also gained popularity outside the transport sector. More generally, they are advertised as small-scale and short-term interventions that initiate broader and longer-term change. This transformative potential of experiments has been attributed to their function as spaces of negotiation. Thus far, research has hardly investigated this assumption. This contribution therefore presents findings from a doctoral research project that examines negotiation processes in street reallocation experiments. The research draws on findings from two German case studies. In Giessen, two lanes of a four-lane ring road for cars were to be designated for

cycling as part of a one-year traffic experiment. The experiment was initiated by a citizens' petition and planned by the city. However, the experiment was declared unlawful and terminated prematurely. In Leipzig, a real-world laboratory, run by a civil society initiative in cooperation with the city, implemented a traffic experiment to pilot different traffic-modifying elements within a street section. The year-long experiment was perpetuated and contributed to a neighbourhood-wide traffic plan. The negotiations observed in the two case studies are not 'just' about traffic. Instead, the traffic experiments appear to become focal points of conflict, condensing broader trends and societal lines of conflict. Conceptualizing arenas as thematically focused spaces of negotiation, the findings suggest that the experiments themselves become such arenas. At the same time, they act as boundary objects, connecting different collective actors and linking multiple arenas. A close look at the negotiation processes constituting the arenas of the two experiments, reveals underlying power dynamics and contributes to a more nuanced understanding of professional agency in the context of urban change. Ultimately, the research provides insights into how and by whom urban mobility is shaped, and allows conclusions to be drawn about experiments as a means of 'making' (or 'breaking') future mobility.

Interrogating Transition Imaginaries: Mapping Present Futures of Urban (Auto)mobilities

Author(s): Hawxwell, Tom; Presenter(s): Hawxwell, Tom

Institution: HafenCity University Hamburg, Germany

Keywords: imaginary; future; urban; mobility

This research offers a critical investigation into the notion of transition. We take transition as a floating signifier and apply Q-method to open up the notion and expose antagonisms between different imagined mobility futures. We investigate imagined futures amongst professionals working on mobility and urban development in the city of Hamburg, Germany. Through the integration of negation of the logics that underpin the perpetuation of automobility into the research design, we integrate a mechanism that helps work against the reproduction of these logics systematically. The research contributes through improving the understanding of the role of floating signifiers in bringing about and inhibiting particular types of transformation and introduces a way of tinkering with existing approaches to futuring to integrate a more critical orientation.

Addressing Mobility-Related Inequalities in Arenas of Urban Future-Making: On the Selectivity of Strategy-Development Processes

Author(s): Krams, Mathias; Presenter(s): Krams, Mathias

Institution: Goethe University, Department of Human Geography, Frankfurt am Main, Germany

Keywords: car; inequality; mobility transition; policy; policy arena; selectivity; strategy; transport

Desirable urban futures must be just futures - this is the basic normative stance of the presentation. However, especially in the field of transport, a development towards more justice cannot be taken for granted. The current and still reproducing car-centred transport system is permeated by a multitude of social inequalities. These include a lack of transport infrastructure to enable mobility and social participation for people without a car; financial barriers that limit mobility; spatial planning practices that restrict access to important infrastructures and last but not least, unevenly distributed health burdens due to traffic noise, air pollution or accident hazards. These mobility-related inequalities are often directly linked to the arrangement of the built environment, such as settlement structures or transport infrastructures. They are the result of power-shaped negotiation processes and political decisions, as they are also fought out in 'arenas of urban future-making'. In order to move towards desirable, just futures, it is therefore necessary to examine the role of these arenas in shaping urban futures more closely. This includes, for example, determining which actors and associated interests have access to the arenas and which power mechanisms shape the strategy-development processes taking place within them. The presentation focuses on 'policy arenas' and proposes the analysis of strategy papers that emerge from these arenas as an entry point to gain insights into their functioning. To carry out the investigation, I draw on the 'analysis of argumentation' according to Fairclough and Fairclough. By critically analysing visions, problematisations, proposals for action, assumptions and contradictions embedded in the strategies, the research approach makes it possible to draw conclusions about power mechanisms at work in the arenas. I conceptualise these mechanisms using the concept of strategic selectivity according to Sum and Jessop. They thus describe the unequal conditions of opportunity and constraint with which social forces are confronted in the pursuit of their goals. I illustrate the proposed research approach by analysing three mobility strategies relating to the Frankfurt am Main region that emerge from policy arenas at different scales. In doing so, I explore the question of how mobility-related inequality is addressed in central strategy papers on the mobility transition in the Frankfurt region and what conclusions can be drawn from this about policy arenas at different scales. The strategy papers analysed are the 'Masterplan Mobilität' of the City of Frankfurt (2023), the Mobility Strategy of the Regional Association FRM (2020) and the 'Hessen-Strategie Mobilität 2035' of the State of Hesse (2018). By relating the outcomes of policy arenas at different scales, it becomes clear that they are each characterised by a specific strategic selectivity. This selectivity affects both which actors and associated interests are involved in the development of strategies

for urban futures and consequently also on the extent to which mobility-related inequalities are perceived and dealt with as obstacles to a desirable future.

Agency in the Field of Urban Transport

Author(s): Dangschat, Jens S.; Presenter(s): Dangschat, Jens S.

Institution: Technical University Vienna, Austria

Keywords: agency, circular learning; mobility lab; mobility transition; propulsion transition; transport transition

Member states of the EU must be free of CO₂-emissions until 2050 in Europe. One of the main driver of greenhouse gas emissions is the transport sector. To reach the goal, transport and mobility transitions are initiated. These transitions, however, are failing the benchmarks in most of the member states. Instead, there is a broad discussion within the societies and among political parties, whether to roll back the decisions made or to reach the goals much earlier. In my presentation, first, I will differentiate between the (dominant) propulsion transition, transport transition in its narrowly understanding (which is relevant for transport planning and urban design) and mobility transition (which is based on changes of mindsets, values and behaviour). The second part will be based on results of Trans|formator:in, a still ongoing research and practical project in seven Austrian cities. This project is not only about the re-organisation of public transport places, but as well about training courses of urban political and planning stakeholders, deliberate learning processes, participation and social marketing. A further impact on this part results from the mobility lab Centre of Mobility Change, which aims to support smaller communities and regions in their processes of a more sustainable mobility. CMC is concentrated on the behaviour change of both urban/regional stakeholders and citizens. The closing remarks will be on the learnings about the impact of physical changes on mindsets of urban stakeholders and how to overcome the gap between the attitudes of citizens against the need for urgent support of policies to fight climate change and the small readiness for real changes if these policies directly impacts the mobility routines.

Panel II: Arenas of Inclusion, Resistance, and Justice

Tuesday: 09.00 - 10.30, Session IV, Moderation: Lucas Pohl

Arenas of Resistance: The Fight Against the Greenfield Airport in Aranmula

Author(s): Geetha Devi, Suryagayathri; Presenter(s): Geetha Devi, Suryagayathri

Institution: Technical University Braunschweig, Institute for History and Theory of Architecture and the City, Germany

Keywords: community mobilisation; environmental justice; grassroots activism; infrastructure resistance; protests; urban futures

As Jørgensen notes, in a study published in Research Policy, 'arenas define the space in which socio-material activities are situated, providing a setting for actions and dynamics to unfold'. In addition, in the discussion paper 'Arenas of urban future-making', Pohl, Arlati, and Hawxwell define the term 'arena' as either a physical space or an actor who engaged in addressing critical concerns that affect their surroundings, and such an arena may function as a conduit for grassroots initiatives, facilitating the amplification of individual voices and enabling direct action. This paper presents the narrative of a series of protests in Aranmula, a small temple town in Kerala, India, between 2011 and 2016, as local residents mobilised against a proposed development of a Greenfield Airport. The narrative highlights the role of a specific individual who emerged as a primary actor who initiated various localised demonstrations and community-based actions, exemplifying how grassroots activism can catalyse broader collective action. This individual played a crucial role in uniting various local actors, fostering awareness about the substantial implications of the airport project that affect the small temple town. Through many community meetings, demonstrations and media support, this person galvanised support that extended beyond the locality, leading to statewide protests against the proposed development. These protests were not merely reactions to the infrastructural changes, but they were arenas of negotiation and conflict between competing interests - the desire for modernisation and economic development versus safeguarding local farming traditions, cultural identities and environmental integrity. The primary threat of losing farmlands to the created airstrips and the potential disruption to the temple's physical structure and rituals highlighted the urgency of resisting. The environmental consequences, including the re-occurrence of flooding since 2018 in Aranmula due to alterations in the landscape, serve to further underscore the stakes involved in resisting such infrastructural projects. In investigating the actions of individuals and initiated protests, this paper discusses the socio-spatial dynamics at play within these arenas. It emphasises how grassroots movements can shape urban futures by transforming local concerns into collective struggles for justice and sustainability. It also illustrates the limitations encountered by an individual at different stages of resistance when multiple social and political forces were at play. Additionally, this paper contributes to the understanding of the role of individual agencies and grassroots

movements that trigger many collective resistances against the accelerating infrastructural development in the context of arenas of urban futures.

'Arrival Constellations': Coping with Forced Migration as 'Arena' for Urban Future-Making?

Author(s): Haase, Annegret; Pöbneck, Janine; Presenter(s): Haase, Annegret; Pöbneck, Janine

Institution: Helmholtz-Centre for Environmental Research, Department of Urban and Environmental Sociology, Leipzig, Germany

Keywords: agency; arrival constellations; forced migration; postmigrant city/society; temporality; transdisciplinary research; urban citizenship

The issue of international forced migration is becoming an increasingly important factor in urban development. In recent years, there has been a growing debate about the spaces within cities where forced migrants first arrive and the availability of appropriate opportunities, support structures and networks to facilitate their integration and settlement. Such spaces are known as 'arrival spaces' or 'arrival neighbourhoods' and represent relatively well-defined spatial units. However, the concept has also been criticised for failing to adequately capture the multiplicity of what 'arrival' means by focusing primarily on physical spaces. As a result, the focus has been shifted to 'arrival infrastructures' distributed throughout the city. In our view, both of these perspectives are based on rather static conceptualisations of arrival and do not adequately reflect the processual perspective of both arrival and settlement. In light of the above, we have developed a broader conceptual idea to describe settings or conditions of how cities and host societies respond to the forced arrival of migrants. We call it 'constellation of arrival,' and it takes into account the spatial and infrastructural component, but combines it with a processual perspective that includes actors, policy and decision-making, the development of opportunity structures and their use, as well as the different temporalities of the processes of arrival and settlement. In this way, 'constellations' of arrival and settlement form part of urban futures, with a bundle of enabling and constraining factors that often interact closely. Furthermore, there is a need to link the debate on 'arrival constellations' to inclusive and emancipatory concepts such as the 'postmigrant city' and 'urban citizenship,' which seek to move beyond a focus on migration as an isolated sphere of urban reality and the migrant/non-migrant dichotomy, and which can support local forms of agency that include all people living in a city, regardless of when and how they became part of the local community. In our presentation, we will introduce our understanding of 'arrival constellations' and discuss how the ways in which cities and host societies deal with forced migration enable or prevent them from being 'arenas' of urban futures. We also want to discuss how approaches such as 'postmigrant city/society' and 'urban citizenship' can use productive moments of coping with forced migration for sustainable future-making. We will illustrate our reflections with experiences from transdisciplinary research projects conducted in recent years and suggest possible avenues for future transformative research on forced migration as part of urban realities and urban future-making.

Arenas of Resistance and Justice in the Age of Neoliberalism: Urban-Environmental Movements in a Coastal Town, Ayvalık

Author(s): Sever, Bilgesu; Presenter(s): Sever, Bilgesu

Institution: Bilkent University, Department of Architecture, Ankara, Turkey

Keywords: Ayvalık; coastal towns; urban-environmental conflicts; neoliberal urbanization; resistance arenas; urban justice

Over the past three decades, neoliberal policies within the rapid pace of urbanization have profoundly transformed the socio-ecological fabric of cities, intensifying environmental conflicts and creating new forms of injustice. These dynamics generate 'arenas' where diverse actors contest the socio-spatial impacts of urbanization. This study examines resistance to neoliberal urbanisation in these arenas and explores emancipatory potentials of urban-environmental struggles in coastal towns. Against this objective, the research seeks to answer two main questions: How do socio-spatial dynamics of neoliberal urbanization shape environmental and urban struggles in coastal towns? How do these struggles transform urban future-making and contribute to urban-environmental justice? The study focuses on Ayvalık, a coastal town in Turkey, with a distinctive urban and environmental identity. By situating urban-environmental movements within the context of a coastal town, it examines how the scalar dimensions of such settlements shape the spatial and political arenas of resistance and influence urban future-making processes. Ayvalık, designated both as an 'urban conservation area' for its historic port and traditional settlement and a 'natural and historic conservation area' for its olive groves, exemplifies a contested terrain, where local resistance engages with regional, national, and even global urban and environmental issues. The urbanization dynamics within the coastal town illustrates how neoliberal capitalism reshapes urban and non-urban interrelations, producing arenas of conflict. Key developments, such as downgrading natural protections and policies commodifying urban and natural spaces, have triggered significant resistance. Such dynamics not only reflect localized concerns but also contribute to broader discourses on urbanism and environmental sustainability. Using a qualitative approach, the research includes a literature review, field observations, interviews

with resistance actors, and analysis of news sources. Two sites in Ayvalık were selected for detailed analysis: (1) Sarımsaklı Beach, where opposition to the privatization of public spaces highlights struggles for the right to the city and nature; and (2) the Karaayıt mining basin in Tifillar village, where resistance against infrastructure-led ecological degradation emerged. These arenas illustrate distinct yet interconnected forms of opposition. The findings show that resistance in Ayvalık is shaped by multi-scalar and multi-temporal dynamics. At Sarımsaklı Beach, collaborations between local activists and metropolitan networks challenge state-led commodification, exemplifying the articulation of a spatial imaginary that brings together heterogeneous elements. In the Karaayıt mining basin, resistance rooted in rural livelihoods opposes infrastructure-led urbanisation. These struggles position arenas as spaces for envisioning alternative urban futures while negotiating the socio-ecological impacts of neoliberal policies. By analysing the interplay between urban-environmental resistance and the arenas where such dynamics unfold, this study highlights how struggles can transform urban futures and offers critical insights into rethinking urbanisation and justice in neoliberal contexts.

Makerspaces, Inclusion, and Urban Future-Making: The Case of the Summercamp at Timelab Makerspace in Ghent

Author(s): Bayoumi, Yasmin; Van den Broeck, Pieter; Presenter(s): Bayoumi, Yasmin

Institution: KU Leuven, Department of Architecture, Belgium

Keywords: critical making, inclusivity, local craftership, makerspaces, making sovereignty, spaces commodification

Facing the commodification of urban spaces and neoliberal narratives of individual growth and entrepreneurship, makerspaces often serve as critical spaces where urban futures are negotiated, contested, realized, or dismissed. As such, makerspaces can be seen as hubs for urban future-making. They can support creativity, sustainability, and local entrepreneurship and represent a critical intersection of diverse actors and activities shaping urban futures. However, the dynamics within these spaces also reflect broader power relations that influence who participates, how contributions are valued, and whose interests are served, and that are fundamentally influenced by the tensions and contradictions inherent in neoliberal urban development. While makerspaces hold the potential to foster innovation, creativity, and community empowerment they are often criticized for catering to more affluent or technologically skilled groups, excluding marginalized populations who may lack access to resources, skills, or social networks. Furthermore, the emphasis on advanced technologies like 3D printing and digital fabrication can overshadow local craftership as local knowledge, risking the homogenization of creative practices and misalignment with cultural and community needs. Critics also highlight that while makerspaces promote 'do-it-yourself' ethics, they often depend on commercialized tools and software, fostering reliance on tech corporations and perpetuating consumerist cycles rather than true independence. This study therefore investigates the tensions between inclusivity and exclusivity in these arenas. The paper addresses barriers marginalized groups face in accessing and contributing to these spaces, shedding light on the contradictions inherent in positioning makerspaces as tools for community empowerment and economic renewal. It offers a deeper understanding of how urban future-making arenas can either perpetuate or challenge existing inequalities, ultimately shaping the effectiveness and inclusivity of urban futures. For our study, we focus specifically on Timelab makerspace in Gent, Belgium as a case study. We observe the summercamp 2023 to explore Timelab as a space of socio-material interactions between citizens, artists and craftspeople and objects, and explore the role of these interactions in the way this makerspace shapes urban futures and their in- and exclusion. Mobilizing literature on critical making, makerspaces, making sovereignty, and neoliberal urban development, we conclude that inclusive interactions between communities, new tools and technologies, and local craftership knowledge and skills can contribute to reclaiming sovereignty over making, empowering communities to reshape their urban futures and turning makerspaces into true arenas for urban future making. Particular attention is given to the role of local craftership as both a cultural asset and community development raising questions about its place in urban revitalization efforts.

Panel III: Arenas of Socio-Technical and Environmental Entanglements

Tuesday: 11.00 - 12.30, Session V, Moderation: Alessandro Arlati

'The Port, That Is Us': Port Automation as Socio-Technical Entanglements and its Contested Dynamics of Urban Future-making

Author(s): Leipert, Sophia; Presenter(s): Leipert, Sophia

Institution: HafenCity University Hamburg, Germany / Goethe University, Frankfurt am Main, Germany

Keywords: ports, automation, Hamburg, labour, contestation, socio-technical entanglements

Port automation processes in Hamburg serve as critical arenas of urban future-making, where competing vi-

sions of urban development intersect and materialise. Since 2002, the Container Terminal Altenwerder (CTA) has exemplified logistics automation in Hamburg, catalysing recurring public discourse on automation's impact on labour quality and quantity. In port cities, economic, cultural, and social developments are distinctively interwoven due to their unique spatial structures, creating dynamic relationships across various temporal scales. The Port of Hamburg, as a crucial node in global commodity flows, and its automated terminals offer compelling insights into how technological transformation processes become sites of contested urban futures. This contribution examines three interconnected dimensions through which automation shapes urban future-making. The spatial dimension reveals how automation technologies physically transform port spaces and labour processes, exemplified by CTA's implementation and adaptation. This transformation reflects the contested nature of urban space making, where questions of port expansion, its costs and benefits are inherently political and loudly debated (Hesse, 2006). The socio-political dimension encompasses negotiations between stakeholders - including labour unions and logistics companies - regarding automation's implications for labourforce development. These discussions extend to the cultivation of new skills and mentalities within the maritime-logistics sector. The representational dimension manifests in technical discourses and media narratives that frame Hamburg's identity as a 'smart port', where port spaces are envisioned and promoted as 'test beds' for urban mobility solutions (Halpern et al., 2013). Drawing on qualitative expert interviews, participant observation, and document analysis, I aim to demonstrate how automation processes transcend mere technical upgrades to become active sites of future contestation. Various stakeholders advance divergent visions, from corporate strategies emphasising global competitiveness and becoming a 'Sustainable Energy Hub' (Hamburg Port Authority, 2023), to critics challenging the 'primacy of the port' (Läpple, 2024) in favour of alternative urban functions and creative industries. This proposal adds to current understandings of urban future-making by examining how socio-technical entanglements serve as arenas where multiple futures are negotiated. It illuminates how local contestations over port automation reflect broader debates about labour futures, urban sustainability, and the role of critical spaces of circulation within urban contexts. Through this lens, the paper reveals how port automation becomes a crucial nexus where socio-technical constellations, labour relations, and urban development intersect to shape the future of maritime cities.

Hatay's Post-Earthquake Urban Reconstruction: Another Laboratory for Disaster Urbanism

Author(s): Üngür, Erdem; Presenter(s): Üngür, Erdem

Institution: Gebze Technical University, Department of Architecture, Kocaeli, Turkey

Keywords: disaster capitalism; disaster urbanism; displacement; earthquake; gentrification; Hatay; participatory planning; Turkey

The AKP (The Justice and Development Party) government is known to transfer valuable city parts—where mostly low-income and marginalized groups inhabit—for exclusive urban transformation projects. The justification for gentrification is mostly a potential or actual disaster which is natural (e.g. future earthquake in Istanbul, landslide in İzmir) or man-mediated (e.g. uricide in Diyarbakır). The earthquakes that occurred on 6 February 2023 caused over 50,000 deaths in Turkey and more than 5,000 in Syria, and affected over 15 million people, underscoring the severe and far-reaching consequences of disasters. Hatay province in Turkey was one of the most heavily affected cities in the region where many people died, 76,000 buildings have been severely damaged or destroyed. In the aftermath of the earthquake, discussions have focused on protecting cultural heritage and addressing the city's spatial needs, particularly housing. However, the non-participatory and non-transparent urban planning process of the central government and rapid constructions led by urgent expropriation decisions has put the vulnerable communities in the area into an indeterminate and precarious state. Between 2023 and 2025 an NGO with a close relationship to the central government and to one of the biggest construction companies in Turkey 'volunteered' to coordinate some design and planning firms by signing a protocol with the ministries to prepare the Hatay Master Plan later including international star architects like Bjarke Ingels and Norman Foster. However, as far as the public knows, the ministry decided to continue with the Housing Development Administration of the Republic of Turkey (TOKİ) instead—according to an unknown master plan. In the meantime Hatay and Istanbul Municipalities organized a planning center together with IPA (Istanbul Planning Agency) to produce a guideline for a participatory urban planning which was totally ignored by the central government. Although demolitions and basic infrastructure are not completed and many people are still living in containers in the vast area of the former city center, the post-disaster master plan for the city designed by international starchitects already won awards. According to Madden (2021), the conflicting and complex processes of urban development that arise as a result of disasters can be described as 'disaster urbanization.' In this context, destroyed areas - especially those situated in strategic locations - may be viewed as opportunities for post-disaster gentrification or speculative development. In addition to the direct transfer of funds through no-bid contracts to private corporations, the earthquake is instrumental for advancing the political and ideological interests of the ruling party. In this presentation, I want to map different actors such as the central authority, local governments, NGOs, professional chambers, academic researchers and grassroot movements competing on the site in order to form the future of Hatay. I will showcase the reconstruction of Hatay as a specific case where populist and nationalist politics of an authoritarian regime is combined with disaster capitalism.

More-Than-Human Tactics in Coimbatore's Urban Forests

Author(s): Adelina, Charlotte; Presenter(s): Adelina, Charlotte

Institution: Free University of Berlin, Department of Human Geography, Germany

Keywords: greening; India; more-than-human geography; urban ecologies; urban forests

My dissertation traces Miyawaki afforestation projects and the ways in which it reorders relationships between humans, trees, and other beings, in a space activated by modalities of entrepreneurial urbanisation and more-than-human agencies. In the proposed presentation, I will share ethnographic snippets from and around the urban forests of Coimbatore that are created in small pockets of land across neighbourhoods to combat increasing heat and air pollution. In the urban political ecological (UPE) literature, a recurring tool used to disentangle tactics is the notion of access and control. Socio-ecological experiments of greening have been critiqued for re-asserting social divides and unevenness in fields such as urban sociology and urban political ecology. For instance, urban forests have been showcased to disproportionately distribute environmental benefits across class and race groups (Heynen et al., 2006). In this instance, the pertinent question becomes 'who has access and control over urban forests'? However, by looking at 'access' and 'control' while emphasizing the agency of the environment, in this presentation, I hint at the porosity of the urban forest, for it brings more-than-human tactics into the remit of these discussions. The paper would expand the notion of tactics to include conflicts and negotiations in the realm of more-than-human geography. On a closer look from my fieldwork in Coimbatore, the outcomes of socio-environmental transitions are much more ambiguous than usually noted. The web of relations of organisms in relation to urban greening is riddled with tensions: there are complex dependencies and dissonances in the notion of biodiversity in which few 'keystone' species such as birds and butterflies are invited to live well or access the forest and other beings such as reptiles, feral creatures, and cattle are hindered access. Cattle herders and 'asocial' publics are alongside hindered access but find ways of laying claims to space. Threat to human access is also posed by an uninvited actor, the snake. This is important, as encounters with other-than-humans such as snakes de-territorialize hegemonic imaginaries of bounded cartographies and technologies of control, thus complicating the agendas and modalities of tactical urbanisms.

Outside the Arena: The Non-Inclusion of Non-Pioneering Cities in Urban Climate Mitigation Governance

Author(s): Buttman, Vera; Presenter(s): Buttman, Vera

Institution: HafenCity University Hamburg, Germany

Keywords: city; climate mitigation; governance; housing

Urban futures are negotiated and shaped today in the arena of urban climate mitigation governance. This arena has opened its doors decades ago and has gotten more and more crowded since, to stay with the picture of the literal arena, but still, highly relevant actors are left outside. With my contribution I will look both inside and outside as well as, most importantly, precisely at the entrance of the arena of urban climate mitigation governance. The geographical scope of my analysis includes Germany and Belgium within the context of the European Union, two federal systems with relatively ambitious national climate policies and strong historical divisions across the country, i.e. the landscape of cities. Present inside the arena are many governments of active, often called 'pioneering' cities with regard to urban climate policy, and also various governments from other political levels, i.e. the supranational European, respective national and regional ones. These are made up by politicians as well as administrations that, again, encompass ministries, agencies and contractors, responsible for different lines of funding, competitions, networks, platforms and consulting related to urban climate mitigation. They are joined by a large amount of informal city networks, transnational and national ones, that also organise networking, platforms and consulting and, some of them, also inventories of urban climate mitigation action or carbon emissions. The number of such networks is so large that even other actors in the arena have lost the plot. Further actors such as private companies creating rankings on urban climate action are present in the arena, too. On top, there are numerous researchers investigating this very arena they are in. The net of interaction across all these actors is tight, taking various forms and having different intensities. In particular, there are thick knots around active, so-called pioneering cities with large populations. When looking through the doors to the outside of the arena, though, another crowd becomes visible: one of mostly smaller cities' governments that are not involved in the net of interaction and that, for some reason, do not enter the arena of urban climate mitigation governance. I call them 'non-pioneering cities'. Focusing on the very entrance area, I will shed light on the (non-)relation of actors inside and outside the arena and particularly on the (non-)attitude of institutions inside towards cities outside. Findings are that the first hardly reach out to the latter, but rather double and triple strings of the net inside waiting for the outside cities to step in by themselves. With a view to reaching internationally agreed climate targets, but also to inter-urban justice, critical questions arise like: what enables or drives actors to enter the arena? Why do actors inside not only open doors but also reach out? Are the insiders the ones most relevant for urban climate mitigation? Do they alone, without the outsiders, have the potential to effect the needed change and secure urban (climate) futures?

Panel IV: Arenas of Coexistence and Collaboration

Tuesday: 13.30 - 15.00, Session VI, Moderation: Tom Hawxwell

'Co-Visioning Platforms': Building Arenas of Collaborative Future-Making at the Urban-Rural Interface

Author(s): Pappert, Lukas; Hagemann, Anke; Presenter(s): Pappert, Lukas; Hagemann, Anke

Institution: Technical University of Berlin, Institute for Architecture, Germany

Keywords: urban-rural linkages; regional design; stakeholder engagement; transdisciplinary research; co-visioning; sustainability transition; living labs

The recognition of planetary boundaries amid multiple global crises urges us to safeguard resources and return to more regional and circular systems of supply and consumption. In efforts to advance regenerative supplies of energy, food, or building materials while mitigating climate change and preserving biodiversity, the territories of extended urbanization—peri-urban regions, rural hinterlands and 'operational landscapes'—are becoming central arenas for future innovation. However, governance structures as well as planning and participation formats usually distinguish between urban and rural areas, so that important urban-rural relationships are marginalized in discourses on sustainable transformation. There is therefore a need for agile planning approaches, multi-stakeholder platforms and models for an integrated regional governance that make it possible to address, negotiate and envision urban-rural futures across administrative borders and sectoral containers. The Sino-German research project 'Urban-Rural Assembly' (URA, 2019-2025) aimed at exploring such new arenas of research and planning at the urban-rural interface. Working with living labs in the Nordhausen region/Germany and Huangyan-Taizhou/China, it has demonstrated the importance of urban-rural relationships for the regional economy, ecosystems, water supply or everyday mobility—and related sustainability challenges such as urbanisation, land-use change, pollution and resource consumption. As a response, the project has implemented 'Urban-Rural Co-visioning' processes in both regions and initiated platforms with stakeholders from politics, administration, business, science, and civil society. Through a series of multi-actor workshops, researchers and local stakeholders entered into negotiations on regional futures and co-designed goals, future visions and transformation paths for strengthening sustainable urban-rural relations in the living labs. The co-visioning processes and the associated spaces and actor platforms formed temporary arenas for regional future-making and served as starting points for the formation of new alliances and transformation paths in both regions. The paper discusses what it needs to establish collaborative arenas for future-making in urban-rural regions and new forms of agency: how are such regions demarcated? How to 'build' arenas across administrative boundaries? Which actors must be mobilized? Which new alliances can be forged, which assemblies and public spheres established? Which communication channels and tools are useful? And how to co-create and depict future visions collaboratively? Building on the German 'Raumbild' approach and related literature on regional vision-building, the paper will reflect contemporary approaches, draw on experiences and results from the URA research project, and present a strategy paper that is intended to support stakeholders worldwide in initiating processes and platforms at the urban-rural interface. This would promote a different type of arena in the sense of Phelps (2017): a hybrid spatial formation for transnational assembly and politics.

The Urban Night in Transition: Public Spaces as Arenas of Change

Author(s): Schwarz, Mark-Roman; Presenter(s): Schwarz, Mark-Roman

Institution: University of Stuttgart, Faculty of Architecture and Urban Planning, Germany

Keywords: cities; night; night-time; nocturnal experiences; public space; sociology; transformation; urban studies

Public spaces can be understood as arenas where social, economic, and political dynamics are negotiated. While urban research often focuses on governance, accessibility, and the nighttime economy, the role of public spaces at night in climate-adaptive urban life remains largely overlooked. Rising temperatures are already reshaping urban rhythms, potentially shifting more social and economic activities into later hours. Yet climate change is rarely considered in discussions on public spaces (at night), despite its likely impact on how cities are used, experienced, and contested (after dark). This presentation situates public space within the temporal frame of the night, critically examining how climate adaptation interacts with existing urban transformations. Historically, public lighting and the emergence of spaces such as taverns, theaters, and cafés reshaped the urban night, enabling new forms of sociability, consumption, and identity-making. These shifts were never neutral but reflected broader social and economic inequalities, determining who could access and participate in urban life after dark. Today, similar transformations are unfolding as climate adaptation and urban change redefine nocturnal public life. If public space at night becomes more central, what new conflicts and exclusions might emerge? Who has access to these spaces, under what conditions, and how might climate adaptation reinforce or challenge existing urban inequalities? While urban climate adaptation has gained momentum, both public and scientific discourse

often neglect the nighttime dimension of climate-adaptive cities. If extreme heat makes daytime public life less viable, urban nightscapes will likely gain importance – not only as spaces for leisure and economic activity but also as contested sites of encounter, negotiation, and exclusion. This requires a reconsideration of the relevance of public spaces in research and city planning and what role they play in shaping inclusive or exclusive urban futures. As my PhD project is still in its early stages, my contribution for this conference does not present empirical research findings but instead seeks to sharpen the conceptual discourse on public space, nighttime urbanism, and climate adaptation. By framing nocturnal public spaces as contested arenas, I argue that climate change must be understood not only through governance and infrastructure but also through its socio-spatial effects on urban life at night. This presentation contributes to the broader discussion of urban future-making by integrating the night into sociological perspectives on public space and climate adaptation. Understanding these interconnections is essential for developing a more nuanced, climate-conscious approach to urban transformation.

Beyond the Market Stall: Temporalities, Belonging, and Future-Making at the Maybachufer

Author(s): Tiryaki, Muhammet Esat; Presenter(s): Tiryaki, Muhammet Esat
 Institution: Humboldt University of Berlin, Urban and Regional Sociology, Germany
 Keywords: belonging; future-making; temporalities; urban markets; vendors

This paper explores urban markets as dynamic arenas of future-making, focusing on the role of temporalities in shaping vendors' sense of belonging and contributing to the transformation of urban spaces. My research draws on ethnographic fieldwork conducted between 2019 and 2022 – including participant observation, informal talks, and interviews with 31 vendors – at the Maybachufer Market in Berlin. I examine this market to address the question: how do temporalities within the Maybachufer Market influence vendors' sense of belonging, and how do vendors contribute to the processes of future-making in Berlin? The market has long been a hub for local exchange and cultural interaction. However, it now faces increasing pressures from commercialization, redevelopment, and demographic shifts. I explore the tension between the market's historical role as a community space and its evolving future to understand how vendors navigate the intersections of time, place, and belonging in a transforming urban landscape. Central to this analysis is the concept of temporalities, which encompasses diverse timescales that shape vendors' lives. These include immediate rhythms, such as daily market operations and seasonal trade cycles, alongside long-term processes, such as shifts in urban policy and demographic change. The market's rhythms provide continuity and predictability, anchoring vendors' social bonds and professional identities. However, these rhythms also generate tensions as vendors contend with disruptions caused by rising spot rents, redevelopment pressures, and a shifting clientele. Through my observations and conversations with vendors, I found that their everyday practices reflect a nuanced engagement with these temporal dynamics – highlighting their ability to balance stability and adaptation. These practices illustrate how vendors draw on the market's rhythms to anchor a sense of belonging, even as they face challenges that threaten their place within the market community. I conceptualize belonging as an ongoing process shaped by vendors' interactions with their environment, relationships, and socio-economic transformations. By examining how vendors navigate the market's temporalities, I highlight their active role in shaping not only their own futures but also the market's trajectory. Their efforts to sustain the rhythms of the market, resist displacement, and adapt to change show how urban markets function as critical arenas for negotiating belonging, community, and stability. While the temporal rhythms of the market offer continuity and belonging, vendors must also confront the destabilizing effects of gentrification, commercialization, and redevelopment. These experiences reflect broader urban transformations, offering insights into how individuals and communities engage with time to navigate uncertain futures. Ultimately, I demonstrate how vendors negotiate temporalities to assert their presence and reshape their trajectories in a rapidly changing urban environment. This paper underscores the critical role of urban markets as arenas of future-making in fostering cultural diversity, social bonds, and the evolving identity of cities.

Maintaining Openness: Spatial Voids as Catalysts for Participation in Arenas of Urban Future-Making

Author(s): Noller, Hanna; Presenter(s): Noller, Hanna
 Institution: TU Universität Braunschweig, Institute for History and Theory of Architecture and the City, Germany
 Keywords: inclusive participation; iterative urban development; participatory planning; spatial flexibility; spatial voids; urban innovation

Arenas of urban future-making are complex environments that are increasingly recognised as vital spaces where futures are collaboratively imagined, negotiated, and tested. Among the many components that constitute these arenas, the concept of spatial voids emerges as a central element in fostering participation, experimentation, and collective innovation. Spatial voids – defined here as intentionally open and flexible spaces – offer unique opportunities for the continuous negotiation and testing of urban futures by enabling inclusive, creative, and adaptive engagement. Their ability to host iterative, low-threshold interactions allows diverse actors to collabo-

rate in dialogue, experimentation, and innovation, free from the constraints of rigid spatial or social frameworks. This flexibility is particularly valuable in participatory urban development, where inclusivity and adaptability are crucial for fostering sustainable innovation. To ensure that spatial voids fulfill their potential as integral parts of arenas of urban future-making, accessibility and inclusivity are paramount. They must be designed to ensure participation across diverse demographic and social groups. Physical design and location play crucial roles in reducing barriers to entry, while maintaining an openness that encourages wide-ranging engagement. At the same time, these spaces must balance flexibility with structure, providing enough support to enable meaningful experimentation and engagement without stifling creativity. This balance requires careful consideration of how unregulated use can coexist with curated activities. Moderators and curators are integral to the success of spatial voids. They play crucial roles in establishing a 'red thread' that guides activities while respecting the inherent openness of these spaces. Their interventions help create safe and equitable environments where diverse ideas can flourish and participants feel encouraged to engage in meaningful dialogue. Spatial voids hold significant potential as catalysts for participation in urban development by providing spaces that remain open for reinterpretation and continuous engagement. By remaining adaptable and responsive to changing needs, they create environments where diverse actors – including residents, planners, and policymakers – can experiment, negotiate, and co-create urban futures. To fully realize this potential, spatial voids must be permanently embedded in the urban fabric rather than serving as temporary placeholders for future development. Their lasting openness could enable iterative design interventions and evolving forms of engagement, ensuring that participation is not confined to singular projects but remains an ongoing process. Through this continuity, spatial voids may contribute to process-oriented urban development, where participation is not merely an event but a sustained practice shaping urban transformation over time.

Stream 3: Resources of Urban Future-Making

Panel I: Resources of Data and Technology

Monday: 11.15 – 12.45, Session I, Moderation: Fabian Namberger

Back to the Future: How Amazon's Technologies are Using Uncertainties as Resource to Fuel a City on Demand

Author(s): Voigt, Maja-Lee; Presenter(s): Voigt, Maja-Lee

Institution: Leuphana University Lüneburg, Germany

Keywords: amazon; uncertainty; smart home; city on demand; public infrastructures

To monopolistic tech companies (and their bros), the uncertainties of our time are an immaterial resource to reign over future-narratives. For Google, Tesla, Amazon & Co. uncertainties may be an incalculable logistical threat. Culturally, however, they have become an effective business model, a management technology, and a lobbying strategy. With their finely curated ecosystem of convenience, the world's largest e-commerce company, Amazon, for example, has taken to "weaponise uncertainty" (Mattern, 2023: 126) for its interests. From offering intimate smart home surveillance to powering 30% of the world's Internet with its cloud computing services, people as much as public administrations turn to its products in search of more future security. This does not only create global dependencies on the US-corporations' technical infrastructures. Rather, Amazon now has the power to exploit existential, personal fears and public insecurities around tech illiteracy and cybersecurity as governing strategy and resource: it feeds off of the anxieties of its customers, providing seemingly endless solutions that promise certainty, but really generate even more and new insecurities. For Amazon, uncertainties consequently become a profitable pipeline of predictable behaviour to rule over spaces and capital. Furthermore, with its embedded ideologies and pre-defined app-architectures, it leaves customers with (conveniently) limited choices that seem to enclose the collective dreaming of diverse futures. What kind of imaginaries about 'cities on demand' result from this 'manufactured insecurity' (Taylor, 2023: 11), who are they for, and what kind of future do they represent? From the home to the cloud, my research ethnographically explores how uncertainties are politically instrumentalized by Amazon to lobby for and gain control over digitized urban future visions. In its logistical conceptualizations, the city is a mere living room whose (data) resources are to be mined and privatised. In 'Home Stories' of qualitatively interviewed households, my paper will shed light on the following enclosure of the home by Amazon and the effect it has on the understanding of public goods and common practices of future-making. Being able to curate spaces and further cultivate uncertainties within the controlled environment of smart homes provides Amazon with an exclusive access to establish body politics. These seem to not only reproduce further insecurities for profit, but gendered, raced, and classist forms of (care) work and automation that prolong discriminatory past ideals into the future. How do these strengthen e.g., authoritarian technocapitalist urban politics and longtermist future visions? Critically 'unboxing' the future-making-practices which are implemented in personalized technologies, my paper asks how smart home users are maintaining, questioning, and perhaps even sabotaging the current 'city-on-demand'-culture of Big Tech. How can they regain power about public discourses around futures in the race to care for democracy and a broken planet?

Municipal AI Implementation: A Resource-Based Framework

Author(s): Eichholz, Lutz; Presenter(s): Eichholz, Lutz

Institution: Fraunhofer IESE

Keywords: ai adoption; ai implementation barriers; urban ai; smart city

Artificial Intelligence (AI) is emerging as a transformative force in urban governance, with the potential to fundamentally reshape how cities operate and deliver services. While 20% of German companies already utilise AI solutions, only 8% of municipalities have implemented AI technologies, despite two-thirds of local governments recognising AI's potential benefits. This significant adoption gap reflects broader patterns of resource inequality in urban development, particularly in the context of emerging technologies. While numerous frameworks exist for enterprise AI implementation, municipalities lack structured approaches that address their unique constraints and requirements. This paper examines the multifaceted challenges and barriers to AI implementation in municipal contexts. Our analysis reveals critical obstacles including ethical concerns (algorithmic bias, transparency, accountability), data-related challenges (availability, quality, privacy), implementation barriers (extended project timelines, high costs, workforce implications), and infrastructure limitations. These challenges are further compounded by bureaucratic resistance, legacy systems, and a critical shortage of AI expertise within municipal administrations. Through an exploratory literature review utilising academic databases and insights from Large

Language Models, combined with practical experiences from long-term municipal software development partnerships and two in-house AI projects ('Dorffunk' and 'Marktplatz'), we identify patterns of uneven resource distribution in municipal AI adoption. Our analysis shows that municipalities face major challenges in shaping an AI-driven urban future, particularly when it comes to mobilising technical, human, and organisational resources. In response, we propose an eight-phase framework for municipal AI implementation that systematically addresses these challenges while considering resource constraints at each stage. The framework emphasises iterative experimentation through minimum viable products, proactive risk assessment, and stakeholder engagement, providing practical guidance for navigating common failure points such as data quality issues, resource limitations, and staff resistance. Our findings contribute to understanding how implementation challenges and resource inequalities influence urban actors' agency in technological transformation while offering actionable strategies for more equitable AI implementation in municipal contexts. The research highlights the need for specialized municipal implementation approaches that differ from enterprise frameworks and account for the unique institutional, technical, and resource challenges faced by local governments.

From Outsourcing to Insourcing: How Cities Implement Digital Urban Twins – A Comparative Study

Author(s): Renz, Michelle; Presenter(s): Renz, Michelle
 Institution: HafenCity University Hamburg, Germany
 Keywords: insourcing; digital urban twins; digital city; projects

Data, digital tools, and technologies are becoming increasingly important for cities (Batty, 2013; Kitchin et al., 2015; Townsend, 2013). In this evolving landscape, a new phenomenon is emerging: the changing role of cities in developing digital urban futures. Traditionally, digital technology development was outsourced to the private sector (Karvonen et al., 2018). Recently, the public sector has transitioned from a consumer to an active developer and operator of its own digital technologies, insourcing the development of its own technology. Insourcing, understood in contrast to outsourcing, refers to the relocation of outsourced tasks towards the public sector. This marks a significant departure from previous external dependencies, positioning the public sector as a proactive agent in digital urban transformation (Woods et al., 2023). Insourcing introduces a complex interplay of roles, resources, and institutional frameworks within the public sector. It requires (new) resources and innovative governance, and reshapes resource allocation. However, this transformation creates tensions between rigid, prevailing administrative structures and agile technology developments. Cities often lack knowledge and skills for technology development. Insourcing aims to reclaim control, reduce dependencies, and shift agency, but requires significant investment in expertise. Thus, cities adopt entrepreneurial practices and undergo structural, cultural, and operational transformations. In urban planning, project-based approaches have proven to be enablers; here, allowing the public sector to transition to an active developer (Ibert, 2003; McGuirk et al., 2022; Mukhtar-Landgren et al., 2019). Projects act as temporary 'enclaves,' providing space for innovation, resource flexibility, and new working cultures. Insourcing stresses not only organizational changes but also a shift in resources, practices, and roles. This paper investigates the dynamics of insourcing through the lens of digital urban twins, which serve both as technological tools and embodiments of urban digitalization, aiming to create holistic digital replicas of cities—one of the most comprehensive forms of digital cities. As enablers themselves, digital twins prompt cities to rethink governance models and strategies. With their potential for local, context-specific applications, they provide an ideal empirical case. Drawing on smart city theory, and project literature, this study examines the role of cities in developing urban technologies, focusing on the shift from outsourcing to insourcing towards the public sector. Preliminary results highlight the twofold role of digital twins as drivers and enablers of digital city, revealing challenges in aligning public sector and technological development in urban future-making. Using the 'Connected Urban Twins' project as a case study, this paper compares the twin development in Hamburg, Leipzig, and Munich.

How Can Digitalisation Make Future Cities 'Proximate'? Public Profiles Beyond Technological Provisioning

Author(s): Abdi, Mohammad Hamed; Presenter(s): Abdi, Mohammad Hamed
 Institution: University of Antwerp, Research Group for Urban Development, Faculty of Design Science, Belgium
 Keywords: city of proximity; digitalisation; future cities; public preference; technology; 15-minute city

For years, urban professionals have been envisaging future cities with the limited circulation of conventional cars in which walking and cycling to destinations plus progress in smart technologies cause a prosperous local economy and protected environment, and improve social equity and interaction. Accordingly, to steer future cities towards sustainability goals, the '15-minute city' (FMC) has recently emerged as a winning neighbourhood planning and design model in response to current urban issues such as the COVID-19 pandemic and climate hazards. Consequently, future proximity cities dreamed of a reduction in the need for travelling long distances, less CO₂-emissions, noise pollution and inequalities, and an increase in physical activity, socialisation, citizens'

participation and solidarity, as well as physical and mental health. Along with well-established dimensions of FMC such as proximity to services, optimum population density and land use diversity in the literature, the model freshly introduced 'digitalisation' as the fourth contributor to the 'city of proximity'. In close association with the Smart City concept, digitalisation relies on different modern technologies (e.g., sensors, Blockchain, Digital Twins, Internet of Things, etc.). It is supposed to turn the city of proximity's dreams into reality in the future through inclusivity, online provisioning and real-time delivery of services, virtual communication, remote work, optimal consumption of resources, participation improvement, and mobility facilitation, to name a few. Despite progress made in recent decades, however, it does not necessarily guarantee better proximity and access to services and products for future cities since bottom-up prerequisites tend to play a key role. In fact, it seems hard to benefit from technological advancement and its future provisioning (i.e., digital availability of services and products) across cities worldwide unless we take into account public profiles such as their needs and preferences since they are the final consumers of digitally-equipped services and products. The present study set out to review the soft aspects (i.e., public acceptance) of the FMC's digitalisation dimension and examine how its deployment and use can result in digitally-equipped behaviours concerning proximity to daily essentials. In doing so, three hypotheses are taken into consideration: (1) confidence and ability to use technological facilities when catering to services and products, (2) preference and attitude towards relying on digital technologies when real-world options are simultaneously available, and as a result, (3) the extent to which citizens' behaviour is digitalised. The results of this study highlight the importance of public profile, acceptance, and preference beyond physical and digital availability of services and products when making policies for and planning future proximity cities across the world.

Panel II: Energy Resources, Extraction, and Metabolic Entanglements

Monday: 13.45 - 15.15, Session II, Moderation: Thilo van der Haegen

Redefining the Agency of the Local State: Urban Future-Making Around China-Led Investments in Peripheral Eastern Germany and Poland

Author(s): Langguth, Hannes; Kębłowski, Wojciech; Presenter(s): Langguth, Hannes; Kębłowski, Wojciech

Institution: HafenCity University Hamburg, Germany; Vrije Universiteit Brussel, Belgium

Keywords: chinese investments; european peripheries; future-making; infrastructure projects; local state agency

In recent years, the increase of transnational investments in Europe has shifted development priorities towards formerly peripheral or so-called 'left-behind' regions. This has been driven, for example, by large-scale projects tied to Europe's energy and mobility transitions, as well as key infrastructure initiatives aimed at global geo-economic integration. Against this backdrop, the EU's dependency on key transition technologies and infrastructures, such as those in e-mobility, has resulted in a significant presence of actors, interests, and investments from East Asia, particularly China. Amid growing geopolitical East-West rivalries, these investments not only reshape local economies but also redefine the roles and responsibilities of the local state and its officials within the global economic landscape. While local state actors in peripheral regions of Europe were long perceived as constrained in their actions due to a lack of resources, they have recently emerged as central and shaping players amidst these new transnational investments. Our research examines this shift in two particular political-economic and urban-geographical contexts. First, we look at Chinese investments in battery manufacturing technologies in Thuringia and Saxony-Anhalt, Eastern Germany. According to local officials, investments serve as a model for envisioning future economic opportunities and prosperity, thereby raising the region's profile around the vision of a 'Future Battery Valley'. Second, we observe similar dynamics in Lubelskie, Eastern Poland, where Chinese-inspired modernisation of large-scale logistics infrastructure holds the promise of generating growth in a peripheral EU border region, narrated as a 'Gateway to Europe', yet it increases geopolitical volatility. Despite contextual differences, both cases share a historical trajectory rooted in post-socialist transformation and re-configuration of regional economies, where China's recent engagement is perceived as a key driver for future development. In this context, local stakeholders seek to leverage these opportunities to generate growth dynamics and (re)gain new forms of centrality within the European political-economic landscape. In doing so, they mobilise a diverse range of (im)material resources, spanning from financial concessions and personal networks to achieve successful project implementation. Local actors expand their political and administrative roles, at the same time they assume new responsibilities through strategic positioning, collaborations and disputes with both national and EU authorities, autonomous establishment of bilateral relations with Chinese officials, and negotiation of independent investment agreements. These observations raise critical questions regarding the evolution, role, and transformation of the local state in Europe's peripheries, particularly its stakeholders' agency to navigate global and regional development agendas. Our contribution asks how the agency of the local state is (re)shaped, by whom, and for what purposes. The qualitative study, which mostly deploys ethnographic methods and document analysis, sheds light on the complex interplay between local, regional, and global actors in the production of new development geographies in Europe's peripheries.

Material Flows and Spatial Justice: A Framework for Research and Teaching

Author(s): Beyer, Elke; Bauer, David; Hagemann, Anke; Strobel, Paul; Presenter(s): Beyer, Elke; Bauer, David; Strobel, Paul

Institution: Anhalt University, Dept. of Architecture, Dessau, Germany; Technical University Berlin, Institute for Architecture, Berlin, Germany

Keywords: architectural production; construction materials; energy carriers; global production networks; infrastructure; planetarity; supply chains; translocality

Current planetary urbanization relies on trans-local or globalized supply systems of resources and goods – mostly based on extractive modes of production, (post)colonial exploitation and the externalisation of costs and risks. Despite huge socio-ecological impacts, the dark sides of resource extraction and commodity production often remain inconsequential to consumers. Even measures of ‘green transition’ in European urbanism affect distant places in harmful ways, reproducing spatial injustice. For a more just, planetary approach to urban future-making, we have to ‘expand the frontiers of urban sustainability’ (Wachsmuth et al., 2016). This paper discusses how critical knowledge about trans-local supply systems can be integrated and operationalized in architecture and urban design research as well as in the disciplines’ curricula to this end. Conventional practices of constructing and operating buildings are based on immense material flows and expansive infrastructures for the production, circulation, and disposal of goods. Thus, collateral effects of design and planning decisions reach far from the actual building site and urban context. Architecture and Urban Design are inextricably linked with globalized supply systems, while professionals often still seem to act in a state of dissociation, and education offers too little reflection or guidance on how to practice otherwise. This paper presents a framework to explore trans-local resource flows and their interplay with the built environment. It suggests to use architectural skills to trace and map supply chains across scales, thus investigating the architectures and infrastructural configurations of globalized production systems. We explore the potential of this approach in research and in learning, as a tool for exploring trans-local spatial arrangements, global material interdependencies and related forms of agency. Two examples illustrate its application: 1) Solar power has high expectations in the transition to renewable energies, but the global interdependencies of resource extraction and solar panel production are often black-boxed. The BB2040 research project has mapped Berlin’s energy supply – including solar: from solar farms in Brandenburg to related sites of extraction and production in China. 2) Reinforced concrete is the most globalised and climate-damaging construction technology. Cement supply chains operate mostly on a regional scale, but run by multinational companies. Studying ‘Architecture’s Supply Chains’ as an integral part of architecture research and theory curricula allows to develop a material literacy including the globalized networks and externalities of various building materials’ trajectories from extraction through transport logistics to the construction site. Architectural and urban design pedagogies need collaborative, trans-disciplinary knowledge production on present and future practices, building material literacy based on a holistic understanding of socio-environmental justice. Embedding research-based mapping of supply systems in the curricula, we seek to foster and mainstream the knowledge base for a future professional ethics and practice at a time when due diligence and supply chain transparency are increasingly recognised as critical necessities.

European Energy Transition: Disruptive Re-Composition of Andean-European Rare-Earth Extraction Landscapes en Route

Author(s): Orduz, Alejandro; Presenter(s): Orduz, Alejandro

Institution: TU Berlin, Chair: ÉLAN—Designing Landscapes of the Anthropocene, Germany

Keywords: energy transition policies; green extractivism; geo-social collectives; landscape research; transition discourses; pluriverse; supply chains; territorial transformation

In the global debate on the Energy Transition towards renewables, major attention is devoted to the promise of decarbonisation of energy sources for industry, transport and households. However, what often remains hidden, is that the ‘green turn’ in energy policies in the North intensifies the mining of rare earths, the construction of related infrastructures, and the disruption of landscapes in the South – (re)connecting, for instance, peripheries in Latin America to urban centres in Europe. This paper is embedded in my PhD project which aims to shed light on this territorial shift identifying trans-local landscapes of rare-earths in their travel from sites of mining to those of refining and consuming at their destination, asking in which ways the European Green Energy Transition and Raw Material Policies transform landscapes ‘en route’. Empirically, this research studies rare-earth extraction routes connecting copper and lithium extraction landscapes in the Central Andean Spine with Europe – territories that so far have been neglected in landscape architectural research. The Central Andes are part of a geological region that counts on significant rare-earth deposits and showcases growing mining activities due to the rising demands of ‘green’ industries, accounting for ~35% of copper and ~30% of lithium global exports. This research focuses on the Lithium extraction of the so called ‘Lithium Triangle’, i.e. border region Argentina, Bolivia and Chile, and the copper mines of San Juan, Argentina. Due to the intensification of ‘green extractivism’, those regions are undergoing significant transformations given the emergence of new infrastructures and production practices. Rather than focusing on the spatial and socio-economical analysis of extraction peripheries

as Milica Topalovic and Christian Schmid, this paper proposes to lay an equal focus on the transformation of trans-local landscapes 'en route', suggesting a new array of interdisciplinary theoretical debates to unravel the spatial agency of rare-earths supply chains. In the spirit of what anthropologist Arturo Escobar calls 'Transition Discourses', it combines new-materialist and post-humanist theories from the North, with post-developmental and bio-centric debates from the South. With 'the pluriverse' (a world of many worlds, as postulated in post-developmental discourses) unpacked through 'compositionism' (as defined in post-humanist theories) as two core terms, this paper provides an alternative theoretical frame for landscape architectural design research on extraction routes. Under that framework, it examines the uneven and disruptive transformations unleashed by infrastructures exploring the notion of 'geo-social collectives' elaborated by sociologist Nicolaj Schultz, as well as the debate of 'extended urbanization' and related discussions on 'territory'. The purpose of this paper is thus to provide an analytical framework to analyse the territorial disruptions and interdependencies of trans-local routes of rare-earths extraction from a landscape architectural perspective.

Metabolic Entanglements of Material and Symbolic Resources: Scenes of Unequal Urban Future-Making Across Israel and India

Author(s): Marom, Nathan; Presenter(s): Marom, Nathan

Institution: Sciences Po Urban School; Paris Institute for Advanced Study, France

Keywords: entanglements; urban metabolism; symbolic power; urban visions; cement

In this paper, I present a concept of metabolic entanglements that interrelates material resources and symbolic power in processes of unequal urban future-making. To begin with, this concept critically reframes and expands the quantitative and technical approaches to material flow analysis and urban metabolism as studied by industrial ecologists – by insisting on studying metabolic flows across extended infrastructure systems, global supply chains, competing economic actors, and intersecting geographic scales. Second, taking a cue from urban political ecology, I see metabolic entanglements as distinctly and diversely political – from local conflicts over resources to geopolitical power – (re)producing unequal social relations as they intersect with conflicting political processes. Third, I posit that metabolic entanglements have an important non-material dimension, and are shaped through the interactions of metabolic and symbolic power, the contestation of economic and symbolic forms of 'capital'. I thus propose a theoretical move to connect urban-materialist and ecological approaches that highlight more-than-human agency (notably Latour's actor-networks and assemblages) with Bourdieu's sociological attention to symbolic power (captured by his notion of 'principles of visions and division') as the fundamental force shaping social and spatial spaces and hierarchies. I illustrate these ideas by briefly outlining two interconnected case studies from Israel and India – following some of their entanglements through Germany. The first focuses on the entanglements of mineral quarries, construction materials, cement manufacturing, and political conflict in the Tel Aviv metropolitan region (TAMR). I zoom in on the Nahal Raba quarry, just beyond the 'Green Line' separating TAMR from the West Bank (Occupied Palestinian Territory), highlighting its entanglements with the Heidelberg Materials conglomerate and with local and global campaigns of corporate sustainability and climate justice activism. Here, the symbolic power to determine what is 'sustainable' and 'green', as well as what is legal and illegal, plays a critical role in shaping unequal material distributions as well as urban futures across the Israel-Palestine divide. The second case follows the global supply chains of the Adani Group, especially its power generation (coal mining, thermal power plants), renewable energy (solar and wind farms), and materials (cement) subsidiaries. These material and energy flows will largely determine the contours of India's ecological transition and future urban environments. Yet they are also intricately connected to economic, political, and symbolic power, as personified in Gautam Adani and his ability to extract value from urban visions such as the Dharavi slum redevelopment project in Mumbai. Moreover, the two cases are interrelated through Adani's leading position in India's cement industry (where Heidelberg is also a key player) as well as through its investments in Israel's critical infrastructure (the acquisition of the Haifa port, one of the main metabolic entry points to Israel). Together, these scenes from Mumbai and Tel Aviv show how metabolic and symbolic resources are entangled together in unequal politics of urban future-making.

Panel III: Imaginaries, Visions, and Investments as Resources

Monday: 15.45 – 17.15, Session III, Moderation: Joachim Thiel

Where Did the City of the Future Come From? Tracing Putrajaya's Constitutive Geographies

Author(s): Bunnell, Tim; Presenter(s): Bunnell, Tim

Institution: Asia Research Institute & Department of Geography, National University of Singapore

Keywords: constitutive geography; geographical biographies; intelligent city; putrajaya; reference points; truth spots; urban imaginaries

Conceived, designed and built in the 1990s, Putrajaya not only became Malaysia's federal government adminis-

trative centre, but was intended to be a futuristic 'intelligent city' and test-bed for paperless 'e-government'. The city also formed part of a wider high-tech urban development corridor (the so-called Multimedia Super Corridor) extending southwards from Kuala Lumpur, which was imaginatively central to then Prime Minister Mahathir Mohamad's Vision 2020 – striving to make Malaysia into a 'fully developed' country by the year 2020. Existing research and writing on Putrajaya, including some of my own (Bunnell, 2004), has largely considered this built-from-scratch city as the brainchild of Mahathir Mohamad, and the many influences that shaped his political worldview (what political scientist Khoo Boo Tiek [1995] termed 'Mahathirism'). It has also been possible to read specific imaginative resources that went into the making of Putrajaya from elements of the built environment, and through interviews with some of the architects and designers involved (King, 2009). This presentation arises from collaborative research which has involved me revisiting Putrajaya from a temporal vantage point beyond 2020. In that ongoing research, I have been able to access both documentary material and interviewees that were either off limits or unknown when I conducted my original (doctoral) research on Putrajaya and the Multimedia Super Corridor in the 1990s. Drawing upon this new material – including an interview with 99-year-old Mahathir Mohamad and a host of other key proponents of Putrajaya from the 1990s – I will focus the presentation specifically on the issue of constitutive geographies: the sites/sights, reference points, truth spots, spatial pathways and geographical biographies that formed imaginative resources for the making of the city. This approach fits neatly into Stream 3 of the conference on 'Resources of urban future-making', and particularly its concern with 'immaterial resources such as urban imaginaries' (although materiality and corporeal experience are also important for some of Putrajaya's constitutive geographies). In addition to tracing imaginative resources for urban future-making in 1990s Malaysia, the presentation will include methodological consideration of researching futures past. In particular, I will reflect on the partiality of memory in both senses of that term – not just those aspects of historical future-making that have been deliberately remembered or forgotten in acts of self-aggrandizement, whitewashing or retrospective rationalization, but also how some aspects of futures have less consciously fallen from view or are overlooked as result of contemporary preoccupations and ways of seeing.

Crowdsourcing Mobility Futures

Author(s): Sgibnev, Wladimir; Presenter(s): Sgibnev, Wladimir

Institutions: Leibniz Institute for Regional Geography, Leipzig, Germany

Keywords: mobility futures, crowdsourcing, trainspotters, knowledge hierarchies

In view of carbon-free futures, mobility transitions substantially unsettle spatial and socio-economic orders. Their unsuccessful implementation so far is often attributed to the latency of political decisions or conflations with industrial interests. An alternative vision, however, ties the failure to a pervasive reliance on technological fixes, eurocentrism, and simplistic understandings of power relations. These material and normative fixes pre-configure possible mobility futures. Seen through a de-colonial lens of epistemic inequality, these fixes may be described as expressions of coloniality, stretching beyond a historical experience of colonialism, and expressing themselves in the production and distribution of knowledge. This enduring epistemic inequality may preclude socially and environmentally just mobility transitions. In order to identify and overcome these fixes, the presentation engages with alternative visions of future urban mobility, the underlying normativities, aspirations, and contradictions. Public transport enthusiasts around the world have created a widespread and often highly professional digital network of seemingly innocent 'trainspotter' resources. These largely represent a 'sustainable', supposedly apolitical, infrastructure-heavy worldview, imported best practices and a rejection of 'backward' or 'indigenous' mobility solutions. Even if trainspotters lack political representation in their local contexts, their extraordinary level of localised knowledge places them at the forefront of debates about possible mobility futures. Trainspotters' crowdsourced and crowd-discussed digital products – fantasy maps, visualisations, and forum debates – may be seen as vigorous resources for crafting futures. Analytically, they provide the potential for identifying and discussing self-racialisation and self-orientalising practices which have marked multiple colonised spaces in the fields of mobility productions 'from below'. To understand knowledge inequalities – and their resistances – the presentation delves into crowdsourced public transport photo repositories (e.g. old-bus-photos.co.uk), rolling stock databases (e.g. transphoto.ru) and mapping projects (e.g. www.openrailwaymap.org), and provides a qualitative and quantitative analysis on contributing practices, users biographies, and discourses. This builds on recent critical discussions on crowdsourced digital data such as OpenStreetMap, Wikimapia, or Wikipedia, which have revealed underlying gender and regional biases, yet have left mobility concerns and de-colonial perspectives unconsidered. Scrutinising trainspotters' resources, their proposals and positionalities, thus allows to shed light on the knowledge production processes at work within the production of mobility futures, and planetary futures in the broadest terms.

Agents of Change in Multi-Risk Urban Transformation: The Case of Bagnoli-Coroglio

Author(s): Vendemmia, Bruna; Amenta, Libera; Bizzotto, Elisa Chiara; Russo, Michelangelo; Presenter(s): Vendemmia, Bruna; Bizzotto, Elisa Chiara; Amenta, Libera

Institution: DiARC Department of Architecture Università degli Studi di Napoli Federico II, Naples, Italy

Keywords: contaminated sites; Italy; local communities; multi-level governance; non-human agents; urban metabolism; wastescapes

What forces shape long-term urban transformation processes in polluted and multi-risk environments, and which agents determine their success or failure? This study explores these questions by examining the reclamation process of Bagnoli-Coroglio, a heavily contaminated Site of National Interest (SIN) in the metropolitan area of Naples, Southern Italy. Characterized by overlapping risks – environmental, social, and institutional – the site offers a compelling case for examining both human and non-human agents of transformation. Designated for environmental remediation under Legislative Decree 152/2006, SINs are industrial areas burdened by pollutants from past activities. Bagnoli-Coroglio, once a thriving industrial hub hosting the ILVA steel plant, has remained abandoned and polluted since its closure in the 1990s, becoming a ‘wastescape’ shaped by the inefficiencies of urban metabolism. Despite numerous proposals for reclamation, bureaucratic inefficiencies and political inertia have stalled progress for decades (Lepore, 2017), depriving local communities for nearly 40 years of promised public spaces as well as limiting their right to participate in the decisions about the future of their neighbourhood and former place of work, while waiting for its transformation. In 2014, the Italian government appointed a special commissioner and the implementing entity INVITALIA S.p.a. to oversee the site’s reclamation and regeneration. Nevertheless, governance at the national level has almost completely excluded local stakeholders. In response to this national top-down approach grassroots movements such as Lido Pola, Circolo Ilva, and Villa Medusa have emerged to reclaim their rights. Concurrently, the absence of human activity within the site has allowed for ecological recolonization by plant and animal communities, underscoring the role of non-human agents in shaping the site’s transformation. This aligns with the notion that natural and ecological processes operate alongside social and political dynamics (Swyngedouw and Heynen, 2003). The paper examines the interplay of these diverse agents – government bodies, local communities, and non-human actors – based on site visits, mapping and workshops. Presented within the framework of the PE3 – RETURN project (Multi-risk science for resilient communities under a changing climate), this research offers new insights into the challenges and opportunities of urban regeneration in multi-risk contexts.

Contesting the Role of Creative Communities in Urban-Rural Arenas: A Critical Perspective from Urla

Author(s): Çınar, Sena; **Presenter(s):** Çınar, Sena

Institution: Izmir Institute of Technology, City and Regional Planning, Turkey

Keywords: creative community; creative economy; urban-rural arenas; Urla

Creative communities, defined as networks of creative individuals, entrepreneurs, and local actors engaged in cultural and economic innovation, have often been celebrated as drivers of socio-economic revitalisation and cultural innovation in urban and rural transformations (Florida, 2002; Pratt, 2008). However, recent critical scholarship highlights their role in processes of gentrification, displacement, and the commodification of cultural and natural assets (Peck, 2005). Despite this growing critique, there is limited understanding of how these communities operate tactically within the socio-spatial dynamics of urban-rural negotiations, particularly in non-Western contexts, where cultural and historical specificities intersect with global economic pressures. This paper aims to address this gap by critically examining the tactical interventions of creative communities in Urla, Turkey, a unique setting where urban and rural imaginaries collide. Through a mixed-methods approach, the study combines semi-structured interviews with creative entrepreneurs, local decision-makers, and long-time residents, alongside a survey of creative class members and entrepreneurs who have relocated to Urla. The analysis explores how creative communities leverage Urla’s natural and socio-cultural identity features to attract new members while simultaneously redefining the district’s identity through their practices. These findings are contextualised within broader socio-political and ecological transformations, highlighting the intersections of local agency and global neoliberal frameworks. By conceptualizing Urla as an arena of urban-rural negotiation, this research situates the district within the framework of urban future-making, where conflicting narratives and power dynamics shape spatial and social outcomes. The findings reveal that while creative communities often claim to foster inclusive and sustainable development, their activities frequently align with neoliberal urban agendas, amplifying socio-ecological inequalities, displacing local populations, and prioritizing economic gains over equitable development. Moreover, their practices reshape Urla’s identity, introducing tensions between its historical, cultural heritage and its evolving role as a hub for creative economies.

Stream 4: Tactics in Urban Future-Making

Panel I: Diverse Geographies of Tactical Urbanism

Monday: 11.15 – 12.45, Session I, Moderation: Hannes Langguth

Navigating Tactics and Strategies: Grassroots Resistance to the Neoliberalisation of Urban Public Green Spaces and the Question of Socio-Ecological Justice

Author(s): Boyalı, Ayşegül; Presenter(s): Boyalı, Ayşegül

Institution: Sakarya University, Visual Communication Design Department, Turkey

Keywords: urban public green, neoliberal urban policies, tactics, strategies, spatial fix, grassroots activism, socio-ecological justice

Urban public green spaces are increasingly shaped by neoliberal development strategies that prioritize commodification, enclosure, and top-down planning, often marginalising everyday social interactions and grassroots engagement. Park restoration projects for historical green areas by local governments, while ostensibly aimed at environmental protection, frequently create tension between spatial control and the lived experiences of diverse urban groups. This paper examines these dynamics by focusing on the long-standing struggles over Istanbul's Validebağ Grove, where grassroots resistance to municipal park projects has challenged hegemonic urban development strategies since the 1990s. Drawing on ethnographic research – including archival analysis, policy documents, and in-depth oral interviews – the study explores how neighbourhood volunteers and activists have employed tactical urbanism to contest municipal efforts to transform the grove into a conventional park. Their sustained resistance has not only preserved Validebağ as a socially and ecologically integral space but has also influenced municipal governance, particularly following the shift in local leadership after the 2024 elections. The new municipal administration has incorporated participatory strategies and collaborated with activists to protect the grove, yet tensions remain. In particular, activists' recent advocacy for an 'Ecosystem-Based Management Plan' (2021) reflects an evolving interplay between tactics and strategies. By assessing the socio-ecological implications of these shifting policies, the paper critically examines whose interests are prioritized in conservation policies and at what cost. The study interrogates how environmental governance can privilege biodiversity at the expense of vernacular public life, leading to the museumisation of nature, the exclusion of everyday users and the marginalisation of existing ordinary interactions with socio-nature. Ultimately, it calls for a reconciliatory approach that balances ecological preservation with inclusive, participatory, and equitable urban futures.

Cracking Imaginaries: Tactics and Paradoxes of Making Lilongwe Clean, Green, and Prosperous Amid Overlapping Crises

Author(s): Bauer, Willi; Presenter(s): Bauer, Willi

Institution: Friedrich-Alexander-Universität Erlangen-Nürnberg, Institute of Geography, Germany

Keywords: environmental imaginaries; governance; urban political ecology; urbanization of nature; southern urban critique

The greenery in which Lilongwe's Garden City-imaginary is rooted is quickly decreasing. Against that background, the city council of Malawi's capital has formulated an ambitious plan to make Lilongwe 'clean, green, and prosperous'. Recurring to the city's modernist (and segregationist) planning history, and interlinked with the imperatives of climate adaptation, this plan, which also seeks to 'put Lilongwe on the global map', is pursued increasingly recklessly by the city council. Utilising concepts of the Southern Urban Critique and the Urban Political Ecology and drawing on qualitative fieldwork conducted between 2022 and 2024, this presentation explores emerging greening practices and that address and utilise the cracks in Lilongwe's green imaginary, and their paradoxes. For that, I analyse a large-scale greening project, the Lilongwe Ecological Corridor Initiative, and the promotion and repression of mundane forms of urban and urbanised nature, using maize and trees as examples. Through this, I elucidate two crucial aspects. First, I explore the intertwinements of historical and contemporary urban imaginaries with greening practices, and how these narratives are inscribed into the governance of urban nature. And second, I elucidate multi-layered conflicts between greening aspirations – both pursued by municipal and non-governmental actors – and make+shift urban realities. The governance of nature reflects key challenges between performative urban governance and the equitable addressing of heterogeneous service needs. To circumvent the reproduction and naturalisation of inequalities, it is imperative to depart from the city as it is, rather than from the city as it is envisaged to be. The analysis of emerging tactics and paradoxes can provide starting points for this, but also underline the need for critical reflection.

Storage as Infrastructural Tactic and Future-Making: Accounts from Households in Nairobi

Author(s): Kasper, Moritz; Presenter(s): Kasper, Moritz

Institution: TU Dortmund, Department of Spatial Planning, Dortmund/Berlin, Germany

Keywords: electricity; everyday urban; infrastructure; nairobi; storage; water

With a joyful fascination for the 'boring things' (Star, 1999) of contemporary cities, my contribution discusses the domestic storage of basic resources such as water and electricity as a minor infrastructural 'tactic' (de Certeau, 1984). In doing so, I foreground the importance of quotidian work and mundane socio-technical/socio-ecological hybrids as essential components of everyday future-making in contemporary cities. Since the modern urban is utterly dependent on the constant availability of basic services and resources, it rests not only on distributive networks, respective flows, and infrastructures of various movements that, according to the 'modern infrastructure ideal' (Graham and Marvin, 2001), promise universal supply. Rather, multi-scalar infrastructures of storage - that is, of temporarily suspended circulation - are equally important because they can capture value and capital, or balance mismatches between supply and demand. Even more so, in infrastructure configurations that do not provide a centralized, universal, and consistent supply, but can rather be described as heterogeneous, intermittent, fragmented, or the like, 'storage facilities crop up at the household level to manage the uneven supply of, say, electricity or water' (Bize, 2017). For example, the city of Nairobi - the capital of Kenya with a population of about 5 million - has, on the one hand, a fragmented piped water system that provides only two-thirds of the city's water needs through a long-standing water rationing program, and, on the other hand, a fairly universal electricity grid that nevertheless experiences 90,000 power outages per year. Here, the everyday storage of both basic resources at the household scale is an important part of quotidian 'infrastructuring' (Pipek and Wulf, 2009) and the 'hard work of future-making' (Aalders and Müller-Mahn 2024). Yet, it is also a deliberate yet reactionary and individualized 'tactic' in larger infrastructural configurations. Minor storage arrangements - i.e. various water containers or battery applications - enable households and property owners to ensure their own urban-infrastructural stability while anticipating as well as making infrastructural futures. Ultimately, my paper positions domestic storage as both an enduring, ubiquitous, and consequential tactic of urban future-making and as a conceptual approach to understanding and potentially shaping urban-infrastructural presents and futures.

Tactical Food Practices in Marginalised Neighborhoods: Transforming Urban Spaces Through Everyday Practices

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Institution: Izmir Institute of Technology, City and Regional Planning, Turkey

Keywords: food tactics; marginalization; spatial practices; urban inequality; urban transformation

Food systems play a pivotal role in shaping urban environments, particularly in contexts of socio-economic inequality. In marginalised neighborhoods, everyday food practices emerge as tactical responses to structural constraints, revealing the agency of urban residents in navigating access, distribution, and resource sharing. This study examines how urban communities deploy food-related tactics - such as informal markets, shared cooking practices, and food redistribution networks - as micro-scale interventions that reconfigure spatial and social dynamics. These practices are response to immediate material needs and also reimagine urban futures through grassroots innovation and collective agency. Drawing on de Certeau's concept of tactics (1984) as practices of resistance, the research situates food systems within the broader discourse of urban future-making. The focus lies on understanding how these practices mediate power relations, challenge existing urban hierarchies, and contribute to socio-material transformations in urban spaces. Specifically, the study highlights the use patterns of urban environments, such as parks, courtyards, and streets, which are repurposed for food-related activities. These spaces become arenas for collaboration, negotiation, and contestation, where residents forge new ways of interacting with their environments and each other. The research adopts a mixed-methods approach, integrating ethnographic fieldwork, participatory mapping, and spatial analysis to document the spatial, temporal, and social dimensions of food tactics. Ethnographic observations capture the lived experiences of individuals and communities as they engage in food practices, spatial analysis further contextualises these findings by exploring how specific sites are transformed into productive spaces of interaction and resource exchange. Findings indicate that food-related tactics are deeply embedded in the socio-economic and cultural fabric of urban neighbourhoods. While these practices often emerge as adaptive responses to systemic inequalities, they also carry the potential to redefine relationships between public and private spaces. For instance, shared cooking spaces and informal food distribution initiatives reimagine courtyards and streets as communal sites, challenging dominant notions of access and control. These interventions highlight the transformative potential of everyday actions in shaping urban environments. This study positions food as a critical lens for understanding urban tactics, offering insights into how localised practices shape broader urban processes. It emphasizes the importance of recognising everyday practices as forms of an agency that mediates urban change. By situating food practices within the context of urban future-making, the research sheds light on their capacity to influence resource allocation, and

collective resilience. It highlights the importance of grassroots agency in reimagining urban futures, challenging conventional paradigms of urban transformation through the lens of food systems.

Panel II: Tactics within Urban Experiments

Monday: 13.45 – 15.15, Session II, Moderation: Melis Günay

Making Mobility Futures with Urban Experiments: Picturing, Preparing and Persuading in Real-World and Virtual Environments in Munich

Author(s): Jung, Manuel; Knopf, Sophia; Mögele Michael; Presenter(s): Jung, Manuel

Institution: TU Munich, STS Department, Munich, Germany

Keywords: living labs; mobility; sts; techniques of futuring; urban digital twins; urban experimentation

For city planners, public experimentation has become an attractive tool to ‘look into the future’. In efforts to transform urban mobility, public experiments go beyond small-scale interventions and street design interventions. They also include temporary applications of technological innovations for and with the public. For example, on the one hand, project actors test autonomous driving technologies on urban roads to receive real-world (in vivo) feedback on their prototypes. In such living labs or real-world laboratories, the innovations represent great promises attracting a wide coalition of actors to work on this mobility vision. On the other hand, novel technologies are used to virtually (in silico) illustrate how a planned city design looks and test it in public settings. Such digital twins facilitate the imagination of mobility experiences in the future, while the simulative capacity strengthens the presented visions. Both experimental environments – in vivo and in silico – highlight the powerful leverage of technological innovations in experimental activities. Hence, we suggest paying explicit attention to how technological-centred forms of mobility experimentation play out in the making of urban futures. Therefore, we build on the conceptual lens of ‘techniques of futuring’ (Oomen et al., 2022) to show the performative nature of these forms of urban experimentation. In different terms, using novel technologies in public settings for experimentation can be seen as a tactic of future-making. In this sense, we investigate the experimental practices to understand mechanisms that make envisioned futures plausible and more desirable than others. How are mobility futures performed in experimental settings? What does it mean to grapple with the future through experiments? In an empirical case study approach, we juxtapose two experimental environments in Munich: a living lab on autonomous driving and a digital twin project for collective deliberation on new bike lane designs. The living lab TEMPUS tests autonomous driving infrastructure and the behaviour of citizens when interacting with an autonomous vehicle. It engaged with citizens in a variety of sessions to form opinions on this future technology. The Urban Digital Twin Munich realised a simulation of a new bike lane at a central street in the city to publicly discuss urban planning strategies. With this empirical approach, we could identify three core performative mechanisms that plausibilise the enacted visions. When (a) picturing the vision, the actors create visualisations and images to see how the future might look like. They build up new infrastructures and introduce the discourse on upcoming interventions, which we consider a way of (b) preparing the city. Eventually, experimental actors are actively (c) persuading the public by discursively repeating the advantages of their innovation and transformation. These mechanisms show how experiments with the involvement of novel technologies can become powerful tactics to underpin the presented visions of future mobility. At the same time, they call for caution when the allure of these mechanisms outplays alternative ways of creating and deliberating different mobility futures.

Re-Politicising (Street) Experiments: Reflections on the Social and Political Learning Momentum of the Planning Approach

Author(s): Klaever, Anke; Verlinghieri, Ersilia; Presenter(s): Klaever, Anke; Verlinghieri, Ersilia

Institution: Technical University of Berlin, Germany; University of Westminster, UK

Keywords: street experiments; social learning

Over the past years, experiments in urban planning, particularly those conducted in public spaces, have gained momentum. These experiments are not merely a phenomenon of the current planning zeitgeist; rather, they claim to represent a considerable development in political and academic discourse about urban transformations towards more ecologically and socially just cities. Experiments are described as promising tools, given their ability to adapt to local needs and circumstances and their iterative governance approach, which allows to better deal with uncertainty, complexity and heterogeneous values in planning processes compared to traditional approaches. The greatest potential of experiments, however, is seen in the spaces they provide for social, political and institutional learning. As critical social scientists researching such experiments, we take this call of learning processes seriously and want to consider the political dimensions of experiments. These concern the political dynamics within the experiment, including the different roles that involved actors, from planners, to local communities, play as well as the role of the political and social contexts in which experiments take place.

Informed from re-reading theories of planning as social learning (Friedman, 1981) and theories of the political and post-political (Mouffe, 2007; Legacy, 2016, 2018), we consider how these dimensions play a role in several examples of experimental street reallocation projects in Italy, the United Kingdom and Germany we studied. By analysing recurring elements which shape the politics of experimentation – such as the role of global crises as a catalyst and justification for experimentation, the impacts of austerity policies on experimental approaches, unfolding controversies expressed with counter-petitions and protests, unequal participation in consultations, and the reproduction of mobility injustices through the tools themselves –, we explore the recurring critiques of (street) experimentation and reflect on the potential of de- or re-politicisation of societal transformation processes. Further, we reflect on how current literature on experimentation can benefit from a re-engagement with traditional planning theory on learning and experimentation, which had clearly emphasised those dimensions. In such way, we seek to revisit the political moment within the social learning process of experiments, focusing on their potential for shaping urban futures. Particularly, we argue that as currently theorised and implemented, experiments do not fully utilise the evoked political momentum nor their ability for societal learning. Rather, they seem to linger in the political and social structures in which they themselves are embedded. Accordingly, this commentary invites to critical reflect upon the social learnings potential of (street) experiments.

Learning in Urban Governance Experiments: Insights from the Vienna Climate Team

Author(s): Aigner, Anna; Presenter(s): Aigner, Anna

Institutions: TU Wien, Faculty of Architecture and Planning, Centre for Sociology, Austria

Keywords: urban governance; experiments; learning

In the context of contemporary urban crises, urban experiments such as real-world laboratories, urban living labs and niche experiments are increasingly seen as increasingly significant drivers of transformative urban development. They are characterised as innovative, exploratory, transformative vis-à-vis administrative structures and as essential to long-term changes towards adaptable, solution-oriented strategies. Experiments are also commonly framed as key sites for learning. Yet what does learning mean exactly in the context of experimentation? In my presentation I focus on how learning is understood, what it means in a concrete case: the Vienna Climate Team, an innovative governance experiment for the co-productive development of climate-relevant projects. This experiment explicitly defines the promotion of learning processes as a goal, and the presentation will shed light on how process design and project structure influence different forms of learning at different levels. To identify factors relevant to process design that stimulate learning, different learning concepts relevant to governance experiments will be compared. Drawing upon qualitative data collection and analysis methods, including document analysis, participant observation, and focus groups, this study sheds light on and systematizes different learning processes in various phases of the experiment. The empirical study identifies four central dimensions of learning: learning collaborative decision-making, learning trans-disciplinary and co-productive collaboration, a deeper understanding of public administration, and a greater awareness of climate-related contexts. The study also elaborates on the relevance of the findings for planning practice. It foregrounds learning through experimentation as a promising tactic towards urban future-making.

Swimming Wildly and Tactically to Improve Rivers: Experiences from England and London

Author(s): Donelson, Maya; Presenter(s): Donelson, Maya

Institution: HafenCity University Hamburg, Department of Environmentally Sound Urban and Infrastructure Planning, Hamburg Germany

Keywords: tactical urbanism; sewage pollution; swimmable cities; water commons; wild swimming

Wild swimming, also known as outdoor and open water swimming, is growing in popularity. In England, it is also emerging as a powerful oppositional tactic used by swimming groups to put pressure on the government to make improvements to rivers. There is talk of a water commons in crisis, exemplifying Hardin's tragedy of the commons, where private water companies prioritize profit while society bears the costs of pollution and ecological degradation. This situation has led to the most recent anti-sewage movement which builds upon and adapts the tactics of Surfers Against Sewage who have been active since the 1990s. Today it is swimmers, together with other water enthusiasts and recreational users, who are deploying tactics to address sewage pollution and reimagine rivers as clean, accessible and swimmable. Swimmers are not only asserting their right to access and swim in rivers and canals by immersing themselves in often polluted waters, but they are strategically leveraging legal policy frameworks like the Bathing Water Directive to push local authorities to monitor and improve water quality at popular sites across the country. Citizen science also plays a role where local groups monitor bathing water quality themselves. In urban areas, particularly London, an opportunity exists to link the bottom-up tactics of swimmers with top-down strategies and plans. Bluetits Chill Swimmers and initiatives like the Tidal Thames Swims are reimagining urban waters as swimmable public space. Thames21, an environmental charity, is also supporting the application for official bathing water status on the River Roding, which would be the first official site in London. At the heart of these actions is a tactical urbanist approach that leverages low cost

and scalable interventions. These actions are filling the gap where visionary large-scale infrastructure projects such as Thames Baths have struggled to become a reality. New impulses are also coming from London's Mayor Sadiq Khan, who announced that he wants to develop a 10-year plan to make London's rivers swimmable and whose office recently released A Guide to Open Water Swimming in London which shows where you can swim outdoors today, while indicating possible locations in the future. Further momentum is coming from the International Swimmable Cities Movement which launched in the summer of 2024. In conclusion, this presentation will explore the crisis of England's water commons, tracing the evolution of the anti-sewage movement and wild swimming as an oppositional tactic. It also highlights the potential to merge local tactical actions with strategic urban planning, paving the way for swimmable urban futures in cities like London. In doing so, this presentation contributes to the discourse on new tactics of urban future-making that are shaping the urban water commons today.

Brick Production and Field Kiln: An Arena Activating Urban Future-Making in the Vogtland

Author(s): Frölich-Kulik, Maria; Utermann, Hinnerk; Langner, Sigrun; Presenter(s): Frölich-Kulik, Maria

Institution: Bauhaus University Weimar, Chair of Landscape Architecture and Planning, Germany

Keywords: activation strategies, brick production, industrial heritage, transformation processes, participatory action research

To this day, industrialization remains the most important layer of development in the Vogtland region. Due to abrupt structural breaks after 1990, the industrial heritage is now fragmented and the region is characterized by demolition and an apparent downward spiral. The interdisciplinary research project 'V-Act Netzwerkstatt Vogtland' (funded by the BMBF 2023-2025) operates between landscape architecture, heritage conservation and sociology at the Bauhaus University Weimar. It focuses on the Vogtland region and the transformative capacity of its material and immaterial industrial heritage. The aim is to find formats for activating and linking a networked industrial-cultural landscape in order to develop strategies for sustainable regional development. We ask: how can regional networks and their local actors be addressed and stimulated? How can the industrial heritage act as a catalyst to strengthen regional collaborations between tourism, education, and culture? To achieve this, we follow a participatory action research approach in a living laboratory in order to better understand the complex spatial situation, its transformation processes and provide impetus for positive change. The brick is used as a starting point to draw attention to the value of the industrial heritage of the Vogtland region. Brick production is always linked to landscapes resources, bricks shape build structures and represent the industrial heritage, as in the case of the Vogtland. Here, the highlight of this brick landscape, which can also be traced in the form of field names, street names, clay pits and demolition heaps, is the Göltzschtal Bridge as the largest brick bridge in the world. Our approach is a collective brick production, where different actors meet and experience the making of bricks that shape their everyday environment. By producing bricks in a pre-industrial 'Handstrichverfahren' and a field-fired kiln a participatory temporary urban arena was created, 'where people can meet and exchange ideas'. With the support of local stakeholders and politicians, students and school children from the region, we extracted clay from a former clay pit, made bricks by hand in an open-air summer work camp, stacked the unfired bricks in a field kiln and fired them into bricks at a public field-fire festival. On the day of the festival, plenty of interested people from the region and afar took part to better understand the connections between the landscape and its resources, the industry and its products, the building culture and its building materials. With our contribution we want to discuss how experimental living laboratories with a design build approach can contribute to regional future-making. By opening up the temporary arena, generations of the Vogtland were brought together, knowledge of landscape resources was revived, and active actors in the region were mobilized and supported. By making the process of brick making tangible, awareness of the industrial cultural landscape heritage is raised opening a path to link tourism, education, and culture co-creatively.

Panel III: Actors' Capacity in Shaping Tactics

Tuesday: 11.00 – 12.30, Session V, Moderation: Alessandra Manganelli

Strategising Nusantara: Uncovering Elite Tactics and Agency in the Making of Indonesia's New Capital City

Author(s): Moeller, Anders; Presenter(s): Moeller, Anders

Institution: National University of Singapore, Department of Geography, Singapore

Keywords: agency; elite tactics; indonesia; new cities; nusantara; power

Purpose-built new cities are usually framed as strategies of societal transformation and modernisation (Wake-man, 2016). Increasingly, they are also cloaked in eco- and technotopian discourses that promise smart and green living solutions for all (Cugurullo, 2018; Pow, 2018), often as part of wider national development strategies (Datta,

2015; Cugurullo, 2016; Côté-Roy and Moser, 2022). However, these *de novo* mega-cities require the mobilisation of vast resources. Policymakers thus need to deploy a variety of formal and informal tactics to achieve these strategic ends. While most literature has until now primarily theorized tactics from the perspective of grassroots actors seeking to work against power imbalances (see for example Lydon and Garcia, 2015), elite state planners also need to be adaptive and situational to achieve urban change. However, many of these tactics emerge from the opaque, everyday interactions of elite actors, which can make them difficult to study. Indonesia recently embarked on an ambitious project to relocate its national capital city to a greenfield site in a remote part of the country that aims at becoming a smart, green, liveable, forest-city of 2 million inhabitants by 2045. To get political backing for this multi-billion dollar venture, the country's president from 2014 to 2024, Joko 'Jokowi' Widodo, and his allies had to leverage a variety of tactics to influence the establishment in Jakarta, which eventually led to Nusantara becoming a legally binding project. Based on 12 months of fieldwork, this paper will critically investigate how political elites leverage their power to deploy tactics for urban future-making. In the case of Nusantara, these tactics include green-washing, creating a 'space of exception' (Gogishvili and Harris-Brandts, 2020) to facilitate private investment, and the deployment of futuristic urban imaginaries. These tactics enabled the rapid circulation and institutional embedding of Indonesia's capital relocation project. However, they also created a self-contradictory 'sustainability fix' (While et al., 2004; Temenos and McCann, 2012), based on a carousel of label (Cugurullo and Ponzini, 2015), which has made the Nusantara capital city a white elephant project that can never live up to its aspirational promises. Focusing on the networked agency of political elites, this paper sheds light on some of the hidden political tactics that shape urban mega-projects. Although these tactics initially accelerated the implementation of Nusantara and helped achieve symbolic short-term goals, they also introduced harmful effects which may underline the project's long-term prospects. This paper therefore also sheds light on the relational limits to elite agency in utopian urban planning and the contingencies of spatial power. The paper will conclude with epistemological reflections on elite agency and implications for future research.

Hesitation as Tactic: The Diplomat and the Making of Urban Futures

Author(s): Perez, Ignacio; Presenter(s): Perez, Ignacio

Institution: University of Oxford, Saïd Business School, UK

Keywords: urban futures; diplomat; hesitation; sociotechnical change; digital infrastructures; urban governance; interdependence; urban experimentation

Urban futures are increasingly shaped by intertwined crises that unfold across sociotechnical and spatial dimensions. Climate disruptions, the rise of authoritarian governance, and the pervasive influence of digital technologies are converging in ways that destabilise traditional modes of urban governance and planning. In this scenario, cities must grapple with fractured trust in knowledge systems while multiple obligations to their inhabitants, infrastructure, and environmental futures. Against this backdrop, this paper proposes the figure of 'the diplomat', as conceptualised by Bruno Latour and Isabelle Stengers, as a crucial lens for urban future-making. In their vision, the diplomat is not a mere negotiator but a figure who embraces hesitation and mediates between conflicting obligations, fostering interdependence and cultivating imaginative responses to uncertainty. This paper examines how diplomats operate tactically within dynamic and complex urban systems by focusing on urban mobility, sociotechnical change, and digital infrastructures. Digital technologies, such as real-time mapping and data-sharing platforms, are pivotal in shaping new sociotechnical assemblages that influence decision-making processes in urban transport systems. For instance, Transantiago - a multimodal public transportation system integrating buses and metro in Santiago de Chile - exemplifies the diplomat's role in dealing with the tensions between digital technologies and transport management. Established to modernise urban transport through digital infrastructure such as smart cards and GPS-based fleet management, Transantiago highlights both the potential and challenges of hybrid governance mechanisms. By leveraging digital tools - despite their scalability and market-driven origins - diplomats mediate complexity and align diverse urban actors toward shared objectives. In this context, the diplomat emerges as a critical figure, fostering collaboration that preserves conflict's productive potential while encouraging creative engagements to address the plurality of urban needs. This paper contributes to urban futures theory by proposing a framework of urban tactics and experimentation centred on the diplomat's capacity for generative hesitation. It redefines urban expertise as a collaborative and iterative practice that bridges technical, political, and social dimensions. By challenging the reductive logic of scalability and dependency chains, the paper emphasises the importance of adaptive approaches that embrace the relational complexities of cities. These approaches prioritise fostering interdependence to navigate and resist the oversimplifications often embedded in modern systems. Finally, the paper features the potential of urban experimentation to transform epistemic crises into opportunities for collective imagination and resilience. It advocates for a praxis where urban futures are co-created through collaborative governance, localised interventions, and an ethos of shared obligation. In this framing, the diplomat's role extends beyond mediation, becoming a figure that activates the political imagination needed to reconfigure urban systems amidst uncertainty. By embedding hesitation and interdependence at the core of urban tactics, this work offers a robust theoretical and practical pathway for cultivating just, resilient, and adaptive urban futures.

Radical Planning and Political Activism in Extremely Contested Cities: Learning From Jerusalem and Johannesburg

Author(s): Milner, Elya; Presenter(s): Milner, Elya

Institution: Technische Universität Berlin, Center for Metropolitan Studies, Germany

Keywords: activist planners; contested cities; jerusalem; johannesburg; radical planning

In the talk I will present a new research project I am developing, aimed at exploring the work of activist planners in planners-led NGOs in extremely contested cities, namely cities where extreme systemic inequalities are structured into the urban systems, reflecting broader contexts of ethno-national conflicts at the state level. Empirically I study two cities, Jerusalem and Johannesburg. In Johannesburg I focus on the work of NGOs struggling against apartheid in the 1980s and the beginning of the 1990s; and in Jerusalem, I focus on NGOs struggling against the settler colonial urban logic since the beginning of the 2000s to the present. Studying these cases both separately and comparatively, the project will make a novel contribution to urban planning theory by offering a nuanced analysis of the tensions and interactions in practice between different theoretical approaches to the role of planners as active political agents – from advocacy and progressive planning to radical and insurgent planning. Particularly this project aims to blur the existing theoretical distinctions between activist planners that adhere to, utilize, and work with institutional planning systems; and activist planners that facilitate grassroots actions aimed at transforming and revolutionizing planning institutions. Furthermore, it contextualises these planning theories outside of the struggles in which they were developed and are still usually studied – namely the oppressive neoliberal city-making practices of the capitalist state mechanisms – exploring the practices of activist planners in cities saturated by violent ethno-national conflicts. Based on a close reading of the cases, the study will explore the work of these activist planners as they mediate and negotiate between short-term tactics and long-term strategies, between the local urban arena and the (inter)national circuits of political activism, between everyday survival and aspirations for structural political change.

Save, Spread and Pull: Excavating City-Making from the Bottom Up

Author(s): Roy, Manoj; Presenter(s): Roy, Manoj

Institution: Lancaster University, Lancaster Environment Centre, UK

Keywords: dhaka; informal private-sector; life-history; micro-economic agent; ordinary city-builder

There is a notion that the poor often need to borrow to save and that they start many businesses but do not grow any of them. In this contribution, however, I draw on two life-history examples to contrast this notion. By recounting the life histories spanning over several decades of two humble migrant construction workers – one male (Harun) and the other female (Selina) – to Dhaka in the '60s and '70s respectively, I excavate how they built not just theirs but many others' city lives. The stories tell of the extraordinary and circular micro-economic practices of the 'save, spread and pull' economy. The two micro-economic agents are ordinary, hardworking, (initially) poor individuals. Yet, they are the creators and implementers of the most comprehensive and far-reaching systems for solving problems of poverty, housing, and basic services. They saved whatever and whenever possible, investing that (savings) in (land) assets spreading it across city-to-hinterland before pulling that all to reinvest in human resources (exportable labour to the Middle East), and opportunistically purchasing city land and building city homes. Of course, they drew upon many formal and informal supports, meaning they are hardly mavericks but exemplars of sensible, everyday micro-economic agents. In fast-growing megacities like Dhaka where urban planning typically plays the (inadequate) role of development control rather than enablement, large chunks of the city are made bottom-up by people like Harun and Selina. Typical in cities like Dhaka, apart from occasional housing schemes for government workers and residential land development for the middle- and higher-income groups through formal planning, much of the city building rests on the private sector. However, commercial private sector builders tend to build flats for middle to high-income groups. Given this, ordinary people like Harun and Selina have emerged as the 'informal private sector' to construct much of the housing stock the city currently has. They often employ incremental approaches known as 'one wall at a time' often involving many decades. While the bureaucratic porosity and support networks like cooperative schemes do play important roles, it is ultimately the determination, foresight, and entrepreneurial acumen of the common people that count the most. In effect, our cities are a product of millions of such microeconomic agents, with varying levels of solvency and access to external support. Collectively they are an irresistible force of city-making from the bottom-up. If they have brought our cities to where they are now, which is hardly perfect, then their energy is what we must mobilise to make our cities better. The paper concludes by proposing a few options to harness effectively the goodness of the 'save, spread and pull' micro-economic practices.

Panel IV: Co-creative and Action-led Methodologies as Tactics

Tuesday: 13.30 – 15.00, Session VI, Moderation: Antje Stokman

Co-Visioning Our Neighbourhood: Embedding Visually-Driven, Co-Creative Approaches Within Neighbourhood Planning

Author(s): van Huis, Ashley; Laing, Richard; Presenter(s): van Huis, Ashley

Institution: Northumbria University, Newcastle upon Tyne, UK

Keywords: neighbourhood planning; co-creativity; placemaking; co-production; community empowerment; localism

Neighbourhood planning, introduced in England and Wales through the Localism Act 2011, aims to democratise planning by giving communities greater control over local development through a framework for community-led engagement. Despite this intention, Neighbourhood Planning often fails to convert community knowledge into actionable policies, perpetuating top-down decision-making and limiting equitable outcomes. This paper examines how incorporating visually-driven, co-creative methods into statutory neighbourhood planning can redefine professional roles, enable collaborative placemaking, and bridge the gap between informal community insights and formal, evidence-based planning that prioritises technical expertise. Co-creative methods, such as visual storytelling, collage-making, zine-making, and mapping, allow community members to express their values, particularly where traditional planning language may exclude them. These tools make complex planning decisions more accessible and encourage diverse participation in consultations and decision-making, supporting the translation of community insights into actionable planning policies. This paper argues that embedding co-creative outputs within statutory planning helps reconcile community insights with formal policy, enabling more participatory development outcomes. While not new, co-creative methods in urban planning are often viewed as separate from formal processes, limiting their impact. Recognising these outputs as valid evidence in statutory frameworks can support planning outcomes that reflect a wider array of community values. Integrating co-creative strategies challenges professional expertise's dominance, creating space for collaborative placemaking that resonates with diverse experiences. Integrating co-creative practices into statutory planning presents practical and epistemological challenges. Neighbourhood Planning relies heavily on volunteer engagement, limiting participant diversity. Additionally, tensions between community knowledge and professional planners' technocratic expertise restrict the perspectives recognised in formal planning. While translating co-creative outputs into actionable insights is complex, addressing these issues is critical for more inclusive outcomes. This paper explores how to navigate these tensions to promote meaningful community engagement with formal planning systems. This paper contributes to the discourse around participatory planning by identifying challenges and opportunities for embedding community-led, co-creative approaches within statutory processes. It focuses on the situated nature of participation in Neighbourhood Planning, examining how co-creative strategies could enhance inclusivity while addressing practical barriers and epistemological tensions in integrating local knowledge into techno-rational planning systems. It outlines considerations and conceptual directions for future efforts toward reconciling community insights within formal frameworks.

Evolutionary Architecture: Overcoming Barriers to the Transformation of Existing Buildings - A Practice-Based Research

Author(s): Schmitz, Alexandra; Presenter(s): Schmitz, Alexandra

Institution: HafenCity Universität Hamburg, Germany

Keywords: transformation; refurbishment; sustainable conversion; architecture; design process

Architecture in the face of ecological and economic crisis: the constancy of failure. In recent decades, the climate crisis has become increasingly dire, and human responsibility for the degradation of our own species' environment has become ever more apparent. Our actions in the past have been disproportionate, with consequences for all of us. The history of architecture, too, is full of initial assumptions that were discarded as soon as they were realised. Creation & failure as a recurring cycle. Parallel, the housing crisis in European cities has intensified in recent years. For many Europeans housing has become almost unaffordable and the lack of available space determines entire life courses. Hypothesis 1 (matter) : transformation is the key to a sustainable future of matter. More than 220 million buildings in the EU were built before 2001 and most of them will still be standing in 2050. Overall, buildings in the EU account for 40 % of energy consumption and 36 % of greenhouse gas emissions. Therefore, the refurbishment and conversion of the existing building stock is a central pillar of a sustainable future. Hypothesis 2 (time): evolution rather than tabula rasa. Recognising the transience of our ideas and actions, instead of giant steps, an incremental approach is appropriate to meet our needs and the needs of others. Evolution describes a slow, uninterrupted development of particularly large or large-scale contexts, in contrast to revolution, which seeks 'radical change'. Its speed allows for corrections to the direction taken and it remains adaptable. Hypothesis 3 (scale) : the smallest possible intervention is the best possible intervention. In times of scarcity - of

material and time - the smallest possible intervention that is sufficient to satisfy needs is the best - economically and ecologically. Obstacle: over-regulation and high standards: preventing transformation. If you want to convert a residential building built in 1910 into an office, all the components have to comply with today's regulations. Standards that did not exist when the building was constructed. Not only have regulations become stricter over time, but the number of building standards in general has increased significantly. This makes transformation very cost-intensive. In practice, this often leads to demolition rather than transformation. Sustainable conversion: a theory of patchwork. As a practising architect, my office has carried out several conversion projects in recent years. This has given me an insight into the process, the actors and the frameworks that have supported or hindered the strategies outlined above. The planning process has, over time, established a number of routines and norms. Some of them are useful tools, some of them hinder transformation and some of them we as participants are not aware of. By analysing, categorising and reflecting on the decisions and steps taken in the transformation process of projects that have already been realised, I would like to gain a deeper insight into my profession in order to understand and identify obstacles, but also to identify helpful practices and strategies that are already implemented in the design and construction process. From practice-based research to research-based practice.

Architecture and Climate: Toward a Non-Extractive Approach

Author(s): Pone, Maria; Presenter(s): Pone, Maria

Institution: Roma Tre University, Rome, Italy

Keywords: climate change; comfort and health; design and mitigation; public spaces; urban climate

One of the main challenges faced by those involved in urban planning and design concerns the need to mitigate the effects of climate change in inhabited areas. The urban climate is a complex topic: the relationships between the built environment, temperature, humidity, wind, as well as air quality and pollution, are difficult to interpret, and they are not as linear as previously thought: 'The urban climate was now no longer merely a driving force of building design but, just the other way around, rather the result of it. Climate in cities thus came to be seen not only as a naturally given influencing factor but also as a result of urban configurations' (Sacha Roesler, *City, Climate and Architecture*, Birkhauser, 2022, p. 12). The materiality of the built environment, its tangible configurations, the colors, the roughness of the materials covering our buildings, the impermeable layer that paves the ground for roads and squares, and the proportions between solid and void spaces in urban fabrics distributed across territories, all these elements determine the microclimatic conditions of cities and, consequently, the comfort of their inhabitants, and their overall health. In this sense, architecture and design focused on these aspects are involved as agents of prevention and become the only tools capable of envisioning spaces that are no longer hostile to the health of people and the environment itself. Research and experimental projects addressing the mitigation of climate change effects are now numerous and spread across the globe. Best practices defining new urban development strategies, regulatory frameworks, and monitoring systems are proliferating in major cities. However, in most cases, the approach adopted is exclusively technical, based on increasingly precise data and the development of ever-more refined modeling tools that perfectly simulate the performance of imagined transformations. Yet, the challenges that contemporary conditions pose to architecture cannot be limited to this: there is a fundamental cultural issue to address, one that concerns our relationship with the world that hosts us. This relationship, even in its most well-intentioned expressions of environmentalism or green thinking, remains unable to shed its inherently extractive nature. Without abandoning work on form, materiality, and the tangible aspects of space, architectural culture and design knowledge, when addressing climate-related issues, need to free themselves from the burden of performance and the constraints of 'energy efficiency' to explore other forms of comfort. They must question how and where bodies 'feel good in space', reimagining themselves as a form of care: for the world, for human and non-human entities, and for all the hybrid and complex entanglements that inhabit the Anthropocene era. Starting from this perspective and building on the preliminary results of an academic research project conducted by a working group within the Department of Architecture at Roma Tre University - which developed a case study on mitigation of the Urban Heat Island phenomenon in the Centocelle neighborhood of Rome - this contribution aims to share reflections on methodologies and design practices that address the challenges of climate change in urban environments.

Tactics for Growing: From Exploratory Teaching-Projects to Bottom-up Urban Living Labs

Author(s): Weiner, Hendrik; Presenter(s): Weiner, Hendrik

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Keywords: bottom-up; co-design; engaged learning; live project; tactical urbanism; urban living lab

Exploratory teaching projects serve to convey and develop practical content in university teaching. Expanded by the approaches "Engaged Learning" (Chmelka et al., 2023) and "Live Projects" (Harriss et al., 2014), they move from the academic to the urban space. The in:takt project (in:takt 2025) was launched in 2018 as part of a seminar as an interim use in cooperation with the city of Magdeburg and a municipal housing association. It developed bottom-up to an urban lab-situation in the inner city. The project is based on an interdisciplinary seminar at the

Otto-von-Guericke-University Magdeburg, which combines theory and practice. Open to students of all courses of study, it offers a space for self-organization, experimentation, and development. Furthermore it opens its rooms to all interested people and initiatives of the city: it invites citizens to collaborate and tries to enter transdisciplinary project work. The COCO project (CommoningCottbus, 2025) in the city center of Cottbus was founded in 2024 as an urban living lab that aims to bring together teaching and research, student and civil society initiatives, and the population in one place. The aim here is to work and research together in a visibly collaborative manner with reference to the structural change in the region. The project was preceded by more than a year of bottom-up networking with stakeholders in the city through study projects and seminars. The COCO will gradually be anchored and developed as a new type of learning and project space in the city. These projects work with the cross-cutting issues of urbanity and urban development, sustainability and democracy. The project work is based on the co-design approach. It refers to Scandinavian participatory design (PD) (Ehn, Nilsson and Topgaard, 2014) and participatory action research (PAR) (Kindon, Pain and Kesby, 2010; Altrichter, Feindt and Thünemann, 2021). The projects work as a meeting point between students and the population, as an interface between the university and the city, and as an open field for experimentation and training of ideas and collaborations. In the sense of infrastructuring (Telier et al., 2011), they create new collaborations and initiatives. These are starting points for making the city. The paper will look at the applied tactics for initiating and developing bottom-up projects in education. How to start this kind of projects without a budget? How can it be developed with or in spite of a strongly predefined teaching and university structure? How can it be anchored and operate in the city? What interests, restrictions and limitations does such a project face? What resources, energies and motivations can it draw on? What tactics can help in this development work? Tactics are used here on two levels. Initiating projects requires a lot of initiative, improvisation, interpreting circumstances and rules, and responding to problems and needs. By bringing something new to the urban space, the projects themselves are also tactics in the sense of tactical urbanism. This raises the question of how the bottom-up approach in De Certeau's sense can enter into a strategic mode with tactics (De Certeau, 1984).

Stream 5: Materiality in Urban Future-Making

Panel I: Materiality, Infrastructures and Urban Metabolism

Tuesday: 09.00 – 10.30, Session IV, Moderation: Monika Grubbauer

(Re)building the City: From Material Maintenance at the Margins towards Just Urban Building Regimes?

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Keywords: building regimes; circular cities; construction work; labour market inequalities; material agency; reuse practices

Not only cities, but also urban labour markets operating within them continue to undergo profound transformations. From pre-modern craftsmanship and guilds to globalization and the gig economy, labour is a central component of human life. As such, urban employment, and the landscapes in which it takes place, are in continuous exchange, reflecting and reverberating larger conditions. These dynamics are particularly evident in the construction sector, which illustrates the complex relations between the built environment and its labour force. Historically known as a key employer for the integration of low-skilled and migrant workers, working conditions today remain precarious. A useful lens to view construction practices is thus Howard Davis's notion of a "healthy building culture", which describes a situation in which: 'Buildings of meaning and value are being made by people who are themselves improving their lives through making those buildings. The various parts of the culture reinforce each other and make it stronger, its customs and rules are understandable and make sense, and the culture's stability and its ability to change according to new conditions are in balance'. (Davis, 2006, p.13). This perspective highlights two key themes for urban future-making. First, it emphasizes workers' agency and mobility within urban labour markets, underscoring their role in shaping and maintaining the built environment. Second, it stresses the culture's adaptability to change, a crucial factor given recent economic shifts and the rise of alternative urban development models like the circular economy (CE). While the CE advocates reuse, repair, and local regeneration, discussions often prioritize ecological considerations over more complex issues of labour-capital relations, value systems, and planning requirements. Drawing on the question of who is involved in urban future-making, where these processes take place, and how they are shaped by the experiences of those working in construction, we propose an integrated analysis. We introduce the concept of "urban building regimes", situating building activities - including its materials and actors - within broader socio-economic, spatial, and institutional frameworks. Conceptually, this approach draws on three interrelated dimensions: the geographies of material flows, labour practices, and spatial dynamics. Examining these shifts across different urban contexts, including London, Brussels, and Canadian cities, allows us to track internal shifts in labour relations, reuse activities, and land requirements in a foundational urban industry and the external politico-economic structures governing them. Our research on the notion of urban building regimes engages with urban studies, spatial planning, human and economic geography, and architecture, shaped by reflections from a shared workshop. This interdisciplinary lens helps us navigate tensions arising between macro-scale urban development policies and micro-scale informal building practices. By foregrounding these overlooked practices of material-attending agency and labour within the broader context of urban economies, we interrogate the continuous formation and negotiation of a building regime and its role at the margins, or core, of urban future-making.

Metabolism as Urban Future-Making. Muddy Insights from Leipzig's Sewage Treatment

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Keywords: deleuze; more-than-human; urban metabolism; urban political ecology; wastewater

The aim of the paper is to explore the relationship between metabolism and urban future-making. My starting point is the notion of urban metabolism, a central concept in urban political ecology. Within the research field of Urban Political Ecology (UPE), the concept is used to focus on the circulation of certain entities (e.g. water, pathogens, animals) through urban space in order to critically examine the dynamic relationship between "nature" and society structured by specific modes of capitalist production. From this perspective, the built city and the substances moving through it appear as secondary manifestations of social dynamics, whereby the analysis of concrete material flows enables insights into abstract capitalist logics. Thus, through the lens of UPE, urban future-making would be attributed less to the urban metabolism than to the social structures that constitute

it. In contrast, based on a historical reconstruction of the development of Leipzig's sewage treatment from the 18th century to the present, I argue that changes in the city's sewage infrastructures are driven by the urban metabolism itself. Sewage, which in Leipzig consists mainly of rainwater and the remains of human digestion, is a biologically very active substance, which, due to its circulation, triggers numerous metabolic processes in the city ranging from the proliferation of bacteria and the spread of diseases to increased algae growth and the eutrophication of water bodies. In order to contain their harmful effects, new techniques and strategies such as sewerage, sedimentation tanks and activated sludge methods were successively implemented in Leipzig, which I understand as urban future-making that reacts to the urban metabolism. However, I demonstrate that these reactions never reach their intended goal, but that new adaptations are always necessary to handle the sewage problem. Following on from this, I propose an alternative understanding of metabolism, which understands the process not as a mere function of a superordinate system (e.g. organism, ecosystem, city, capitalism), but rather, with reference to Deleuze, as a "complex repetition" that continuously produces difference and in this way precedes and exceeds the system, enabling and challenging it at the same time. In this sense, I understand Leipzig's urban development as significantly shaped and structured by the unruly and unpredictable materiality of wastewater, which continuously produces new problems for the city. Urban future-making ultimately appears to be driven by a metabolism that is not aimed at the preservation of a system, but rather at continuous differentiation and ongoing becoming.

Fixing Change? Maintenance and Repair of Hamburg's Gas, Water, and Sanitation Infrastructures

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 Institution: HafenCity University Hamburg, Germany
 Keywords: infrastructures; maintenance; repair

Infrastructures are a key site of tension between the growing urgency to act in response to current and future crises and the material legacies of the past built environment that characterise urban spaces. The historically evolved material embeddedness of infrastructures within the urban fabric makes them resistant to rapid or radical transformation. At the same time, they are deeply implicated in both the production and potential mitigation of socio-ecological crises. This input, based on my PhD research, explores the tension between fixity and change by examining the maintenance and repair of Hamburg's gas, water, and sanitation infrastructures from 1842 to the present. It focuses on the ambiguous roles of maintenance and repair as both sustaining and potentially transforming forces. In particular, this input examines how the practices and processes of maintenance and repair relate to fixity and change in infrastructural configurations. In contrast to approaches that take failure or disruption as their analytical starting point, it adopts a somewhat counterintuitive stance by tracing possibilities for change within routine practices and processes. To explore these processes, the dissertation adopts both historical and contemporary perspectives, examining past and present aspects of maintenance and repair. This approach is reflected in the methodology, which combines extensive archival research, interviews with infrastructure professionals, and participant observation of maintenance work. By critically synthesising concepts from different theoretical and ontological perspectives—including socio-technical approaches, urban political ecology, and object-oriented perspectives—and combining them with concepts of practice, labour, and feminist accounts of care, it develops a novel framework for analysing and theorising nearly 200 years of infrastructural development across three sectors. Tracing maintenance and repair from multiple perspectives and across different spatial and temporal scales, this research demonstrates how the perceived stability of Hamburg's gas, water, and sanitation infrastructures is made possible only through the ongoing practices of maintenance and repair. Despite technological change, it shows that these practices remain deeply reliant on human labour while also extending into broader temporalities, becoming embedded in long-term strategies and planning by infrastructural experts. The central argument of this input, beyond its detailed empirical account, is that maintenance and repair practices continuously adapt infrastructural networks to changing socio-ecological conditions—and that it is through this very process of continuous adaptation that socio-technical stability is produced. While grounded in the specific historical and geographical context of Hamburg, the input offers conceptual, methodological, and analytical strategies for researching and theorising the relationship between maintenance, repair, fixity, and change in other contexts as well.

Telling Non-Toxic Futures: Rethinking Waste Systems in Indian Cities

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 Institution: Université Paris Cité
 Keywords: capitalism; caste; environmental justice; india; labour; waste

Waste management – crucial for urban life – relies on a specific type of marginalised labour that involves hazardous tasks like sewage cleaning and draws from socially vulnerable bodies. In India, this work is almost exclusively done by lower castes. Beliefs around ritual purity link waste and caste-based work in intimate and depraved ways. Yet, this realm is not solely shaped by caste or labour; it often demands capital-intensive infrastructures.

Examples range from gangly sewage pipes across the city to “smart infrastructures” like GPS trackers and dashboards (Zérah, Nakkeeran, and Mittal, 2023). In many moments, urban waste management is a black box. Administration obscures the precise nature of work and what parts technology could valuably replace, making it seem as if this sector cannot avoid such hazardous manual labour. Innovations, though not new to waste management, have rarely disrupted caste-based work arrangements. Infrastructures like drains and toilets mostly continue to hinge on manual labour. Advancements like robotic sewage cleaners offer promising alternatives, but their adoption remains limited. This is no surprise. Technological change – led by an entrenched disregard for marginalised people and aided by a toxic cycle of casteist and capitalist cost-cutting – can often take an unavailing trajectory. Life-threatening physical labour is misconceived as essential in this sector when many others are increasingly automated. Similar to “sacrifice zones” – areas designated for environmental degradation in service of capitalist growth – there are lives treated as disposable, yet paradoxically essential to the city (Bauman, 2004). Certain disadvantaged castes bear the disproportionate burden of cleaning waste, and technology rarely helps. I use the emerging frame of “environmental casteism” to discuss this unjust landscape of urban sustainability (Bhimraj, 2020). This paper dares to dream of an urban future that dismantles waste systems that depend on caste-based labour. This requires unpacking the unavoidable character of hazardous cleaning labour. Waste is not a by-product of urban life but a material force shaped by and shaping social, political, and economic structures (Fredericks, 2018). Ultimately, I ask whether we can transition to systems whose interpretation of sustainability does not mean condemning vulnerable communities to inequitable and degrading labour for the sake of a “clean city”.

Panel II: Material Methodologies and Representations

Tuesday: 11.00 – 12.30, Session V, Moderation: Anna Hentschel

Futuremaking as Problemmaking, or: Problematizing Digital Urbanism

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Keywords: digital urbanism; problematization; smart urbanism; informationalization; urban anthropology

The built environment as a knowing or “intelligent” infrastructure figures prominently in variegated future urban imaginaries around digital urbanism and visions of “smartness” sparking hopes to solve a wide range of social, and ecological problems within cities. Under the label of “Smart Cities” or “Digital Cities”, cities are thought of as knowledge entities not only by corporations that seek to develop urban markets to place their products and services. Also, the state, engineering sciences and a “new urban science” imagine such technological transformations of current cities by means of “intelligent” infrastructures as a desirable, even necessary form of urban management to tackle future urban challenges. In this view, cities are future viable due to their infrastructure allowing for seamless transmission of data, information, and knowledge. In turn, pressing urban problems seem to be first and foremost problems of information, communication, or data. This paper suggests viewing the role of digital technologies and infrastructures exerting agency not merely as tools for solving, but as a way of seeing urban problems. In this view, urban problems are not simply given but “compressed” (Sterne, 2015: 35) to digital infrastructures to be receptive for informational solutions. As “objects to think with” (Turkle, 1984: 27) technologies then not only offer solutions, but co-produce the conceived nature of a problem. Air quality may be problematized, for example, as an issue of “intelligent” traffic control, i.e. the informational capacity of cities to steer traffic, rather than, say, an issue of too many cars. Hence, digital urbanism can be understood as a form of problematization enabled by material infrastructures, that is a frame which privileges ways to think about urban problems in terms of information, and communication. Importantly, an implication of this tendency may be a depoliticization of potentially confrontational topics, transforming politics into technics. It is hoped that such view can help to complement critical scholarship on digital urbanism which has generated important insights on actor-constellations whereas the “actual question of technology” (Halpern, 2014) and its agency tended to fall from view. To this end, the paper first traces one genealogy of a cybernetic thought style emerging in the early 20th century, asking how it became possible in Western discourse to think about “knowledge” or “information” as a constitutive force governing the future viability of cities. Secondly, analysing the policy discourse of the initial development of digital urbanism in Germany, it inquires how current problematizations of urban phenomena are potentially affected by it. It asks how cities are prepared to be amenable to informational solutions. This analysis pays particular attention to the role material (infrastructures of) information technologies had throughout these processes. Ultimately the paper would like to give an outlook on preliminary research concerning the role of administrations in smart approaches and the way their intra-organisational functioning is increasingly problematized in terms of their information infrastructure, that is their material capacity to “know”.

The (In)Visible Stories of Agency at the Construction Site

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 Keywords: agency; agential realism; construction site; intra-actions; materiality; post-Humanism

The traditional architectural discourse often conceptualizes the construction process around partial and anthropocentric hierarchies, systematically diminishing the (in)visibility of various bodies. The paper focuses on a specific case study to investigate the construction site as a post-human phenomenon in which the material elements (human and non-human bodies, materials, tools, etc.) and discursive practices (regulations, decisions, evaluations) involved in the construction process mutually influence one another. The paper employs Karen Barad's concept of "Agential Realism" as a theoretical framework for discussion. Barad's approach (2007) provides an innovative perspective that enables the questioning of epistemological and ontological assumptions within the discipline of architecture, offering a more holistic and relational understanding of construction site dynamics. According to Barad (2007), agency is not a pre-existing attribute of specific entities but emerges through intra-actions, which constitute the ongoing relational entanglements through which human and non-human entities come into being and acquire their specific capacities. This meta-theoretical endeavour of conceptual reading builds on the situated knowledge I have developed as a researcher through regular observations at a construction site in Istanbul, Turkey. My situated body (Haraway, 2016) as a researcher actively engages in this process, contributing to acts of remembrance and reconstruction. As Butler (2016) emphasizes, the research process emerges from the interplay of diverse macro and micro actors, highlighting the collaborative and relational nature of knowledge production. In the case study, the neighbouring building begins to lean toward the construction site due to prolonged structural deterioration. Despite a demolition order for this adjacent structure, legal disputes among stakeholders impede any action. Within this context, various elements - including the material body of the deteriorating building, the temporal processes of decay, the ground conditions of the site, and the regulatory frameworks governing construction practices - can be interpreted as agents. The unforeseen behaviour of the neighbouring building disrupts the construction timeline, necessitating intervention. To proceed with the project, the heavily deteriorated wall of the adjacent structure is partially removed using a concrete breaker. During this process, deeper material realities emerge: a seashell embedded in the wall of the neighbouring building becomes a site of narrative and material significance. This discovery highlights the agency of the ground itself, revealing the system's inherent vulnerabilities (Butler, 2016) and its entanglement with political phenomena in Turkey, such as zoning amnesties and urban transformation policies. The embodied body of the construction site offers a distinct field of inquiry, enabling a deeper understanding of how agency is constituted and reconfigured within a complex phenomena of human and non-human bodies, varying scales and times, living and non-living entities, and the interplay of material and discursive forces.

Weathering the Urban: Exploring the Material Implications of Climate Imaginaries for Urban Future-Making

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Keywords: climate imaginaries; materiality; medium; participatory planning; urban futures; weathering

As climate change poses a new existential and epistemological crisis, many have now turned to the future to look into ways to imagine and foster an alternative to the current methods of doing business as usual. Alongside this steady rise of attention towards future/futuring and imaginaries, attention has also been paid to matter and materiality within the broader social sciences. In this paper, we explore the material implications of urban climate imaginaries as sites of weathering in the context of urban planning. This paper has two objectives: first, to extend the understanding of mediation performed by materialities of climate imaginaries as embodied and situated and second, to illustrate the implications of this conceptual advancement for urban future-making. For this, we build on previous research to conceptualise materialities of climate imaginaries as normalising, circulating and producing climate imaginaries, thereby forefronting structural inequality inherent in its mediation. We further this discussion to situate embodied encounters of the climate as rooted in the mediation performed by materialities of climate imaginaries. For this, we borrow from feminist theoretical lens of weathering to understand the inseparability of structural inequalities from the bodily experiences of weather challenges dominant climate imaginaries. By doing so, we can understand the role of materialities of climate imaginaries as actively mediating or weathering situated weather relations of bodies. We demonstrate the implications of this re-framing in the context of participatory planning to illustrate the inter-implicated nature of planning for the future - where activities of practitioners materialise and shape embodied climatic encounters. We also illustrate the broader implications of understanding the materialities of climate imaginaries and possible future trajectories for researching the weathering effects of mediated climate imaginaries. Understanding climate imaginaries as sites of weathering allows us to deconstruct the complex web of enmeshed weathering activities that make the weather different for diverse bodies, reconceptualising future-making as bound in the present and the past. This paper thus offers a critical lens to account for embodied and materially situated ontologies for advancing justice-centred planning interventions for the future.

Mapping Urban Mnemonics for a Non-Anthropocentric Future-Making

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Keywords: affective materialities; memory mapping; nonhuman agency; relational ontologies; urban mnemonics

Urban mnemonics refers to how the built environment embodies, evokes, and preserves personal and collective memories, co-created by human and nonhuman entities. Ingold describes memory as a dynamic, embodied process tied to making and engaging with materials and environments. This research defines memory-making as a co-creative practice between humans and nonhumans, where temporal surfaces and mnemonics emerge. It examines how urban materiality functions as a mnemonic device, mapping its relationship with memory across human and nonhuman actors. The built environment results from the interplay of technologies, environmental conditions, materials, policies, social and emotional atmospheres, and cultural and symbolic forces, shaping both personal and collective memory. Materiality-centric perspectives emphasize the agency of materials – their ability to age, respond to natural forces, and evoke sensory experiences. This research develops a framework for mapping co-created mnemonics and represents their dimensions of urban materiality through a multi-layered approach. It envisions urban futures that are ethical, sustainable, and inclusive of diverse human and nonhuman agencies. By applying this mapping, the research reveals how the built environment resists full representation while forming a foundation for knowledge and imagination. As Kusno observes, urban spaces inherently sustain remembering and forgetting, even when not designed for commemoration. This interplay between materiality and memory becomes crucial in an era of environmental crises, where envisioning the future requires perspectives beyond human-centred concerns. Similarly, Yates's loci method highlights how spatial environments structure and recall information, reinforcing the deep connection between memory and space. In the urban context, Rossi argues that the city's fabric shapes personal experiences and collective memory. The interactions between materials, structures, and spaces preserve histories while inspiring visions of the future. This research broadens the understanding of future-making as a collaborative process involving memory and the agency of all entities in urban ecosystems. Mnemonic mapping, rooted in materiality, becomes a tool for reimagining the urban fabric as a dynamic and inclusive entity that fosters equitable futures. By developing a mapping method integrating physical, perceptual, behavioural, and narrative layers, this study identifies elements and forces shaping future environments. Narratives spanning ancient myths, historical accounts, and contemporary realities emerge from relational interactions among humans and nonhumans. The mnemonic map reveals how multi-dimensional perspectives on physical, temporal, and ecological elements enrich design, proposing more adaptive and innovative approaches. Ultimately, this research advocates for a non-dualistic integration of culture, nature, and built environments, aligning with post-anthropocentric visions of future-making. Understanding mnemonic elements as tools for co-creating the present and future demonstrates how materiality is central to shaping non-anthropocentric urban futures.

Re-Representing Spatial Relationalities: Investigating Mattering Processes in Transformation-Oriented Research Projects

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Keywords: anthropocene; mattering processes; more-than-human landscapes; re-representation; transscularity

Socio-material challenges related to the so-called Anthropocene, such as climate change, are increasingly determining the focus of interdisciplinary research projects, which, beyond analysing these challenges, also aims to investigate associated spatial strategies. To conceptualize and react to these profound shifts, the agency of matter and material dependencies are increasingly recognized. At the same time, representational methods are gaining growing attention in analytical processes, which help to make socio-material relationalities in trans-scalar space-time approachable and discussable. The potential of investigating both strands together by employing material-oriented representational methods in transformation-oriented spatial research is in its beginning but still underexplored. This is where this paper sets in. This paper builds upon my research on relational mappings, oriented by new-materialist and post-humanist perspectives to spatial inquiry. The research focuses on the methodological approach and new mapping category, which I introduced as "re-representations". This concept summarizes the crucial characteristics of emerging forms of representation that render an understanding of landscape that is everywhere, including all grades of so-called urban spaces, and that consists of highly specific, what I call "mattering processes". Two examples can be interpreted as re-representations: terraforma/gaia-graphy by Alexandra Arenes et al. and the Feral Atlas by Tsing et al. While these examples do not attempt to bring forth suggestions for spatial strategies or interventions, our investigations in experimental spatial design settings show that re-representations also have the agency to reveal moments for potential shifts in socio-ma-

terial processes. This paper further explores this orienting agency for extensive interdisciplinary research settings. The specific operating principles through which re-representations can support the alignment of spatial designs are examined for their relevance to project settings in which various disciplines are involved throughout the process. The paper critically investigates and sketches in what dimensions and phases of such projects re-representations can potentially contribute, what challenges in elaborating them as transformation-oriented research methods can be identified, how they would need to be adapted, and how they could constantly be reflected, paying tribute to the claims of critical cartography. In dialogue with text, own diagrammatical sketches demonstrate that re-representations have the potential in interdisciplinary research projects to situate inquiry in socio-material processes and simultaneously reveal further research questions.

Panel III: Strategies and Politics of Material Transformation

Tuesday: 13.30 – 15.00, Session VI, Moderation: Lena Enne

Collapsing Heritage: Materiality and Housing Policy between the Built Environment, Gentrification and Housing Conditions in Bordeaux

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Keywords: built environment; gentrification; heritage; historical residential buildings

The old town of the French city of Bordeaux – as a UNESCO World Heritage Site – has become increasingly attractive to tourists and residents. As a result, real estate prices in the heart of the Atlantic metropolis have rapidly increased over the last 15 years. Political decision-makers have promoted the structural upgrading and renovation of historic residential buildings with the argument of counteracting the poor housing conditions as a way of urban future-making in a heritage context. In addition to typical gentrification effects, this article focuses on the materiality of these upgrading processes. The starting point and reason for this are the collapses of several inhabited buildings since 2022 – some with tragic consequences – as well as residential buildings in the city centre that were closed due to collapse. This article looks at the actors and materialities involved in the processes that led to the collapses. These collapses are understood less as an explanandum, but rather as entry points to consider the interweaving of local politics, urban development companies, residents, media and experts on the one hand, but also the built environment and supposedly natural conditions on the other. The article focuses on the nexus between the political and materiality, which is particularly evident in housing as a politically controlled and at the same time material practice. Specifically, the article explores the question of how local housing policy and material housing conditions are mutually constituted using the example of the collapsing residential buildings in the old town of Bordeaux. Methodologically, the article uses a dense description based on media reports, protocols, expert reports and plans as well as supplementary photographic documentation of the collapsed residential buildings themselves.

Common Materials: Material Transformation and Loss of Urban Commons in Urban Renewal Neighborhoods

Author(s): Fox, Jesse; Co-Author(s): Marom, Nathan; Presenter(s): Fox, Jesse

Institution: Tel Aviv University

Keywords: materiality; the commons; urban renewal

In cities around the world, urban renewal is seen as the policy of choice for reutilizing existing spaces and recycling older buildings and materials, as a more sustainable mode of urban future-making. While in the past, large-scale urban renewal mostly focused on high-value central areas, in many national contexts it now takes place at the neighbourhood level – introducing radical changes in the materiality of older neighbourhoods via different combinations of building preservation, additions and renovations, and raze-rebuild schemes. Indeed, in many cases such neighbourhoods are characterized by seemingly outdated housing typologies (e.g. “blocks”) and old buildings made of concrete, bricks, and similar “mundane” materials in various degrees of disrepair – and as such they are often slated for large-scale demolition and reconstruction (as in the cases we describe in this paper). These material dimensions of urban renewal transformations are well documented and now also widely critiqued, as notions of “circularity” of construction materials have become mainstream. However, much less attention is given to the common spaces that are defined by and between these material assemblages, especially those “grey” zones between private property and public spaces. Likewise, much of the research on neighbourhood-level renewal has focused on aspects related to private property, such as the material and economic changes experienced by homeowners and/or the displacement suffered by renters and others. We focus on the non-property aspects of the public and semi-public realm in such neighbourhoods, and explore how they are transformed by such schemes. We refer to this realm as the “neighbourhood-level commons,” defined as those

common resources to which residents are meant to have access, including both material as well as non-material resources. We examine two cases studies of neighbourhood-level urban renewal in the Tel Aviv metropolitan region of Israel: the Ramat Eliyahu neighborhood in the city of Rishon LeZion and the Jesse Cohen neighbourhood in the city of Holon. We analyse planning and policy documents which guide the neighbourhood renewal process to determine how the material transformation of the neighbourhood and its buildings will also impact different kinds of neighbourhood-level commons. We show that while the two case studies represent different models of neighbourhood transformation, both would radically transform the neighbourhood-level commons, including both material and non-material resources. This analysis offers a novel interpretation of urban renewal as a process leading to significant loss of the urban commons through an extensive privatization of “in-between” or “left-over” spaces in the original neighbourhoods. The material transformation of the neighbourhood thus gives way to a sharper distinction between bigger and more materially-intensive private and public spaces, which would not contribute to everyday neighbourhood life and social cohesion in the same way as the previously undefined, mundane commons. Such an interpretation highlights the hard choices that urban agents must make - between visions of sustainability and circularity and more grounded common materiality - in urban future-making.

How Property Shapes Material Care: A Legal-Material Reading of Maintenance and Repair

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Institution: University of Zurich, Social Geography and Urban Studies, Zurich, Switzerland

Keywords: legal frameworks; maintenance and repair; material care; property theory

In light of the current socio-ecological crisis, an increasing number of scholarly voices call for a careful approach to architecture and urban materiality (Fitz and Krasny, 2019; Hertweck et al., 2022; Power and Williams, 2020). The maintenance and repair of buildings and the urban fabric are material care practices that ensure the continuation of the world which is constituted by ‘our bodies, ourselves and our environment’ (Fisher and Tronto, 1990, p. 40). By sustaining life and the flourishing of all beings in present and future (Haraway, 2016; Puig de la Bellacasa, 2017, p. 55), material care constitutes an important element of urban future-making. With material care, I refer to the often invisibilised and badly or unpaid labours, that ensure the functioning and future of a building or space, from cleaning the house to painting walls, changing leaking pipes or improving insulation. These practises require a certain awareness for the vulnerability of materials and a specific expertise of the caretakers (Denis and Pontille, 2015; Star and Strauss, 1999). Yet, neglect, destruction and replacement of homes, including built infrastructure, open areas and communities, remain commonplace practices that residents and local authorities face oftentimes with helplessness, as a fundamental part of the legal system undergirds these practices: property. Apart from some legal limitations such as the social obligation norm of property, the owners’ right to freely dispose of their property is protected by the law. Not only does the legal context ensure property owners the right to exclude others from their property, but also the right to abuse and destroy (Loick, 2022; Redecker, 2020; Sprankling, 2014). The owner’s decisions have vast consequences for the immediate users and beyond. In constellations in which those who own a building are not the same as those who inhabit it, maintenance and repair work that implies spatial transformation needs the agreement of the houseowner. By looking at different legal frameworks in the context of housing in Switzerland, I will enquire how current legal and societal concepts of property shape practices of maintenance and repair performed by residents or professional caretakers. Through linking two distinct contemporary debates - geographies of property and feminist accounts of material care - I aim to make a theoretical contribution that analyses the constraints that property poses to the agency for material care in the urban realm, and through this, the possibility of urban future-making.

The Materiality of Mobility: How Historical Infrastructures Help to Shape the Future Viability of Urban Spaces. The Example of the EUREF Campus in Berlin.

Author(s): Gegner, Martin; Presenter(s): Gegner, Martin

Institution: Berlin Social Science Center (WZB); Research Group „Digital Mobility and Social Differentiation“

Keywords: urban infrastructure; urban mobility; urban spaces

The Euref Campus in Berlin is a “real laboratory for the energy transition” (self-description), a business district that currently offers around 7,000 jobs. It is located directly at the Schöneberg S-Bahn station and not far from the motorway junction of the same name. The further development of the transport infrastructure in the area around the Euref Campus has been the subject of heated political debate for decades. With its existence and the policy of preferring sustainable mobility solutions, the Euref Campus has played a decisive role in ensuring that the federal motorway was not extended by further kilometers to the north. At the same time, the local enterprises were given incentives to electrify their car fleets through decisive promotion of electromobility on campus - almost 100% of all parking spaces in the underground garages are capable of charging. At the same time, the high prices have made parking unattractive for employees, regardless of whether they own electric vehicles or combustion engines. Nevertheless, these policy measures do not play the most important role in the transformation of the Euref Campus into a model district for sustainable mobility. The decisive point is the spatial proximity

of the almost 100-year-old Schöneberg S-Bahn junction. In 2024, the Berlin Social Science Centre (WZB) and the TU Berlin conducted the fifth traffic survey with a simultaneous mobility survey on the Euref campus on a key date in September. The evaluation of the results shows that, in addition to transport policy measures such as the introduction of a (high-priced) parking zone, it is above all the built environment consisting of infrastructure, buildings and boundaries as well as the way they are operated that have a decisive influence on the mobility behaviour of workers on the Euref Campus. In contrast, innovative market-mediated mobility offers are surprisingly unpopular on this real-world laboratory for sector coupling and e-mobility. It can also be seen that walking has increased significantly in recent years. Car traffic to the campus has been steadily decreasing since 2014 despite a multiplication of jobs. This means that the success of the Euref Campus from a sustainability perspective is due in no small part to its neighbourhood with the historic S-Bahn junction. It was only due to its presence that the car-restrictive measures could be implemented without jeopardising the economic success and attractiveness for companies and employees. It was only because of the good local public transport infrastructure that the once planned motorway feeder road to the Euref Campus was removed from the development plan. This allows conclusions to be drawn about the urban planning integration of new or existing (business) districts into their environment: transport policy and urban planning must be more closely interlinked; instead of new greenfield districts, new settlements should be preceded by sustainable transport infrastructures and not, as is still common, followed by them.

Decision-Making Processes in Post-War Architecture: Pathways to Climate Neutrality by 2045 in Germany

Author(s): Meyer, Kathrin; Presenter(s): Meyer, Kathrin

Institution: HafenCity Universität, Baukonstruktion und Statik, Hamburg, Germany

Keywords: climate neutrality; decision-making; demolition; retrofitting; roof extensions; post-war building stock

The transition to a climate-neutral building stock by 2045 is a key objective for architecture and construction. This research examines decision-making in retrofitting, roof extensions, and potential demolition of post-war residential buildings in Germany. Using qualitative methods - expert interviews and content analysis - it explores the complexities and barriers in aligning construction with sustainability goals. Research Context: Post-war buildings from the 1950s and 1960s are often discussed for their retrofitting potential. Built before Germany's first thermal insulation ordinance (1977), they have low energy efficiency and limited modernization. While upgrading them reduces embodied carbon and conserves resources, demolition and new construction are often preferred. Decision-making appears to be fragmented, inefficient and based on uncertainties, especially regarding cost estimation, technical feasibility, and stakeholder alignment. Research Objectives and Gap: This research asks: How can decision-making processes in managing existing building stocks be optimized for climate neutrality? Sub-questions include: What criteria - energy performance, financial feasibility, social factors - are essential for choosing between demolition, retrofitting, and extensions? How can sustainability goals be effectively integrated in early planning phases? What role do architects and planners play in guiding stakeholders towards climate-conscious solutions? While literature covers technical retrofitting and energy efficiency, empirical research on decision-making and stakeholder interactions is insufficient. This research aims to fill this gap. Methodology: A qualitative approach is applied, combining expert interviews and content analysis, focusing on: Stakeholder Dynamics: Identifying roles and influences of property owners, architects, and specialist planners. Process Challenges: Analysing decision phases, disruptions, and conflicting priorities. Sustainability Integration: Assessing how embodied energy and climate neutrality are considered. Theoretical Assumptions Lacking structured frameworks hinders effective planning. Early involvement of specialists reduces inefficiencies. Despite political and social emphasis on sustainability, economic and technical barriers dominate. Because of their advising and coordinative role, architects have a crucial influence when it comes to the integration of sustainability. However, their impact is often reduced by fragmented workflows and unclear responsibilities. Conclusion: Optimizing decision-making for post-war buildings is key to achieving climate neutrality by 2045. Integrating materiality - including aging, past decisions, and material properties - is crucial. Prioritizing retrofitting and extensions over demolition supports sustainability goals. This research contributes a framework for managing Germany's post-war architecture and advancing sustainable urban transformation.

Stream 6: Practicing Urban Future-Making

Panel I: Practicing Experimental Design

Monday: 13.45 – 15.15, Session II, Moderation: Aboli Mangire

Performativity and Tactical Urbanism in Conflicts of Change: The Artistic Practice of Guerilla Architects at Berlin-Mehringplatz

Author(s): Stoll, Benedikt; Presenter(s): Stoll, Benedikt

Institution: Guerilla Architects, Berlin, Germany

Keywords: berlin-mehringplatz; guerilla architects; performativity; public space; tactical urbanism; urban development

The text discusses the issues related to tactical urbanism and performativity in relation to the planning of public spaces, particularly using Mehringplatz in Berlin as an example. A 2021 study warns that design interventions alone cannot solve societal and political problems, especially in a time of restrictive citizenship regimes, competitive labour markets, and socially segregated living environments. This is particularly evident at Mehringplatz, which has been considered a social hotspot since the 1990s. The square was designed in the 1960s as the center of a large residential complex where many people with migrant backgrounds live and rely on state welfare. The artistic collective Guerilla Architects responds to this situation with unconventional methods, aiming to redesign the public space and involve the residents' needs. Their approach is to view Mehringplatz as a living space, shaped by the people who live there. In 2021, they joined the "Berlin bleibt!" festival by the Hebbel am Ufer Theater and spent time in the area to better understand the local community. Their goal was to build trust over time and have a lasting positive impact. Mehringplatz was closed for reconstruction from 2011 to 2022, exacerbating the situation for residents. When the square was reopened, it was immediately closed again, highlighting the gap between planners' visions and the actual needs of users. Guerilla Architects responded by making part of the square accessible to residents, renewing the grass, and organizing a picnic with the community. Despite these creative interventions, trust in external projects remained low, as many feared these would be temporary and have no lasting impact. Temporary projects like those by Guerilla Architects risk being seen as insignificant if they are perceived as only cultural events. In 2023, Guerilla Architects continued their work and expanded their interventions by collaborating with residents and organising various performative projects. Despite these efforts, the neglect of the neighbourhood persisted, such as the closure of the last supermarket. This led to the co-founding of the "Revolutionary Residents' Council" (RAR), an initiative advocating for better living conditions. In summary, the work of Guerilla Architects shows how important it is to view public spaces as performative, evolving areas that consider the needs of the people. Their efforts show a valuable contribution to the discussion of urban development by applying methods of tactical urbanism and performativity, even though they cannot directly resolve the deeply entrenched structural issues.

In Streets Once Still, a Dance of Becoming: Responsive Movements in Changing Landscapes

Author(s): Bendlin, Johanna; Co-Author(s): Lazarova, Kristin; Presenter(s): Bendlin, Johanna; Lazarova, Kristin

Institution: landscape architect, Brussels, Belgium; architect and urban practitioner, Berlin, Germany

Keywords: ecological resilience; prototyping; unsealing; urban space transformation

The "Soften Westwall" initiative transforms sealed street spaces into dynamic public realms accessible to all living beings, integrating ecological and socio-spatial considerations in a holistic approach to urban co-creation. The week-long summer school workshop with students transformed six parking lots into two urban garden patches. Situated on Westwall Street, part of Krefeld's car-friendly inner-city ring, the project addressed the climate crisis, mobility patterns, and urban design by using tactics that could impact bigger scale urban transformations. A multidimensional research methodology was employed, combining traditional and experimental approaches to explore the site. Historical analysis revealed Westwall's design evolution and urban development role over centuries, juxtaposed with its current design and use through embodied on-site assessments and a barefoot walk. Archaeological techniques, including excavations and material analysis, uncovered historical layers and materials. The process emphasized the site's historical significance and the ecological role of plant species, such as small shrubs and perennials, in its restoration. The project adopts a future-oriented perspective, considering the potential evolution of the space within a broader urban development context, integrating water and vegetation to promote ecological resilience. Collaborative mapping and drawing exercises captured diverse perspectives on Westwall's role as an urban space. An open construction site approach facilitated engagement, with planning, building, excavation, and material reuse made transparent and participatory. The onsite material

depot evolved daily, highlighting excavation and filling processes and encouraging involvement. The relationship between urban space design and social interactions was a key focus, with the conversion of parking areas into urban gardens creating opportunities for community engagement and interaction among residents and visitors. Key outcomes included the documentation and interpretation of Westwall's archaeological heritage and the ecological restoration of its asphalted area. Future-oriented outputs comprised prototypes and design concepts for integrating green spaces and surfaces, blending historical and natural elements.

Dimensions of Spatial Practice: Collective Work, Urban Labs and Experiments

Author(s): Cappeller, Riccarda; Co-Author(s): Belfield, Andrew; Presenter(s): Cappeller, Riccarda; Belfield, Andrew
Institution: Leibniz Universität Hannover, Territorial Design, Germany / University of Sheffield, School of Architecture and Landscape, United Kingdom

Keywords: artistic and experimental methods; spatial agency; urban knowledge creation on various scales; urban labs

How can we, as architects and urban designers situate our agency within the built environment? Which are important parameters and ethical constraints for dealing with the transformation of existing urban spaces, developing different approaches, based on artistic ones? How do these approaches become performative - brought into space as "urban labs" for knowledge creation and experimentation or as temporary and long-term interventions? Are these labs "tactics of urban future making"? In what ways can we as design professionals contribute to the reformulation of roles and the co-creation of urban knowledge towards collective actions in space? The aim of our contribution is to initiate a reflection upon the capacity of architectural thought and the way in which it comes to effect at various scales. Based on two cases, we stress the following aspects: 1. An awareness for the necessity to act differently in order to deal with current challenges, fostering "urban labs" as platforms for awareness creation, debates and experimentation, 2. The relevance of architectural thinking for creating alternative solutions and new perspectives, understanding and transforming spatial situations, and creating happenings that reach a broader public. Here, ways of a design-based or architectural knowledge creation in academia as well as the artistic, ethnographic-social and spatial-urban toolset are looked at. And 3. The importance of values and ethical beliefs, the positioning and attitude of architects and urban designers as a ground for interventions, and for the ways in which the approach to spatial situations is organised. This, today brings forward a focus on cooperative, interdisciplinary work in changing and continuously adapting constellations. Stressing a situated agency in urban change, the formation in architecture and urban design is equally important as a practical experimentation on the ground. The educational surrounding stresses the ways in which urban knowledge is created and dealt with (together). An experiment or direct intervention in space allows to test ideas and methodological approaches in real urban situations, handling materials, questions of aesthetics and designed constructions, programming and use as well as working in different kinds of constellations - with local experts and people from various disciplinary backgrounds. In order to combine these fields, we reflect the different dimensions of knowledge production throughout the Urban Design Studio "Baltic Lab", curated 2022 at Leibniz Universität Hannover and the associated lecture series that allowed to learn with the Baltic perspective. In contrast, we examine the methodologies and social engagement of the not-for-profit critical design practice "public works". Focussing on one project case, R-Urban Poplar, and the coproduction of situated civic pedagogies for collective urban knowledge production, involving diverse groups, networks and interventions within the neighbourhood. This comparison allows a perspective upon new directions for spatial practitioners, working as "cultural agents" at the intersection of art, architecture.

Challenges in Fostering Lasting Transformations of Urban Landscapes through Tactical Approaches

Author(s): Bajc, Katarina; Presenter(s): Bajc, Katarina

Institution: HafenCity Universität Hamburg

Keywords: bottom-up landscape governance; landscape stewardship; socio-ecological transformation; tactical landscape design

Built environment and landscape planning professionals are under increasing pressure from political and societal demands to create sustainable and just cities. Since the onset of environmentalism in planning during the 1970s, through the sustainability agenda of the 2000s (MDGs and SDGs), and up to current political programs such as the New European Bauhaus policy initiative (NEB), small-scale and bottom-up tactics have been integral to this discourse. However, both - action-led tactics, such as "tactical urbanism" or "do-it-yourself" initiatives - as well as those initiated and supported by state institutions, such as urban "living laboratories", "pop-ups", or other experiments and placemaking formats, are distinctly temporary interventions. Although aimed at activating and enabling lasting, sustainable futures, they are, in most cases, implemented in a fleeting manner (Lydon and Garcia, 2015). Thus, a question arises: Are such tactics capable of fostering urban and landscape transformation? They can have a lasting impact if they are part of a broader strategy of systemic, structural changes that

influence vast areas of social life as well as spaces large and complex enough to support functioning ecological systems. This appears to be a consensus among the planning community (Madanipour, 2017, Carmona, 2021). The question of “how” is more challenging, partly due to the powerlessness of public institutions in integrating sustainable tactical approaches into broader, long-term projects. Landscape and urban planning professionals in both the public and private sectors operate within institutional, legal, and political frameworks. Rigid planning instruments and codes, sectoral governance, the responsibilities of public administrations and their jurisdictional boundaries, allocated financial mechanisms as well as liability structures, are not well suited to the iterative processes required for the positive change that tactical planning approaches can bring about. Additionally, maintenance regimes and the necessary continuity of habitat development cannot be overlooked in this context. While much has been said about the dangers of power dynamics within the hidden politics of tactical actions (Manganelli and Langguth, 2024), the practical questions of how to implement and sustain the positive changes initiated by such efforts are often overlooked. This leaves city administrations that are eager to implement long-term benefits of tactical transformation empty-handed. I will address this issue by presenting examples of bottom-up tactical initiatives in public open spaces and landscapes in Germany and discuss them in the context of informal and formal landscape planning instruments, the ordinance on fees for architectural and engineering services, public open space and landscape planning codes, and laws governing urban planning and nature protection. The possibilities of “mainstreaming” or “institutionalizing” of tactical transformation in landscape design processes as well as the long-term stewardship of public open spaces by various stakeholders and civil society will be examined.

Dynamic Arenas and Temporary Uses: Co-Creating Resilient Futures for Industrial Wastescapes in City-Port Areas

Author(s): Amenta, Libera; Nocca, Francesca; Presenter(s): Amenta, Libera

Institution: University of Naples Federico II, Department of Architecture, Italy

Keywords: industrial wastescapes; temporary uses; participatory decision-making processes; city-port areas

How can temporary uses and collaborative forms of planning help city-port areas transform challenges into opportunities while balancing socio-economic, cultural, and environmental goals, particularly in the context of wastescapes? This contribution explores the dimension of coastal cities characterized by conflicts and intertwined challenges related to multi-risk exposure, appearing mostly in city-port areas (CPAs), as transitional territories where the port and urban activities intersect and clash. CPAs experience a systemic interference between sustainable and circular development strategies, and the linear dynamics of ports, largely focused on maximizing economic and financial impacts. The shrinkage of CPAs, due to economic crises, resource shortages, and management difficulties, results in wastescapes that act as barriers on the coastline, between city and sea, producing negative impacts on the spatial quality and quality of life. The complexity of CPA, due to overlapping risks and divergent stakeholder interests, requires diverse planning approaches, including co-creation to incorporate varied perspectives and needs. Arenas can play a key role in the urban-future making for the resilience of CPAs by stimulating novel discussions and reducing conflicts, overcoming lock-in situations and path dependence. By bringing together experts from diverse fields and institutional levels, arenas enable meaningful dialogue and exchange of diverse ideas on urban development, allowing to achieve more inclusive and shared urban regeneration choices, while driving cultural change by shifting mindsets around wastescapes from obstacles to catalysts for urban regeneration. Through co-creation in arenas, temporary uses can be explored as a way to test new purposes and involve the community in shaping the future. They can act in the temporal gap between the end of one life cycle and the beginning of a new one, generating social value. By rediscovering spaces and promoting a sense of active citizenship, temporary uses can help create local micro-economies and address new community needs, contributing to a sense of belonging and shared ownership. This contribution aims to explore how arenas can become dynamic (physical and non-physical) platforms that improve the co-design of temporary uses in abandoned industrial areas. The proposed model envisions that these arenas not only host activities but also activate regeneration processes through real-time feedback, generating an adaptive network between community, technology, and physical space, capable of flexibly and scalably responding to the emerging needs of the city. This study proposes a set of possible temporary uses for the regeneration of a wastescape area in Pozzuoli (Italy), the ex-Sofer site, investigating the multidimensional impacts that they can produce. These temporary uses result from a shared construction of knowledge of the study area. Particularly, they derive from considerations emerged during the thematic tables organized by the City of Pozzuoli in November 2024 to orient the choices of the new Municipal Plan (Pozzuoli, 2050), which provided valuable insights, and from a participatory approach that actively involves the community, to know their needs/desires related to the future of the area.

Panel II: Tools, Games, and Scenarios in Practice

Monday: 15.45 – 17.15, Session III, Moderation: Michael Hirschbichler

Internalizing Complexity: Digital and Analogue Simulation-Tools for Citizen Participation for Sustainable Urban Development

Author(s): Riemer, Evelyn; Presenter(s): Riemer, Evelyn

Institution: Kassel University, Department of Urban and Regional Development, Kassel, Germany

Keywords: citizen participation; city building games; digital twin cities; learning potentials; serious games; simulation tools

This study delves into the potential of Digital Twin Cities as interactive learning environments that support sustainable and participatory urban development. Building on earlier research into their use for scenario development, visualization, and data integration (Shahat et al., 2021), the focus shifts to their capacity to help citizens understand the complexities of urban systems. The central idea is that meaningful citizen participation in urban planning requires a solid grasp of the interconnected challenges tied to sustainable development. The research is structured around two main components: first, a systematic analysis of how Digital Twin Cities can foster learning in participatory contexts; second, two controlled experiments to explore how additional simulation tools – such as serious games and city-building games – can enhance participants' engagement with complex urban planning scenarios. These experiments are currently in the planning phase. This presentation offers a preview of the planned experiments and connects them to the overarching assumption that simulation tools can close knowledge gaps and enable citizens to actively contribute to urban planning processes. By examining how individuals come to understand the complexities of urban systems through these tools, the research seeks to provide practical insights for fostering more inclusive urban development.

Playful Futures: Co-Creating Resilient Cities.

Author(s): Berger, Hilke Marit; Co-Author(s): Kühn, Annika; Presenter(s): Berger, Hilke Marit; Kühn, Annika

Institution: HafenCity University Hamburg, City Science Lab, Hamburg, Germany

Keywords: climate adaptation; futuring techniques; participatory planning; playful approaches; radical imagination; urban futures

Visions of urban futures play a crucial role in shaping social and architectural transformation processes, serving as key frameworks for addressing pressing societal and ecological challenges such as climate change, migration, social segregation, and technological shifts. However, currently predominant methods for envisioning urban futures often focus on quantitative models of prediction or plausible scenarios, which may fall short of addressing the complexity and unpredictability of these challenges (Mangnus et al., 2021; Miller, 2018; Oomen et al., 2022). There is a need for exploratory futuring techniques that engage multiple stakeholders, in focusing on radical futures and long-term dynamics of cities (Candy and Dunagan, 2017). By leveraging techniques such as playful learning landscapes these methods foster environments where participants can explore "what-if" scenarios and co-create innovative solutions to climate challenges. In this context, we offer to play a round of up:town, a playful approach designed to immerse participants in a fictional yet realistic urban setting under the strain of various social, economic, and ecological events. Through gameplay, participants take on diverse roles, encouraging collaborative decision-making and critical reflection on real-world urban issues. Based on more than 15 gameplay rounds conducted on international conferences, workshops and corporate contexts, we observed that up:town opens up new pathways for reflecting on the role of infrastructure and the built environment urban transformation. It provides an innovative tool that not only stimulates discussion of existing urban practices but also creates space for imaginative world-building – an essential skill for rethinking socio-ecological responses to current and future urban challenges. Contrary to the assumption that participants in gaming sessions get lost in wild speculation and unrealistic scenarios, we have found that it is actually quite rare for them to engage in truly radical thinking or imagining how our world might look in 2050 and beyond. However, via dedicated game mechanics such as elements of surprise and unforeseen events introduced by game facilitators, playing up:town can help participants rediscover this craft of radical imagination. Integrating futuring techniques, specifically playful approaches, reveals the transformative potential of participatory, imaginative pathways in urban planning. As up:town demonstrates, playful approaches have the potential to catalyse critical thinking, foster empathy, and engage participants in multidimensional problem-solving. They can serve as a bridge between the constraints of present-day planning and the speculative openness required to envision long-term solutions (Frissen et al., 2013; see also Guston's (2014) concept of "anticipatory governance". By offering a dynamic, collaborative platform for exploring urban futures, games like up:town enable practitioners and students to realise the profound social, ecological and economic shifts transforming our societies and experience that 'urban futures are social constructs that must be actively shaped through engagement, reflection, and imagination'. (Tewdwr-Jones, 2002: 152).

Designing (from) the Sea: Challenges, Methodologies, and Scenarios for Planning with Water

Author(s): De Martino, Paolo; Presenter(s): De Martino, Paolo

Institution: University IUAV of Venice | Delft University of Technology (TU DELFT)

Keywords: adaptation; design; multi-risk; scenarios; water

Why does water matter today? Water is the physical and liquid space where today many challenges are coming together. Dealing with water today means understanding how to adapt to changing water condition. It means dealing with global economies, considering that 90% of world trade passes through the sea. It means studying cultures and history as it is thanks to the sea and ports that countless civilizations, religions and languages were born which we still look at today with respect and admiration. It means dealing with energy and landscapes of the new industrialization together with a system of territories in crisis, infrastructures and architectures to be rethought in the short, medium and long term. Water is about migration, wars and political games of powerful actors who aim to control the sea as an instrument to control the world. Port cities, river cities, coastal and delta landscapes are therefore characterized by a constantly changing conditions at the intersection of land and water, always looking for new balances. They are porous, very fragile and complex systems subject to spatial, social and environmental transitions. They are also among the most vibrant spaces due to the presence of fertile soils, natural landscapes, cultures and the histories of long-durée that make them worth studying. Urban disciplines, however, have traditionally considered planning, limiting its scope mainly to terrestrial areas, while delegating the planning and management of maritime spaces to sector-specific disciplines (e.g. port regulatory plans). There is a need to guide urban disciplines towards a broader and more organic vision able to incorporate the water dimension. This contribution brings together different academic materials and educational experiences based on scenario thinking approach developed during the last ten years of research between Venice and Delft. Scenarios fit perfectly within contemporary design approaches and the idea of spaces that Bauman has defined as liquid. In a liquid and porous society different visions coexist and collide and the role of the scenario is that of defining a vision, a fascination, an image capable of tracing a direction, leading the current, in a context made up of differences, complexities, and conflicts. Scenarios become reflections, points for a discussion and speculation. They are not meant to be implemented but to create awareness and to generate new narratives for the future of cities dealing with water in a time of multi-risk.

Wind Witnesses: an Ethnographic Animation

Author(s): Prabaharyaka, Indrawan; Presenter(s): Prabaharyaka, Indrawan

Institution: Institute of European Ethnology, Humboldt University of Berlin

Keywords: bad kannstatt; citizen initiative; fresh air; stuttgart; urban climate

This animated documentary tells the stories of people who witness and strive to protect cool and fresh air streams in Stuttgart. It follows a controversy at Bad Cannstatt, where a citizen initiative emerged in 2007 against the plan of housing construction at a green space that has been functioning as a fresh air corridor. This historical narrative is interlaced with the emotive narrative layer of Udara, a girl who lives in the city and loves to play with the wind blowing from her window but cannot do so in the extreme summer heat. As an epistemic object, the film's theoretical project is to sharpen and expand the notion of "ethnographic animation" as a method not only for collaborating with interlocutors but also to make visible the animacy of nonhumans and their affective relations with humans. In the canon of STS, ethnographic animation is part of the critical practice of making (climatology) knowledge public, and thus, the film aims to foster public discussions on an urban challenge that will remain controversial in the future, namely, how cities can provide human settlements and at the same time keep certain spaces unbuilt for the sake of urban climate.

Panel III: Education as Practice

Tuesday: 13.30 – 15.00, Session VI, Moderation: Maren Vielhaber

Circular Building: A Critical Analysis of Architectural Design in Teaching

Author(s): Thier, Lennard; Presenter(s): Thier, Lennard

Institution: HafenCity Universität, Hamburg, Germany

Keywords: architectural design; circular building; design planning process; life cycle phases; sustainability; teaching in architecture

Given the construction industry's significant impact on climate change, there is a call for a shift towards sustainability. A promising approach for environmental compatibility is to conserve resources and reduce emis-

sions through circular building. Architects play a crucial role in this transition through their design choices. This research examines the compatibility between architectural design planning and circular building. To analyse this, the circular building approach is compared to the architectural design planning process. Additionally, Interviews with experts from teaching and professional practice will be conducted to determine if the existing design approach requires a fundamental change to implement circularity into architecture. Research context: A holistic view of life cycles is essential for circular building. It is important to differentiate between the technical and biological cycles, as both entail different requirements. Design choices have a significant impact on the entire life cycle of buildings and their construction materials, not only during production (pre-use) and use but also in their potential of reuse (post-use). Research objectives and methodology: Universities primarily train students to develop basic competences in design planning, enabling them to establish individual positions in their design thinking. Meanwhile, planning processes in architecture are becoming increasingly complex due to growing requirements. Personal observations in teaching architectural design planning within the context of building in the biological cycle reveal that students mostly focus on building appearances and the user-specific functionality of their designs. In these teaching formats, it became evident that students rarely consider the post use consequences of their early design decisions. Therefore, this research critically examines the prevailing design practice in teaching regarding the necessity of implementing a holistic circular approach. The central research question is: To what extent can the architectural design planning process be aligned with the different requirements of the technical and biological cycles? As part of this investigation, a comprehensive research and analysis of current design approaches as well as the criteria of circularity in architecture will be conducted. Additionally, qualitative expert interviews with relevant stakeholders from academia and practice are carried out. The Grounded Theory approach will be applied for research design, data collection, and analysis. Theoretical Assumptions Implementing circularity requires considering all life cycle phases in the design process. However, criteria of circularity - such as clean disassembly with separated materials or reuse potential for future generations - often take a backseat to priorities such as cost-effectiveness, aesthetics, and regulatory compliance. Conclusion: Achieving sustainability goals requires a fundamental transformation of the construction industry, with circular building at its core. For a truly integrated approach to circularity, key criteria should be already considered in early design decisions. Addressing this issue is essential to conserving valuable resources and shaping sustainable, future-proof urban spaces.

University as Arena: Rethinking Architectural Education Through History, Dialogue, and Tactical Interventions

Author(s): Damov, Viktor; Presenter(s): Damov, Viktor

Institution: University of Architecture, Civil Engineering, and Geodesy - Public Buildings Department - Sofia - Bulgaria; Technical University of Braunschweig - Institute of History and Theory of Architecture and the City - Braunschweig - Germany

Keywords: architectural education; arena; bulgarian context; collaborative; critical; exhibition; tactical urbanism

Architecture is in a state of crisis, manifested by the profession's inability to lead the creation of socially just, sustainable and aesthetic urban environment. As a result, its relevance is diminishing. This crisis extends to architectural education. The system struggles to find a model of renewal suited to the demands of the 21st century. The education of architects must be recognised as significant to society at large, as the challenges of the built environment are deeply intertwined with the challenges of architectural pedagogy. In Bulgaria, architectural education boasts nearly a century of history, yet no comprehensive attempts have been made to examine its historical development critically. At the same time, administrative mechanisms that could initiate a contemporary reassessment of this education remain obstructed by inherited institutional narratives, bureaucratic inertia, faculty politics, and fragmented actors' interests. This project seeks to initiate two interrelated processes, engaging with distinct temporalities: first, a critical reflection on the historical development of architectural education in Bulgaria; second, the exploration of possibilities for a collectively negotiated future. Conducted by the NGO Underschool in collaboration with UACEG Sofia, the project presents a tactical model of integration between the centre and periphery of architectural education. Three interrelated methods were employed: exhibition, arena, and tactical urbanism, highlighting the project's multidisciplinary approach. The exhibition visualized the historical evolution of architectural education in Bulgaria, focusing on the architecture faculty at UACEG Sofia. It mapped complex, interconnected historical processes, revealing internal institutional tensions and ideologies while addressing external influences such as political and economic factors. The curated arena constituted the core of the research. Building upon the historical analysis, it examined the current state of architectural education, mapping key actors, including tutors, students, state and university administrators, and practicing architects. Each actor's perspective was explored centred on the question: 'Can the arena function as a space for open dialogue and renegotiation of architectural education? Can we collectively imagine its future?' Over 10 days, the arena activated a previously neglected space on campus through tactical urbanism. This intervention underscored the potential of underutilized spaces to facilitate meaningful academic and public engagement. The results revealed significant communication challenges: rigid administrative roles, power asymmetries, field fragmentation, and an inability to foster mutual understanding. While the arena demonstrated its potential as a

dialogic platform, it also underscored the limitations of short-term interventions and the need for a sustained, iterative process. In addition to achieving its research objectives, the project highlighted the capacity of external organizations to contribute constructively to academic development by adopting a critical yet collaborative stance. This approach offers a sustainable and innovative model for the renewal of architectural education, warranting further exploration and experimentation.

Campus as a Living Lab: Higher Education Institutions as Catalysts for Transformative Innovation in Urban Future-Making

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Keywords: university campus, living labs, campus as a living lab, transformative innovation, higher education institutions

In light of escalating urban challenges, as urban areas face unprecedented environmental, social, and economic challenges, higher education institutions (HEIs) are increasingly recognised as critical drivers of transformative innovation. Through the “Campus as a Living Lab” (CLL) framework, academic institutions are uniquely positioned to lead in the co-creation of sustainable and resilient urban futures. This study explores how HEIs, leveraging their spatial, intellectual, and social resources, act as arenas for experimentation and collaboration to address pressing urban challenges. The concept of CLL redefines campuses as microcosms of urban systems, integrating research, education, and community engagement to test and implement innovative solutions in real-world contexts. This study examines the potential of HEIs to foster systemic change by acting as platforms for co-learning, participatory governance, and the co-design of resilient urban strategies. Central to this inquiry is the role of universities as agents that bridge academia, public institutions, industry, and local communities, thereby situating themselves as pivotal drivers in sustainability actions and, hence more pragmatically the UNDP’s Sustainable Development Goals. Drawing on one of the young and agile universities in developing countries, the Izmir Institute of Technology (IZTECH) case study, this research investigates how living lab methodologies can be applied to operationalise sustainability within the built environment. IZTECH’s willingness to take initiatives in sustainable campus planning and multi-stakeholder engagement offers a compelling argument for how HEIs can be drivers for transformative innovation for sustainable development. The study identifies key mechanisms through which universities can foster innovation, including transdisciplinary collaboration, iterative prototyping, and the embedding of circularity principles in campus operations. This study contributes to the theme of urban future-making by situating HEIs as both drivers and arenas of urban transformation. It examines how the built environment of campuses serves as a material and symbolic site for future-making, shaping new narratives of sustainability and resilience. Furthermore, it discusses the challenges and opportunities inherent in scaling campus-based innovations to broader urban contexts, addressing questions of replicability, equity, and governance. By presenting a framework for integrating living lab principles into university operations, this study offers actionable insights for policymakers, educators, and urban practitioners seeking to harness academic institutions’ transformative potential for urban innovation and sustainability. Finally, this research underscores the urgency of leveraging universities as hubs for innovation, resilience, and sustainability in the face of global urban challenges.

Tactical Urbanism and Knowledge Territories: Learning from HIDS-Unicamp (Brazil) and Distritotec (Mexico)

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Keywords: complete streets; knowledge territories; social innovation; social participation; tactical urbanism; urban mobility

This study explores Tactical Urbanism (TU) and Complete Streets (CS) initiatives within Knowledge Territories (KT), focusing on two cases: distritotec (Monterrey, Mexico) and Unicamp (Campinas, São Paulo, Brazil), including the International Hub for Sustainable Development (HIDS) and Unicamp’s main campus. These territories serve as living labs, fertile grounds for experimenting with innovative urban interventions, through TU strategies. These environments facilitate user participation and support urban sustainability initiatives, while serving as governance models for research, education, and community engagement. The theoretical framework integrates perspectives on social innovation, living labs, and knowledge-based urban development, highlighting their synergy in urban planning, governance, and social participation. The methodology combines secondary data with a case study approach. Data were collected from technical reports, policy documents, and academic literature. Each case was analyzed using nine variables of social innovation to identify patterns, challenges, and opportunities: (1) associations/collectives/activist groups, (2) actions to highlight social needs, (3) third-sector interaction with the

public sector, (4) evidence base, (5) support from public policies, (6) government bodies that support service provision, (7) solutions to social needs, (8) improvement of environmental quality, and (9) social impact. The results reveal that TU and CS initiatives in KT enhance active mobility and foster inclusive urban environments. At dis-tritotec, though still in an emerging stage, the collaborative approach between Tecnológico de Monterrey, local governments, and the community has improved pedestrian infrastructure and urban revitalization. Interventions at the Garza Sada Roundabout and Covarrubias Street include widened sidewalks, traffic calming measures, and native tree planting, addressing variables (2), (4), (7), (8), and (9). The HIDS-Unicamp case integrates CS principles into its master plan through participatory workshops, aligns with variables (2), (5), and (6). However, implementation challenges, including ecological constraints and outdated regulatory frameworks, indicate the need for stronger governance mechanisms. In UNICAMP's main campus TU project, car-centric urban planning has gradually undermined the original radial campus layout, which was designed to foster pedestrian interaction. Proposed interventions include widening sidewalks, reducing lane widths, and incorporating parklets. Though not implemented, the project demonstrated TU's potential as a co-creative tool to engage stakeholders and refine solutions iteratively, emphasizing initially variables (1), (2), and (3). The study underscores that successful urban interventions depend on political will, requiring alignment among university administrations, local governments, and policymakers. Without political support, tactical urbanism initiatives may face significant delays or fail to secure necessary approvals. TU serves as a transitional phase to facilitate long-term and sustainable urban transformation. This highlights the critical importance of stakeholder engagement and coordinated policy alignment for implementing transformative urban projects.

Fab City Hamburg as a Catalyst for Niche-Regime Interaction: Struggling Institutional Logics in Urban Arenas of Sustainability Transitions

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Keywords: boundary objects; institutional logics; niche-regime interaction; sustainability transitions; socio-technical configurations

This study examines Fab City Hamburg as a catalyst for niche-regime interaction within sustainability transitions, emphasizing its role in navigating institutional logics. The initiative aligns local and global sustainability goals through multi-scalar connections, reinforcing its position as both an experimental platform and a node in a larger transition network (Moritz et al., 2024). The research employs a qualitative case study approach, analysing news articles to explore the institutional logics prevalent in the regional manufacturing sector. Through discourse analysis, it examines how different logics – such as industrial competitiveness, circular economy principles, and digital manufacturing – are framed in public debates and media narratives. Socio-Technical Configuration Analysis (Heiberg et al., 2022) is applied to assess how these logics interact, conflict, or align within the sector. Additionally, the Boundary Objects in Sustainability Transitions framework (Franco-Torres et al., 2020) provides insights into how Fab City Hamburg serves as a mediating space, facilitating collaboration between niche and regime actors despite institutional tensions. Anchored in the Global Fab City Initiative's vision for self-sufficient cities by 2054 (Diez, 2016), Fab City Hamburg exemplifies an urban arena where actors promoting localized, commons-based production engage with those advocating for regional economic growth (Buxbaum-Conradi et al., 2022). As a boundary object, it fosters interaction among diverse stakeholders, accommodating multiple interpretations and enabling coordinated action. By integrating empirical findings with conceptual insights, this study advances the understanding of urban arenas as platforms for socio-technical transitions. It highlights how the interplay of institutional logics in regional manufacturing shapes sustainability pathways and how initiatives like Fab City Hamburg contribute to reimagining urban futures amid global challenges.