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CARTOGRAPHIES OF PLANETARY URBANISATION

Today, urbanisation has become planetary. The boundaries of the urban have been exploded to encompass vast territories far beyond the limits of even the largest megacity regions. Meanwhile, novel patterns of urbanisation are crystallising, which challenge inherited conceptions of the urban as a bounded, universal settlement type.

Cartographies of Planetary Urbanisation is an exhibition proposing a radical rethinking of inherited cartographies of the urban. The popular claim that we now live in an 'urban age' because the majority of the world's population live in 'cities', is a deeply misleading basis for understanding the contemporary 'urban revolution', theorised by Henri Lefebvre. Cities are not isolated manifestations or universally replicated expressions of the urban condition, but are embedded within wider, territorially uneven and restlessly evolving processes of urbanisation at all spatial scales. Encompassing both built and unbuilt spaces, across earth, water, sea and atmosphere.

In this exhibit, shown at the 2015 Shenzhen Biennale of Architecture/ Urbanism: Radical Urbanism, interdisciplinary research teams from the ETH Zürich, ETH Future Cities Laboratory Singapore and the Urban Theory Lab at the Harvard Graduate School of Design, presented new frameworks for understanding and representing contemporary forms of urbanisation through three interrelated lines of inquiry:

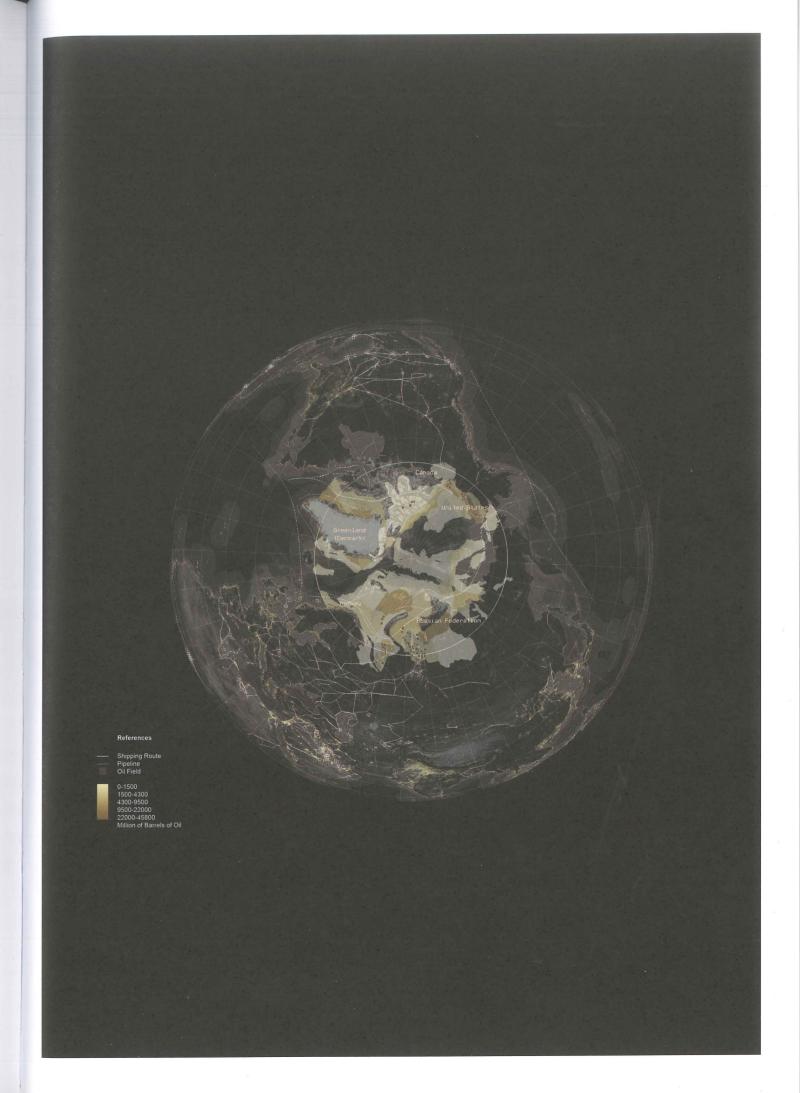
1. Comparative analysis of the urbanisation processes that have transformed Tokyo, Hong Kong/Shenzhen/Dongguan, Kolkata, Istanbul, Lagos, Paris, Mexico City and Los Angeles. We explode the singular notion of the city to explore, in comparative perspective, differing patterns and pathways of urbanisation in some of the world's most dynamically changing urban territories.

2. The extension and thickening of the urban fabric in some of the planet's supposedly most 'remote' or 'wild' zones – the Amazon, the Arctic, the Gobi desert, the Himalayas, the Sahara, Siberia, the Pacific Ocean and the earth's atmosphere. Even these sparsely populated areas are today experiencing a massive intensification of land use, the construction of new connectivity infrastructures, and accelerated socioenvironmental transformation to support the world's major population centres.

3. The transnational hinterland archipelago that supports urbanisation in Singapore, one of the world's most globally networked agglomerations. In contrast to standard representations of cities as self-propelled economic powerhouses, we track the wide-ranging flows of food, water, energy, sand and labor-power that support this growing, globally strategic urban centre. Instead of the city-state, we propose the cross-border metropolitan region as the new urban paradigm for Singapore.

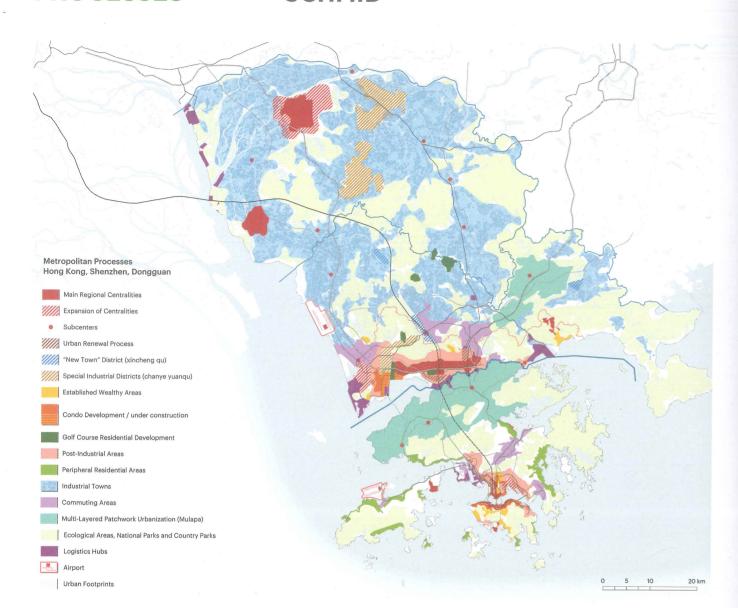
The exhibition highlights the interplay between the search for new theoretical concepts, territorially grounded studies of specific patterns and pathways of urbanisation, and the use of cartography to decipher new geographies of urbanisation for which we currently lack an adequate analytical or representational vocabulary.

Arctic
The strategic/speculative space of the
Arctic: oil fields, projected oil reserves,
pipelines and shipping routes.
Map Credits:
Grga Basic & Urban Theory Lab



METROPOLITAN PROCESSES

CHRISTIAN SCHMID



The last two decades have seen a sharp increase in the speed, scale and scope of urbanisation that has fundamentally changed the character of urban areas. Transcending physical borders, political jurisdictions and social spheres, urbanisation has become a planetary phenomenon. Urban forms associated with relatively stable human settlement spaces - often represented as dots on a rural background - are superseded by increasingly heterogeneous, complex and polymorphous urban regions. This diversification of urban forms has important implications for urban planning and design. It demands a comparative and synoptic approach that can both grasp the processes of planetary urbanisation and remain sensitive to the diversifying local manifestations. A new vocabulary of urbanisation is required to help

us decipher the rapidly mutating landscapes of urbanisation that are today being produced across the planet.

By analysing and comparing eight large metropolitan areas, this research project elaborates the processes of urbanisation to explain how general tendencies are materialised in specific places. We analysed the urbanisation processes in the individual metropolitan regions on the ground, and brought them conceptually into conversation with each other. With a multidimensional methodological design that combines a wide variety of sources and procedures we generated a series of maps that show the main urban configurations for each city. In a next step we compared these maps and identified a range of urbanisation processes that are emerging in several of these

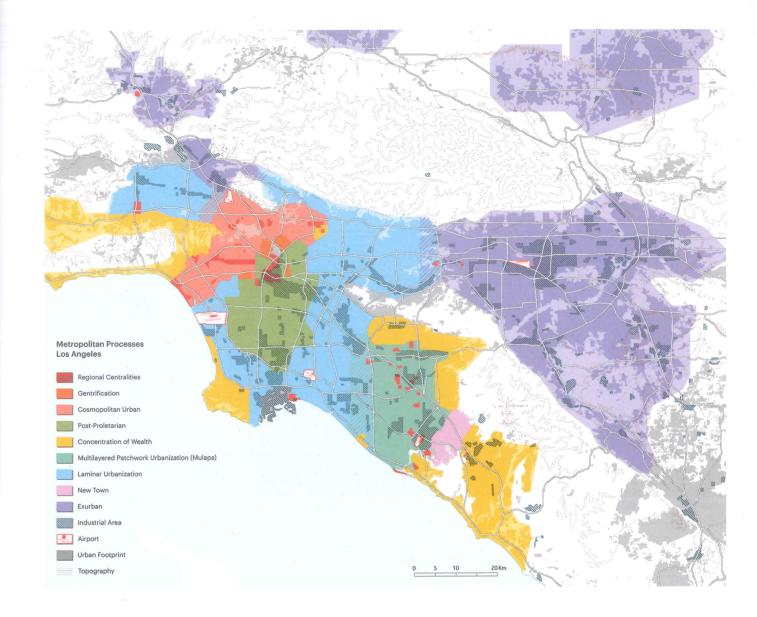
Metropolitan Processes:
Hong Kong, Shenzhen, Dongguan
The Eastern side of the Pearl River
Delta can be characterised as a multiscalar, polycentric and cross-border
metropolitan area. This territory has
emerged from the dialectics of fixity and
motion that has triggered the leapfrogging
urbanisation of South China.
Map Credits:
Tammy Kit Ping Wong &
Philippe Rekacewicz

Metropolitan Processes:
Los Angeles is famous for its polycentrism as well as for its never-ending sprawl.
In this map we have brought a semblance of order to a city that many have considered immanently illegible.
Map Credits:
Ozan Karaman, Christian Schmid,
Rob Sullivan & Philippe Rekacewicz

KERB 24

PG. 95

FCL SINGAPORE MODULE URBAN SOCIOLOGY





Cartographic Performance:
Philippe Rekacewicz, French
cartographer, geographer and journalist,
together with project participants and
the audience, made a cartographic
performance using the blackboard
"maps:" and "globes" mounted on the
facade of the exhibition rotunda.

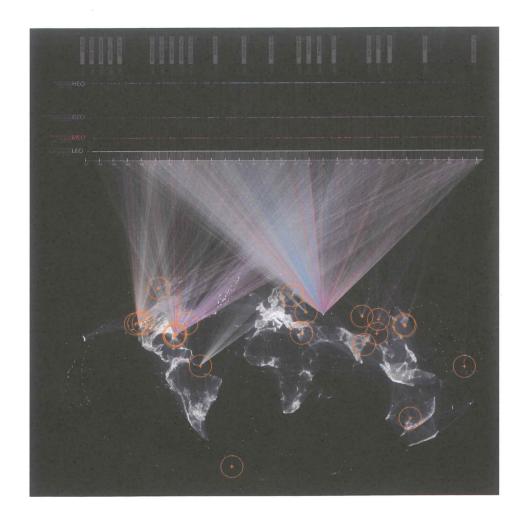
Exhibition Photography: Bas Princen



urban regions. The particular processes to be compared and the categories of comparison themselves were not pre-determined. This comparative procedure enabled us to group together specific processes that have a number of common features and dynamics, and to develop a set of comparative categories of contemporary urbanisation. It finally allows us to systematically analyse the diversity of responses to many of the common challenges posed by contemporary urbanisation, such as urban sprawl, the commodification of space, socio-spatial segregation, housing for the poor, renewal of old housing stock, and the development of urban differences in terms of their effectiveness, their unintended consequences, and their ramifications for the quality of everyday urban life.

PG. 97

KERB 24



Atmosphere:

The earth's atmosphere has been transformed into a field of logistical coordination in support of urban life. Map Credits:
Chris Bennett, Urban Theory Lab

In what sense do we today live in an 'urban age'? This idea is frequently invoked by scholars, policy-makers, planners, designers and architects, usually with reference to the proposition that more than 50% of the world's

that more than 50% of the world's population now lives within cities.
But, can the nature of our urban world be understood and mapped exclusively with reference to the growth of cities

and their populations?

Our current work with the Urban Theory Lab (urbantheorylab.net) turns this proposition upside-down and inside-out by speculating on a radically alternative mapping of contemporary planetary urbanisation. Rather than focusing our attention on large population centres, we investigate urbanisation from the point of view of its putative 'outsides', the zones that are commonly represented as rural, remote, wild and/ or untouched by human impact.

What happens to our cognitive map of the global urban condition if we focus

not on the global cities or mega-cities of the world, but on the wide-ranging socio-spatial and environmental transformations that are currently unfolding in supposedly 'remote' or 'wilderness' regions, such as the Amazon, the Arctic, the Gobi desert steppe, the Himalayas, the Pacific ocean, the Sahara desert and Siberia, and even the earth's atmosphere? To what degree are such zones now being integrated within a worldwide fabric of urbanisation? How are they being restructured and enclosed to support the energy, water, material, food and logistics needs of major cities?

Through a combination of historical analysis, critical geopolitical and economic evaluation, as well as geospatial data visualisation and conceptual experimentation, this research aims to extend the analytical and political horizons of urban theory into these 'extreme territories' of urbanisation.

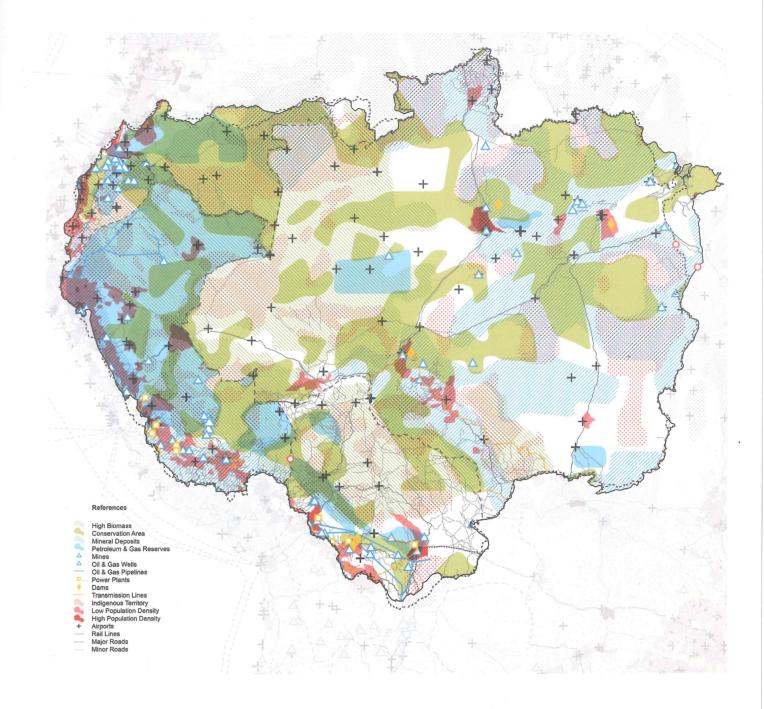
Exhibition Photography: Bas Princen

Amazon:

Today, the urban fabric of the Amazon is being dramatically thickened in support of planetary urbanisation.

Map Credits:

Ali Fard, Daniel Ibanez and others in the Urban Theory Lab









MILICA TOPALOVIC



Throughout history, cities have functioned as centres of political and economic power, from which the agricultural and resource-rich hinterlands were controlled. From the nineteenth century onward, new technologies, transportation modes and the opening of trade have introduced a remarkable complexity to the relationship between cities and territories. Today, it is often thought that cities rely decreasingly on surrounding territories for supply and subsistence. Instead, they seem emancipated from the constraints of geography, operating in a global web of dependencies. By contrast, this research is based on a hypothesis that an understanding of the city-territory relationship, the ability to conceptualise it in qualitative terms, and to influence it by means of planning and design

strategies, is central in addressing urban sustainability.

At first glance, the island city-state of Singapore is the 'city without a hinterland'. Certainly, it is a city whose production grounds and vital resources lie beyond national borders. The economic incorporation of hinterland territories in Malaysia, Indonesia, Southern Asia and beyond, have remained both a necessity and a profitable opportunity for Singapore.

The research concerns the problematic of Singapore's hinterland at various territorial scales, from local to global.

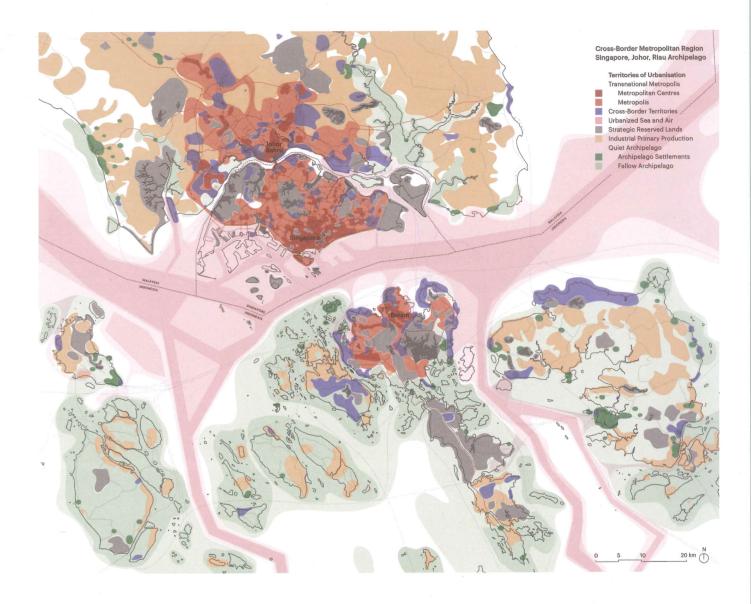
The five key resources for Singapore – sand, water, food, oil and human labour – as well as territorial dynamics of resource extraction, flows and accumulation at

Singapore island republic and the urbanised sea of the Singapore Straight. Credits: Bas Princen: Anchorage Zone (Singapore Straight), 2015

Cross Border Metropolitan Region Singapore, Johor, Riau Archipelago: Territories of Urbanisation The regional picture of Singapore shows that its productive hinterlands in Indonesia and Malaysia are experiencing fast population growth and urbanisation. Map Credits: Karoline Kostka

Exhibition Photography: Bas Princen PG. 99







different scales, were put in focus. The investigation has revealed processes and procedures with which each of the resources is increasingly sought after by the city-state in a geopolitical frame, in the countries of the ASEAN and beyond. This increasing dependency on crossborder territories, ever further removed, is a source of vulnerability for Singapore. At the same time, these specific restrictions give a highly distinctive profile to Singapore's development practices, its urban character and form. Each of the five resource hinterlands has been described through maps, plans, diagrams and text, from the perspective of urban history, and in terms of sociopolitical, economic, and environmental development characteristics, with policy choices pursued.

The research does not represent the accustomed view of Singapore as an island developed on the paradigm of a global city-state, but as a city whose present and future are tightly connected to its cross border metropolitan region and the rest of South Asia.