ANTI-THESIS

Spatialities of Hunger: Post-National Spaces, Assemblages and Fragmenting Liabilities

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This contribution addresses the casual structure and spatialities of food insecurity. Drawing from scholarly debates on periphery, I illustrate the limited explanatory range of state-centered periphery-approaches in order to comprehend the recent constellations of conflict and hunger. I argue that increasingly dynamic and post-national spaces of food insecurity emerge. Due to complex power geometries, these spaces are driven by realigning and territorially-stretched arrangements of action (e.g. global producer-consumer relations), by technologically enhanced new temporal configurations (e.g. speculation and high frequency trade in food), by the performances of metrics (e.g. models of food price and value-constructions shaping food security), and by the reflexive effects of knowledge production. In order to comprehend these dynamics, concepts capable of capturing new assemblages are required.

Keywords: Periphery; Space; Hunger; Insecurity; Assemblages

Introduction

Social unrest, demonstrations and upheavals culminating in the "Arab Spring" reflect the scope of inequality, injustice, marginalization and insecurity within the region. This contribution addresses one of the most important problems impacting local livelihoods, namely food insecurity. Since 2011, people in the Arab world have repeatedly called for the right to bread, freedom, and social justice (*ʿaish, ḥurriyya wa adāla ijtimāʿiyya*) and for the "fall of the regime" (*isqāṭ al-niẓām*). Conventional relations between food and governance are at stake. Drawing from scholarly debates on periphery, I will illustrate the explanatory range of periphery-approaches in order to comprehend food insecurity. Although these concepts are still useful for explaining historical constellations of inequality, I argue that they are no longer appropriate tools for describing and analyzing recent constellations of conflict such as the current social production of hunger that is challenging Arab societies. I further argue that both, neoliberal globalization and polycentric financial capitalism—with their quickly changing hotspots—transform the hitherto territorial and temporal form of the food system, including its social institutions, into a new landscape of fragmenting chains of responsibility. Here, liability is failing and

increasingly removed from the producer principle. In order to analyze these processes, new approaches that can unveil these assemblages are needed.

Conceptualizing Periphery

Since the end of European colonialism, development processes have been increasingly captured as an outcome of center-periphery relations: Imperialism and asymmetric divisions of power and influence were identified as key drivers of inequality and persistent poverty (Prebisch; Frank). In the early debate, periphery-approaches within dependency theory were conceptualized as the antithesis to the modernization paradigm. While the latter promised a "catch-up development" to the level of industrializing countries, periphery-approaches point to the dependencies resulting from the colonial experiences of "developing countries." Although not dealing explicitly with hunger, approaches dealing with center-periphery relations highlight the different preconditions that emerge from colonialism and thus point to the structural difficulties and systematic barriers of "catching-up" and "connecting to" the "development level" of industrialized countries. Three influential scholars on the early debates are Johan Galtung, Milton Santos and Immanuel Wallerstein.

In his "Structural Theory of Imperialism" Johan Galtung reveals the relational notion of periphery-concepts. To simplify things, Galtung categorizes the world as being constituted by only two units: By nations of the center and nations of the periphery, whereby, each of the nations is further subdivided into center and periphery. The center nations are thus constituted by center and periphery, as are the periphery nations. The center of the periphery is labeled "bridgehead." Within the imperial configuration, Galtung identifies a harmony of interest between the representatives of both centers, the government of the center, and its bridgehead in the periphery. He argues the gap of living conditions between the two parties is decreasing to zero. Between the two peripheries, however, there prevails a disharmony of interests: Here, the gap of living conditions is increasing. Galtung stresses "Alliance-formation between the two peripheries is avoided, while the Centre nation becomes more and the Periphery nation less cohesive—and hence less able to develop long-term strategies." He concludes, "The total arrangement is largely in the interest of the periphery in the Center" (84). This asymmetry is increasingly fixed. Galtung thus provides a perspective that merges two analytical approaches: An analysis of society that produces winners and losers within an imperial configuration and an understanding of space that is based on nation-states as territorial entities, which are understood as single space-producing actors.

In *Shared Space* the Brazilian geographer, Milton Santos, emphasizes that structures of domination unfold also on smaller scales and are subject to negotiations and shifts. He focuses on "Third World" urban economies and their encounter with modernity. Santos comprehends the Third World city as being constituted by two systems: A modern or "upper circuit" and a traditional or "lower circuit" of the economy. The *shared space* emerges from a superimposition of traditional and modern activities. While the upper circuit is conceptualized as an outcome of technological modernization—represented by capital-dense multinational firms, banks, and monopolies with far stretching relations that reach beyond the city into national and international spaces—the lower circuit consists of small-scale labor intensive activities of the poorer population, which enjoys privileged relations to the region. The articulations and interactions between the two circuits result, according to Santos, in a continuous transfer of capital from local economic activities within the lower to the upper circuit, thereby, causing an increasing deforma-

tion of spatial and social structures and an ongoing polarization of the (urban) society, including its spatial manifestations. Center-periphery relations are thus conceptualized as asymmetric relations between macro- and micro-level, including everyday struggles. However, the driver of inequality continues to be represented as a unilinear process that results from the impact of the West.

Wallerstein's seminal work on the *Modern World-System* conceptualizes the world system and the expansion of the capitalist economy as being structured into core, peripheries, and semi-peripheries. He emphasizes the mechanisms of economic integration and the multitude of fusions between reciprocal-lineage systems (periphery) and redistributive-tributary empires (semi-periphery) with the capitalist world economy (center). Wallerstein thus identifies the historical dimension (imperialism) and the economic structures (market integration) as the key drivers of uneven development. However, by depicting the various and ambiguous contacts, connections, linkages, and interrelationships between colonizers and colonized, Wolf reminds us that the European expansion should not be reduced to unidirectional core-periphery trajectories. The colonized are more than passive objects, rather, "the common people were as much agents in the historical process as they were its victims and silent witnesses" (Wolf x). Within dependency theory, it nevertheless remains uncontested that the hegemony of European imperialism constituted structurally unfolding power asymmetries. These dynamics have impacted food insecurities until today.

A more recent intervention on "Peripheralization" (Fischer-Tahir and Naumann) seeks to re-politicize the debate about spatial dependencies and social injustice in relation to research positions concerning Eastern Europe. Guided by the observation that the development discourse is losing ground, as depoliticized notions of globalization emerge, the authors comprehend peripheralization as a "constitutive element of capitalism" and as an "analytical tool to explore spatial differentiation" (5-6). From their perspective, peripheries emerge from the logic of uneven development that results from capitalist investment policies. The social production of peripheries is also shaped by technocratic, political, and academic representations, and ultimately by social practices (lifestyles, significations, experiences). Fischer-Tahir and Naumann conclude, "Peripheralization refers to a spatially organized inequality of power relations and access to material and symbolic goods that constructs and perpetuates the precedence of the centres over areas that are marginalized" (14). This approach hence concentrates on the territorialization of social injustice, fixed by discursive acts and social practices.

In conclusion, classical periphery-approaches are able to explain uneven development as an outcome of imperialism. Here, the structural consequences and their perpetuation into contemporary life are of crucial importance. However, one must ask: What kind of explanatory scope do these approaches develop in order to capture recent constellations of inequality as preconditions for hunger?

Periphery: Critical Reflections

In the following, I will first reflect on the conceptual problems inherent to periphery-approaches. I then investigate the transfer of their key concepts into food system research, and finally, I seek to reveal the consequences if food insecurity in Arab countries becomes the object of investigation.

Three points of critique apply:

(1) The notion of periphery is, from its very inception within the development debate, tied to (Western) assumptions about the role of (national) economies, and is thus based on explicit and implicit numerical procedures, measurements, and comparisons. These interrelations are an outcome

of topological framings and epistemological violence produced by (post-) colonial actors within a world that seems to require continual (numerical) ordering. Nations are, for example, classified as developed, underdeveloped, or least developed and are thus prepared to be segmented into cores and peripheries. The economic foundation of price building markets in a capitalist world system is based on metrics, on standardization, measurements, comparability and hierarchies. These metrics entail the assumption that social relations systems (for example, the knowledge about the rules and resources of a community) are transferrable into numerical relational systems (e.g. a representation of a gross domestic product or a human development index). In this way, complexity is reduced and contextual information about societies is devalued, dissected, and replaced by (artificial) averages and probabilities. Therefore, incommensurable social practices are brought into relation with each other. Yet, periphery-concepts are, so far, not challenging these assumptions.

(2) Periphery-models that aim at comprehending unequal power structures of society are muddled and amalgamated with unfortunate spatial connotations. The notion of periphery not only connotes social marginality but also spatial remoteness. It thus furthers an understanding of space that is reduced to the mere notion of territory. In particular, it conveys a concept of territory that equals a bounded space (i.e. representing and reifying the image of a territorial contiguous nation-state order). But societal power relations are not always reflected in a single territory; rather, they may be articulated with different spaces, or may unfold on different scales or may even remain territorially dispersed. The notion of periphery thus remains vaguely understood in terms of its spatial expressions. In this respect, I share Doreen Massey's notion of space as characterized by three properties: As being an outcome of interactions, as being shaped by multiplicity, and as never being finished but instead being continually made—preliminary and incomplete.

(3) Periphery-models remain too simplistic to capture the recent temporal dynamics of society. Given the increasing speed and acceleration of interactions, which stretch across expansive distances, linking different kinds of actors and assuming different stabilities—with both conjectural and structural impacts—the notion of assemblages becomes crucial. Assemblages can be comprehended as "the composition of diverse elements into some form of provisional socio-spatial formation" (Anderson and McFarlane 124). Three dynamics are drivers of these formations: the privatization of the state, new technologies in communication, and the processes of financialization.

First, linked to the project of neoliberal globalization, the role of the state is shifting: The powers of the state have been "dispersed, decentred and fragmented" (Allen and Cochrane 1071), entailing the privatization of authority, the shift from government to governance, and the proliferation of regulatory bodies. These processes reorganize, destabilize and undermine the state apparatus, and they thereby transfer powers into a multi-scalar institutional hierarchy, which operates beyond the bounded space of national territories (1071). The combined forces of privatization and globalization are "producing massive structural holes in the tissue of national sovereign territory" (Sassen 26). In this sense, hunger can, in part, be comprehended as an outcome of privatizing, shifting and fragmenting social responsibilities.

Second, parallel to the emergence of post-national institutions and territories, the concept of financialization has emerged and has recently become a meta-narrative used to comprehend global socioeconomic changes. After the development era and omnipresent

globalization processes, accelerated financialization looms heavily. Financialization is conceptualized as a process in which expanding and volatile financial capital increasingly penetrates and shapes the "real economy." Furthermore, financialization is restructuring accumulation strategies, the role of both nation-states and private corporations, and it is impacting, more directly than ever before, the livelihood systems of citizens (see below). It is associated with the ambivalent power of financial markets, their simultaneous importance and fragility, and an international financial system of increasingly fragmented responsibilities. Significantly represented by recurrent international food price crises, financial capital and its related actors have also become actively involved in agriculture and the production of food insecurity (Burch and Lawrence, "Towards a Third Food Regime"; Clapp; Gertel, "Krise und Widerstand"). Both the accelerated denationalization of national territory and the financialization of social relations are accompanied by technologically enhanced temporalities of communication. Information about food and food prices is increasingly transferred through high-speed interactions across large distances.

Spatialities of Hunger

Given the new developments in metrics, temporalities, and spatialities one must ask: How have periphery-concepts been translated into research on food systems? In which explanatory range do they unfold, and what kind of insights about Arab countries do they generate? The answers to these questions begin with the current dynamics of the global food system. Six processes are important: (1) As never before, the food riots and protests of 2008 and 2010/2011 illustrate the vulnerability of the poor and the disenfranchised. For the first time in history, demonstrations against international food price hikes occurred simultaneously in a multitude of countries. Due to widespread poverty and water scarcity, Arab countries depend particularly on foreign food, namely on grain imports. Egypt, for example, shows the highest consumption of wheat per capita in the world. (2) Financial speculation with agricultural commodities such as wheat, rice, and corn contributed to the dramatic increases in food prices. Since 2009, more than one billion people suffer from hunger, that being one in seven people, despite the fact that there is sufficient food available for all. Hunger and malnutrition have become the highest health risk with ramifications that are more severe than those of AIDS, Malaria, and Tuberculosis combined. Among the most vulnerable are children, as the consequences of malnutrition are irreversible. (3) The threshold for new food crises and social cleavages is rapidly decreasing. After 40 years of neoliberalism, deregulation and structural adjustment, the ability for low-income states and their poor households to cope with the effects of price-induced food crises has been reduced. With shrinking buffer potentials of both, public protection (e.g. via subsidies) and personal livelihoods (e.g. via decreasing incomes), international food price fluctuations increasingly affect individual households directly. Furthermore, these adverse effects are no longer limited to only the poor but now also include the evermore-impoverished urban middle classes. (4) Moreover, the stability of global food security is currently questioned by the new scope of technologized food price formation (e.g. computer trade). Step by step virtual transactions substitute human transactions. (5) As a consequence, food security is increasingly commercialized and short-term shareholder profits are expanding. Some nation-states have lost their means of intervention and therefore food security and even national stability in those spaces is increasingly governed by private capital. (6) Commercialized food (in)securities ultimately translate into new spatialities: Due

to urbanization and megacity development, food insecurity and hunger transform into an urban phenomenon. In Arab countries, the situation is even more dramatic. Here, the inhabitants of cities are especially dependent on grain imports and subsequently on volatile food prices. Summing up, the structural reasons of hunger have changed due to the processes of globalization and financialization in recent years. Increasingly, production-consumption-configurations are expanding globally and processes of price building in commodity chains are accelerating, while simultaneously, the fragility of food security for large parts of society is growing. The most significant development to this regard is the ongoing combination and continuous recombination between virtual and tangent actions and transactions. Keeping these dynamics in mind, I asked how these realignments of power structures, including their different spatializations, are captured in the current research on food systems and how they relate to periphery-concepts. Six positions, from top down- to bottom up-approaches, can be distinguished:

1. *Food regime*: a top down-approach. Food regime's proponents draw from world-system theory and investigate the territorially-stretched international interplay between food production and food consumption. They assume that agricultural production systems and food-related commodity chains are embedded in political regimes and are in turn determined by such regimes. Friedmann and McMichael conceptualize *food regimes* as historically significant clusters (norms, rules, institutions) of international food relations, contributing to the stabilization of growth periods in global capitalism. They further argue that phases with stable structures of accumulation are succeeded by transitional periods of experiment and dispute (Friedmann 335). Correspondingly, the first food regime, the "imperial food regime" spanned from 1870 to 1914 and is characterized—according to Anglo-Saxon authors—by British colonial hegemony. Agricultural trade was based on the expansion of grain- and livestock-farming systems amongst settler colonies in temperate climate zones (North America, Argentine, Australia, New Zealand), as well as on the expansion of plantation economies (e.g. cocoa, palm oil) in the tropical areas of the colonies. This included the outsourcing of the British, but also European and especially French, food supply to the colonies.[1] As for the Arab world, the colonial powers in Europe appropriated agricultural products, such as dates and meat (sheep) from North Africa, gum arabic from Sudan, and cotton from Egypt. The transition from the first to the second food regime was crisis-laden: All central relations were reversed, undermined, or restructured (Campbell and Dixon). The formation of the second (Fordist) food regime spanned from 1947 to 1973 (Friedmann). After World War II, the United States emerged as the largest exporter of agrarian products worldwide. Agricultural mass production and US political hegemony marked the peak of this stable phase of economic accumulation, which led to overproduction—especially of grain—and food aid.[2] Another transitional phase and the emergence of a third food regime followed, which has been labeled "corporate control" (McMichael, "A Food Regime Analysis") or "financialization" (Burch and Lawrence, "Towards a Third Food Regime"). The food regime approach thus allows for conceptualizing global food systems as large-scale spatial configurations with changing center-periphery relations.

2. *Globalizing food systems*: The simultaneous processes of territorialization (place-specific practices) and deterritorialization (dissolution of these practices) are particularly important to comprehend the dynamics of globalizing food systems (Goodmann and Watts 39). They involve patterns of convergence and divergence in the territorial organization

of production-consumption-relations. Since the 1970s, global players such as grain trading firms (TNCs like Continental Grain, Cargill, ADM, Bunge, or ConAgra) and investment banks that handle agricultural futures (such as Goldman Sachs) were able to expand and establish their economic position outside the United States. After the 1980s international debt crisis, when deregulation and public austerity measures (e.g. elimination of food subsidies) set in, these players where increasingly able to operate outside state control. They then applied strategies such as global sourcing, engaging in joint ventures, and foreign direct investment, while they adjusted trade with grains to the new technological possibilities (Zaloom). Parallel new regionalization processes emerged within the global food system. Trading blocs became manifest (EU, NAFTA) and bi- and multilateral free trade agreements were signed (Gibbon and Ponte) while a "shrinking development space" for poorer countries resulted from trade related agreements, which were then enforced by the WTO (Wade). Moreover, retail chains increasingly determined food standards and constructed quality (Burch and Lawrence, "Financialization"), which resulted in the realignment of South-North dependencies. Therefore, new trajectories shaped the global food system while the causes and risks of "globalized food crises" multiplied (Gertel, "Dimension und Dynamik").

3. *Global commodity chain* (GCC)-, *filière*- and *value chain*-approaches: These also address the integration of food production within the globalizing food systems, and in doing so, they share assumptions with food regime concepts (Hughes and Reimer). However, in contrast to the latter, their focus is on the products themselves and on the physical movement of commodities. They further focus on processes of value adding and price building during various stages including when food is produced, processed, marketed, and consumed. The industrialization of agriculture has—according to this understanding—enhanced the emergence of new global interdependencies and results in shifting control over food and value-adding chains (e.g. buyer- or producer-driven chains are distinguished) (Bair). The *global production networks-approach*, in contrast, identifies an inadequate focus in these approaches. According to their understanding, investigating commodity circulation and value adding is not sufficient to comprehend the social logic of food systems. Rather, the horizontal entanglements of production, commercialization and consumption must be addressed alongside respective livelihood strategies as they are constitutive for producing food and value. Hence, the contextualization of exchange processes requires a positioning of price building and value adding within the configurations of (social) reproduction.[3] This understanding thus goes beyond a perspective of conventional center-periphery relations. It captures commodity chains as related spaces of action (i.e. as networks of interaction) that not only transgress national boundaries but also connect situations on the micro-level with macro-level developments. It furthermore opens possibilities for a multisided analysis of horizontal entanglements when livelihoods of producers and consumers are related through commodity chains and by histories of exchange and value adding. For Arab societies the international *halal*-market, a US$600 billion market, offers such an example: Producers from Sudan and Somalia compete for market shares in the Gulf States with imported live cattle from Australia and frozen meat from New Zealand, which thereby demonstrates the complex connections between international commodity chains and multiple production systems that are responsible for securing different livelihoods (Gertel, Le Heron, and Le Heron).

4. *Global food price crises*: The analysis of food crises is largely driven by bottom

up-perspectives focusing on vulnerable groups and the poor. Three causalities of hunger are distinguished: (a) *Food production failures*: Here, food insecurity and hunger result from agricultural production problems. For a long time, the relation between food production and hunger has been conceptualized from a Malthusian perspective and has been explained by limited agricultural spaces vis-à-vis a growing population. This simplistic equation has been revised, particularly by the dramatic growth of food production. Yet, in globally entangled food systems, breaks in production and the subsequent increase in prices can be passed across long distances from agricultural areas (e.g. the USA or Ukraine) to consumers in the Arab world. This interaction then translates locally into hunger, malnutrition, and diseases. (b) *Food entitlement failures* (Sen): This concerns food access problems and relates to food prices and purchasing power. Even if food is locally available, food insecurity may prevail due to insufficient resources and poverty. The result is that respective groups often do not have the financial capabilities to buy food on the market. This particularly affects the urban poor. (c) *Food response failures* (Devereux): Here responsibility problems and intervention failure are addressed. According to Devereux, "new" hunger crises result from inadequate or failed modes of interventions. This is often the case with restrictive political regimes and violent conflicts, but it is also a consequence of inadequate development and emergency interventions. Malnutrition and hunger such as in Gaza, Iraq, Syria, Sudan, or Libya are examples for complex emergencies, resulting from a combination of different causes. Center-periphery-approaches can hardly explain these situations.

5. *Financialization*: Financialization processes impact increasingly on the global food system (Gertel and Sippel). Three economic dynamics are important: (a) The development of a new regime of accumulation and the sectorial shifts of leading national economies from industrial to financial capital. (b) The increasing importance of shareholder-value, such as in food corporations, which now shape performance and value-orientation and thereby generate a new distribution of risks and wealth. (c) The financialization of everyday life, that is to say, the inclusion of low- and middle-class households into global financial markets through new financial products. An increasing number of ordinary people now speculate with agrarian resources are aided by institutional investors, such as pension fund managers (Schumann). Security and insecurity thus dovetail globally in new ways. Retirement provisions "here" and food insecurity "there" (caused by speculation from institutional investors with agrarian resources, which leads to food price volatility) are entrenched (Gertel, "Dimension und Dynamik"). Clapp argues, that financialization results in a new mode of distanciation within the global food system. On the one hand, the number and types of actors of the commodity chains are increasing, while on the other hand, food is dismantled from its physical form and is instead represented in complex derivatives. This change constitutes a new challenge for any political opposition against financialization. MacKenzie reveals that particularly in high frequency trading, actors are no longer human individuals. Rather, actors are algorithms and even the market itself must be thought of as an algorithm. With the growing "technoliberalization" of trade with financial products (Gertel, "Krise und Widerstand"), temporality in the global food systems is thus shifting. This leads to new questions of causation and accountability when it comes to "sudden" price-dependent food crises ("Der Preis für Brot"). It is not the territorial, but rather the temporal differences that account for arbitrage profits. The notion of "realtime" loses its significance, as the informational advantage depends on milliseconds. These tempo-

ral differences are increasingly beyond human capabilities of reaction and intervention.

6. *Post-national spaces* of protest and intervention: Food protests have a long history.[4] Apart from local, and particularly, urban movements and territories of protest—as embodied by Tahrir in Cairo—international initiatives such as Occupy Wallstreet develop new spatialities (i.e. via web-mobilization) and are addressing not only national governments, but also the global financial system as a producer of insecurities. Interventions into the food system also exceed the national context and the role of the state. Actors in international development aid, for example, visually contribute to spatialized hunger through media images and also via a discursive representation of famine. The installation of a specific apparatus of logistics and rights can even undermine national sovereignty, at least temporarily, as the case of Operation Lifeline Sudan has shown. Increasingly, such forms of intervention face bottom up opposition. Consumers, as well as producers, who market their own products, form alliances in alternative agri-food movements. They challenge the current constitution of the global food system. This is corroborated by decentralized actors calling for boycotts, commitments to organic agriculture, fair trade and slow food, as well as by initiatives in the global South, such as the Via-Campesina movement that is advocating food sovereignty. These practices shape new producer-consumer relations (Goodman, DuPuis, and Goodman) and also open up new institutional spaces of protest and intervention (cf. the FAO Committee on World Food Security that negotiates new legal principles of land ownership; McMichael, "Historizing Food Sovereignty"). These spaces of protest and intervention are shaped by a post-national institutional plurality and by new dynamics of virtual communication.

Conclusion

Increasingly, post-national spaces of food (in)security emerge. They are characterized by multi-scalar institutional configurations, by complex power relations and by fragmenting liabilities. In this sense, four formations and constellations of spaces can be distinguished. At times they unfold as temporal assemblages and at times they are more manifest as spatial fix. First, spaces of hunger: Places, where individuals and groups are recurrently and physically affected by food insecurity (here responsibility seems to be predominantly attributed to national governments, which should be questioned). Second, spaces of hunger causation: These are predominantly chains of interactions and transactions that can span globally and that intentionally or unintentionally contribute—predominately via food price formation—to hunger and insecurity (here "distanciation" in Clapp's sense is high and liability is very low). Third and forth, spaces of protest and intervention: These appear in multiple forms where actors denounce food insecurity or try to mitigate their consequences and effects (here, responsibilities, such as corporate global responsibility or food sovereignty, are renegotiated but liabilities are still far away). As the composition of these forces and their spatial expression realign alongside financialization processes, the global food system is constantly changing. Currently, new interfaces of virtual and material spaces unfold while new polycentric and destabilizing orders of fixation and mobilization emerge. Polarizing concepts of the center and periphery invite one to think in static terms. For example, territorially determined nation-states assume that (national) boundaries of interaction are firmly fixed in time and space. To adequately describe and analyze globalizing food systems that are driven by financialization, concepts need to comprehend the forces of increasingly fragmented configurations of responsibility. In short, it is about the fractionation of

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social space: First, in the sense of dissolution in territorial configurations of action, second, as a new temporal configuration, in which non-human actors increasingly play a role, and finally, in regards to the performances of metrics and the reflexive effects of knowledge production that make us think and act.

Notes

[1] See the *filière*-approach: Raikes, Jensen, and Ponte.

[2] For Egypt see Gertel, *Globalisierte Nahrungskrisen*.

[3] For Egypt see Gertel, "Inscribed Bodies".

[4] For the Arab world see Walton and Seddon; Gertel, "Krise und Widerstand".

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