

considering the mechanics of a “world-culture” as integral to the capitalist world-system, much as is the onset of racism and sexism (Shapiro 2019b:15).

Instead of introducing the term *world-culture*, Wallerstein initially proposed using *geoculture* as a keyword. The purpose was to avoid base-superstructure divides and the notion that culture is merely the reflection of economic determinations. For Wallerstein, geoculture was not the world-economy’s superstructure, but “its underside, the part that is more hidden from view and therefore more difficult to assess, but the part without which the rest would not be nourished” (Wallerstein 1991a:11). In this sense, the motivation was to consider geoculture as analogous to geopolitics, “because it represents the cultural framework within which the world-system operates” (Wallerstein 1991a:11).

This definition is far from adequate, not least because its abstraction leaves it with little application. We might redefine and deploy the term as covering

the spectrum of value’s confirmation and transmission through the regulation of sociocultural institutions, artifacts, and performances that emerge from the interstate system of shared and competing interests in ways that transcend the national, even while it maintains regional variations that can be contextualized as a result of that space’s location within a field defined by the world-system’s centrifugal and centripetal forces. Geoculture involves the intersection between the desired social reproduction of class identities and relations, as the attempt to reinstall the order of one generation into the next, and the range of responses to the historical changes that are structurally and inescapably generated by capitalism’s logistic. (Shapiro 2008:36)

Yet, even this explanation seems only a first step towards a more comprehensive understanding of how culture works in the world-system. To this end, *geoculture* is here replaced with *world-culture* (with a hyphen) to better associate it with *world-systems*, not least to highlight its heterogeneity in the service of structuring inequality.

For any attempted handling of culture, a world-systems knowledge movement might initially rely on the touchstones that Raymond Williams’s cultural materialism provided, along with the insights that Michel Foucault produced through his work of the 1970s, given that Foucault’s historical accounts of the West remain remarkably congruent with and contemporary to Wallerstein’s initial publications on world-systems analyses (Shapiro 2008;

Shapiro and Barnard 2017). To bring these aspects together, Williams's term—*structure of feeling*—might be replaced with that of *experience-system* to likewise indicate the world-system's framework in shaping subjectivity within capitalism (Shapiro and Barnard 2017:27).

Moreover, taking Wallerstein's own practice of thinking freely within Marx's terminology as encouragement, we might do likewise with Wallerstein. In particular, I want to expand the use of three keyword concepts beyond what Wallerstein had initially proposed as a way of tracking capital. These terms are the *semiperiphery* (which will shortly be called the *zemiperiphery*); *periodicity*, and *commodity chains*. In addition, these new definitions insist on the *registration* of culture, rather than its *representation*.

Before doing so, and in the spirit of marking the distinctiveness of a world-systems approach, I want to underline how Wallerstein's terms also set out substantive differences from other current critical approaches. For instance, a world-systems analysis is ultimately incompatible with many other "systems" approaches, which often look to diagram social relations in two-dimensional illustrations of a fixed, self-enclosed structure capable of neat replication. Because world-systems approaches are dedicated to the attempt to comprehend the systematicity of a regime dedicated to expanding accumulation for accumulation's sake, they have explanations for why circuits of capital alter shape due to crises in the falling rate of profit.

As Wallerstein said: "The term 'world-system' often evokes assumptions of equilibrium and consensus . . . [but] the most interesting thing is how all have deep cleavages, which they seek to limit by institutionalizing them . . . systems never succeed entirely in eliminating their internal conflicts, or even in keeping them from taking violent forms. This understanding remains the major legacy we have from the work of Karl Marx" (Wallerstein 2000a:xix).

Thus, world-systems approaches differ from actor-network theory, which often seems to dream of circulation free from social struggle and class conflict, and evades questions of when networks transform and what catalyzes that alteration (Shapiro 2019b:17–18). Moreover, network theory has no easy rationale for why it has chosen to describe one network rather than another. In contrast to the anti-humanism of many network and systems theorists, we follow Wilma Dunaway's quotation of Braudel that the correct subject for historical materialism is "human beings' and not 'things'" (Dunaway 2001:10).

In like fashion, the keyword *scaling*, as the notion of telescoping from the local to the global (or the reverse), is unworkable within a world-systems approach that sees no smooth movement through the world-system because

of the various spatial kinks created as result of each social level of the world-system having its own particular constellation of forces, landscape, and historical and social ecology. Since the world-system has different socio-geographical valences—the household, the urban, the regional, the international—there are particular configurations of class struggle within each node that result in tangling the chain of commodity exchanges in ways that mean there is no simple passage or extrapolation from one valence to another.

Rather than chart out a placid network, this study argues that the task of tracking capital through each of its thresholds is best done by mapping the trajectory of commodity chains, which have “been an integral part, and a major part, of the functioning of the capitalist world-economy since it came into existence in the long sixteenth century” (Wallerstein 2000b:2). As Wallerstein defines it, a commodity is “in fact the outcome of a long series of production processes” that form a commodity chain, and “such commodity chains typically are geographically extensive and contain many kinds of production units within their multiple modes of remunerating labor” (Wallerstein 2000b:2). Gary Gereffi added that commodity chains should be thought of as “competition embedded in time and space” (Gereffi, Korzeniewicz, and Korzeniewicz 1994:4). But, as Bair notes, this definition shifts the object of analysis from the sphere of labor to consider commodity chains more from the perspective of entrepreneurial capital (Bair 2005). The formulation that we prefer is that a commodity chain is *exploitation and seizure* embedded in time and space.

Since nearly every cultural production or performance in the capitalist world-system today exists as a commodity, it is carried from its producers to its consumers via a commodity chain. Since these chains are that which also transform the commodity as it is propelled and metamorphosed by the passage through every chain’s knots and tensions, a kinking that results from a mix of extraction, dispossession, appropriation and exploitation processes and the various strategies of resistance and accommodation to these maneuvers, culture itself responds to and helps shape each valence of the capitalist world-system in ways responsive to its own ecology of forces.

While commodity chains inevitably flow into the core, a large majority of their transit is through zemiperipheral (semiperipheral) spaces. As we will see below, the zemiperiphery is more than simply a corridor linking regions together. It is also a space where cultural emergences are *created* through the linkage of periphery to core, as well as a zemiperiphery’s lateral contact with other zemiperipheral nodes. The importance of the zemiperiphery means that a world-systems approach necessarily departs from Eurocentric

emphases, since the zemiperiphery exists beyond these historic core spaces, even when aspects of it are embedded within the core, as is frequently the case for zemiperipheral littoral zones within core metropolises.

Although the world-systems challenge to the forms of knowledge created within capitalism seeks to enact the spirit of decolonization, we differ from some contemporary aspects of this approach in several ways. One motivation of commentaries that speak of “the Global South” is to suggest the possibility of periphery-to-periphery communication in ways that seem to argue that it is possible to unlink from the ligatures and magnetic force of the world-system. We disagree with this claim of extramural cultural communication, since any encounter of one periphery with another must occur through the zemiperiphery, as a space that is formed as much by the “North” as it is by the “South.” Many of these accounts also still overly homogenize the social relations of the nation-state or separate race and ethnicity from ones of capital and labor. So while claiming the presence of “alternative modernities” in theory, they resist actual alterity in practice by finding it difficult to recognize the world-systems’ peripheral and zemiperipheral peoples in the core as well. As WReC has argued through Jameson, there are not alternative modernities, but a singular one that is combined and uneven, as a basic feature and logistic of the capitalist world-system (WreC 2015:8).

As already mentioned and further explained below, it is a fundamental claim that the world-system depends constitutively, not parenthetically, on the production of racism (and sexism along with other forms of exclusion). Critiques of Eurocentrism often reinstate a dualist framework that racializes the “Rest” from the “West.” Wilma A. Dunaway and Donald A. Clelland, however, suggest that such a purview creates its own blockages, especially when turning to examine the entirety of the contemporary capitalist world-system and the zemiperiphery’s sub-imperialism by comprador bourgeoisie, wherein nonwhites exploit other ethnic groups through violence, immigration restrictions, and the denial of citizenship rights (Dunaway and Clelland 2016:18; Dunaway 2017). As the zemiperipheries are the containers of the “majority of the world’s population and most of the world’s most diverse array of ethnic groups [and] the numbers of peoples impacted by semiperipheral ethnic exploitation and forced displacement far exceeds the incidence of racial discrimination in western core countries” (Dunaway and Clelland 2016:18). Because the transnational capitalist class is now nearly as “nonwhite” as not, it is important to emphasize “the important roles of the semiperipheries, transnational capitalists and non-western states in

ethnic conflict, exploitation, and repression . . . As we move into the 21st century, semiperipheries will increasingly exploit and repress ethnic groups in ways that parallel western colonialism.” If “race” is, as Dunaway claims, an Atlantic-centric concept (Dunaway 2017:446–47), it needs to be analytically interwoven with “ethnicity” as a feature of capitalism’s modes of social death that operate to maintain surplus value exploitation. In this way, we hesitate over the category of the Global South, even as we endorse and seek to further the anti-core, emancipatory motivations of anticolonial and anti-capitalist critiques.

If world-cultural studies require a new comprehension of cultural geography, then it likewise requires an altered understanding of time. In contrast to *periodization*, the search for sequential differentials of contiguous (and often homogenized) time, we use *periodicity* to allow for the notation of multiple, nested temporalities that give each moment its own complexity, while also allowing us to highlight the similarities within the recurring rhythms created by the cyclical nature of capital and the recreation (“reproduction”) of value.

A study of periodicity facilitates a comparative study of analogous moments across multiple spirals of time. Rather than look for time’s differences, we look to discover the approximations over time’s distance. Such a gesture looks to avoid developmental models of linear sequence by insisting on recursive similarities, as well as seeking to avoid mechanistic notions of an undifferentiated and rigid structure of events. Because capitalism necessarily transforms as it expands, no spots of time function exactly the same as prior ones. On the other hand, social interests often approach new conditions by recalling what has happened similarly in the past in order to draw on these familiarities as a usable resource. This recall and reinvention gives time a combined-and-uneven form that allows for analogous, but not exact, similarities to be seen in ways that deploy simile more than metaphor or allegory.

Because a capitalist world-system has both particularities and generalities, we prefer the term *registration*, rather than *representation*, when dealing with culture and capital. Representation as a concept presents several difficulties. First, it hearkens to base/superstructure and “reflection” claims that the “economic” is different from and independent of the social or cultural. By using the term *registration*, we contend that there is no “thing” to be represented or reflected in capital, as I will suggest below with the cloverleaf shape of the commodity compound.

Second, “representation” has often rested on the linguistic turn and used semiotic theory to explain culture as functioning like a language. The semiotic understanding, however, may now be comprehended as the dominant commonsense framework for the phase of Fordist capitalism in the twentieth century, as well as critiques of it. This long duration is now coming to a close, both with the end of a shorter cyclical rhythm (a “Kondratieff wave”) as well as the eclipse of a secular trend that first began in the late eighteenth century (Wallerstein 1984c:559). In this sense, we prefer *registration* as a means of underscoring capital as a concept no longer beholden to the assumptions of a past regime of accumulation and mode of regulation. Just as base/superstructure invokes a binary model, so, too, do influential accounts of semiotics, wherein meaning is considered differential, formed in opposition. With the rise to dominance of new forms of algorithmic computation based on Bayesian probability, we might now recognize how forms of cultural creation are correlational, rather than differential (Shapiro 2019).

Lastly, we reject “representation” as misunderstanding Marx’s own writing and wonder about the utility of semiotics in order to conceptualize capital as functioning like a language. While the term *Darstellung* is often translated, not incorrectly, as representation, often to enroll it within debates about semiotics, be these variously structuralist or poststructuralist, such was not Marx’s meaning. Marx uses *Darstellung* as a term he largely takes not from philosophy, but from his avid life-long study of and influence by contemporary advances in organic chemistry. Here Marx was strongly shaped directly by Justus Liebig’s writing on soil ecology, but also indirectly by Liebig’s influence in training cadres of chemists, many of whom would go on to found departments throughout the West, as well as Liebig’s editing of the *Annalen der Chemie und Pharmacie* (*Yearbook in Chemistry and Physics*), a leading journal for the international dissemination of new discoveries within the field (now the *European Journal of Organic Chemistry*). In the *Annalen’s* publication of laboratory techniques for the production and synthesis of new compounds, the conventional use of *Darstellung* was to indicate the necessary materials for the desired chemical metamorphosis, much as a cookbook lists ingredients before explaining the instrumentation used for the ensuing process, the sequence of the ingredients’ combination, the temperature and duration of their heating (or cooling), and so on.

Hence *Darstellung*, in this sense, is better understood as *preparation* for transformation, not re-presentation. Within organic chemistry’s awareness of the swift revolutions in its method and invention, no one preparatory

technique was considered either definitive or exclusionary, since different *Darstellungen* could produce more (or less) effective results, require different amounts of time, and entail a range of costs of production. To continue with the cooking metaphor, there is not simply one recipe for scrambled eggs or baked bread.

Furthermore, just as a cooked product's final state does not erase, or make indistinguishable, its ingredients, so, too, does a (cultural) commodity retain traces of its creation in ways that can be tracked backwards and forwards in the process. With this historical context and usage, it seems that readings of Marx through modern semiotics fundamentally misread Marx and use this misreading to produce confusion, rather than clarification.

If *Darstellung* is not representation, we prefer to translate it as "registration" to convey the continuing presence of the original elements of labor, energy inputs, and mode of production. Just as the ingredients in a recipe continue to shape the final confection's taste and texture, even while a distinctive new form emerges from the process of production, so, too, do the elements of the world-system shape cultural production in ways that remain within the commodity.

The term *registration* is used also in the sense of "to register," to be enrolled within institutional and governmental records, to become a trace in the dispositive or apparatus. In this sense, registration looks to record the violence of epistemology integral to the world-system's inequalities. Lastly, registration also recalls "octave registers," wherein musical notes may be played in different tonalities or registers in ways that are analogous but also different, an effect similar to what we mean can be discerned with the term *periodicity*.

In order to best convey the utility and verve of these proposed terms, it helps now to consider the relevance of some aspects of the world-systems knowledge movement for world-cultural commentary.

Premises of World-Systems Analyses

If historic world-systems analysis emerged from a single problem to be addressed, it was the rise and dominance of postwar "developmentalism." (Wallerstein 1976:1). As Wallerstein characterized this ideology and governmental practice, the outlook was universalizing, normative, and depended on the concept of a nation-state's history as able to be neatly sequenced in an unidirectional trajectory: "This perspective assumed that all states