

# Surplus Drain and Dark Value in the Modern World-System

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Stephen Hawking once said “the histories of the universe depend on the precise question asked.”

Following that logic, I am convinced that the most fundamental questions in world-systems analysis are: What is surplus drain? Why, how and where does it happen? What are its consequences? The central idea of this perspective is the notion that world-systems are systems of surplus drain. Thus, the history of civilization is the history of surplus drain from one area to another. The first two sections that follow provide a theoretical overview of the concepts of surplus and surplus drain and explain how capitalist surplus extraction differs from previous systems. The third section focuses on those visible mechanisms of surplus drain that have been most often analyzed by world-systems thinkers. In the fourth section, I revise and extend earlier conceptualizations by focusing on those elements of surplus drain that capitalists render invisible.

## WHAT IS SURPLUS?

Baran and Sweezy (1966: 29) define economic surplus as “the difference between what a society produces and the costs of producing it.” Their surplus is not the same thing as Marx’s (1967) *surplus value*, i.e., the value added to commodities by labor power that is greater than the costs of reproducing that labor through provision of basic survival necessities. I am convinced that these ground-breakers did not go far enough in their conceptual challenge and that we must push their ideas in five additional directions. First, the economic surplus should be viewed as a

foundational component of the capitalist world-system as a whole. By its very nature, such a system is driven toward continuous expansion of the surplus. Second, we need to pinpoint the origins of surpluses. On the one hand, surplus can be extracted from any of the factors of production (land, resources, labor, energy, knowledge, technology, capital). On the other hand, we must recognize that the bulk of surplus extraction is realized through *degrees of monopoly* (Kalecki 1954), not through the *competitive* markets emphasized by Braudel (1982). By degree of monopoly, I mean the control of any mechanism that reduces the costs of production or increases sales prices, in variance from a fully competitive market. The capitalist world-economy is a degree of monopoly system because capitalists seek to avoid competition through the construction of quasi-monopolistic commodity chains. Third, we must rethink how we calculate surplus to reflect the points of origins of the *hidden* surpluses that capitalists expropriate to sustain their degrees of monopoly. In actuality, the total world surplus is far greater than the cumulative GDPs. To arrive at a realistic estimate of surplus, we must take into account the value of all reproductive costs. We should think of the modern world-system as an ice-berg economy (Mies et. al 1988) in which uncoded dark value comprises the thicker submerged ice layers that are blocked from view beneath a thin top stratum that is counted as the visible official economy.

Fourth, we need to determine who collects the surplus, how it is expropriated, and how it is used. The capitalist world-system is structured to ensure the concentration of surplus into the hands of capitalists and state elites (in the form of profit, rents, interest, and taxes). On the one hand, these groups are motivated to expand the surplus in order to broaden their consumption of luxury goods. On the other hand, the key to the continuation of the world-system is reinvestment of

surplus into expanded reproduction of the system, i.e., accumulation. In addition, capitalists share part of the surplus with those who perform the functions of capital, the managerial-professional class, and even with sections of the working class. Finally, capitalists may surrender “surplus opportunity” by passing on hidden surplus in the form of lower prices to commodity buyers.

## THE CENTRALITY OF SURPLUS DRAIN

I employ *surplus drain* and *surplus transfer* as synonyms. Similar terms that appear in the literature include economic drain, surplus extraction, and capital drain or transfer. *Unequal exchange* is often used as a synonym, but the originator of that term (Emmanuel 1972) and most subsequent analysts (Amin 1974, Raffer 1987, Kohler and Tausch 2002) intend more narrow usages. Historically, all world-systems have been driven by relations of surplus transfer. Precapitalist systems structured mechanisms of surplus drain between regions, primarily through plunder and tribute. What, then, distinguishes the capitalist world-system as a structure of surplus drain? In contrast to earlier systems, the capitalist world-system is characterized by the highly-rationalized extraction of surplus by means of commodities. World polarization into rich and poor zones is a consequence of routine forms of commodity production and distribution across regions. Capitalists and core states structure the world-economy to insure the continuous flow of economic surplus from peripheral zones, including internal peripheries. Semiperipheral zones are drained by the core and, in turn, drain peripheries. Foundational thinkers (Amin 1974, Frank 1969, 1979, Wallerstein 1974) emphasize surplus drain as the driving force that causes impoverishment and dependency of the periphery in order to accumulate wealth and dominance

at the core.

A second distinguishing feature of capitalist surplus drain lies in the need to widen the reach of the system in order to insure its growth and survival. Since the system is based on minimizing costs of production in order to maximize profits, capitalists are compelled to identify and integrate locations where they can take advantage of the lowest costs of production to generate commodities for marketing in areas where prices are highest. Thus, most all capitalists want to “buy or produce cheap in the periphery and sell dear in the core.” Because this system of commodified production requires territorial expansion, the modern world-system was borne of colonialism and incorporation of noncapitalist arenas, a system of cheap factors and near-monopoly capital. For that reason, the zones of the trimodal structure of the modern world-system are defined by exploitative relationships. Without surplus drains, there is no core, no periphery, no world system as we know it.

In contrast to other scholars, world-systems foundational thinkers envisioned core and periphery as relationships of surplus transfer, not as geographical or national categories. Frank (1969) conceived the modern world-system to be a “hierarchy of core-periphery *complexes*, in which surplus is being transferred.” Wallerstein (1983: 31-32) defines core and periphery in terms of the “transfer of part of the total profit (or surplus)” from one zone to another. “Such a relationship is that of coreness-peripherality. By extension, we call the losing zone a ‘periphery’ and the gaining zone a ‘core.’” He insists that we should define *core* as “those who are living off the surplus value produced by others” and *periphery* as “those who are not retaining all of the surplus value they are producing.” Wallerstein (2000a: 4) is convinced that core growth derived

from these surplus drains. “The shift of surplus towards the core concentrated capital there and made available disproportionate funds for further mechanization, both allowing producers in core zones to gain additional competitive advantages in existing products and permitting them to create ever new rare products with which to renew the process.”

## BRIGHT VALUE MECHANISMS OF SURPLUS DRAIN

The first category of extracted surpluses, which I term *bright value*, is distinguished by two features. First, the flow is from peripheral labor/capitalists to core capitalists (or between internal peripheries and their cores). Second, the production costs are rendered visible through formal accounting for economic inputs and outputs. In the sections that follow, I will briefly explore eight sources of bright value surplus drains.

The first major source of bright value is Foreign Direct Investment (FDI) that stimulates transnational repatriation of profits, either immediately or after years of expanded reinvestment. The vast majority of FDI has been between core on core, but it is rarely noted that much of this investment is concentrated in internal peripheries of those areas. Before 1980, FDI was primarily oriented toward acquisition of resources and energy for core industries and toward peripheral production of agricultural exports. Subsequently, there was a shift toward FDI in non-core manufacturing. For example, there has been such increased FDI in China that it has become the consumer goods workshop of the world (Petras and Veltmeter 2007).

The second type of bright value drain occurs in trade monopolies. Significant drains flow from

periphery to core through transnational trade that is primarily effected, not through market competition, but through degrees of monopoly. In practice, such trade occurs in complex commodity chains (see entry, this *Handbook*). At every node of a commodity chain, capitalists seek to acquire degrees of monopoly over markets and terms of trade. Thus, commodity chains are “degree of monopoly chains” designed to transfer surplus from competitive capitalists to quasi-monopolist capitalists, generally higher up the chain and in the core. The difference between one peripheral capitalist’s costs of production and a competitor’s costs is one source of monopsony profit to buyers higher in the trade chain. By combining lower costs of peripheral production with global control over transport and distant markets, core corporations structure quasi-monopolies in consumer goods. For example, companies like Wal-Mart have established monopsony control over peripheral producers in order to maximize bright value drains. Through their monopolistic strategies, corporations simultaneously effect a high degree of monopoly over core retail sales and brand-name dominance and higher prices in peripheral production areas (Lichtenstein 2005).

The third bright value mechanism occurs when core capitalists exert monopolistic control over production inputs through collection of fees for intellectual property rights and/or external services. A fourth bright value drain occurs in commodity flows when foreign personnel repatriate savings or expend their salaries on imports from their home countries. These drain mechanisms shift control over the investment surplus outside the country, causing significant bright value drain from periphery to core.

The fifth form of bright value transfer results from core lending to the periphery. In theory, loans

are a mechanism whereby a fraction of the surplus generated within the core is used for expanded reproduction in the periphery. These investments are intended to expand surplus (profits) in the periphery and in the core (through interest). In practice, the results have been spotty for the periphery but satisfactory for the core. Most of the periphery faces overwhelming external debt, amounting to about \$400 per citizen. Less than 3 percent of this accumulated debt derives from the original principal since the vast majority has accrued from “runaway compound interest” (Smith 1994, Shah 2005). In the 1970s, core lending to the Global South expanded after the historical conjuncture of increased dollars held in European banks, rising investment of OPEC profits in core banks, and deregulation of lending practices. Between 1980 and 2002, the external debt of the periphery increased fourfold. Because of the inability of many countries to pay down the principal, higher interest rates and compound interest resulted in repayments of the original loans many times over (Toussaint 2005). For example, Nigeria borrowed \$5 billion, repaid \$16 billion, but still owes \$28 billion accumulated from foreign interest (Smith 1994). As a result, many countries now expend for debt service 50-60 percent of every dollar earned from exports (Shah 2005). A related measure of bright value is *net transfer of financial resources*, i.e., net capital inflows after interest and other foreign investment payments are deducted. Between 2002 and 2008, this flow from poor to rich countries escalated from 208 to 891 billion dollars (United Nations 2010).

World-systems scholars (Suter 1992, Dunaway 2003: 91-108) point to the historical regularity of debt crises that seriously limit and interrupt accumulation of surplus in the periphery, but are of lesser consequence for the creditors who are protected by the system. In the Latin American debt crisis of the 1980s and the Asian debt crisis of the 1990s, for instance, debtor countries were

bailed out by the transfer of private loans to the IMF, indirectly bailing out core private banks. Stated more bluntly, the surplus drain system was bailed out (Wade and Venoroso 1998). As a defense against future crises, several semiperipheries, most notably China, have used internal surpluses to build reserves in dollars. Such reserves are withheld from investments in the expansion of national economies. Moreover, sizeable portions of these surplus reserves are lent to the United States at such low real interest rates that the surplus drain, measured in terms of nominal interest against inflation, is still to the core. The “investment” in U.S. treasury notes will be repaid at a loss in future cheaper dollars, so the drain continues, but in a new form (Clelland 2010).

Capital flight, exchange rate manipulation and portfolio investment comprise three additional forms of bright value financial drains. Capital flight is the transfer to the core of peripheral surplus by peripheral capitalists. The damage of such drains to the periphery vastly exceeds any advantages to the core. Between 1979 and 1983, for example, capital flight from Mexico amounted to \$90 billion. In this same period, real wages declined 60 percent for Mexican workers (Smith 1994). Exchange rate speculation can rapidly devalue a national currency and diminish export revenues, leading to massive surplus drains through currency flight and a wider trade imbalance. Though less significant than other forms of bright value drain, portfolio investment in peripheral enterprises redirects dividends and realized capital assets to the core.

## DARK VALUE MECHANISMS OF SURPLUS DRAIN

The second category of extracted surpluses is much more clandestine than bright value transfers.



Inspired by the recognition by physicists that imperceptible “dark matter” and “dark energy” account for 90 percent of the universe, I term this invisible surplus flow to consumers *dark value*, a hidden force that fuels the structure and expansion of the capitalist world-system. Unlike bright value that is accumulated as profit by the capitalist, the second type of surplus drain is collected by buyers in the form of cheap commodity prices. Because these transfers are externalized from economic accounting, a full calculation of dark value would require analysis of millions of surplus drains that are derived from unpaid household labor, under-paid labor, under-valued resources, and savings through uncoded human and environmental externalities. Dark value is deeply embedded in every economic transaction or commodity, making it the silenced partner that renders every bright value drain more profitable. Dark value is distinctive in three ways. First, these surplus drains are “free” inputs to capitalists, i.e., they are externalized from calculation of the costs of production. While world-systems foundational thinkers did not employ the dark value metaphor, Wallerstein called attention to this “dirty secret” of capitalism, arguing that “an essential element in the accumulation of capital is [that] capitalists [do] not to pay their bills”(Goldfrank et. al. 1999: 9). In this way, commodity chains are more profitable because of extraction of hidden surpluses. These chains are “efficient” because they “constitute a method that minimizes costs in terms of output” (Wallerstein 1997).

A second distinguishing feature of dark value is that these drains occur as uncoded contributions to production. Moreover, they represent “opportunity surpluses” for the controllers of production that is beyond the surplus of bright value drains. Assuming a degree of monopoly, the hidden value may be retained by the capitalist as “extra surplus value” (Marx 1967). Alternatively, the dark value may be passed on to the consumer in the form of cheaper commodity prices. It is

advantageous to the capitalist to expand the degree of monopoly by underpricing competitors, thereby increasing sales volume and long-term profits. Such a degree of monopoly is most often found near the beginning or end of a commodity chain. Dark value can be differentiated from costed bright drains in a third way. Since dark value is dependent on the existence of mass consumption, its relative economic significance increases over time. Expanded consumption in the core provides the opportunity for expanded drain of value. Logically, the transfer of dark value to the core increases over time as the volume of trade expands, and it will continue to expand in spite of any marginal tendency toward wage convergence.

How, then, is dark value produced? Since dark value may be found in all factors of production (capital, labor, land, natural resources, energy, knowledge), a hidden transfer occurs any time a capitalist obtains a component of production at less than the average world-market price. It is the embodiment of at least four types of hidden subsidies to commodity chains: (1) under-compensated formal labor, (2) under-remunerated or unpaid inputs from households or the informal sector, (3) cheap natural resources and (4) ecological and human externalities that are “economically free” to capitalists. Since employers have a high degree of monopoly over peripheral labor markets, their payments to labor often fall near or below household subsistence. It is these unpaid hours that are embedded in cheap core consumer prices and concealed in profit accumulation. Workers who do the same tasks with similar skills and equipment earn hourly wages that differ by as much as a ratio of fifty to one between zones, making the core working class an *aristocracy of labor* (Communist Working Group 1986). The core worker becomes an unwitting beneficiary of this exploitative system when he/she uses one waged hour to purchase a product that embodies many more lower-waged hours of peripheral labor (Emmanuel 1972). The

typical consumer is aware that the commodity would be more expensive if produced in the core. In that sense, dark value is not truly hidden at all, even though its actual economic value is officially denied.

While Marx (1967) linked commodity value to production labor time, he ignored other elements of value that are deeply hidden. The actual contribution of labor to a commodity consists of the total work hours—costed and unpaid—that are embedded in production and reproduction of labor processes. Peripheral workers survive in households that comprise the underlying substratum of the capitalist world-economy. Household labor and resources subsidize the below-subsistence wages that are paid to peripheral workers (Dunaway 2012). Capitalists are able to drain hidden surpluses from households because a majority of the world's workers earn only a portion of their livelihoods from waged labor. Indeed, these *semiproletarianized households* pool the greater proportion of their resources from nonwaged activities, inadvertently encouraging capitalists to pay below subsistence wages (Wallerstein 1983).

Women inequitably bear the brunt of dark value transfers. In millions of commodity chains, the dark value of unpaid household labor, mostly women's work, sustains the polarized world-system (Mies et. al. 1988). Peripheral households provide *direct* subsidies to capitalist commodity chains through allocation of unpaid labors and resources to sustain under-paid waged workers. In addition, peripheral households provide *indirect* subsidies to capitalist commodity chains when they absorb the costs of reproducing, maintaining, educating and socializing the labor force from which capitalists benefit (Dunaway 2001). These types of dark value are repeatedly embedded in a commodity at every node of the production and distribution chains,

until it reaches the core consumer with a price reduced by pennies per embodied hour.

In addition to dark value accrued from under-paid waged workers and from semiproletarianized households, capitalists drain hidden surpluses from several types of nonwaged peripheral workers. Beyond each waged worker is a long dark value chain of food producers and informal sector activities that contribute to the reproductive capacity of this worker. By supplying low-cost survival needs to the waged worker, these poorly-remunerated laborers subsidize low capitalist wages. The daily life of the under-compensated peripheral waged worker entails the unequal exchange of one work hour for greater labor time from nonwaged producers. For example, she may drain dark value from a lower-paid child caregiver who makes it possible for her to work for wages outside her household. This flow of dark value cheapens the reproduction costs of peripheral labor and, thus, the wage level that capitalists pay. In addition to these kinds of indirect subsidies to capitalist production, there are several other forms of labor from which dark value is expropriated. Through contract farming and labor subcontracting, capitalists externalize costs of production to peripheral households whose bare subsistence level lowers prices for exports. Dark value is also extracted from informal sector workers who receive low remuneration for goods and services that are absorbed directly into commodity chains.

Capitalists also drain dark value from export commodity producers when they generate debt bondage through credit or financing. Transnational labor flows represent labor power and brain drains to the core because the periphery underwrites reproduction and education costs (Dunaway 2012).

The movement of resources is the most visible form of surplus drain. For example, one can

readily observe the tons of coal being exported from Appalachia, the trains and trucks returning empty to haul away successive loads of mineral wealth. Such bright value profits fit within the concept of “ecological unequal exchange” (Jorgenson, this *Handbook*). In addition, this emerging framework addresses hidden, uncoded (and plundered) resource drains (Martinez-Alier 2002). Just as seizure and underpayment for resources was crucial to colonizers, core consumers continue to benefit from absentee control over commodity chains based on peripheral ecosystems. Should ownership have been retained in peripheries, the continuing cost of resources would be much higher than it is today, in order to provide “resource rents” to the owners, e.g., OPEC. Instead, a large share of the world’s peripheral resources are indirectly controlled or contracted at low prices. These dark value flows are not only an unpleasant result of past imperialism, but they also represent “continuing dispossession” in the contemporary world-system (Harvey 2003).

Dark value routinely accrues from ecological costs that are externalized from production accounting. When considering externalities, surplus can no longer be defined simply as that which is available after the reproduction costs of the system have been met, for surplus is maximized through the destruction of the ecosystem itself. Natural capital is withdrawn from the ecological world bank, with no intent of replacement. Consequently, many commodities have even larger ecological footprints (the total ecological base needed for its production and distribution) than is suggested by the popular environment footprint concept (Wackernagel et. al. 2002). To the extent that the footprint is not fully costed, the consumer collects dark value. Such commodity production often threatens the survival of local communities, as peripheral areas absorb the side effects of the capitalist’s unpaid ecological damage through health risks to

residents, loss of access to natural inputs into local food security, and taxes for cleanup. Moreover, damage to world ecosystems (especially through global climate change) is disproportionately borne by peripheral areas, reflecting another deeply hidden form of dark value drain (Jorgenson, this *Handbook*).

## CONCLUSION

Dark value drains occur because of the super-exploitation of peripheral labor, households and ecological resources. Once unequal exchange and surplus drains are initiated, their consequences are historically cumulative in peripheries (Amin 1974). On the one hand, bright value drains remove surpluses that might be invested in expanded reproduction and economic growth in the periphery. On the other hand, extraction of dark value threatens ecological sustainability and lowers the quality of life for worker households and women.

In a very rough sense, whole states that contain major surplus collection points may be designated as core states (Wallerstein 1997). Despite rivalry, these states have established rules that minimize surplus drains among themselves. Because most world commodified economic activity occurs within and between these states, external surplus drain is important, but not the major source of surplus accumulation in the core. Indeed, surplus drains represent a much greater proportion of a peripheral economy than its contribution to the total wealth pool of a core area. Even though these drains are only a small percentage of total core accumulation, these transfers represent massive economic and ecological losses to the periphery. In reality, surplus

drains remove nearly one-fifth of the total economic wealth of peripheries (Amin 1974), amounting to more than the capital that is annually invested in expanded reproduction (Kohler and Tausch 2002).

In the U.S. Watergate scandal, “Deep Throat” advised investigators to follow the money. My advice to world-systems analysts is follow the surplus! The “ecological footprint” model (Wackernagel et. al. 2002) provides insights we might consider. The ecological footprint provides a proxy for the amount of renewable natural resources needed to maintain a lifestyle. Metaphorically, it is a measure of dark value since the environmental impact of consumption is far from apparent. The average core resident leaves a huge footprint that is not sustainable. The task for world-systems scholars is to investigate the question of where core footprints fall and with what consequences. A second task is to pinpoint the mechanisms and quantify the amount of underpayment to the (semi)periphery that results in bright value (profit) for core capitalists and in dark value (cheaper prices) for core consumers. These projects may be addressed within the framework of ecological unequal exchange (Jorgenson, this *Handbook*) .

A parallel task would be the construction of an “invisible handprint,” the amount of labor hours needed to maintain the lifestyle of an average core person. This metaphor toys with Adam Smith’s “invisible hand” and recalls earlier historical references to workers as “hands.” The world-systems task would be to track where the “invisible handprints” fall geographically and with what consequences for paid and unpaid laborers, followed by determination of the mechanisms and amount of bright and dark value surplus drains. Starting points for a research agenda about dark value are feminist economists (e.g., Beneria 1999, Antonopoulos and Hirway

2010) who emphasize the significance of unpaid labor to world capitalism, as well as world-systems scholars who have conceptualized the semiproletariat, hidden household subsidies to capitalism, the importance of nonwaged labor, and unequal exchange (Dunaway 2012, Tabak and Crichlow 2000, Kohler and Tausch 2002).

Such new research directions would provide clear, concrete answers to contested questions about benefits of surplus drain to the core and about costs to the periphery. The proposed world-systems application of the ecological footprint model implies that the victim is not just Mother Earth, but real people in real places. It also implies that the beneficiaries of surplus drain include ordinary people, the working class of the core. The distaste for such a suggestion for core radicals and mainstream social scientists probably explains the rather shallow pursuit of the questions of unequal exchange and surplus drain after the passage of a generation of world-systems scholarship. If we rediscover the centrality of surplus drain, world-systems analysis can become a standpoint historical social science that provides a critique of modern capitalism from the vantage point of the periphery.

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