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COMPLEX SUBJECTS

offshore finance, complexity theory, and the dispersion of the modern

We have been turned out of Paradise. . . . Scarcity of means to satisfy ends of varying importance is an almost ubiquitous condition of human behaviour.

-Lionel Robbins¹

The concept of a "Garden of Eden" for money is fascinating, yet is unknown to most Americans. Do such places really exist? Yes! They do!

—Adam Starchild and Alan Finchley²



The savings and loan crisis, the BCCI scandal, and the Iran-Contra affair have all spotlighted the shady side of international finance and the role of offshore financial centers—so-called tax havens—in this global shadow economy. Press accounts of these scandals often por-

tray tax havens as disreputable operations used by morally bankrupt or aberrant people and corporations. Yet at present, over 50 percent of all the money involved in transnational business is processed through or held in tax havens.³ Microstates and colonies of European and North American powers busily market themselves to potential investors, stressing their stability and distancing themselves from money laundering and other dubious, but often legal, activities that can go on in tax havens. Financial publishing companies produce a

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plethora of magazines, pamphlets, and books detailing exactly how to make use of the services tax havens provide.

The technology supporting offshore financial activities—computer networks and programs allowing fast and reliable international transactions, funds transfer, global custody, cash management, and so forth—is continually being developed by institutions such as Citicorp, the current leader in this field, and is itself fast becoming an important product marketed by multinational banks and corporations. Automatic Teller Machines (ATMs) are just one example of electronic banking technology marketed directly to consumers. The same networks that permitted Oliver North to set up a dummy corporate account in the Cayman Islands through which to divert profits from arms deals with Iran to the Nicaraguan contras allow me to obtain a cash advance using my Maryland Bank of Delaware Visa card at the Bank of Nova Scotia in the British Virgin Islands. 4 Technologies that used to be tools have become products in their own right. As a recent issue of the investment magazine Euromoney put it, "the revolution in information handling and processing technology has thrust banks' back offices into the spotlight." As a Citicorp advertisement in the same issue tells us,

Trends in
economic theory
link economics
with computer
science and
evolutionary
biology.

processing operations [and the technology that makes them possible] are now the high-powered, high-impact financial products and services that have become so essential to corporate and institutional customers. For banks, these products and services represent what is effectively an annuity stream franchise. Transaction and information services provide banks high return on equity, stable revenue and earnings streams, a large funding source from required balances. In short, these services, managed right, constitute a business that can provide financial institutions incremental funds without impacting the balance sheet.⁶

At the same time that such services are being made available through technological innovations and computer networks, trends in economic theory that attempt to link economics with computer science and evolutionary biology are leading some economists to understand the global economy as a complex, networked, evolving, and adaptive system. The two developments are interconnected: in 1986, the CEO of Citicorp, John Reed, suggested to the Vice Chair-

man of the Santa Fe Institute Board of Trustees "that one examine the potential application of recent developments in the natural sciences and computer technology to the understanding of world capital flow and debt." As a result, the Santa Fe Institute (a private, multidisciplinary research institution formed to help "understand those complex systems that shape human life and much of our immediate world evolution, the learning process, the immune system, the world economy," and "to nurture research on complex systems and their simpler elements") sponsored two workshops, one on "International Finance as a Complex System" in 1986 and another titled "Evolutionary Paths of the Global Economy" in 1987.8 The most significant of these workshops-whose proceedings were published by the Institute in a volume titled The Economy as an Evolving Complex System-was the "realization" that researchers could use the tools and techniques of one another's disciplines to study supposedly deep similarities among the economy, ecologies, the immune system, and other "complex systems."

Scholars in a variety of disciplines identify any number of phenomena as complex, adaptive, or evolving systems. The discourse of "complexity" has become ubiquitous in popular science and technology media and has infiltrated popular economics as well. Part of my project here is to intervene in the current popularity of "complexity theories." I am drawn to this intervention by the coincidence of complexity theory in economics with the proliferation of financial information technologies, offshore financial centers, "how to" books on tax havens, and the use of those havens by international financiers. The virtual architectures of offshore finance seem uncannily like the world of complex systems that complexity theory in economics purports to "identify." My contention here is that complexity theory, together with offshore financial practices, are complicit in the creation of this world.

Complexity theories of the economy postulate the ontological similarity—or, in many cases, the identity—of the world economy and other "complex systems." Some writers argue not that the economy is like a biological system, but that the economy actually *is* a biological system. Of course, the economy, rendered "natural," becomes increas-

Some writers
argue that the
economy actually
is a biological
system.

ingly difficult for politically committed academics and activists to contest. As one proponent of the economy-as-ecology position states, "capitalism [is] the inevitable, natural state of human economic affairs. Being for or against a natural phenomenon is a waste of time and mental energy. Like it or not, the sun rises in the east."

But naturalizations of the ecomomy are old hat. It is the particular character of the naturalization effected by complexity theory that concerns me. As I argue in this essay, the architecture of offshore finance and the new interdisciplinary discourse of complex systems betray the development of a set of ideas about the world and a revision of subjectivity. In examining the literature on tax havens and theories of the economy as an evolving, complex system, I do not wish merely to argue that the two present mutually supporting visions of the world economy or human subjectivity. Nor do I wish to focus solely on the sociological or institutional connections between these two arenas of knowledge production. Rather, I want to show that offshore finance and complex systems theories of the economy have something to tell us about postmodernity as a cultural condition, that both instantiate a drive toward a "postmodern," postindustrial way of life as they demonstrate it. My concern is a new relationship between subjectivity and power that these two arenas presuppose, put into practice, and then claim has always "been there." 10

Technoscientific discourses and transnational corporate practices are reconstructing the world, materializing new objects and subjects as they do so. In "illuminating" the ontological identity of economies, immune systems, ecologies, and so forth, complexity theory renders the modernist distinction between subject and object obsolete: the human subject, like the ecology and economy, becomes a complex adaptive system, keyed into other such systems as biological organisms and economic actors, and made out of such systems like the immune system and the "economy" of neural connections. One of the key features of complexity theory, as I show below, is its revision of causality. Lower-order phenomena do not necessarily or unproblematically inform the higher-order phenomena they constitute; rather, since all phenomena are complex, evolving systems keyed into other

One of the key features of complexity theory is its revision of causality.

such systems, apparently lower-level phenomena are interpenetrated by higher levels and vice versa.

Complexity theory and offshore finance conjure up both objects and subjects as complex, evolving systems. They also suggest new relationships with time and space, power and subjectivity. Unlike modern economics, which depends on a stable subject and vectors of power that derive from locatable individuals operating in a world of scarcity and temporal constraint, the economy instantiated by complexity and offshore finance calls forth a form of power that does not circulate itself through the human subject but through a new architecture of nonhuman units, located outside of time and space. It is this vacancy, this evacuation of the position of the subject and object now displaced by, and collapsed into, corporate and cybernetic structures, that I seek to illuminate. The nonsubject of postmodern capital poses serious challenges for political engagement, presenting a world in which we are all subjected to various, and complex, and now non-locatable, structures of domination.

MODERNITY AND POSTMODERNITY: STRUCTURING SUBJECTIVITIES

Modernity

To understand the innovation of complexity theory in economics, we must go back to the illusion of stable ground provided by the modern economic subject. The familiar modern subject had a great deal in common with the subject presupposed by Enlightenment political theory. No longer slaves to divine revelation and kingly authority, moderns stressed individual ability, creativity, freedom, and liberty. Moderns were problem solvers, working with whatever means they had at their disposal to satisfy their needs, relying on reason, not superstition, rationally to reconstruct the world in their own image.

Well-suited to the world of industrial capitalism built on the edifice of liberal political economic theory, the modern subject constituted conditions of possibility for an industrial capitalist political economy. Industrial political economy, by instantiating in real human beings its code of being human, perpetuated and naturalized the vision of

human nature postulated by liberal political and economic theory, thus rendering liberal political economic theory "correct." That is, as liberal political economic theories were given life in the practices of industrial capitalism, which in turn created modern subjects, those theories took on the character of self-fulfilling prophesies.¹¹

Lionel Robbins sealed the conception of the modern economic subject by finalizing it in his rendering of economics as an empirical science. The modern subject was the given in this new science, and thus beyond the realm of interrogation. Lord Robbins's classic text of neoclassical economics, An Essay on the Nature and Significance of Economic Science (1932), brilliantly articulates the conception of the economy as produced by the actions of individual economic subjects acting to fulfill their desires, and makes a sharp break with earlier conceptions of economics by claiming to separate "empirical facts" the true basis of a science—from their interpretation and use by "biased" economists. His description of economics as "the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses" has become a commonsense definition—one that is currently being revised and challenged by complexity theory.¹² Robbins provides a beautiful illustration of the modern subject in his account of individuated human subjects and the fulfillment of their desires in the post-Edenic state of industrial capitalist nature; it is helpful to examine it here for the sake of comparison with the "subject" of complexity theory.

Robbins begins, like Enlightenment political theory and its Robinson Crusoe stories, with "isolated man." Isolated man basically has two problems. He wants a lot of things, and has to balance the work that augments his income with the leisure activities his income allows him to enjoy:¹³

Isolated man wants both real income and leisure. . . . he has not enough of either fully to satisfy his want of each . . . he can spend his time in augmenting his real income or he can spend it in taking more leisure. . . . it may be presumed that, save in most exceptional cases, his want for the different constituents of real income and leisure will be different. Therefore, he has to choose. He has to

economise. The disposition of his time and his resources has a relationship to his system of wants. It has an economic aspect.¹⁴

He also lives in a harsh world, a world of scarce resources and a 24-hour day. There are not enough things and there is not enough time to satisfy all his wants, and, to make matters worse, he has to contend with other men all out to fulfill their own desires:

The conditions of human existence exhibit four fundamental characteristics. The ends are various. The time and means for achieving these ends are limited and capable of alternative application. At the same time the ends have different importance. Here we are, sentient creatures with bundles of desires and aspirations, with masses of instinctive tendencies all urging us in different directions. But the time in which these tendencies can be expressed is limited. The external world does not offer full opportunities for their complete achievement. Life is short. Nature is niggardly. Our fellows have other objectives. ¹⁵

Robbins gives a charter for the modern economic subject in his theory. The basis of his economic science is the individual constituted as a being "with bundles of desires and aspirations, with masses of instinctive tendencies all urging [it] in different directions." This subject is placed in a world where time is short and space and resources are scarce. Existence becomes a calculation of how best to fulfill desires under these conditions. Although created in the early 20th century and after the industrial economy of the 19th, Robbins's economic subject may seem quite familiar to people living in the late 20th century, especially as time seems ever shorter and resources more dear.

Postmodernity

In *The Condition of Postmodernity*, David Harvey identifies a shift in capitalist regimes of accumulation from Fordism to post-Fordism; that is, from large-scale, industrial production using skilled labor and geared toward mass consumption to more flexible production strategies using unskilled or deskilled labor and geared toward niche markets. With its emphasis on just-in-time production and niche marketing, post-Fordist production strategies rely heavily on the kinds of computer technologies that make possible the rapid transfer and

management of capital. Among the many new products post-Fordism makes available are specialized services, including the very technologies that make post-Fordist strategies themselves possible.

Of special concern to Harvey are shifts in the relative skilling and deskilling of laborers. Fordist mass production relies on a skilled labor force; laborers are trained for life. Post-Fordist small-batch production, in contrast, depends on rapid de- and reskilling of laborers to increase the turnover time of production and thus, of capital; laborers, most of whom provide ephemeral services instead of producing lasting products, are trained for the moment. The transition from Fordism to post-Fordism, Harvey argues, reflects the general trend of capitalist development (since industrialization) to speed things up. Capitalism, he writes, "has been characterized by speed-up in the pace of life, while so overcoming spatial barriers that the world sometimes seems to collapse inwards upon us." He terms this process "time-space compression," and suggests that, with post-Fordism, time is even shorter and distances even smaller than under Fordism.

Following Bourdieu, Harvey argues that "spatial and temporal experiences are primary vehicles for the coding and reproduction of social relations" and thus for constituting social subjectivities. ¹⁹ He thus associates post-Fordist capitalism with a new mode of political and social regulation. By "mode of regulation," Harvey means a set of norms, habits, interiorized rules, and social processes that govern behaviors and render them consistent with capitalist accumulation. ²⁰ In looking at post-Fordism, then, Harvey sets out to discern the "consequences that have flowed from [the] general speed-up in the turnover times of capital" for "postmodern ways of thinking, feeling, and doing." ²¹

Adopting Harvey's terms for a moment, we can see how industrial capitalism was associated with a mode of regulation constitutive of modernist individual subjectivities. These subjectivities were constituted through the practices and requirements of industrial capitalism itself and, in theories of the economy, through a process of reducing the economy and society to the actions and desires of modernist individual subjects. Modern subjectivities also were based on certain

assumptions about the experience of space and time. This is clear, for instance, in Lord Robbins's lament that "there are only twenty-four hours in the day" during which to fulfill one's desires.²²

To determine what sorts of subjectivities are associated with the regime of accumulation embodied by tax havens and explained by complexity theory requires a careful examination first of complexity theories of economics, and then of virtual architectures of offshore finance. Just as the modern subject presupposed by Robbins's economics relies on a special relationship among time, space, and human agency, so too are complex systems structured around a particular experiencing of time-space compression. But here, the position of the subject seems to have evaporated. There is no stable originary ground from which economic decisions and maximizing behavior seem to grow. Such decisions are apparently inherent to the design. In addition, time and space themselves have dissolved. The world presented by complexity theory and offshore finance is one step beyond time-space compression.

The world of complexity theory and offshore finance is one step beyond time-space compression.

THE ECONOMY AS AN EVOLVING COMPLEX SYSTEM

There is something in the SFI environment that reshapes our thinking and the things we say. I was reminded of the "SFI effect" recently while reading an interview published in the magazine *Manhattan*, *Inc.*, in which John Reed, CEO of Citicorp and a sponsor of the SFI economic program, described himself as a complex adaptive system.

-George Cowan²³

Complexity theory in economics begins with a rejection of the modern subject and the modern economy it suggests. Viewing the economy in terms of the choices and decisions of individual economic actors is seen as too static, limiting, predictable, and linear for the kind of economic world we currently inhabit. In his contribution to the volume *The Economy as an Evolving Complex System*, John Holland puts forth the idea that the global economy is best seen as an "adaptive nonlinear network," or ANN. "Other ANNs," he writes, "are the central nervous system, ecologies, immune systems, the develop-

mental stages of multicellular organisms, and the processes of evolutionary genetics."²⁴ Holland's elaborate and complete explanation of the application of complexity theory to economics is worth reviewing in some detail. To support his claim that the global economy is an ANN, Holland enumerates seven "features" that characterize the global economy:

- 1. The overall direction of the economy is determined by the interaction of many dispersed units acting in parallel. The action of any given unit depends upon the state and actions of a limited number of other units.
- **2.>** There are rarely any global controls on interactions—controls are provided by mechanisms of competition and coordination between units, mediated by standard operating procedures (SOPs), assigned roles, and shifting associations.
- 3. The economy has many levels of organization and interaction. Units at any given level typically serve as 'building blocks' for constructing units at the next-higher level. The overall organization is more than hierarchical, with all sorts of tangling interactions (associations, channels of communication) across levels.
- **4.**➤ The building blocks are recombined and revised continually as the system accumulates experience—the system adapts.
- **5.** The arena in which the economy operates is typified by many *niches* that can be exploited by particular adaptations; there is no universal *super*-competitor that can fill all niches (any more than such would be the case in a complex ecology such as a tropical forest).
- **6.** Niches are continually created by new technologies and the very act of filling a niche provides new niches (cf. parasitism, symbiosis, competitive exclusion, etc., in ecologies). Perpetual novelty results.
- 7.➤ Because the niches are various, and new niches are continually created, the economy operates far from an optimum (or global attractor). Said in another way, improvements are always possible and, indeed, occur regularly.²⁵

In addition to these seven features, Holland lists another characteristic of ANNs that he finds in the global economy: "ANNs do not act in

terms of stimulus and response, they *anticipate*."²⁶ Indeed, the main purpose of Holland's paper is to account for how this anticipation takes place. He focuses on the role of models built by participants in an ANN that generate predictions about the best strategies to pursue given the changing circumstances of the ANN. These predictions generally take the form of "SOPs that suggest and dictate actions to be taken under specific conditions."²⁷

Holland's argument runs roughly thus: based on their accumulated experience, agents in ANNs develop SOPs from the models they create of the ANNs of which they are a part. Some models work; some do not; and "accumulated experience provides increasingly refined SOPs and progressively more sophisticated interactions between them." The mechanism to be studied by economists, therefore, is the emergence of SOPs that work under different contingencies. A key factor here is the ANN's history, determined in part by its "environment," which in turn determines its "evolutionary path." 29

Compare Holland's economics with Robbins's. Robbins's economics was based on a foundational subject, a problem-solving individual working to satisfy his wants with the least possible effort. His calculation was a relatively simple one, and his reason enabled him to make it. Holland's economics, however, possesses no originary or grounded subject. Holland's theory, as well as the object he is theoretically constructing and explaining, operates in a kind of space in which notions of hierarchical level and logical direction are confused and re-fused into a new structure without foundation or origin. At one level Holland, like Robbins, explains the economy in terms of its constituent units. But note Holland's third point about the global economy. The lower level units "serve as 'building blocks' for constructing units at the next higher level," but "the overall organization is more than hierarchical, with all sorts of tangling interactions . . . across levels." There is really no meaningful distinction between "higher" and "lower" levels; the hierarchy and its component units fold back on themselves.³⁰

There is a further twist to the logic of complexity as it is embodied

In complexity
theory, there is
really no
meaningful
distinction
between "higher"
and "lower"

in tangled hierarchies. By eschewing logical directionality and hierarchical levels with the concept of a tangled hierarchy, Holland makes it possible for economics to be explained in terms of ecology and vice versa. Indeed, if we accept that form and process in the global economy, immune systems, ecologies, nervous systems, and evolutionary genetics are identical, it becomes possible to use the global economy to explain population biology. Every unit, every building block, every agent attempting to develop SOPs in the tangled hierarchy is itself an ANN. As a consequence, the ANN is a system of infinite feedback. All parts, themselves ANNs, interact with all other parts to make up a whole—the economy—which is simultaneously explicable in terms of other wholes (immune systems, nervous systems, etc.). Because of this, all of the ANN's actions are "anticipatory." They do not need to wait for crises to unfold before adapting to them; they can deal with problems before they arise because the anticipation of crisis has been worked into their design.

These "tangled hierarchies" do not rest on any stable grounding.

Lord Robbins could explain economics in terms of individuals' fulfillment of their desires in a world of scarcity and temporal constraints. He thus rested on the foundation of the modern individual subject. Holland's "tangled hierarchies" do not rest on any such stable grounding. The economy acts through other adaptive systems. Human economic actors are ANNs, and so are the environments they live in and the nervous systems that make them who they are. Each network is linked to every other network in infinite ways and at all levels. Population genetics and the nervous system are explainable in economic terms, and vice versa. Indeed, population genetics and the nervous system *are themselves* economies—just as the economy is a nervous system.

Remember that for Robbins, constraints of space and time affected an individual's ability to solve economic problems. There was a strong relationship between time and problem solving. The individual knows its desires, sets its sights on fulfilling them as its goal, and begins to figure out how to meet that goal. The process takes time, and sometimes there just isn't enough—life is short, and there are only 24 hours in the day.

Holland's ANN does not need to worry so much about time, for its method of problem solving is substantially different. Before setbacks even occur, the ANN (if "fit") has anticipated them and adapted to meet them. The solutions to problems that may arise in the ANN's environment are already immanent in the ANN. Strictly speaking, the ANN does not need to take any time at all to solve problems. For the ANN, there is nothing to "work out"; instead, everything has already been worked into its design. The ANN thus lives in a world without temporal constraints. Holland's economics charts a profoundly different relationship among time, subjectivity, and agency than did Robbins's. The "subject" of Holland's economics is an adaptive and complex system already interpenetrated *by* and composed *of* other complex systems, for which problem solving is more than instantaneous. It has no identity as such; it is unlocatable, and simultaneously a part of everything.

This new economic theory thus evacuates the position of the subject that was a central component of neoclassical economics. The operation of offshore financial centers is a powerful example of how such an evacuation of the position of the subject could be effected, and how in the process anything that could be recognized as a "subject" would disperse into new networks of power with no originary point, cybernetic structures of infinite feedback and nonoriginary unfoldings. The "subject" of complexity theory—and of offshore finance—is posthuman.

OFFSHORE FINANCIAL CENTERS

An offshore financial center (OFC), or tax haven, is any jurisdiction where there are no taxes levied on income, no taxes are levied on income accrued within the jurisdiction by a foreign source, taxes are lower than in the investor's home country, or taxes are levied only on certain activities.³¹

In some sense, every jurisdiction is a tax haven for somebody. A French investor might find that taxes in the United States are significantly lower than in France, and might choose to deposit interestearning holdings in a US bank. But more important are jurisdictions

Strictly speaking, the ANN does not need to take any time at all to solve problems.

Dependent territories

Canary Islands (Spain)

Madeira (Portugal)

Jersey (UK)

Guernsey (UK)

Isle of Man (UK) Gibraltar (UK)

TABLE 1: WORLD TAX HAVENS

Europe

Independent territories

Liechtenstein

Austria

Luxembourg Monaco

Switzerland

Cyprus

Malta

Greece

Shannon International Airport (Ireland)

Svalbard (Norway)

Africa

Liberia Libya*f

Rwanda

Burundi

Tangier**g Afars and Issas (France)

Middle East

Bahrain

United Arab Emiratesh

Kuwait

Oman

Djibouti

Lebanon**

Asia and Oceania

Singapore

Vanuatu

Nauru

Tonga

Figi Solomon Islands

Cooks Islands

Kiribati Federated States of

Micronesia

Western Samoa

Tuvalu

Papua New Guniea

Seychelles

Maldives

North and Central America

Panama

Costa Rica

Nicaragua**j El Salvador*k

Guatemala*k

Hong Kong (UK) Minervai

Other Andorra^a

Sarkc

Campione^b

The Vatican*

Sealand^d San Marino*e

Norfolk Island (Australia)

Guam (US)

Marshall Islands (US)

American Samoa (US)

French Polynesia (France) Marianas Islands (US)

Macao (Portugal)

Timor** (formerly Portugal) Goa** (formerly Portugal)

St. Pierre et Miquelon (France)

TABLE 1: (CONTINUED)

Carribean Antigua Anguilla (UK) Bahamas Bermuda (UK) Barbados British Virgin Islands (UK) Grenada** Cayman Islands (UK) Turks and Caicos Islands (UK) St. Lucia* St. Vincent* Montserrat (UK) Jamaica* Aruba (Netherlands) Cuba** Netherlands Antilles (Netherlands) [includes Eustatia, Saba, Bonaire, Curação, St. Maarten]

Note: I have tried to present as complete a list as possible, including jurisdictions that define themselves as offshore financial centers, as well as places that are not self-defined OFCs but that handle significant amounts of offshore financial business and are known in the business world as de facto tax havens. I have marked these with an asterisk (*). I have also included places which used to be offshore havens but are no longer—these are marked with two asterisk (**).

Source: The list is culled from various sources, including Spitz, Blum, Ginsberg, Kinsman, Johns, and Langer. See also Starchild and Finchley and back issues of *Euromoney*.

- a Jointly administered by the President of France and the Spanish Bishop of Urgel.
- b Campione d'Italia = "Sample of Italy;" an Italian enclave just inside Switzerland on the Swiss-Italian border; undefined jurisdiction; neither Italy nor Switzerland collect taxes there (see Langer, p.35).
- c One of the Channel Islands; a hereditary Duchessdom administered by the "Dame of Sark."
- d An imaginary country "created for the primary purpose of serving as a tax haven. It is supposed to be located six miles off the east coast of Great Britain and to be about the size of a baseball diamond. It . . . allegedly became a full-fledged country in about 1968. Under British law, profits earned by a company from sources outside the United Kingdom are not taxed if the company's affairs are managed and controlled from outside the United Kingdom. Therefore, the idea is for British directors of companies with headquarters in Sealand to take a ten-minute helicopter ride to Sealand periodically to conduct their directors' meetings on the island" (Langer, pp. 41–42).
- e This principality is associated with but not incorporated into Italy.
- f According to *Euromoney*, Libya has been an important haven for Arab businesses and banks wishing to do business with Israel, and for Israeli businesses and banks wishing to do business in the Arab world
- g Formerly a Spanish enclave, it is now incorporated into Morocco.
- h Apparently only some of the emirates are used as OFCs (see Langer, p. 40).
- i Newsweek reported that the King of Tonga led an expedition to claim the reefs for Tonga ("South Seas: The Minerva Ploy," Newsweek, Oct. 23, 1972, p. 52).
- j Prerevolutionary Nicaragua and Cuba were important offshore financial centers for US banks and investors.
- k El Salvador and Guatemala are considered de facto havens because of the large number of military business deals US companies cut in those jurisdictions. Such deals are not subject to most US tax laws.

that specifically market themselves to outside investors, banks, and corporations as offshore financial centers. These are scattered all over the world (Table 1). Many are microstates such as Tonga, or territories dependent on colonial powers, like Guernsey. Others, like Campione, are territories whose jurisdiction is ill-defined. Sealand is a "country" created solely to be a tax haven, while Minerva, consisting of a few reefs in the Pacific Ocean, only really exists in the cyberspace of international computer networks.

Individuals, companies, and banks use havens for a variety of reasons, including tax avoidance. Individuals generally use OFCs to hide money from their home country's tax or inheritance laws. Corporations use OFCs to avoid taxes and to hide money from other corporations for use in leveraged buyouts. They also utilize OFCs to hide business deals between corporations of countries without trade agreements or under trade embargoes. Banks make use of OFCs to obtain more favorable interest rates on their holdings, and to avoid paying taxes on interest income. These agents all employ the services of OFCs to trade on the international currency and bond markets. Consider the following important examples of tax haven use.

Individuals often employ tax havens to avoid inheritance laws. Most countries in Latin America and Europe mandate that a certain portion of a man's estate be left to his wife. Many wealthy men in these countries instruct their lawyers to set up offshore trusts in tax havens immediately before their deaths, to which the bulk of their client's investments and savings are transferred. At the client's death, his estate looks remarkably smaller on paper than it actually is. The part of the estate not hidden in the tax haven is apportioned to the client's widow, while his lawyer administers the bulk of it, in the tax haven, according to the dead client's wishes (perhaps with a portion going to former mistresses).³²

Meanwhile, multinational corporations can make use of the anonymity afforded dummy corporations established in tax havens to bypass sanctions and legal restrictions. During the period of trade restrictions against the apartheid regime of South Africa, a South African corporation wishing to do business in the United Kingdom

Smokescreen structure 31/2% of profits flow to the Discretionary off-shore 'ultimate holding company' disclosed to UK authorities; trust 961/2% flow to South Africa. Ultimate holding company has no overt South African connection Ultimate holding SA Co company' 51% Panama Co W 49% 49% Panama 51% 49% Co X 49% Panama 51% Co Y Panama 51% Co Z 51% UK non-resident company 100% 100% 100% 100% 100% 100% 100% Operating companies in various countries

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Figure 1

might set up a "smoke-screen structure" of dummy corporations in a tax haven whose profits run to an offshore trust. More inventively, the corporation could set up a nested array of dummy corporations such that each was the major owner of the next, and so on, while the majority of profits would actually flow directly to the South African company without mediation by an offshore trust (this kind of structure is represented in Figure 1).³³

Banks or funds wishing to take advantage of international currencies markets often do so through subsidiary branches in offshore centers that have more favorable exchange rates or no withholding tax

on currency exchange. Places like the British Virgin Islands, where the official currency is the US dollar, but which also do not restrict trade in British pounds, are prime sites for such activities.³⁴

Offshore funds
and trusts
generally exist
only in
cyberspace.

The actual practices involved in such offshore financial business frequently involve no more than computer transactions. Offshore funds and trusts generally exist only in the nodes designated for a tax haven within the cyberspace of computer networks. But jurisdictions differ in their legal requirements for offshore corporations and holding companies. Some require that a company established there maintain a physical presence in the form of an office—or sometimes just a business card. Others require that companies domiciled in the jurisdiction hold annual board meetings there. This has obvious advantages for jurisdictions that also market themselves as luxury tourist resorts. Still others require only a public notice of incorporation. The British Virgin Islands is one such jurisdiction: one forms an "International Business Corporation" (IBC) in the BVI merely by filling out the proper forms, and paying a one-time flat fee of US \$300. The IBC then "exists," but in name and in cyberspace only. Its accounts are then handled through a branch of one of the many international banks in the BVI.

A \$300 fee may not sound like much, but for a microstate of 12,000 people in which at any one time 12,000 IBCs are domiciled, the revenue generated can be significant indeed. Keep in mind as well that IBCs come and go rapidly; a US corporation might form and dissolve several IBCs in a single week. At present, the offshore finance industry in the BVI accounts for nearly as much of the territory's GDP as tourism.³⁵

The discourses and practices of offshore finance connect to the discourse on the economy as an adaptive system, while the practice of offshore finance concretely represents these theories in two distinct ways. First, offshore finance takes the form of a tangled hierarchy that is naturalized at the very moment that it is cyberspatialized. Offshore finance collapses the economy into a complex system that looks very much like the kind of natural system described by complex systems theory. Second, offshore finance permits an economics beyond time-

space compression. Offshore financial centers eliminate the problems of time and space that made life so taxing for the modern economic subject.

NATURALIZATION AND VIRTUALIZATION: REMAKING THE WORLD AS THE WORLD DISSOLVES

What sorts of worlds are made in the virtual image of the ANN by offshore financial practices? A simple example involves what are known as "captive banks" and "captive insurance companies." In many havens, multinational companies can set up banks to facilitate taxfree business with their customers, affiliates, and suppliers. A multinational company with several affiliated companies can also set up an insurance company in an offshore center to insure the buildings and activities of both its affiliates and itself.³⁶ This seems simple enough, until we attempt to figure out what happens when an insured party makes a claim on the insurance company, or an affiliated company draws a loan from a captive bank. In the first case, an affiliate that has been paying premiums into the insurance company essentially has been moving money from one tentacle of the multinational to another. When it makes a claim, money is transferred back to it. But consider what happens when the multinational itself makes a claim. Premiums paid by the affiliates then move to the multinational through an insurance company "underneath" the multinational. In the second case, similarly, if a multinational relies on money borrowed from its captive bank to build "lower" level operations, it relies on money borrowed from a "lower" rung of its chain of operations to support the "highest" rung, which created and supports the lower rungs. In both cases, the hierarchy folds back upon itself.

A more complicated example is the network established by the Banco Ambrosiano, which collapsed in 1982 but, in the process, scuttled away \$1.4 million. The complicated network involved accounts, corporations, and holding companies in Peru, Nicaragua, Luxem-

Entities owned parts of one another in ways too complicated for investigators to unravel.

bourg, Switzerland, Italy, the US, the Vatican, Panama, and possibly other as yet unknown jurisdictions. All of the entities created as part of the network owned parts of one another in ways too complicated for investigators and regulators to unravel. The most interesting characteristic of this complicated structure is that it lacked any originating node. Seemingly "lower" levels of the network owned or controlled the "higher" ones. For instance, what the *Financial Times* identified as the fourth level of the operation (in Panama) seemed to interpenetrate the second level (in Nassau). By 1984, two full years after the bank folded, a critic of tax havens reported that the confusing structure set up (by whom?—it's impossible to tell) prevented any "significant prosecutions"—not just from being *made*, but from even being "possible."³⁷ The Ambrosiano structure seems to be a "tangled hierarchy" productive of an indefinable subject that, like the ANN, is both everywhere and nowhere.

In his foreword to a book on criminal uses of offshore havens, John Kaplan invokes a biological image to describe the kind of knowledge law enforcement agents must acquire to fight crime successfully in tax havens: "We need to know a great deal more about the anatomy and physiology of the organism before we can attempt the task of performing beneficial surgery."38 Of course, the language of biology is ubiquitous in discussions of the economy (as is the language of economics in biology), and has been at least since the 19th century. In the new world of offshore finance, however, such obfuscation permits a slippage between semantics and ontology. The languages of biology and economy are interchangeable because the two domains are seen as mutually reducible. Once this slippage is effected, economists and businesspeople alike come to understand their work not through biological metaphors, but as biology itself. In this way, they participate in a new metaphorics of naturalization that renders the economy an instance of biology.

Modern economic theory, like that of Robbins, similarly naturalized the relations constituting the economy by reducing them to sui generis individual desires. But the naturalization effected in complexity theory and tax haven practice is more deceptive than Robbins's. The tangled

hierarchies of ANNs equate the ontologies of biological and economic systems, and make each unit in the tangled hierarchy dependent on the others in a network without a fixed grounding point to which everything else can be reduced. The economy is not *explained* by the language of biology; rather, the economy *is* biology (just as biology is an economy). Businesspeople who use the languages of medicine, evolution, and population biology to describe the tangled hierarchy of offshore bank accounts, corporations, and trusts promote a discourse in which the economy is "natural" and "biological," reflecting and verifying complexity theories. Just as any "real" grounding of the economy vanishes, as real time-space dissolves into the more-than-instantaneous virtual time-space of tax havens, the slip between semantics and ontology in naturalizations of the economy rematerializes the world in the image of the adaptive nonlinear network.

An array of biological terms turns up in the literature describing offshore financial entities and the activities that go on in or around them. Authors employ biological discourse to explain the "growth" and "development" of tax havens. More specifically, they make use of concepts borrowed from population and evolutionary biology. The use of terms like "evolution" is widespread in this literature. Corporations and banks seeking to provide new technological services "wrestl[e] with dinosaur systems." In the "new environment" of transnational computer networking, "medium and smaller organizations have carved out a niche for themselves and are flourishing."³⁹

"Nature" photographs are as ubiquitous as biological terms. Brochures selling the offshore capabilities of Caribbean nations to investors sport images, not of busy computer operators, but of flamingos (for the Bahamas); beaches (for Barbados); pelicans and palms (for the British Virgin Islands); stingrays (for the Caymans); and coral reefs (for the Turks and Caicos—"a nice niche at the crossroads"). ⁴⁰ One wonders whether the Galápagos Islands, home to Darwin's finches, will soon house offshore financial operations.

Businesspeople and commentators on OFCs see *mechanisms* of population and evolutionary biology themselves actually operating in their financial systems. For example, most investment observers agree

The economy is not explained by the language of biology; it is biology.

that the "competition" in the field of offshore finance is most intense in the Caribbean. Caribbean offshore centers thus are developing "new advantages" to maintain competitiveness. This has resulted in "specialization . . . emerging in different centers" and the creation and exploitation of new "niches." "Competition" leads to "diversification"—some centers in the Caribbean become "specialists" while others offer more "general" services. 42 Some financial advisors and journalists speculate that the Bahamas, by not specializing or diversifying its services, will lose out in the competition; the Bahamian government, for its part, seeks to balance new specializations with the territory's traditional strengths as a "generalist." As such, the Bahamas markets itself as more likely to survive sudden crises or drastic shifts in the economic "environment."

Competition leads to specialization and success. One might compare the "success" of the Caribbean offshore centers with the relative "failure" of those in the South Pacific. As *Euromoney* reports, South Pacific nations lost out early in the offshore game by attempting to cooperate with one another. Cooperation prevented South Pacific OFCs from developing specialized services; as a result, "the economies of the South Pacific are slowing down."⁴⁴

The language of evolutionary biology unites corporations and OFCs. Businesses sometimes use havens to hide new products or ideas from their "competitors." Competing international companies attempting to "specialize" or "diversify" take advantage of new services provided by competing OFCs. Havens providing such specialized services allow corporate product specialization to occur. The discourse and practice of "competition" leading to "specialization" thus interpenetrates and interlinks corporate innovation with OFC specialization.⁴⁵

To explain why some places become tax havens and others do not, authors of books and articles on offshore finance cite certain "natural" features. Most prominent among these is "geography." For instance, one author states that "geographical conditions rather than law or accepted customs may create sanctuaries"; and a government selling itself to investors remarks that "geography lends itself to people com-

ing here."⁴⁶ As in more modernist naturalizations of the economy, the claim that pure geography creates havens conceals the social conditions and actions necessary to the establishment of any financial arrangement. Such things do not arise, by themselves, out of the soil. Yet it is significant in this discourse of naturalization that space would be emphasized just at the moment when space is virtualized; a tax haven is a tax haven not because of the physical space it occupies, but because of its position in the virtual space of computer networks.

Another "natural" contribution to the development of tax havens is "race." As Robert Kinsman notes in his guide to tax havens, "racial considerations are important in many of the havens. Several have widely mixed racial make-ups, a potential factor in the stability of the country" (original emphasis). ⁴⁷ He reads "racial purity" as a gauge of politics, insinuating a correlation between population genetics and political or social stability. "Mixing races," that is, miscegenation, denotes for Kinsman a breakdown of political order. Again, it is curious that the putative ground of "race" would become significant in a world where it is not humans who are the privileged actors of economic relations, but computers and human-computer interactions.

One of my favorite examples of the materialization of a world where economy and ecology are considered identical comes from the late Chief Minister of the British Virgin Islands, Lavity Stoutt, who in an interview published in *Euromoney* claimed that his efforts to create a favorable offshore investment "environment" in the British Virgin Islands would have direct and favorable consequences on the preservation of the islands' ecological "environment." In fact, the creation of a good investment environment in the cyberspatialized world of offshore finance has no point of contact in the "real" world of beaches, reefs, and forests.

So while the language of nature in discussions of the economy has been commonplace for at least a century, the naturalization of the economy of offshore finance and complexity theory is of a different order. It gestures toward modernist "real" objects, like physical space, racialized human bodies, and "natural environments" just at the moment when the world is rendered virtual and the subjects and objects of

modernity, remade in the image of the adaptive nonlinear network, are dispersed into complex networks of power. The "real" world enters into discourse just as it dematerializes and something else appears in its "place."

Tangled Hierarchies and the End of Time-Space

The tangled hierarchies of tax haven arrangements also move a step beyond time-space compression, and the biological discourse undergirding and constituting them confounds any attempt to locate a subject in them. The sheer automation of ANN problem solving is exemplified by offshore financial arrangements that make space and time utterly meaningless to business transactions. Time-space compression, like Robbins's modern economy, still assumes a problem and a problem solver, a reality and a subject acting on it under temporal and spatial constraints. Offshore finance obliterates such constraints both by placing the problem and the problem solver in an atemporal nonspace and, as in complexity theory, by making the problem and the problem solver more difficult to distinguish from each other.

New information technologies render many international financial transactions instantaneous. But the 24-hour day that so vexed Lord Robbins would still seem to limit transnational financial operations. It does you no good to have the ability to process transnational business deals instantaneously if you are in New York and your affiliate is in Tokyo.

With a worldwide network of OFCs, however, such problems do not arise. The world offshore financial centers provide a series of stepping stones for investments and business operations to continue, without interruption, around the clock. An investor in New York wishing to establish a fund with a Tokyo bank could request that a series of transactions be carried out in tax havens, each generating nontaxable revenue as it makes its way toward the next business day in Tokyo. The overlapping business hours of the global ring of tax havens permit investors to continue 24 hours a day (Table 2).⁴⁹ A multinational company in its various guises can conduct business continuously. And since such a company creates itself by domiciling in various havens and onshore centers around the world, it has

TABLE 2: OFFSHORE AND ONSHORE CENTERS AND THEIR TIME DIFFERENCE FROM GREENWICH MEAN TIME

Main onshore centers	Time difference from GMT	Associated offshore centers
Los Angeles	– 8 hrs.	
	- 7	Mexico City
Chicago	- 6	Costa Rica
Miami, New York	- 5	Panama, Cayman Islands
	- 4	BVI, other Caribbean
	- 1	Madeira, Canary Islands
London	0	Channel Islands, Isle of Man,
		Liberia
Paris, Frankfurt	+ 1	Gibraltar, other European havens
	+ 2	Greece, Lebanon
	+ 3	Bahrain
	+ 4	United Arab Emirates, Kuwait
	+ 7	Singapore
	+ 8	Hong Kong, Macao
Tokyo	+ 9	
	+ 11	Vanuatu
	+ 12	Nauru

Source: Adapted from Johns, p. 23.

already worked into its design a mechanism for solving the (non)problem of time in a manner quite analogous to the method of the ANN. Problem solving thus is *more* than automatic. There are no temporal constraints to economic activity because they are already solved by the very structure of the multinational corporation.

Nor are there spatial constraints. We cannot conceive of our prototypic multinational as limited or even bounded by space, since it can be everywhere. The Banco Ambrosiano is a fine example of how international financial networks put a multinational into a space that, once scrutinized, dissolves into no-place. The "Free and Independent Republic of Minerva"—a haven supposedly consisting of a few reefs 250 miles from Tonga in the Pacific, but "really" only a node in an international computer network—pushes the point further: its present existence in computer networks demonstrates that space as such is not even necessary to the business of offshore finance.

The "Free and Independent Republic of Minerva" is only a node in an international computer network.

The "subject" of offshore finance seems to be the same nonsubject of complexity theory. The place of the subject of modern economics has evaporated, leaving a mist, a dispersion with no originary point, a structure without foundation. The world of the modern economy was a world of subjects situated in hierarchical levels of interaction with logical direction and clear lines of causality. The world materialized by complex adaptive systems and tax havens is a world that operates outside of space and time.

GETTING HOOKED INTO THE NETWORK

"The Wiring of Wall Street" speaks first of "time management" and next quotes Peter Solomon of Lehman Brothers "offering an explanation: 'Computers have shown us how to manage risk.'" The inconvenient and outdated ticker of Marxist theory discloses the excluded word between "time" and "risk" in the management game: *crisis*.

—Gayatri Spivak⁵⁰

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Eden may be everywhere in the transnational network, but a large number of havens happen to be beautiful tropical isles rather than polluted, ugly, cold metropolises. The slippage of "nature" images and language into conceptualizations of economic practice not only naturalizes that practice and makes it God-given, but hides the relationships of power and dominance that structure it. Naturalizing activities that involve (mostly) Third World places and associating those activities with photographs of lush, sunny landscapes reinvigorates a traditional European and North American collapsing of the peoples of the Third World into "nature." In naturalizing the people, places, and relationships involved in offshore finance, businesspeople depoliticize their actions and the conditions that make such actions possible.

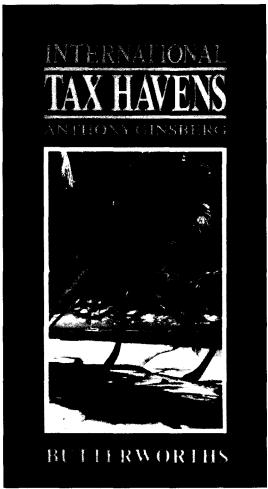
This long-standing process is also implicated in the old logic of modern political struggle: there is a clear villain covering his tracks with claims about nature; the cultural critic, in denaturalizing the ruling ideology, unmasks the agents of oppression. But the particular naturalization made powerfully and virtually real by complexity

theory and offshore financial practice seems more insidious. Economic theory and financial practice that naturalize the economy (after the image of the adaptive nonlinear network) disperse the

subject—and its objects—into networks and non-locatable subjects/objects of postmodern capital. As it becomes increasingly difficult to locate a subject behind offshore financial decisions, not finding one becomes increasingly "natural." The new economy, a complex, more-than-hierarchical, more-than-instantaneous, adaptive and anticipatory network of networks, attempts to render questions of accountability moot.

In his novel Islands in the Net, science fiction writer Bruce Sterling presents a liberal dystopia where big business is everywhere and megacompanies networked together replace nation-states.⁵¹ Small places—Grenada, Singapore, Mali—occupy "holes" in the network, and from their location are able to traffic in pirated information. To protect their information's integrity, the megacorporations come down hard on these islands. But the heroine of the novel, an employee of one of the larger networked companies, finds out that the very technologies her company uses to fight the renegade islands are produced thanks to the existence of the islands themselves: the "legitimate" companies depend on the islands' "illegitimate" services, but maintain, through the threat of economic and military force, a position of dominance over them.

A recent book on new information technologies in the world economy brings Sterling's future into the present. In *Quicksilver Capital*, Richard McKenzie and Dwight Lee argue unashamedly that the rapid movement of capital possible with new information technologies will provide the most "efficient" means of exercising political and economic force in the 1990s and beyond.⁵²



All of this highlights an important issue regarding the arrival of the nonsubject of postmodern capital. As Gayatri Spivak writes:

Whereas Lehman Brothers, thanks to computers, "earned about \$2 million for . . . 15 minutes of work," the entire economic text would not be what it is if it could not write itself as a palimpsest upon another text where a woman in Sri Lanka has to work 2,287 minutes to buy a t-shirt. The "post-modern" and the "pre-modern" are inscribed together. 53

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Many of the

But not all Third World subjects are subjected in the same ways. Some, like the British Virgin Islanders with whom I've conducted fieldwork, profit from the new technologies and practices in their "location" as a tax haven.⁵⁴ These subjects, despite the profits they may make through offshore finance, must face the very real possibility that, like Bruce Sterling's islands in the net they will someday come up against the powers responsible for their status—powers that the havens help to strengthen both economically and militarily.⁵⁵ One has only to note that many of the places in which the US military has taken action in recent years had been, before invasion or bombing, offshore centers, including Kuwait, Iraq, Panama, Grenada, and Libya. Lebanon had been the most important haven in the Middle East, and perhaps overstepped its bounds in providing a convenient meeting ground for Arab and Israeli bankers and businesspeople. Haiti had been setting up offshore operations before the election of Aristide, who was not keen on making Haiti a haven.

Meanwhile, Lloyds Bank International has published a profile of the "typical client" of offshore financial services. He is "usually a male in his early forties, he owns a business in his own country with capital at risk there and wants to keep part of his capital offshore for safety reasons." Chances are he will use a trust to settle his estate upon his death, "leaving everything to his mistress." ⁵⁶

Spivak is correct when she finds a hidden text in the language of "time management" and "risk"—a text in which crisis is writ large and in which relations of dominance across lines of race, gender, class, and location reassert themselves to meet that crisis. Capitalism is written ever deeper into our being as humans—down into our genes and

neural receptors, which themselves now provide a moral and natural charter for long-standing relations of dominance and exploitation. But are these, as David Harvey suggests, mere "shifts in surface appearance rather than signs of the emergence of some entirely new post-capitalist society"?⁵⁷ Surely, from one perspective, as the nonsubject of postmodern capital reconstitutes human "nature," it also masks the same old agents of capitalist exploitation—the modern villains.

Yet we are all plugged into the adaptive nonlinear network, and not just with our ATM cards. Where do we locate the supposedly "pre-modern" others invoked by Spivak? In an economy that has moved beyond the traditional—and comfortable—modernist distinctions between subject and object, inside and outside, is there any place to stand, any ground outside the net? Or are there only Sterling's islands, holes not so tightly stitched, or stitched in unusual or surprising ways, in the complex weave? What kinds of politics are possible in a world where there is no easily identifiable subject on whom to place blame, no one whom we can take to task for a now nonlocatable structure of domination that is itself a part of us?

No retreat from this new world is possible for we are already engaged in it. As we abandon the comfortable politics of modernity, which sought to challenge individuals, corporations, or governments as if such entities were whole, stable, and not inherently fractured by contradiction, the new economics of complexity compels a new complex politics, on all levels, everywhere and nowhere, both "virtual" and "real."

NOTES

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me that it warrants the attention of cultural critics, and illuminating some of its complexities. To the extent that one can repeat the modernist mantra in the kind of world this essay purports to describe, any errors or inconsistencies that remain are my responsibility alone.

- 1 Lionel Robbins, An Essay on the Nature and Significance of Economic Science (London: Macmillan, 1981 [1932]), p. 15.
- 2 Adam Starchild and Alan Finchley, Tax Havens: What They Are and How They Work (North Arlington, NJ: Financial Technology Ltd., 1975), p. 3.
- 3 Anthony Ginsberg, Tax Havens (New York: New York Institute of Finance, 1991), p. 7.
- 4 Steve Lohr, "Where The Money Washes Up," New York Times Magazine, Mar. 29, 1992, pp. 27–32, 46, 52.
- 5 "Information and Transaction Services," Euromoney supplement, Nov. 1989, p. 2.
- 6 Citicorp, "New Developments in Meeting Banking's Charter: 'High-Tech' Still Needs 'High-Touch,'" advertisement, Euromoney supplement, Nov. 1989.
- 7 David Pines, "The Economy as an Evolving Complex System: An Introduction to the Workshop," in *The Economy as an Evolving Complex System*, ed. Philip W. Anderson, Kenneth J. Arrow and David Pines (Redwood City, CA: Addison-Wesley, 1988), p. 3.
- 8 These quotations on the mission of the Santa Fe Institute are, respectively, from the back cover of *The Economy as an Evolving Complex System* and the *Bulletin of the Santa Fe Institute*, 5, no. 2 (Spring 1990): p. 2. Stefan Helmreich has conducted fieldwork at the Santa Fe Institute; readers interested in the Institute should consult his dissertation, "Anthropology Inside and Outside the Looking-Glass Worlds of Artificial Life" (Ph.D. diss., Stanford University, 1995).
- 9 Michael Rothschild, *Bionomics: The Inevitability of Capitalism* (New York: Henry Holt, 1990), p. xv. This book, published simultaneously under the title *Bionomics: The Economy as Ecology*, argues that capitalism is based on technical information in the same way life is based on genetic information. It is perhaps easy to dismiss books like this one as the work of cranks. Yet the argument has scholarly pretensions (it draws explicitly on the "serious" theorists I discuss in this essay) and has had wide appeal (it received favorable reviews in *Forbes, Fortune*, and the *Wall Street Journal*).
- 10 Cf. Peter Galison, "Aufbau/Bauhaus: Logical Positivism and Architectural Modernism," *Critical Inquiry* 16 no. 4 (summer 1990): pp. 709–752. To demonstrate the creation of modernity, Galison outlines the "joint enterprise" of Vienna Circle logical positivism and Bauhaus architecture (p. 750). To show the development of postmodernity, I trace the joint enterprise of the community of scholars theorizing the economy as a complex adaptive system and the community of bankers, businessmen, and investors engaged in using and structuring a world of offshore international finance. As Galison does not claim that the Vienna Circle and Bauhaus were "responsible" for the rise of modernity, I do not hold that offshore financial

- arrangements and complex adaptive systems explanations of the economy themselves structure postmodernity.
- 11 See Pierre Bourdieu, "Men and Machines," in Advances in Social Theory and Method: Towards an Integration of Micro- and Macro-Sociologies, ed. Karin Knorr-Cetina and Aaron Victor Cicourel (Boston: Routledge and Kegan Paul, 1981), pp. 304–317.
- 12 Robbins, p. 16.
- 13 I use the masculine pronouns to refer to the isolated individual of Enlightenment theory, since that individual is constituted as normatively male. See Carole Pateman, *The Sexual Contract* (Stanford: Stanford University Press, 1988).
- 14 Robbins, p. 12.
- 15 Ibid, pp. 12-13.
- 16 David Harvey, *The Condition of Postmodernity* (Baltimore: The Johns Hopkins University Press, 1989).
- 17 Ibid., pp. 229-230.
- 18 Ibid., p. 240.
- 19 Pierre Bourdieu, Outline of a Theory of Practice (Cambridge: Cambridge University Press, 1977), p. 247.
- 20 Harvey, p. 122. Harvey is following the so-called French regulation school here; see, e.g., Alain Lipietz, "New Tendencies in the International Division of Labour: Regimes of Accumulation and Modes of Accumulation," in *Production, Work, Territory: The Geographical Anatomy of Industrial Capitalism*, ed. Allen John Scott and Michael Storper (London: Allen & Unwin). See also Michel Aglietta, *A Theory of Capitalist Regulation* (London: NLB, 1979), pp. 16–40.
- 21 Harvey, p. 285.
- 22 Robbins, p. 15.
- 23 George Cowan, President's Message, *Bulletin of the Santa Fe Institute* 5, no. 2, (spring 1990): p.2.
- 24 John Holland, "The Global Economy as an Adaptive Process," in *The Economy as an Evolving Complex System*, ed. Philip W. Anderson, Kenneth J. Arrow, and David Pines (Redwood City, CA: Addison-Wesley, 1988), p.118.
- 25 Ibid., p.117-118, original emphases.
- 26 Ibid., p. 119.
- 27 Ibid.
- 28 Ibid.
- 29 Ibid., p. 120.
- 30 Holland here seems to be borrowing Hofstadter's concept of a "tangled hierarchy"; see Douglas Hofstadter, *Gödel, Escher, Bach: The Eternal Golden Braid* (New York: Vintage, 1979).
- 31 Barry Spitz, "Introduction," in *Tax Havens Encyclopedia* (London: Butterworths, 1978), p. 1. Information for this section has been culled from a variety of sources; see the footnote accompanying Table 1.

- 32 This example is reported by Norman Peagam, "Nine Centers Worth Finding on the Map," *Euromoney* supplement, May 1989, pp. 4–10; and Jeff Bailey, "Birth of a Haven: In the British Virgin Islands, Dummy Corporations Are Becoming as Prevalent as Tourists," *Wall Street Journal*, Sept. 22, 1989, p. R32.
- 33 This example comes from Anthony Ginsberg, *International Tax Havens* (London: Butterworths, 1990), p. 137.
- 34 There are countless examples of how tax havens can be used; these three represent the more important kinds of uses. Missing here is discussion of OFCs that offer the shipping industry "flags of convenience," i.e., that allow ship registration at low rates and do not levy taxes or collect only very low taxes on cargo. Also missing is mention of the pension and insurance industry. Pension companies frequently place assets in offshore funds or trusts to collect tax-free interest.
- 35 See Bill Maurer, "Writing Law, Making a 'Nation': History, Modernity and Paradoxes of Self-Rule in the British Virgin Islands," *Law and Society Review* 29, no. 2 (1995): pp. 255–286.
- 36 Marshall Langer, How to Use Foreign Tax Havens (New York: Practising Law Institute, 1975), p. 64.
- 37 Richard Blum, Offsbore Haven Banks, Trusts, and Companies: The Business of Crime in the Euromarket (New York: Praeger, 1984), p. 23.
- 38 John Kaplan, foreword to Offshore Haven Banks, Trusts, and Companies: The Business of Crime in the Euromarket, by Richard Blum (New York: Praeger, 1984), p. x.
- 39 "Information and Transaction Services," *Euromoney* supplement, Nov. 1989, pp. 29, 15.
- 40 These images come from "Treasure Isles," Euromoney supplement, May 1989.
- 41 Peagam, p. 10.
- 42 Ibid., pp. 6, 8, 13, 14.
- 43 "Treasure Isles," *Euromoney* supplement, May 1989, p. 17. See also, within the same supplement, the Government of the Bahamas pamphlet, "Setting a New Page"
- 44 "South Pacific Islands: Into the Mainstream," *Euromoney* supplement, Sept. 1989, p. 15.
- 45 Ginsberg, Tax Havens, p. 10.
- 46 The first quotation is from Blum, p. 1; the second is from the Government of the British Virgin Islands, "A New Force Emerges," *Euromoney* supplement, May 1989, p. 4.
- 47 Robert Kinsman, *The Robert Kinsman Guide to Tax Havens* (Homewood, IL: Dow Jones-Irwin, 1978), p. 43.
- 48 Government of the British Virgin Islands, "A New Force Emerges," p. 4.

- 49 Richard Anthony Johns, *Tax Havens and Offshore Finance: A Study in Transnational Economic Development* (New York: St. Martin's, 1983), p. 22.
- 50 Gayatri Spivak, "Scattered Speculations on the Question of Value," in *In Other Worlds: Essays in Cultural Politics* (London: Routledge, 1988), p. 171.
- 51 Bruce Sterling, Islands in the Net (New York: Ace, 1988).
- 52 Richard McKenzie and Dwight Lee, *Quicksilver Capital: How the Rapid Movement of Wealth Has Changed the World* (New York: Free Press, 1991).
- 53 Spivak, p. 171.
- 54 See Maurer, "Writing Law," and Maurer, "Orderly Families for the New Economic Order: Belonging and Citizenship in the British Virgin Islands," *Identities: Global Studies in Culture and Power*, 2, no. 1 (Sept. 1995): pp. 149–171.
- 55 See Ernest Mandel's fine argument in *Late Capitalism* (London: Verso, 1975) about the role of finance capital in establishing the military economy.
- 56 Peagam, p. 9.
- 57 Harvey, p. vii.