

## Water Privatization

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Abstract

Private property rights have benefitted every arena of human experience they have touched<sup>1</sup>. The economy of the USSR fell apart mainly because of the absence of this system<sup>2</sup>. The US economy is one of the foremost in the world largely due to its relatively greater reliance on this institution<sup>3</sup>.

And yet, there are vast areas of human existence where private property rights play no role at all: oceans, seas, rivers and other bodies of water. But why should we expect that there would be any better results from such "water socialism" than we have experienced from socialism on land? Indeed, the evidence is all around us attesting to this fact: whales are an endangered species; fish stocks are precipitously declining; oil spills are a recurring problem; droughts are becoming more and more serious, and not only in the underdeveloped countries of the world; rivers are polluted, some so seriously that they actually catch fire; lakes are becoming overcrowded with boaters, swimmers, fishermen, etc., and there is no market mechanism to allocate this scarce resource amongst the competing users; deep sea mining (manganese modules) is in a state of suspended animation due to unclear titles; the legal status of offshore oil

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<sup>1</sup> Bethell, Tom, The Noblest Triumph: Property and Prosperity Through the Ages, New York: St. Martin's Press, 1998; Pipes, Richard, Property and Freedom: The story of how through the centuries private ownership has promoted liberty and the rule of law, New York: Knopf, 2000.

<sup>2</sup> Hayek, F.A., Capitalism and the Historians, ed., (essays by T.S. Ashton, L.M. Hacker, W.H. Hutt, B. de Jouvenel), The University of Chicago Press, Chicago, 1954; F.A. Hayek, "Socialist Calculation I, II, & III," Individualism and Economic Order, Chicago: University of Chicago Press, 1948; Hoppe, Hans-Hermann, A Theory of Socialism and Capitalism, Boston, Kluwer, 1989; Mises, Ludwig, Socialism, Indianapolis: Liberty Fund, 1981 (1969); Mises, Ludwig von, The Anticapitalist Mentality, South Holland, IL: Libertarian Press, 1972; Mises, Ludwig von, Human action, Chicago: Regnery, 1963; Bohm-Bawerk, Eugen, Capital and Interest, South Holland, IL: Libertarian Press, George D. Hunke and Hans F. Sennholz, trans., 1959 (1884); see particularly Part I, Chapter XII, "Exploitation Theory of Socialism-Communism"; Block, Walter, "Socialist Psychology: Values and Motivations," Cultural Dynamics, Vol. V, No. 3, 1992, pp. 260-286; Boettke, Peter J., Why Perestroika Failed: The Politics and Economics of Socialist Transformation, London: Routledge, 1993; Boettke, Peter J., The Political Economy of Soviet Socialism: The Formative Years, 1918-1928, Boston: Kluwer, 1990; Boettke, Peter J., ed., The Collapse of Development Planning, New York: New York University Press, 1994; Boettke, Peter J., "The Reform Trap in Politics and Economics in the Former Communist Economies," Journal des Economistes et des Etudes Humaines, V, Nos. 2/3, June/September 1994: 267-293; Boettke, Peter J., and Anderson, Gary, "Perestroika and Public Choice: the economics of autocratic succession in a rent seeking society," Public Choice, 75, no. 2, February 1993, 101-118; Boettke, Peter J., and Anderson Gary, "Soviet Venality: The USSR as a Mercantilist State," Public Choice, 1997.

<sup>3</sup> Economic Freedom of the World, 1975-1995 (with James Gwartney and Robert Lawson), Vancouver, B.C. Canada: the Fraser Institute, 1996

drilling rigs is unclear. Most revealing, water covers some 75% of the earth's surface, but accounts for only zx% of world GDP. While no one expects an exact proportionality between surface coverage and contribution to economic welfare, such a strong disparity suggests that the economic system pursued in these two realms may not be totally unrelated to these results.

My claim is that we have no warrant to believe that socialism, the absence of private property rights, is any more workable on land than on water; that it is time, it is long past time, to explore ways in which this institution can be applied to aqueous resources.

Topics to be covered include the following:

- . The benefits and costs of water privatization
- . How bodies of water can be privatized
- . A comparison of riparian and first use schemes for water use
- . Whether and if so how the Lockean principles of homesteading land can be applied to water
- . How would ocean privatization be reconciled with migrating species, such as whales and salmon?
- . If property rights imply boundaries between one person's holdings and that of another, how can fences in the water be established?
- . Water flows from one place to another; would ownership apply to the water itself, or to the (cubic) area in which it (temporarily) rests?
- . When a river, such as the Mississippi, changes course, what are the implications for ownership titles?
- . Would the owner of an ocean be responsible for a tidal wave emanating from his property which inflicts severe damages inland?
- . What are the implications of water privatization for the UN Law of the Sea Treaty?
- . Would those who dump garbage in the ocean be penalized? By whom? How? Under whose authority?
- . When an iceberg melts (increases in size), does this imply theft of water from the iceberg owner on the part of the proprietor of the ocean (the reverse)?
- . When a river overflows its banks, can the contiguous landowners sue for trespass? Or can the river owner charge for a water delivery?
- . Suppose there are four owners of contiguous land surrounding a lake. Do they each come to own a slice of the lake, one quarter of its size? Or do they all four, together, own the entire lake?
- . Suppose a volcano creates a new island; who is the rightful owner of it?
- . If it is too expensive to apprehend ocean trespassers, or fish rustlers, how will this violation of property be stopped?<sup>4</sup>

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<sup>4</sup> I owe this and the previous five objections/questions to Bill and Shirley Friedman.

### Water Privatization

Privatization is the process of transferring governmental ownership, management and control from governmental to private hands. The case for privatization, in general, is straightforward. It consists of utilitarian and de-ontological reasons extolling the benefits of this course of action.

What is the utilitarian case? Individual firms, owned by private persons, are better able to promote consumer sovereignty<sup>5</sup> than are statist agglomerations. This comes about mainly through the weeding out process<sup>6</sup>: those entrepreneurs who cannot satisfy customers are forced into bankruptcy through the competition.

Similarly, the de-ontological case for privatization is simple and straightforward. Individuals, but not governments, can come to own land and other resources through homesteading<sup>7</sup>, the only method which can justify ownership on the basis of the libertarian legal code.<sup>8</sup> Any attempt on the part of the state to engage in this activity is fatally compromised by its

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<sup>5</sup> See Hutt, William H., "The Concept of Consumers' Sovereignty," Economic Journal, March, 1940, pp. 66-77 on this. For the related concept, individual sovereignty, which is even more in accord with libertarian free enterprise principles, see Rothbard, Murray N., Man, Economy and State, Auburn AL: Ludwig von Mises Institute, [1962] 1993, pp. 560-566.

<sup>6</sup> Hazlitt, Henry, Economics in One Lesson, Arlington House Publishers, New York, 1979

<sup>7</sup> Block, Walter, "Earning Happiness Through Homesteading Unowned Land: a comment on 'Buying Misery with Federal Land' by Richard Stroup," Journal of Social Political and Economic Studies, Vol. 15, No. 2, Summer 1990, pp. 237-253; Hoppe, Hans-Hermann, A Theory of Socialism and Capitalism, Boston: Kluwer Academic Publishers, 1989; Hoppe, Hans-Hermann, The Economics and Ethics of Private Property: Studies in Political Economy and Philosophy, Boston: Kluwer, 1993; Locke, John, An Essay Concerning the True Origin, Extent and End of Civil Government, V. 27-28, in Two Treatises of Government, P. Laslett, ed., Cambridge: Cambridge University Press, 1960, pp. 17-18; Locke, John, Second Treatise of Civil Government, Chicago: Henry Regnery, 1955; Nozick, Robert, Anarchy, State and Utopia, New York: Basic Books, 1974; Rothbard, Murray N., Power and Market: Government and the Economy, Menlo Park Cal.: Institute for Humane Studies, 1970; Rothbard, Murray N., For a New Liberty, Macmillan, New York, 1978; Rothbard, Murray N., The Ethics of Liberty, New York: New York University Press, 1998 (1982).

<sup>8</sup> Anderson, Terry and Hill, P.J., "An American Experiment in Anarcho-Capitalism: the

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not so Wild, Wild West,” *Journal of Libertarian Studies* Vol. 3, No. 1, 1979, pp. 9-29; Anderson, William L., Myles Wallace and John Warner, “Government Spending and Taxation: What Causes What,” *Southern Economic Journal*, Vol. 52, no. 3, January 1986, pp. 630-639; Randy E., *The Structure of Liberty: Justice and the Rule of Law*, Oxford: Clarendon Press, 1998; Benson, Bruce L., 1989, Enforcement of Private Property Rights in Primitive Societies: Law Without Government,” *The Journal of Libertarian Studies*, Vol. IX, No. 1, Winter, pp. 1-26; Benson, Bruce L., “The Impetus for Recognizing Private Property and Adopting Ethical Behavior in a Market Economy: Natural Law, Government Law, or Evolving Self-Interest,” 6 *Rev. Austrian Econ.* 43 (1993); **Benson, Bruce, *To Serve and Protect*, New York: New York University Press, 1998**; Benson, Bruce L., “The Spontaneous Evolution of Commercial Law,” *Southern Economic Journal*, 55: 644-661, 1989; Benson, Bruce L., *The Enterprise of Law: Justice Without the State*, San Francisco: Pacific Research Institute for Public Policy, 1990; Cuzán, Alfred G., “Do We Ever Really Get Out of Anarchy?,” *Journal of Libertarian Studies*, Vol. 3, No. 2 (Summer, 1979); De Jasay, Anthony, *The State*, Oxford: Basil Blackwell, 1985; De Jasay, Anthony, *Against Politics: On Government, Anarchy, and Order*, London, Routledge, 1997; Friedman, David, *The Machinery of Freedom: Guide to a Radical Capitalism*, La Salle, IL: Open Court, 2nd ed., 1989; Friedman, David, “Private Creation and Enforcement of Law: A Historical Case,” *Journal of Legal Studies*, 8: 399-415, 1979; Hoppe, Hans-Hermann, *A Theory of Socialism and Capitalism: Economics, Politics and Ethics*, Boston: Kluwer, 1989; Hoppe, Hans-Hermann, *The Economics and Ethics of Private Property: Studies in Political Economy and Philosophy*, Boston: Kluwer, 1993; Hoppe, Hans-Hermann, “The Private Production of Defense,” *Journal of Libertarian Studies*, Vol. 14, No. 1, Winter 1998-1999, pp. 27-52; Hummel, Jeffrey Rogers, National Goods Versus Public Goods: Defense, Disarmament, and Free Riders, 4 *Rev. Austrian Econ.* 88 (1990); Kinsella, Stephan, “New Rationalist Directions in Libertarian Rights Theory,” 12:2 *Journal of Libertarian Studies* 313-26 (Fall 1996); Kinsella, Stephan, “Legislation and the Discovery of Law in a Free Society,” 11 *Journal of Libertarian Studies* 132 (Summer 1995); <[http://www.mises.org/journals/jls/11\\_2/11\\_2\\_5.pdf](http://www.mises.org/journals/jls/11_2/11_2_5.pdf)>; Kinsella, Stephan, “The Undeniable Morality of Capitalism,” 25 *St. Mary’s Law Journal* 1419 (1994) (review essay of Hans-Hermann Hoppe, *The Economics and Ethics of Private Property* (1993)); Kinsella, Stephan, “Estoppel: A New Justification for Individual Rights,” *Reason Papers* No. 17 (Fall 1992), p. 61; Martin, James J., *Men Against the State: The Expositors of Individualist Anarchism in America, 1827-1908* (1970); Morriss, Andrew P., “Miners, Vigilantes and Cattlemen: Overcoming Free Rider Problems in the Private Provision of Law,” *Land and Water Law Review*, Vol. XXXIII, No. 2, 1998, pp. 581-696; Oppenheimer, Franz, *The State*, New York: Free Life Editions, (1914), 1975; Peden, Joseph R., 1977, “Property rights in Celtic Irish law,” *The Journal of Libertarian Studies*, Vol. 1, No. 2, Spring, pp. 81-96; Rothbard, Murray N., *For a New Liberty*, Macmillan, New York, 1978; Rothbard, Murray N., *The Ethics of Liberty*, Humanities Press, Atlantic Highlands, N.J., 1982; Rothbard, Murray N., “Society Without a State.” J. R. Pennock and J. W. Chapman (eds.), *Anarchism: Nomos XIX*. New York: New York University Press, 1978, pp. 191-207; Rothbard, Murray N., *Man, Economy and State*, Auburn AL: Mises Institute, 1993; Skoble, Aeon J. “The Anarchism Controversy,” in *Liberty for the 21st Century: Essays in Contemporary Libertarian Thought*, eds. Tibor Machan and Douglas Rasmussen, Lanham MD: Rowman and Littlefield, 1995, pp. 77-96; Sechrest, Larry J.,

essentially coercive nature. Government ownership of resources is only legitimate in the statist philosophy of coercive socialism or fascism. (We here abstract from the limited government libertarian perspective which makes an exception for what it characterizes as legitimate state functions: armies to repel foreign invaders, police to reduce invasive acts on the part of local miscreants, and courts to determine who is who in this regard.)<sup>9</sup>

If the case for privatization is a simple one, so too does this apply to many specific instances of this doctrine. For example, the privatization of public housing<sup>10</sup>, state enterprises in western countries<sup>11</sup>, in the U.S.S.R. and other former communist countries<sup>12</sup>, and the Post

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“Rand, Anarchy, and Taxes,” The Journal of Ayn Rand Studies, Vol. I, No. 1, Fall 1999, pp. 87-105; Spooner, Lysander, No Treason, Larkspur, Colorado, (1870) 1966; Stringham, Edward, "Justice Without Government," Journal of Libertarian Studies, Vol. 14, No. 1, Winter 1998-1999, pp. 53-77; Tinsley, Patrick, "With Liberty and Justice for All: A Case for Private Police," Journal of Libertarian Studies, Vol. 14, No. 1, Winter 1998-1999, pp. 95-100; Tannehill, Morris and Linda, The Market for Liberty, New York: Laissez Faire Books, 1984; Woolridge, William C., Uncle Sam the Monopoly Man, New Rochelle, N.Y.: Arlington House, 1970.

<sup>9</sup> For an articulation of the minarchist free market philosophy, see Machan, Tibor, 1978, "Against nonlibertarian natural rights," The Journal of Libertarian Studies, Vol. 2, No. 3, Fall, pp. 233-238; Machan, Tibor, Capitalism and Individualism, New York: St. Martin's Press, 1990; Machan, Tibor, ed., The Libertarian Reader, Totowa, N.J.: Rowman and Littlefield, 1982; Murray, Charles, What It Means to be a Libertarian, New York: Broadway Books, 1997; Nozick, Robert, Anarchy, State and Utopia, New York: Basic Books, 1974; Read, Leonard, E. Awake for Freedom's Sake, Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1977; Read, Leonard, E. Anything That's Peaceful, Irvington-on-Hudson, N.Y.: Foundation for Economic Education, 1964. For arguments to the contrary in favor of privatizing police, see Tinsley; for law, see Stringham; for courts, see Rothbard, Peden, Tannerhills, Woolridge and D. Friedman, *supra*, footnote 4.

<sup>10</sup> Jacobs, Jane (1989), The Death and Life of Great American Cities, New York: Vintage

<sup>11</sup> Hanke, Steve H., ed., 1987, Privatization and Development, San Francisco: Institute for Contemporary Studies; Walker, Michael A., ed., Privatization: Tactics and Techniques, The Fraser Institute, Vancouver, B.C., 1988; Ohashi, T.M., T.P. Roth, Z.A. Spindler, M.L. McMillan, & K.H. Norrie, Privatization Theory & Practice, The Fraser Institute, Vancouver, B.C., 1980; Pirie, Madson, 1986, Privatization in Theory and Practice, London: Adam Smith Institute; **Benson, Bruce L., To Serve and Protect: Privatization and Community in Criminal Justice, New York, N.Y.: University Press, 1998;** Anderson, Terry L., and Peter J. Hill, "Privatizing the Commons: An Improvement," 50 S. Econ. J. 438 (1983); Butler, Eamonn, ed., 1988, The Mechanics of Privatization, London: Adam Smith Institute

<sup>12</sup> To be supplied

Office.<sup>13</sup> Privatization for roads, highways streets and sidewalks are perhaps more conceptually complex, but even here there is a plethora of literature attesting to the benefits and justification of this initiative.<sup>14</sup>

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<sup>13</sup>Adie, Douglas K., The Mail Monopoly: Analysing Canadian Postal Service, Vancouver: The Fraser Institute, 1990; Adie, Douglas K., Monopoly Mail: Privatizing the United States Postal Service, New Brunswick, N.J.: Transaction, 1988; Adie, Douglas K., "Why Marginal Reform of the U.S. Postal Service Won't Succeed," in Free the Mail: Ending the Postal Monopoly, Peter J. Ferrara, ed., Washington, D.C.: The Cato Institute, 1990; Moore, Thomas Gale, "The Federal Postal Monopoly: History, Rationale and Future," in Free the Mail: Ending the Postal Monopoly, Peter J. Ferrara, ed., Washington, D.C.: The Cato Institute, 1990; Priest, George, "The History of the Postal Monopoly in the United States," Journal of Law and Economics, 18, no. 33, 1975; Butler, Stuart M., "Privatizing Bulk Mail," Management, 6, No. 1, 1986; Moore, Stephen, "Privatizing the U.S. Postal Service," in Stephen Moore and Stuart Butler, eds., Privatization, Washington: Heritage Foundation, 1987.

<sup>14</sup>Beito, David T. "Voluntary Association and the Life of the City," Humane Studies Review, Fall 1988; Beito, David T. "Owning the Commanding Heights," Essays in Public Works History, vol. 16, 1989; Block, Walter, "Free Market Transportation: Denationalizing the Roads," Journal of Libertarian Studies: An Interdisciplinary Review, Vol. III, No. 2, Summer 1979, pp. 209-238; Block, Walter, "Congestion and Road Pricing," The Journal of Libertarian Studies: An Interdisciplinary Review, Vol. IV, No. 3, Fall 1980, pp. 299-330; Block, Walter, "Public Goods and Externalities: The Case of Roads," The Journal of Libertarian Studies: An Interdisciplinary Review, Vol. VII, No. 1, Spring 1983, pp. 1-34; Block, Walter, "Theories of Highway Safety," Transportation Research Record, #912, 1983, pp. 7-10; Block, Walter "Road Socialism," International Journal of Value-Based Management, 1996, Vol. 9, pp. 195-207; Block, Walter and Block, Matthew, "Roads, Bridges, Sunlight and Private Property Rights," Journal Des Economistes Et Des Etudes Humaines, Vol. VII, No. 2/3, June-September 1996, pp. 351-362; Block, Walter, "Roads, Bridges, Sunlight and Private Property: Reply to Gordon Tullock," Journal des Economistes et des Etudes Humaines, Vol. 8, No. 2/3, June-September 1998, pp. 315-326; Foldvary, Fred, Public Goods and Private Communities: The Market Provision of Social Services (Edward Elgar, 1994); Cadin, Michelle, and Block, Walter, (1997), "Privatize the Public Highway System," The Freeman, February, Vol. 47, No. 2., pp. 96-97; **Cobin, John, M. (1999), Market Provisions of Highways: Lessons from Costanera Norte. Planning and Markets, Volume 2, Number 1**; Klein, Dan, "The Voluntary Provision of Public Goods? The Turnpike Companies of Early America," Economic Inquiry, October 1990, pp. 788-812; Klein, Dan, Majewski, J., and Baer, C., "Economy, Community and the Law: The Turnpike Movement in New York, 1797-1845," The Journal of Economic History, March 1993, pp. 106-122; Klein, Dan, Majewski, J., and Baer, C., "From Trunk to Branch: Toll Roads in New York, 1800-1860," Essays in Economic and Business History, 1993, pp. 191-209; Klein, Dan and Fielding, G.J., "Private Toll Roads: Learning from the Nineteenth Century," Transportation Quarterly, July 1992, pp. 321-341; Klein, Dan and Fielding, G.J., "How to Franchise Highways," Journal of Transport Economics and Policy, May 1993, pp. 113-130; Klein, Dan and Fielding, G.J., "High

Perhaps the most difficult case to make in behalf of privatization is that for water. This is why the present paper will be devoted to the argument in behalf of applying the institution of private property to water resources. Under this rubric shall be included anything<sup>15</sup> which admit of moisture: aquifers, brooks, canals, channels, drinking water, drainage, ditches, ducts, estuaries, flumes, ground water, irrigation ditches, icebergs, lakes, lagoons, oases, oceans, ponds, puddles, reservoirs, rivers, runoff, seas, springs, streams, swamps, underground water, water basins, water courses, waterfalls, water mains, water sheds, water tables, water traps on public golf courses, waterways, wetlands, etc., etc.<sup>16</sup> In addition, I shall argue that privatization of air and water where appropriate is a necessary if not sufficient condition for reducing the harm done to mankind by clouds, flooding, fog, hurricanes, storms, tidal waves, tornados, torrential rain, tsunamis, typhoons, whirlpools, winds, etc.

Why is it necessary that extra care and thoroughness be taken in the attempt to build the case for privatizing water? There are several reasons:

#### I. Opposition to Water Privatization

##### 1. Rare

It has rarely if ever been done. Apart from a few small private lakes and ponds used for fishing, boating and swimming, there are no cases<sup>17</sup> of private ownership, even in countries ostensibly devoted to free enterprise, but which in actuality practice various versions of “water socialism.”

##### 2. Unexplored

It has not even been explored in the literature. There is of course a wealth of information available concerning water resources, but very little indeed in favor of full privatization.

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Occupancy/Toll Lanes: Phasing in Congestion Pricing a Lane at a Time," Policy Study, No. 170, Reason Foundation, November 1993

<sup>15</sup> However, it must be underscored that only scarce resources are candidates for property ownership. On this see Callahan, Gene, “Rethinking Patent Law,” Mises Institute, July 18, 2000, <http://www.mises.org/fullstory.asp?control=468&FS=Rethinking+Patent+Law>; Cole, Julio H., “Patents and Copyrights: Do the Benefits Exceed the Costs?”, [http://www.economia.ufm.edu.gt/Catedraticos/jhcole/Cole%20MPS\\_.pdf](http://www.economia.ufm.edu.gt/Catedraticos/jhcole/Cole%20MPS_.pdf); Kinsella, N. Stephan, “Against Intellectual Property,” Journal of Libertarian Studies, forthcoming; Kinsella, N. Stephan, “Is IP property or not?,” National Post, February 22, 2001; Kinsella, N. Stephan, “In Defense of Napster and Against the Second Homesteading Rule,” LewRockwell.com, September 4, 2000, <<http://www.lewrockwell.com/orig/kinsella2.html>>; McElroy, Wendy, <http://www.zetetics.com/mac/intpro1.htm>; <http://www.zetetics.com/mac/intpro2.htm>; Mercer, Ilana, “How Things Would Work in a Copyright-free Universe,” National Post, Jan. 26. 2001

<sup>16</sup> The zx character in the movie the “Fugitive” demanded of his minions that they search every “house, barn, shed.. .” My goal is to be as exhaustive as he.

<sup>17</sup> We here abstract from such things as backyard swimming pools, jacuzis, bath tubs, showers, water faucets, cesspools, water fountains, septic tanks, etc., which already fall under private control.

### 3. Out of fashion

It is not in keeping with the intellectual climate of opinion. People balk at privatization for roads and other facilities mentioned above on the rare occasions it is acknowledged at all in what might be characterized as the mainstream literature. It is probably no exaggeration to predict that when and if the typical public policy wonk hears of the thesis which motivates the present enterprise, to wit, to privatize bodies of water as fully as land masses, he will dismiss it out of hand as a particularly noxious form of lunacy.

### 4. Interconnectedness

According to that old song, “the hip bone is connected to the thigh bone, is connected to ...” In like manner, most bodies of water are joined with most others. That is, although we call the various oceans of the world by different names (e.g., Atlantic, Pacific, Indian) they all touch upon and flow into each other at their common boundaries. Even a seemingly isolated lake is not totally separated from other bodies of water insofar as it has streams feeding into and out of it. These water avenues, lead to still others and eventually to the sea, where they are linked to all others.

But the colors of the rainbow also shade into one another<sup>18</sup>. Yet we have no trouble distinguishing one from the other, except of course at their very boundaries. And with precision scientific instruments, we can at least mark off an agreed upon fence post. Land, too, is all interconnected, apart from where it ends at water’s edge. And, for a time, our society had difficulty marking off one man’s holdings from that of another. But with the advent of fencing materials, particularly barbed wire, this became easier and easier.<sup>19</sup>

No, the interconnectedness of even all bodies of water constitutes no overwhelming objection to privatization. The reason we have no “fences” to place in the water is not because this is an impossible idea: it is rather due to the fact that absent aqueous property rights, there has been no financial incentive to engage in research to this end. But imagine the opposite. Suppose, that is, that property rights in bodies of water were recognized by law. It takes no great leap of imagination to suppose that scientists and engineers would soon be able to offer new technology which could distinguish between “mine and thine.”

Nor need these water fences be used only to demarcate the property holdings of one firm from that of another. They can also be used to corral fish, whales and other ocean livestock. For all too long these creatures have been free to roam the range of the oceans. It is time, it is past time, for we humans to do for them what we have done for land based animals<sup>20</sup>: to tame and

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<sup>18</sup> Similarly for the boundaries between radio and tv stations on the electromagnetic spectrum. For the case in favor of privatization in this regard, see Coase, Ronald H., "The Federal Communications Commission," 2 Journal of Law and Economics, 1, 1959

<sup>19</sup> Anderson and Leal, op. cit., report on the function of cowboys as “human fences.”

<sup>20</sup> For the argument that elephants, rhinos and other endangered species would benefit from being barnyardized, e.g., fenced in with electrically charged wires, see Anderson and Leal, op. cit., Simmons, Randy, and Kreuter, Urs, “Herd Mentality: Banning Ivory Sales is No Way to Save the Elephant,” Policy Review, Fall 1989, pp. 46-49; Block, Walter, "Environmental

domesticate them<sup>21</sup>, and to bring them within the purview of economic rationality.<sup>22</sup>

Not only is water connected in the horizontal realm, so to speak, the same pertains in the vertical. That is, the three quarters of the earth's surface on which water rests is the horizontal axis, while the vertical dimension refers to the fact that a molecule is at one time water in the ocean, at another it evaporates and travels into the clouds, whereupon it rains down onto the surface of the earth, either on land or in the sea, but eventually comes to rest in the latter, after traveling through the river system. It is thus insufficient to ascertain only who is the owner of water in the sea; this must also be determined, if we are to specify a complete system, for water while it is on its way up to the sky through evaporation, while it is in a (temporary) state of "rest" in the clouds, and when it is on its way down again in the form of rain.

But these are mere technical issues. Where there is a will (and a legal system which supports it) there is a way. The reason this has not yet occurred is not entirely due to costs; a large part of the blame must rest, also, with the fact that we have not pushed the private property rights envelope far enough, yet, in terms of water.

#### 5. Arrogance<sup>23</sup>

The idea that man should own the oceans and the seas will appear as arrogance to some people. The "tower of Babel" story in the Bible<sup>24</sup> would appear to be apropos. When man's pride and ambition got him above himself, God struck back by making it difficult to him to communicate with his fellows.

But why should land be any different than water? If it is not morally sinful to aspire to ownership of the former, why should this apply to the latter? One might with as much reason claim that walking is justified, but that driving a car, sailing a boat, or, perish the thought, flying an airplane are perversions, or somehow impious.

#### 6. Legal nightmare

Suppose a river, such as the Mississippi, changes its course, and starts moving over previously dry land. Or that any river overflows, flooding surrounding farms and neighboring houses. If the river in question were privately owned, a charge could be made that this would create a legal nightmare.

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Problems, Private Property Rights Solutions," Economics and the Environment: A Reconciliation, Vancouver: The Fraser Institute, 1990, pp. 281-332; Block, Walter, "Environmentalism and Freedom: The Case for Private Property Rights," Journal of Business Ethics, Vol. 17, No. 6, December 1998, pp. 1887-1899

<sup>21</sup> For the argument that this is symbiotic, e.g., beneficial to both mankind and animal and fish species, see Heffner, Henry E., "The Symbiotic Nature of Animal Research," Perspectives in Biology and Medicine, Vol. 43. No. 1, Autumn 1999.

<sup>22</sup> It is time, too, to jettison such socialist and profoundly anti private property rights songs as "Home, home on the range," and "Where the deer and antelope play."

<sup>23</sup> I owe this objection to Marybeth Block.

<sup>24</sup> See also Aristophanes' theory of love.

This is only legally problematic, however, because there are no precedents, and there are no precedents, in turn, because rivers are presently unowned. Their mismanagement hence now constitutes an “act of God.” Instead of blaming the Deity, we would do well to attempt to address these dangers and inconveniences. Just as there should be no “fish freedom” the same should apply to rivers. Flooding and course changes<sup>25</sup> should be seen for the mismanagement they are. The reason there has been no private investment in taming these unruly bodies of water is that there are no economic incentives to do so. It would not pay for any single farmer located on the banks of a river to attempt to take on so gargantuan a task. Neoclassical economists would characterize this as a “market failure,” since such a farmer would not be able to recoup an amount even near to his total investment. But these so called “external economies” stem not from anything intrinsic to the situation; rather, they are the result of lack of ownership and responsibility.

Of course, there will be complications when this arena of the law is recognized. Absent any contract to the contrary, for example, a river owner should not be liable for all damages caused, say, by flooding due to heavy rain<sup>26</sup>, but only for those in excess of the amount that otherwise would have ensued. For example, if it can be shown that ordinarily, under river socialism, a storm of a certain severity would cause \$100 in damages, and that in the actual event it caused only \$75, then plaintiff should not be able to collect anything at all from the river owner. On the other hand, if under our assumptions \$125 worth of harm was inflicted upon owners whose property abuts the river, then the defendant would be responsible for at most \$25.

#### 6. “Equity”

Another argument against private ownership is that the rich would hog it all up, and leave the short end of the stick for the poor. There is no doubt that this fear motivates, at least in part, the U.N. Law of the Sea Treaty, according to which “the oceans are the common heritage of all of mankind,”<sup>27</sup> and that therefore no individual nation, let alone private person, should be allowed to own any of it. The fear on the part of the U.N. bureaucrats who hail from the underdeveloped nations is that they do not have the requisite technology to mine manganese

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<sup>25</sup> This applies only to unwelcome flooding and course changes. But railroads and highways (see footnote 13 supra) sometimes change their location. If there is an economic need for this in the case of a river, and it is accomplished at minimal cost, then this constitutes an exception to the claim made in the text.

<sup>26</sup> We assume, for the moment, that the level of technology, or of the law, is such that the clouds themselves are not owned, and that thus no one is liable for their excessive and unwarranted rain on the river. For some people, to blame rain or storm on the state is only a joke. This is not the case at present. Had the government not taken as much of the GDP as it has, to fritter it away on warfare and welfare state considerations (and for numbered bank accounts in Switzerland) there would have been just that much more available to address private needs. Some of this, undoubtedly, would have been spent in an effort to domesticate weather conditions.

<sup>27</sup>To be supplied.

nodules at the bottom of the ocean for example, and that it is “unfair” for those with this ability to be able to make us of it on their own accounts. Another way of putting this matter is that the landlocked nations would be at a disadvantage vis a vis those which border on the sea, and that the former are poorer than the latter, and thus it would be “inequitable” to allow a competitive race to take advantage of such watery resources.

The implication seems to be better that no one should be able to own aqueous possessions than that the rich be afforded this opportunity. One difficulty with this position is that it equates “equity” or “fairness” with “egalitarianism.”<sup>28</sup> But nothing could be further from the truth. If it were so, then advocates of this position would be willing to give up their own “excessive” intelligence, or IQ points, were this possible, to their less intellectually well endowed brethren. That no one has even taken this position shows that even its advocates shrink in horror from the logical implications of their own system.

Insofar as is the economic well being of the poor of the earth is concerned, it is clear that the wealth of the less fortunate would be enhanced, not worsened, by allowing economic opportunity to the rich. This is because economic development is a positive, not a zero sum game. Under capitalism, the wherewithal enjoyed by both parties to a transaction, at least in the ex ante sense, is increased. The rich do not increase their income at the expense of the poor; rather, their income rises by enriching the less well to do. It is no accident that the poor in the more capitalist west enjoy a standard of living that is the envy of those at the bottom of the income distribution, and even in the middle of it, in countries infected by coercive socialism<sup>29</sup>.

#### 7. Monopoly

There is the fear that under private ownership of seas, there could be monopolistic encroachment. For example, A owns an island which is completely surrounded by ocean<sup>30</sup>, and B owns the surrounding patch of water. Thus, A would be trapped on his island prison. Some property rights for A!

But a moment’s reflection should convince us that this is an unlikely if not an impossible situation.<sup>31</sup> First of all, the primary and first user of the waterway surrounding island A is likely to be A himself. According to homesteading theory, A would thus be the rightful owner of the surrounding aqueous area, not B. Second, if B first homesteaded the water, and only then, later, did A come upon the island to take up ownership over it, the latter would never have done so unless his access and egress rights were clearly specified in such a manner so as to not preclude the economic viability of ownership of the island in the first place. Third, there are airplanes and

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<sup>28</sup> To be supplied.

<sup>29</sup> See on this, to be supplied.

<sup>30</sup> This is by definition.

<sup>31</sup> A similar objection with regard to private roads and streets has been dealt with in Block, Walter, "Free Market Transportation: Denationalizing the Roads," Journal of Libertarian Studies: An Interdisciplinary Review, Vol. III, No. 2, Summer 1979, pp. 209-238, see footnote 13, supra.

helicopters available, at least in the modern era<sup>32</sup>.

## II. The Case in Favor of Full and Complete Privatization

Notwithstanding all the objections in the foregoing, there are good and sufficient reasons to contemplate the privatization of bodies of water. With this introduction, we are now in a position to consider some of them.

The thesis of the present paper is the all bodies of water should be fully and completely privatized. Consider the ocean in this regard. This would mean not merely that fishing should be limited to those who purchase rights to do so, but that the whole kit and kaboodle would be treated in much the same way as are land holdings<sup>33</sup>. That is, the surface of the ocean would be owned, just as railroads presently are, at least in the U.S., and just as roads and highways would be, at least as contemplated by authors who advocate such a situation<sup>34</sup>. This is not to say that it is contemplated that all of the oceans, every single cubic foot of them, should immediately be privatized. Many of them are as presently worthless as is some of the more out of the way acreage in Alaska, Antarctica and Siberia.<sup>35</sup> All we are deliberating upon is the legal status of these places. At present, it is impossible to own them both because the law does not allow it,

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<sup>32</sup> This of course invites discussion of ownership of the relevant air travel rights, a topic we address below.

<sup>33</sup> There are several publications whose titles indicate they are compatible with this very radical enterprise, but they are misnomers. For example Anderson, Terry L., and Leal, Donald R., Free Market Environmentalism, San Francisco: Pacific Research Institute, 1991 call their chapter 9 “Homesteading the Oceans,” a policy taken seriously in the present paper, but these authors discuss only schemes to quasi privatize fish; similarly the title employed by Runoflsson, Birgir, “Fencing the Oceans,” Regulation, Summer 1997. pp. 57-62 is misleading in that it also advocates only individual transferable quotas (ITQs) in fish, as its subtitle (“A Rights-Based Approach to Privatizing Fisheries”) makes clear. A similar analysis applies to Eckert, Ross D., The Enclosure of Ocean Resources: Economics and the Law of the Sea, Stanford, CA: Hoover Institution Press, 1979. For a critique of tradeable emissions rights (TERs), the air analogue of ITQs in the water, see McGee, Robert W. and Walter Block, “Pollution Trading Permits as a Form of Market Socialism, and the Search for a Real Market Solution to Environmental Pollution,” Fordham University Law and Environmental Journal, Vol. VI, No. 1, Fall 1994, pp. 51-77. Jeffreys, Kent, “Who Should Own the Ocean,” Competitive Enterprise Institute Update, No. 8, August 1991, pp. 1-2, perhaps comes the closest of the material cited in this footnote to my own vision of full water privatization, but even it focuses mainly on the problem of over fishing, and contemplates “permitting ... outright ownership of limited ocean areas. For example, offshore rigs...” But why not outright ownership of all as opposed to “limited” ocean areas? Private ownership of offshore rigs, moreover, is already a staple of present sea law.

<sup>34</sup> See footnote 13, supra.

<sup>35</sup> Actually, these are particularly inept examples, in that land in none of these three places is fully open for private holdings.

and, in many cases<sup>36</sup>, ownership is not yet economically viable. What is being advocated is a change in the law, such that those parts of the watery domain for which private property is now economically workable would be allowed at once to be owned, and that more and more of them could come to be owned when their economic status changed so as to make this a paying proposition.

One clear benefit would be that world GDP would rise. At present, the oceans and seas account for some 75% of the earth's surface, but only zx% of world GDP. It need not be the case that each and every acre of the earth's surface account for the same proportionate contribution to GDP as every other. Deserts are less productive than fertile land. But at least a large part of the vast disparity between productivity on land and in and on water must be due to the beneficial effects of private property rights on land which do not apply to water.<sup>37</sup>

On land, man went through the hunting and gathering stage, during which his standard of living was appropriate to the stone age. When he graduated from this precarious existence to one of farming, his standard of living exploded in an upward direction, as did sustainable population size. After that came manufacturing, and then the information age, with similar upward spurts in how well man could live, and how many of this species could be supported.

As far as the seas are concerned, however, we are still back in a cave man type of development, where hunting and gathering are in the main the only avenues open to us. It was not until the institution of private property took hold on the land that farming, herding and later developments could be supported. It is a well known fact, at least within the free market environmental community<sup>38</sup>, that the cow prospered, due to private property rights which could avert the tragedy of the commons, while the bison almost perished as a species due to lack of same. Nowadays, happily, this problem has been remedied with regard to the buffalo.<sup>39</sup> But the whale, the porpoise, edible fish and other sea species are dealt with, at present, in precisely the same manner which almost accounted for the disappearance of the bison.

ITQs, of course, are a vast improvement over non ownership, with attendant and uneconomic over fishing. But they constitute only a quasi private property rights system, not the pure form of this institution. In order to see this, consider imposing ITQs on buffalo, or elephants. This would mean that these animals would still be free to roam as they wished, but it would be legal for only certain people to be able to hunt them. The point is, we would still be in the hunting stage of human existence with regard to such species. But if economic history has

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<sup>36</sup> Apart from those areas of the seas which are located near population centers. There is no doubt that did the law but allow it, for example, private individuals would be willing, and more than willing, to own the Hudson River.

<sup>37</sup> See on this the large "tragedy of the commons" literature. Indeed, one could expand this so as to include the literature on the failure of socialism, "water socialism" in this case.

<sup>38</sup> To be supplied

<sup>39</sup> And other previously endangered species also, such as the elephant, the rhinoceros, the alligator. See on this...

taught us anything, it is that herding is far more efficient than hunting. (E.g., corralling fish in the open ocean is far more effective than fishing, or hunting, for them).

This scenario assumes, of course, that the necessary complementary technological breakthroughs occur, such as either genetic branding, or perhaps better yet, electrified fences, which can keep the denizens of the deep penned in where deep sea fish farmers want them. Yes, this seems unlikely at present, given that under present law there would be no economic benefit to such inventions. But this is due, in turn, not to any primordial fact of nature or law. Rather, it is because the law has not yet been changed so as to recognize even the possible future scenario where ocean privatization would be economic. The public policy recommendation stemming from this analysis is merely that the law should now be changed so as to recognize fish ownership in a given cubic area of ocean when and if such an act becomes technically viable. Then, whether or not it actually occurs is only an empirical question. It will, if and only if the complementary technology is forthcoming to make it feasible. But under this ideal state of affairs, there would be no legal impediment, as there now is, in this direction. That is, suppose that the needed innovations never occur, or are always too expensive, compared to the gains to be made by herding fish instead of hunting them. Then, of course, there can be no private property rights used in this manner in the ocean, as a matter of fact. But as a matter of law, things would still be different under the present proposal. There would always be the contrary to fact conditional in operation that if technology were such, then it would be legal to fence in parts of the ocean for these purposes. Under this state of affairs, there would be no legal impediments to the development of the requisite technology.<sup>40</sup>

Another benefit would be making the earth a more habitable place in which to live. Consider in this regard clouds, flooding, fog, hurricanes, storms, tidal waves, tornados, torrential rain, tsunamis, typhoons, whirlpools, winds, etc. At present, these are considered acts of God. If the oceans and the air, from which and in which these disasters emanate, were allowed by law to be owned by firms or individuals, at least in principle, this might well set up the first steps in mankind's long journey to quelling these "natural" disasters. How else could this ever be done, other than by employing the institution of private property rights, which is responsible for so much else we include under the category of "good works?"

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<sup>40</sup> It is on this point that the Chicago School analysis of property rights goes wrong. In that perspective, private property rights only arise when technology, an exogenous force, makes them economically practicable. There can be no private property rights in the ocean unless and until electric sea fences are invented. Science is the dog, the law is the tail that is wagged. In contrast, in the libertarian vision which underlies the present paper, technology is endogenous. It is the tail that is wagged by the legal dog. Private property rights to anything will always be recognized in law, as a matter of course, stemming from homesteading: when and if ocean owners stake claims, based on mixing their labor with this element, for which new presently non existing technology is available, then it will be recognized. The difference in this case is a subtle one: in the libertarian legal code, the law gives incentives for such innovations, by guaranteeing recognition of such property titles when they are achieved; in the Chicagoite tradition, the law does not. For the Chicago view of property rights, see ... For the libertarian critique, see .... For the debate between Block and Demsetz on these matters see ....

### III. Foundations

#### 1. Libertarian

Let us now consider a theory of ownership in bodies of water which I will characterize as “libertarian,” or “Lockean” or as one based on homesteading. An almost entirely accurate rendition of this philosophy is offered by Trelease, Frank J.<sup>41</sup>:

“The Code is designed for an easterner seeking a new water law for his state. He should clearly understand this choice. To help him, I offer an analogy to another resource with which he is quite familiar, and which like water must be wisely used, protected, sometimes preserved from use, and which must be shifted from old uses to new and more desirable uses as times and needs change. *Think land*. Land is just as valuable and indispensable a resource as water. Our lives and our wealth depend upon it. The government, the ultimate source of title, wishes to see that the resource is put to its highest and best use. It could do this administratively. A ‘land bureaucrat’ could allow its temporary use for particular regulated purposes at will or for a term of years, but when a new or better use is seen, reallocate it by moving off the present tenant and installing a new one. Instead, the government allocates the land in discrete and identifiable parcels, as private property. The land laws make these property rights very firm and secure. Land is then available for use by individuals to produce wealth. Since each person will try to make the best use of it that he can, the total of individual wealth will approach the production of maximum national wealth. Yet new and more productive uses by a different person may come to be seen desirable. Since the land is a valuable asset, if it were to be transferred to another person without compensation, the first holder would be impoverished and the later enriched. Therefore, the laws provide that the property rights are not only secure but are voluntarily transferrable. The land can be bought by the new user for the new purpose by paying the owner a price. In most cases the government is willing to let the change occur because it knows the new use is better than the old, since otherwise the buyer could not afford to pay the seller the capitalized values of the seller’s use plus a profit..

“How is the situation different is we say ‘water’ instead of ‘land’ in the above paragraph?”

Although Trelease does not answer his own question, based on the context it seems a rhetorical one. The clear answer is that there is no difference whatsoever between land and water as far as privatization is concerned. This is the essence of the libertarian theory of water privatization: aqueous resources should be treated exactly the way land would be dealt with, in a fully free enterprise society<sup>42</sup>.

#### 2. Riparian, appropriation

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<sup>41</sup> “The Model Water Code, The Wise Administrator and the Goddam (sic!) Bureaucrat,” 14 Nat. Resources J. 207 (1974) [this can also be found in Trelease, Frank J., Water Law, Cases and Materials, third ed., American Casebook Series, St. Paul, MN: West Publishing Co., 1979, p. 9]

<sup>42</sup> Trelease himself, *ibid.*, makes several concessions as regards land ownership for “zoning, land use planning laws,” and condemnation for “a public purpose.” This would be incompatible with the libertarian legal code, whether on land or in water.

In contrast to this libertarian view, there are two main legal precedents at work in the US as concerns water rights. They are the main competitors with the libertarian theory. They are, respectively, riparian ownership, in which the rights to the use of a body of water is given to the abutting landowners, and appropriation, wherein use of the water establishes not ownership, but the right to continued use.

States Posner in this regard:

“In the eastern states, where water is plentiful, water rights are communalized to a significant extent, the basic rule being that riparian owners (i.e., the owners of the shore of a body of water) are each entitled to make reasonable use of the water – a use that does not interfere unduly with the uses of the other riparians. In the western states, where water is scarce, exclusive rights can be obtained by appropriation (use).”<sup>43</sup>

And in the view of Trelease:

“Riparian rights are governed by the common law. The modern form of riparian law gives each owner of land bordering on the stream a right to make a reasonable use of the water and impose liability on the upper riparian owner who unreasonably interferes with that use. The right exists whether or not the water is actually used, and a use may be initiated at any time. The use must usually be made on the riparian land and within the watershed of the stream. A non riparian who uses water is liable to any riparian he injures and conversely a riparian who initiates a use which interferes with a prior non-riparian use is subject to no liability. Some states do not give effect to attempts of riparian proprietors to grant their water rights to non-riparians.

“Appropriative rights are governed primarily by statute. An appropriation may be described as a state administrative grant that allows the use of a specific quantity of water for a specific beneficial purpose if water is available in the source free from the claims of others with earlier appropriations. The right is initiated by an application for a permit. The place of use is not restricted to riparian land or even to the watershed. The right may be sold and its use or place of use changed, and it may cease to exist if it is not used.

“Riparian law, developed in the green countryside of England and Eastern America, seems to be based on the unspoken premise that if rights to the use of water are restricted to those persons who have access to it through the ownership of the banks and if those persons will restrict their demands on the water to reasonable uses, there will be enough for all. Appropriation law, developed in the arid West, is usually thought of as a system for water-short areas. Where there is not enough for everyone, the rule of priority insures that those who obtain rights will not have their water taken by others who start later. The theory is that as demands arise water rights to supply them will be given out until the water is exhausted, after which those with new demands must purchase rights.”<sup>44</sup>

In contrast with these “mainstream” theories of water ownership, the libertarian theory of property in water is more radical than either of them, in that it applies to all bodies of water, not

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<sup>43</sup>Posner, Richard A., Economic Analysis of Law, third ed., Boston: Little Brown, 1986, pp. 34-35.

<sup>44</sup> Trelease, Frank J., Water Law, Cases and Materials, third ed., American Casebook Series, St. Paul, MN: West Publishing Co., 1979, pp. 10-11.

just streams or rivers, as do the other two. It is very similar to appropriation; after all, “appropriation” is practically a synonym for “homesteading.” But there are subtle differences between the two. How do the three systems compare with one another: the riparian, the appropriation, and the libertarian. The following table affords a summary look:

	Appropriation	Riparian	Libertarian
1. How established	Use	Abutting land ownership	Use*
2. Can sell?	Yes	No	Yes
3. What get?	Specific quantity	Reasonable use	Whatever
4. Permanent?	Yes		Yes
5. Absentee owner?		Yes	Yes
6. Where must use	Anywhere	On riparian land only	Anywhere
7. Application	Streams, rivers	Streams, rivers	All bodies of water

As can be seen, the appropriation and the libertarian system are very similar. Let us explore their differences, if only to defend against the claim that they are identical. One clear difference is in terms of 7. Application. Appropriation applies only to streams and rivers (as does the riparian theory of rights), while the libertarian applies to all bodies of water, including those two but also oceans, seas, etc. Another difference concerns 3. What get? In actual practice, the appropriation owners each get a small share of the total water available. While this might upon some occasions be the libertarian conclusion as well, it is also possible under the latter system, but not the former, for one person or firm to take over ownership of an entire body of water. If Henry Hudson not only discovered the Hudson River, but mixed his labor with it in its entirety before anyone else came upon the scene, then under the libertarian provision he could be the owner of this entire river.

