ADAPTING TO POST-OIL FUTURES: COMMUNITY ACTION, THE URBAN SUSTAINABILITY RETROFIT, AND THE WRITINGS OF JAMES HOWARD KUNSTLER

BRIAN MULLER*

James Howard Kunstler has written prolifically about the problems of sustainability and livability in the modern American city. This Essay discusses Kunstler's view of adaptation and compares it to the various efforts underway in cities across the United States to address problems of climate change and resource depletion, which I generally term the urban "sustainability retrofit." Kunstler describes an adaptive path that is brutal, driven by resource scarcity, social collapse, and environmental disaster. Although Kunstler presents an extreme view, this Essay argues that his books are important because they demand that readers reflect about the conditions under which sustainable and livable cities can be created, and the capacities of our polity, institutions, and society to face monumental problems such as climate change. This Essay draws on Kunstler's writings to construct a framework for assessing the effectiveness and possible consequences of the sustainability retrofit.

INTRODUCTION

James Howard Kunstler has written prolifically about the problems of sustainability and livability in the modern American city. His books have been influential as critiques of city planning, consumer society, and technocratic social manage-

* Brian Muller is an Associate Professor at the University of Colorado Denver. He received a Bachelor of Arts degree from Yale University and a PhD in urban and regional planning from the University of California at Berkeley. Muller had a twenty-year career as a policy and program administrator in federal and state government, focusing in the areas of community economic development and sustainable land-use planning. He currently teaches courses in land-use and environmental planning. Muller's research interests include land regulation, the dynamics of urban growth and decline, and environmental assessment methods.

ment in general.[1] Although these books lead the reader on a painful journey through the landscapes of urban blight and decline, they ultimately have a hopeful message.[2] Kunstler's work is thus strongly in the tradition of utopias and dystopias from Thomas More to Edward Bellamy and Douglas Adams.[3] While he offers a radical critique of American society, at the same time he takes traditional concepts in American urbanism—the small town, neighborhood, and utopian community—and weaves them into a vision of the future.[4] This future is a familiar, pre-industrial place comfortably in the American grain.[5] However, the path from here to there is brutal and driven by resource scarcity, social collapse, and environmental disaster.[6] For example, in *The World Made by Hand*, Kunstler's protagonist abandons not only oil but also modernity itself, including the state, national and regional economies, and planning, at least on a large scale.[7] Beneficial urban change occurs not as a product of institutional evolution (i.e., instrumental innovation and rational process), but rather through an anarchic process of community development and bootstrapping: a progression from traumatic shock to self-awareness, acquisition of new skills, and the organic emergence of new social forms.[8]

In this Essay, I discuss Kunstler's view of adaptation and compare it to the various efforts underway in cities across the United States addressing problems of climate change and resource depletion,[9] which I generally term the urban "sustainability retrofit." Kunstler's utopia is a product of catastrophe and thus differs dramatically from the incremental institutional adaptation implicit in many of the related programs

1. *See* JAMES HOWARD KUNSTLER, THE GEOGRAPHY OF NOWHERE (1993) [hereinafter KUNSTLER, GEOGRAPHY]; JAMES HOWARD KUNSTLER, HOME FROM NOWHERE (1996) [hereinafter KUNSTLER, HOME].

2. *See* JAMES HOWARD KUNSTLER, WORLD MADE BY HAND 317 (2008) [hereinafter KUNSTLER, WORLD].

3. *See, e.g.*, DOUGLAS ADAMS, THE HITCHHIKER'S GUIDE TO THE GALAXY (1979); EDWARD BELLAMY, LOOKING BACKWARD (The New American Library 1960) (1888); SIR THOMAS MORE, UTOPIA (1516), *reprinted in* 36 HARVARD CLASSICS, at 143 (Charles W. Eliot ed., Ralph Robinson trans., P. F. Collier & Sons 1910).

4. *See* KUNSTLER, WORLD, *supra* note 2.

5. *See id.* at 317.

6. *See id.* at 24.

7. *See id.* at 316.

8. *See id.*

9. *See generally* ICLEI - Local Governments for Sustainability, http://www.iclei.org/ (last visited Aug. 31, 2009).

across the United States.[10] Nonetheless, Kunstler's vision is useful as a framework for assessing the policies and programs of the sustainability retrofit and provocative as a set of intellectual challenges to the people organizing it. Kunstler describes a social-psychological path to the post-oil economy—built on individual metamorphosis, local action, and the emergence of decentralized institutions—that implies fundamental critiques both of current policy and of the professional predispositions of planners, public managers, and other sustainability advocates who might be involved. Part I of this Essay describes Kunstler's vision. Part II discusses the sustainability retrofit underway in local governments and measures for assessing its effectiveness. Part III explores how Kunstler's vision can be used as a jumping off place for a reconceptualization of the sustainability retrofit.

I. KUNSTLER'S VISION

Issues of adaptation are a central theme in much of Kunstler's writing and are at the heart of his critique of how cities are managed. Kunstler's work suggests several different perspectives on adaptation. Two of Kunstler's books, the *Geography of Nowhere* and *Home from Nowhere*, are commentaries on urban sprawl and alternative urban design.[11] Kunstler decries the patterns of growth in postwar American cities but remains optimistic about the ideas of the New Urbanists who have argued for more compact urban forms, mixed land uses, and designs that encourage neighborhood interaction.[12] Kunstler suggests that New Urbanist design and planning approaches have the potential to reinvigorate community and a sense of place in American cities.[13] In his more recent work, including two books, *The Long Emergency* and *World Made by Hand*, Kunstler takes a darker turn.[14] He moves beyond critique of urban form to a broader discussion of both consump-

10. *See*, *e.g.*, MAYORS CLIMATE PROT. CTR., THE U.S. CONFERENCE OF MAYORS, SURVEY ON MAYORAL LEADERSHIP ON CLIMATE PROTECTION (2007), *available at* http://www.usmayors.org/climateprotection/climatesurvey07.pdf.

11. *See* KUNSTLER, GEOGRAPHY, *supra* note 1; KUNSTLER, HOME, *supra* note 1.

12. *See* Congress for the New Urbanism, Who We Are, http://www.cnu.org/who_we_are (last visited Aug. 31, 2009).

13. KUNSTLER, HOME, *supra* note 1, at 109–49.

14. *See* JAMES HOWARD KUNSTLER, THE LONG EMERGENCY (2005) [hereinafter KUNSTLER, LONG EMERGENCY]; KUNSTLER, WORLD, *supra* note 2.

tion patterns and resource scarcity and how these two forces will influence our survival as a society.[15]

Kunstler forecasts the collapse of the late twentieth-century lifestyle with its appurtenances such as transcontinental travel, electricity available at the flip of the switch, Wal-Mart, exurbs, and central government.[16] He argues that we will overshoot available resources and will not have the institutional or political capacity to address the resultant environmental and economic consequences.[17] Thus, massive social disruption will occur.[18] This collapse, however, is not the end of the world. Rather, Kunstler ultimately describes a hopeful vision in which the self-sufficient and neighborly qualities of small American communities become the seeds for a future world.[19] If we consider these books as a combination of allegory, forecast, and oracle, they provide a road map for the post-oil society. Our only way to get there, however, is by dissolving our primary institutions and investments and starting over again.

In Kunstler's most recent book, *World Made by Hand*, waiting is the dominant psychological state.[20] Kunstler describes a society on the verge of collapse due to a great epidemic that killed a sizeable portion of the population.[21] The protagonist, Robert Earle, is a laid-off marketing executive who moved from Boston to upstate New York.[22] He lives a forlorn existence, hanging on to the relics of his former life while slowly constructing a new one.[23] Robert plays the fiddle in a local band, uses his carpentry skills to barter for other goods, and grows his own food in the garden.[24] His wife died in the epidemic.[25] His son left to see the world and has not been heard from since.[26] Meanwhile, national and state institutions are in disarray.[27] There may or may not be a president.[28] Al-

15. KUNSTLER, LONG EMERGENCY, *supra* note 14, at 2–3.
16. *See id.* at 17–21.
17. *See id.* at 5–8.
18. *Id.* at 235–307.
19. *See id.* at 235–56.
20. *See* KUNSTLER, WORLD, *supra* note 2.
21. *See id.* at 169.
22. *Id.* at 23.
23. *Id.* at 19–27.
24. *Id.* at 21–25, 43.
25. *Id.* at 14.
26. *Id.* at 39.
27. *See id.* at 15.
28. *See id.*

though the Lieutenant Governor of New York can be found in his office, he fends off thieves with a huge revolver.[29] There are periods of ferocious heat as a result of climate change.[30] There are no working automobiles.[31]

The urban infrastructure is derelict.[32] Water is still working but only because the system was constructed long before.[33] It is lake-fed, low-tech, and gravity-flow. [34] Electricity comes on erratically, but its only benefit is to play the radio, which blasts out the fulminations of revivalist ministers.[35] Livestock for transportation are in short supply and are extraordinarily valuable.[36] Robert pulls a child's wagon around the city with his tools.[37] While the economy has collapsed, there is memory of and loyalty to the old economic forms.[38] Money is in circulation although it is not worth much.[39] The banker still pretends to work at Battenkill Trust, apparently with nothing to do.[40] The lawyer wears a tie that declares membership in some forgotten fraternal order.[41] Barter is the primary currency.[42]

Goods are either produced locally or regenerated through recycling.[43] Fortunately for the characters in this novel, the twentieth-century produced huge quantities of goods—appliances, cars, houses—that are now scattered across the countryside.[44] The post-oil economy is still living off the detritus of the oil age.[45] Home gardens have taken on huge importance, and the remaining local farms have become empires.[46] Professionals have taken up other trades—candle-making, carpentry, livery—although the health care professions continue.[47] Houses are so plentiful that they have little value.[48] The exur-

29. *Id.* at 171.
30. *Id.* at 115.
31. *See id.* at 19.
32. *See id.* at 25.
33. *Id.* at 196.
34. *Id.* at 25.
35. *Id.* at 20.
36. *Id.* at 25–26.
37. *Id.* at 25.
38. *See id.* at 105.
39. *See id.* at 9.
40. *Id.* at 101.
41. *Id.* at 102–03.
42. *See id.* at 105.
43. *See id.* at 31, 227.
44. *Id.* at 30–31.
45. *See id.*
46. *See id.* at 77–83.
47. *See id.* at 50–52.
48. *Id.* at 31.

ban lifestyle has shut down because residents have no easy way of getting into town for necessities.[49] The countryside is largely deserted and exurban houses are used for scrap.[50]

People respond to the collapse in different ways, causing four distinct societies to emerge.[51] One of these societies occupies a Hudson River estate.[52] It is led by an old-fashioned American aristocrat and managed as an efficient and largely self-sufficient farming community.[53] The second society is a evangelical religious colony occupying the old high school, guided by the oracular trances of a middle-aged woman called "Mother."[54] The third society lives in the trailer park and survives on the sale of recycled materials.[55] They are a gang of motor-heads without motors: physically violent, still passionate about rock and roll (Guns 'n Roses), and under the thumb of a charismatic tyrant.[56] The fourth group includes the remnants of the professions: lawyers, real estate agents, businessmen, and medical practitioners.[57] They are holding on to single-family houses, tattered career identities, and appearances of the traditional family.[58]

The residents of Kunstler's town cling to the expectation that the systems will reappear: they wait for electricity, wait to hear from the president, and wait for family members to return.[59] As Robert Earle comments, he is "sleepwalking through life."[60] The turning point of the novel comes with two violent crimes: an accidental murder of a young man and the beating of a respected community member by the motor-heads.[61] As a result, the community is sharply reminded that the legal system no longer functions.[62] A metamorphosis occurs, along with an emerging awareness of the possibilities of action.[63] The evangelicals are a strong motivator for this shift in community

49. *Id.*
50. *Id.*
51. *See id.* at 40–44, 77–83, 208, 250–63.
52. *Id.* at 77–83.
53. *Id.*
54. *Id.* at 258–62.
55. *Id.* at 28–31.
56. *Id.* at 42–44.
57. *See id.* at 101–03.
58. *See id.*
59. *See id.* at 15, 39.
60. *Id.* at 99.
61. *See id.* at 44, 282–83.
62. *Id.* at 58.
63. *See id.* at 59–62.

consciousness.[64] At this point, community members draw on their past—their training and memories of how things were organized before—as well as new, post-oil skills and types of knowledge.[65] They begin the work to redefine a justice system and a more robust local government.[66]

II. ASSESSING THE SUSTAINABILITY RETROFIT

World Made by Hand should be absorbed and ruminated on rather than sliced and diced. This Part ruminates on the contrasts between Kunstler's view of adaptation and a more optimistic perspective on historical change: the prospect that adaptations will kick in over a shorter term and help create pathways to a more stable, perhaps even more sustainable, economic and social future. Adaptation refers to our capacity to take technology and social organization from a previous period, modify it, and use it in changed circumstances. Kunstler paints a portrait of radical adaptation after a hard landing: the failure of national, regional and local institutions; the collapse of infrastructure; and the spread of social disorganization.[67] Rebirth occurs in the shape of a dramatically new society.[68] From a more optimistic perspective, adaptation is the cushion that supports a soft landing, an incremental adjustment without dramatic social and institutional dislocations. Soft landings are blessed by the angel of invention that lowers us to safety from a consumption bubble in which we are overinvested in things that do not work and underinvested in things that do work. At the extreme, economists have sometimes expressed an almost religious faith in the power of adaptation.[69] But much of the recent policy development around sustainability issues also reflects a fundamental faith in the opportunities for beneficial institutional change and soft landings.[70] Kunstler is a skeptic about the value of planning within current social and institutional structures; other researchers are also concerned about the sufficiency of local efforts to address climate change

64. *See id.*
65. *See id.* at 100–11.
66. *Id.*
67. *See id.* at 24.
68. *See id.* at 317.
69. *See* JULIAN L. SIMON, HOODWINKING THE NATION 32 (1999).
70. *See* About the Mayors Climate Protection Center, http://www.usmayors.org/climateprotection/about.htm (last visited Aug. 31, 2009).

and resource shortage.[71] I refer to the overall policy movement defined by these local efforts as the sustainability retrofit. This term describes the multitudinous initiatives underway at state, municipal, and neighborhood levels to reinvest in technologies that are more efficient in their use of resources, support healthier lifestyles and more livable places, and, perhaps, are more humane.[72] The critiques made by Kunstler and others are useful and suggest that planning and public managers should think concertedly about the probable effectiveness of the sustainability retrofit.[73] Although the retrofit is only recently launched and little information has been generated about outcomes, its significance can be evaluated in three dimensions: the extent and scale of related policy and programmatic change, the underlying commitment to this change within local governments and political systems, and, most important, the effects of this policy and programmatic change on the built environment.

First, to what extent and at what scale are retrofit efforts being adopted by local governments around the country? There is little data on how many communities are involved in sustainability initiatives and in what kinds of projects. ICLEI and others have been working to evaluate the dimensions of such initiatives.[74] Clearly the state and local policy landscape is shifting, but how broad and deep are these changes? Program surveys and inventories suggest that a large number of efforts are underway at the time of this writing. Fifty states and territories offer financial incentives for renewable energy technologies.[75] More than forty states offer tax benefits for renewable energy systems.[76] There are 768 government, utility, and nonprofit incentive programs across the country supporting re-

71. *See* Roger Pielke Jr. et al., *Dangerous Assumptions*, 452/3 NATURE 531 (2008).

72. *See* MAYORS CLIMATE PROT. CTR., *supra* note 10.

73. LEEDS and other certification programs focus on evaluation although typically at the building or neighborhood level. *See, e.g.*, U.S. Green Building Council: Project Certification, http://www.usgbc.org/DisplayPage.aspx?CMS PageID=64 (last visited Aug. 25, 2009).

74. INTERNATIONAL COUNCIL FOR LOCAL ENVIRONMENTAL INITIATIVES ("ICLEI"), 2003 TRIENNIAL REPORT 17 (2003), *available at* http://www.iclei.org/documents/iclei_tiennial_00_03.pdf.

75. *See* NAT'L GOVERNORS ASS'N, CLEAN AND SECURE STATE ENERGY ACTIONS—2008: A REPORT ON THE CLEAN ENERGY ACTIVITIES OF THE NATION'S STATES AND TERRITORIES 14–109 (2008), *available at* http://www.nga.org/Files/pdf/0807ENERGYACTIONS.PDF (data tabulated from individual state descriptions).

76. *See id*. (data tabulated from individual state descriptions).

newable energy technologies[77] and 1090 programs supporting energy efficiency.[78] A large number of localities have established incentive programs such as fee waivers, expedited permitting, and equipment replacement subsidies to encourage the use of renewable energies.[79] Over 900 mayors have signed on to the Climate Action Agreement.[80] It is important to be cautious in interpreting the dimensions of the sustainability retrofit, however, because of the pressures on policymakers for "greenwashing," that is, redefining programs with other types of missions in terms of sustainability.[81] Some of the programs described in these inventories may reflect the rebranding and marketing of other types of initiatives.

Second, how strong is the commitment to retrofit programs on the part of local political leadership, stakeholders, the public, local agency staff, and related state and national institutions? Some evidence again suggests that a wide variety of policy organizations are participating in the sustainability retrofit, including community groups, different divisions of city government, transit agencies, and metropolitan planning organizations.[82] Activities also appear to involve many different economic organizations, including small businesses, chambers of

77. N.C. Solar Ctr. & Interstate Renewable Energy Council, Database of State Incentives for Renewables & Efficiency: Financial Incentives for Renewable Energy, http://dsireusa.org/summarytables/finre.cfm (last visited Aug. 25, 2009) (data tabulated from program totals).

78. N.C. Solar Ctr. & Interstate Renewable Energy Council, Database of State Incentives for Renewables & Efficiency: Financial Incentives for Energy Efficiency, http://dsireusa.org/summarytables/finee.cfm (last visited Aug. 25, 2009) (data tabulated from program totals).

79. *See id*. See, for example, N.C. Solar Ctr. & Interstate Renewable Energy Council, Database of State Incentives for Renewables & Efficiency: Incentives/Policies by State: California: Incentives/Policies for Renewables & Efficiency, http://dsireusa.org/incentives/index.cfm?re=1&ee=1&spv=0&st=0&srp=1&state=CA (last visited Aug. 25, 2009), for the description of an individual state program.

80. Mayors Climate Protection Center, http://www.usmayors.org/climate protection/revised/ (last visited Aug. 25 2009).

81. See EnviroMedia Social Marketing & the University of Oregon, Greenwashing Index, About Greenwashing, http://www.greenwashingindex.com/what.php (last visited Aug. 25, 2009), for a definition of greenwashing, and The Unsuitablog, http://thesietch.org/mysietch/keith (last visited Aug. 25, 2009), for examples of one blogger's interpretation of governmental greenwashing.

82. For example, task forces may have had some influence over the design of many municipal sustainability initiatives. *See, e.g.*, Seattle's Green Building Task Force, http://www.seattle.gov/ENVIRONMENT/GBtaskforce.htm#GBMembers (last visited Aug. 25, 2009). The role of non-governmental groups requires further research.

commerce, and certification programs.[83] Federal and state agencies are engaged through activities such as provision of financial incentives and development of framework statutes and rules such as building code requirements.[84] Much of the fundamental institutional innovation appears to be occurring at a local level, although the locus of innovation needs to be evaluated systematically. In general, much more work is needed before we have a clear picture of the depth of commitment within local political systems to the sustainability retrofit.

Third, the million-dollar question: what are the tangible outcomes of the sustainability retrofit in terms of its effect on buildings, infrastructure, and the human landscape? Has it resulted in performance improvements such as transportation, land use, and building efficiencies? Again, while there is little empirical data, the trend appears to be toward modification of a sizeable percentage of our building stock over the next decade or two.[85] Indeed, there is evidence that transportation modes and investments are also being reorganized, although more slowly.[86] This reorganization requires both the retrofit of a large, fixed infrastructure and the widespread modification of travel behaviors. The reconfiguration of land uses—the underlying physical structure of cities, which organizes and expresses patterns of human activity—lags further behind. Land-use change may lag because it depends most often on incremental development over time and a high degree of social coordination.[87] After we understand these outcomes, we must then assess whether they are of the appropriate type and of sufficient scale to address the magnitude of problems that Kunstler and many others observe.

---

83. *See id.*

84. *See* NAT'L GOVERNORS ASS'N, *supra* note 75, at 14–109.

85. Industry numbers suggest rapid growth in the green building market. *See, e.g.*, U.S. Green Building Council, Green Building Facts: Green Building by the Numbers (Apr. 2009), http://www.usgbc.org/ShowFile.aspx?DocumentID=3340 ("The overall green building market (both non-residential and residential) is likely to more than double from today's $36–49 billion to $96–140 billion by 2013.").

86. Note, for example, the fact that passenger trips for public transportation modes, including bus, commuter rail, light rail, and ferry, grew more rapidly than population between 1995 and 2006. JOHN NEFF, AM. PUBLIC TRANSP. ASS'N, 2008 PUBLIC TRANSPORTATION FACT BOOK 7 fig.1, 19 tbl.5 (2008), *available at* http://www.apta.com/resources/statistics/Documents/FactBook/APTA_2008_Fact_Book.pdf.

87. See BERKE ET AL., URBAN LAND USE PLANNING 36 (2007), for a discussion of social coordination.

III. LEARNING FROM KUNSTLER

In *World Made by Hand*, Kunstler describes a path for adaptation to a post-oil economy, a journey through personal crisis, individual and local action, and the creation of new forms of social organization.[88] The characters in Kunstler's book respond to the post-oil social crisis from the bottom up, beginning with direct experience and metamorphosis.[89] This depiction parallels what Kunstler has suggested elsewhere about the capacity of large organizations and rational planning systems to address the crises of climate change and resource depletion.[90] Large organizations and rational systems tend to fail during these crises because of underlying ideological contradictions as well as related social and political collapse. In order for individuals to act, however, they must overcome denial, a natural state during a period of crisis.[91] Robert Earle, for example, went through years of denial before taking action, and the moment at which he pushes beyond denial is the pivotal point in the book.[92] Earle discusses his experience with others in the community, a collective understanding emerges, and the community begins to agree on processes for handling common issues.[93]

Kunstler's focus on localism and individual metamorphosis suggests a set of questions about the organization of the sustainability retrofit and what this organization implies for how decisions are made, power and benefits are distributed, and social rules are constructed. If the retrofit evolves as a set of top-down policies, organized, for example, around standardized building codes and a national power grid, will individual behavior and local political commitment shift appropriately and quickly enough to address the crisis? Will benefits, incentives, and management of retrofit policies be distributed widely enough to encourage broad engagement? On the other hand, if the retrofit evolves as a relatively decentralized policy system, will national and regional institutions support the system, for example by improving accessibility to capital? Are local tech-

88. *See generally* KUNSTLER, WORLD, *supra* note 2.
89. *See generally id.*
90. *See* KUNSTLER, LONG EMERGENCY, *supra* note 14.
91. *See* KUNSTLER, WORLD, *supra* note 2, at 105–11.
92. *See id.*
93. *Id.*

nical and financial resources and household commitments adequate for the task?

Retrofit policy is preceded by other historical planning movements with comparable elements, and it is useful to compare the retrofit to earlier, similar efforts in urban history. American cities have been remade many times, profoundly modifying the nation's urban fabric, often as a result of conscious policy.[94] Examples of these movements include the nineteenth-century efforts to dispose of waste more effectively, improve drinking water quality, reduce fire risk, and, in general, create cities that were more sanitary, livable, and safe.[95] These efforts resulted in the development of public water and sewer systems and modern fire departments. Likewise, the parks and beautification movement undertook to retrofit existing urban fabric around environmental values.[96] In the early twentieth century, cities were reorganized for transit and railroads and to support larger-scale commercial and industrial activities.[97] Many of the early plans were designed in part to address these needs.[98] Urban development is another example, a response to perceptions that certain sections of the city are "blighted," deserted by the market because of inefficient urban fabric and outdated structures.[99]

These historical movements have several implications for current retrofit policy. First, urban retrofits—even of significant dimensions—can occur quickly. New York City organized the public health response to cholera over a short period, and it led to widespread clean-up of contaminated water and reform of unsanitary disposal practices.[100] Second, many of these movements were motivated by disasters of various kinds, or at least perceptions of significant risk, including fire, epidemic, economic instability, and social unrest.[101] Third, many of these reforms were organized, at least in large measure, through community action. In New York City, for example, movements to improve building safety and sanitation relied largely on local

94. *See, e.g.*, EDWIN G. BURROWS & MIKE WALLACE, GOTHAM: A HISTORY OF NEW YORK CITY TO 1898 563–603, 774–95, 917–28, 1059–70 (1999).

95. *Id.* at 587–601.

96. *See* MEL SCOTT, AMERICAN CITY PLANNING SINCE 1890 47–109 (1995).

97. *See* BURROWS & WALLACE, *supra* note 94, at 1041–44, 1053–58.

98. *See, e.g.*, DANIEL H. BURNHAM & EDWARD H. BENNETT, PLAN OF CHICAGO 61–78 (The Commercial Club 1908).

99. *See* SCOTT, *supra* note 96, at 462–66.

100. BURROWS & WALLACE, *supra* note 94, at 920.

101. *See, e.g.*, *id.* at 587–603.

financial resources, innovations, and leadership.[102] These historical perspectives echo aspects of Kunstler's narrative related to the effects of disaster and the role of community processes. These movements were also a product of other social forces, notably the emergence of professions such as architecture, the development of technical capacities such as in civil engineering, the growth of organizations such as city governments, and the establishment of formal processes such as permitting.[103] But in *World Made by Hand*, Kunstler illustrates the failure of these instruments of modern planning and management.[104] His utopia is a handyman's world in which individuals have multiple skills but little specialization, and collective problems are managed through informal processes.[105] Thus, the book challenges both the core principles of modernity such as bureaucratic rationality and the intellectual foundations of professions such as public administration and planning.

These earlier retrofits organized cities in various ways: through building codes, comprehensive plans, federal policies, private investment, and state programs.[106] Each of these different modes of organizing change has advantages and disadvantages. Critics of the early twentieth-century plans thought the plans were too focused on business interests. For example, Lewis Mumford argued that the New York plan served downtown property interests.[107] Critics of urban redevelopment, like Jane Jacobs, objected to its management centralization, disregard of neighborhood and community, and failure to engage people in decisions.[108] These issues parallel questions raised above concerning the degree to which communities are engaged, benefits distributed, and neighborhood values respected. At the end of the day, the sustainability retrofit movement may spawn its own generation of Jane Jacobs and Lewis Mumfords. These are dangers inherent in retrofit policy and should remain a focus of research attention as the current retrofit unfolds.

---

102. *See id.* at 919–26.
103. *See generally* SCOTT, *supra* note 96.
104. *See* KUNSTLER, WORLD, *supra* note 2, at 166–71.
105. *See id.* at 25, 105.
106. *See generally* SCOTT, *supra* note 96.
107. *See* Lewis Mumford, *The Plan of New York*, 71 NEW REPUBLIC 121, 121 (June 15, 1932).
108. *See* JANE JACOBS, THE DEATH AND LIFE OF GREAT AMERICAN CITIES 3–25 (1961).

At present, there are indications that retrofit policy is taking root. First, the United States appears to be organizing a substantial policy adaptation to problems of climate change and resource depletion.[109] Second, there are signs that innovations in local retrofit policy and programs are occurring at a significant rate.[110] Finally, there appear to be tangible, if slow, improvements in the efficiency of housing stock and other buildings, the use of public transportation, and, in many parts of the country, the compactness of urban form.[111] Altogether, these indications provide some basis for hope that the shocks of energy price increases and the financial, credit, and housing crises have set in motion a virtuous cycle of adaptation. However, Kunstler's skepticism about the retrofit movement raises issues that can be used to frame an assessment of its effectiveness. Most important, Kunstler's focus on localism suggests key questions about the role of community and individual action in the retrofit movement. Personally, I think it improbable that the retrofit movement will spawn radical social reorganization in line with Kunstler's vision. A geography dominated by massive, dense cities seems a more likely future than one of small towns and quasi-rural life. Nonetheless, Kunstler's books are important because they demand that readers reflect about the conditions under which sustainable and livable cities can be created and the capacities of our polity, institutions, and society to face monumental problems such as climate change.

CONCLUSION

This discussion leads us to a final, allegorical reading of Kunstler's work. Perhaps there is an opportunity for each of us to be a Robert Earle in our own place by working to rebuild communities from the ground up, if not literally by hand, then at least through hands-on involvement. Allegory is probably a too-comfortable interpretation for Kunstler, though. I imagine he intends something more challenging. In a recent *New York Times* column, Frank Rich discusses the American propensity to deny the extent of the urban problems we face.[112] Rich sug-

109. *See supra* text accompanying notes 53–59.
110. *See supra* text accompanying notes 53–59.
111. *See supra* text accompanying notes 64–65.
112. Frank Rich, Editorial, *What We Don't Know Will Hurt Us*, N.Y. TIMES, Feb. 22, 2009, at WK10, *available at* http://www.nytimes.com/2009/02/22/opinion/22rich.html.

gests that the depopulation of the Lower Ninth Ward of New Orleans may be a portent for American suburban communities hurt severely by the housing crisis.[113] By extension, depopulation may also be in the future for other communities that are unsustainably auto-dependent, credit-dependent, water-dependent, energy-dependent, or otherwise subject to environmental or economic risks. Rich writes, "at a certain point, as in every turn of our culture of denial, outside events will force the recognition of harsh realities."[114] In *World Made by Hand*, there are many years of denial before Robert Earle has a shock of self-recognition and begins to rebuild.[115] We can only hope that we will arrive at this place soon: that we have gone through our period of waiting, that we are beginning to rebuild, and that the opportunity for adaptation is at hand.

113. *Id*.
114. *Id*.
115. KUNSTLER, WORLD, *supra* note 2, at 105–11.