

ISSN 2291-5079

Vol 4 / Issue 2+3 2017

COSMOS + TAXIS

Studies in Emergent Order and Organization



COSMOS+TAXIS

Studies in Emergent Order and Organization
VOLUME 4 / ISSUE 2+3 2017



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SPECIAL ISSUE ON JANE JACOBS

SANFORD IKEDA
GUEST EDITOR

Jane Jacobs' writings span several disciplines—including ethics and most especially economics—but she is best known for her contributions to and her critique of urban planning, design, and policy. The articles here reflect primarily that side of her work. Many of those whom she influenced in academia, policy, and activism took the occasion of her one-hundredth birthday in 2016 to celebrate those contributions through lectures, biographies, and various events and publications. This issue of COSMOS + TAXIS is offered in that same spirit.

I am especially pleased that it includes the contributions of a diversity of scholars—with backgrounds in economics, urban policy, urban planning, geography, architectural history, and engineering—with a diversity of insights expressed from the perspectives of epistemology, intellectual history, spatial analysis, urban history, private cities, mercantilism, and of course spontaneous order; and ranging in approach from the theoretical to the historical to the applied. Indeed, we learn from Jacobs that from the diversity of the living city spring experiment, creativity, and surprise; and that pertains equally to the realm of living ideas. Read these pages and be surprised!

Jane Jacobs as Spontaneous Economic Order Methodologist: Part 1: Intellectual Apprenticeship

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The scenes that illustrate this book are all about us. For illustrations, please look closely at real cities. While you are looking, you might as well also listen, linger and think about what you see.

—Jane Jacobs, *The Death and Life of Great American Cities*, Random House (1961, n.p.)

Abstract: As measured by citation counts, attempts to quantify “Jacobs spillovers,” and a growing number of books about or inspired by her work, academic interest in the work of urban theorist Jane Jacobs is at an all-time high. Although most commentators are still drawn to her writings on urban physical form and social interactions, a few have discussed her economic and ethical insights. Interest in the inductive methodology she used to generate her ideas and the “organized complexity” paradigm that shaped her worldview, however, has been sparse because of their apparent lack of sophistication. This paper, the first of two connected works in which we explore both the development and the full fruition of Jacobs as spontaneous economic order theorist and methodologist, posits that specific influences and experiences in Jacobs’ formative years and throughout her diversified intellectual apprenticeship led her to develop her unorthodox, yet predictive, research approach. Our follow-on paper discusses Jacobs’ use of metaphor and inductive methods as research tools firmly in, and of, the current philosophical understanding of the scientific method.

INTRODUCTION

As measured by citation counts (Harris 2011, p. 67), attempts to quantify ‘Jacobs spillovers’¹ and a growing number of books about or inspired by her work,² academic interest in the self-described “professional writer” (Martin 2000) and “author” (Laurence 2007, p. 5) Jane Jacobs is at an all-time high. Although most commentators are still drawn to her writings on urban physical form and social interactions (Jacobs 1961), a growing number have discussed her economic and ethical insights (Jacobs 1969a; 1969b; 1984; 1992; 2000; 2004b). Interest in the inductive methodology she used to generate her ideas, however, has been sparse because of its apparent lack of sophistication.³ As Martin (2000, n.p.) summarized it, Jacobs essentially “collect[ed]

tidbits of information from newspapers, books, conversation—whatever and wherever,” then “analyz[ed] her collection of facts and observations until she s[aw] a pattern,” and then “push[ed] and pumme[led] it to see if it holds up under scrutiny.”

Jacobs’ eschewing of both positivist and Marxian approaches arguably hurt the original reception given her work among what should have been her natural academic audience (most prominently urban planning, development economics, economic geography, urban economics and regional science) and was sometimes deemed sufficient grounds for dismissing it.⁴ As Hirt (2012b, p. 38) observed, Jacobs’ method was often disparaged as that of a “commonplace observer” rather than a “real [social] scientist.” Commenting formally on her article “Strategies

for *Helping Cities*” published in the September 1969 issue of the *American Economic Review*,⁵ economist Karl A. Fox (1970, p. 465) complained that she “gives us no definition of a city nor does she seem to recognize that a definition is needed. Lacking insight into the economic structure of the basic unit of her system, she also fails to provide us with useful criteria for policy intervention. I cannot operate with Mrs. Jacobs’ categories.” The prominent regional scientist John Friedmann (1970, pp. 476-7) dismissed her book *The Economy of Cities* published the same year as “essentially a philosophical tract and not the cool exposition of a scientific theory” in which “evidence is selected to shore up her beliefs, and where facts don’t seem to fit, either they are ignored or new ones are invented.” An anonymous (1969, p. 104) *Time* reviewer similarly accused Jacobs of reaching pre-ordained conclusions through a “beguiling window-box theory of economics in which personal conviction and anecdote weigh more than statistics” and by “dart[ing] around history hunting for examples like a bee in a clover field.” While conceding she was “terrific at generating ideas,” Canadian geographer Richard Harris (2011, p. 72) dismissed “her notion and methodology of proof” as “subjective and eccentric.” As Cichello (1989, p. 123) put it, Jacobs’ critics have typically complained she lacks “rigor and careful observation,” presents her data “sporadic[ally] and selectively chose [them] to make her case,” uses “incorrect or inconclusive” examples, categorizations, and ultimately fails to support her theory with models or statistics.

While Jacobs’ critics have some merit, many of the observations and insights she published in her 1969 book (much) better withstood the test of time than those of her positivist and Marxist detractors,⁶ an outcome that, in our opinion, can be traced back to a large extent to her unorthodox research approach. Because in many ways her own life was a testimony to the virtues of her seemingly idiosyncratic approach and main message, however, the first section will discuss some relevant aspects of her upbringing, education and professional career. The remainder of our paper will then provide a critical assessment of her status as a theorist and a more detailed discussion of the evolutionary metaphors that inspired her, her inductive method and her ontological stance. Our main conclusions are that Jacobs’ unorthodox research approach had some strengths over her contemporary alternatives and that where she went astray, as we will discuss in the context of her economic writings,⁷ was not in her inductive method per se, but in her failure to adhere consistently to the tenets of methodological individualism.

I. ECONOMIC DEVELOPMENT THEORIST⁸

Jane Jacobs—born Jane Isabel Butzner in 1916 in Scranton (Pennsylvania)—gained widespread public recognition in 1961 with the publication of her instant classic *The Death and Life of Great American Cities*, a scathing indictment of the bulldozer-driven/high-rise urban redevelopment policies of the time.⁹ Her goal then was not limited to attacking “the principles and aims that have shaped modern, orthodox city planning and rebuilding,” but “also, and mostly... to introduce new principles of city planning and rebuilding, different and even opposite from those now taught in everything from schools of architecture and planning to the Sunday supplements and women’s magazines” (Jacobs 1961, p. 3).

Unknown to most people familiar with her work, later in life Jacobs deemed her main contribution to have been in the area of economic development theory. Indeed, her own favorite book was her first significant foray into the field, *The Economy of Cities* (Jacobs 1969a) (Desrochers and Hospers 2007). In a 1967 speech she explained her interest in the issue stemmed from observing the stagnation of once thriving American cities such as Detroit and Pittsburgh whose problems “piled up faster than they [could] be dealt with” (Jacobs 1967 in Allen 1997, p. 90). As she would later state, she wondered “[w]hat was different about the cities that didn’t die, but kept on finding new things to do?” Because some successful cities were very old and others rather new, she “thought there must be various processes that can be seen through time” and set out to uncover them (Wachtel 2002).¹⁰

To oversimplify, Jacobs’ is a theory of endogenous economic development in which poverty is a state of affairs that has no cause and requires no explanation. As Rowe (2014, p. 28) puts it: “Her focus was not on eradicating poverty but rather on wealth-generation, which she saw as natural, and finding the obstacles to that generative activity. She famously described being cold as the absence of heat; therefore the task is to focus on how to generate heat rather than take away the cold.” Jacobs discovered and argued that when development occurs, the process creates and/or takes place for the most part in cities which she defined as settlements that “consistently generate [their] economic growth¹¹ from [their] own local econom[ies]” (Jacobs 1969a, p. 262).

Cities, Jacobs argued, provide the unique contexts in which (re)combining existing things in new ways and injecting improvisations and innovations into daily economic

life is practical because of their dense networks of entrepreneurs, suppliers and skilled workers, along with their supporting financial, capital, retailing and logistical infrastructure. The “greater the sheer numbers and varieties of divisions of labor already achieved in an economy,” Jacobs (1969a, p. 59) explained, “the greater the economy’s inherent capacity for adding still more kinds of goods and services. Also the possibilities increase for combining the existing divisions of labor in new ways.” As Ikeda (2012, p. 65) summarized it, from the perspective of an economic agent, being placed “in an environment in which new problems are regularly presented to him [makes it] easier to make discoveries, in the form of solutions to those problems, that are useful to himself or others that he knows. Ordinary people under these circumstances can make more discoveries or become better able to use their faculties to their full potential.” Ikeda added: “Frequent contact with a large number of people with diverse knowledge, skills, and tastes is the sort of environment in which these kinds of opportunities may emerge” (idem).

Jacobs (1969a) parted ways with much of the discipline of economics in many respects, such as her case on behalf of the superior innovative abilities of entrepreneurial start-ups in highly diversified urban contexts when compared to the research divisions of large corporations.¹² She also insisted that import replacement (a process that, unlike import substitution, is market-driven) is an essential fuel for economic development, not only in terms of wealth accumulation, but also in laying ever more diversified foundations on which future new activities could be created. As such, she argued, a thriving city will, like a thriving ecosystem, become more diverse over time. As the mathematician and philosopher David Ellerman (2005) points out, the Jacobsian perspective contradicts mainstream economists’ long standing emphasis on static efficiency—i.e., the habit of studying how existing resources are allocated between competing uses as opposed to how new resources and products are created through entrepreneurship and innovation—and comparative advantage - the principle according to which regional economies should specialize in what they do best.¹³

In 1984 Jacobs offered additional hypothesis and answers as to how city development affects non-urbanized regions in her book *Cities and the Wealth of Nations*. She later drew further parallels between the evolution of biological and economic systems in *The Nature of Economies* (2000) and discussed other dimensions of commercial life and economic development in *The Question of Separatism: Quebec and the Struggle over Sovereignty* (1980);¹⁴ *Systems of*

Survival (1992);¹⁵ *Dark Age Ahead* (2004), an essay in which she warned of “ominous signs of [societal] decay;” and in the first pages of a book she never completed (Jacobs 2004b).

Three little appreciated facts about Jacobs as economic development theorist are that she began publishing pieces on the subject at the age of nineteen, that she was formally schooled in economic geography at Columbia University, and that she occupied a number of jobs in which she was exposed to various aspects of real world economic life before becoming a full time writer. Peter L. Laurence, an architectural historian and Jacobs scholar and biographer who recently published a thoroughly researched volume on the intellectual development of Jacobs as an urban theorist, confirmed the scarcity of information on Jacobs’ intellectual apprenticeship (2016, p. 3): “Almost nothing was known about the great amount of writing she had done prior to *Death and Life*. [...] Jacobs’ early writing career and the formative years leading up to *Death and Life* remain largely unknown.” We will now discuss, and sometimes speculate as to the impact of, some aspects of Jacobs’ early personal and professional life on her analysis of economic development.

II. THE (IN)FORMAL EDUCATION OF AN AUTODIDACT¹⁶

As Laurence (2007, p. 6) observed, “Jacobs’ self-effacement left her readers with the now-stereotyped picture of the author as a housewife watching the “sidewalk ballet” outside her storefront home on Hudson Street [Greenwich Village, New York City].”¹⁷

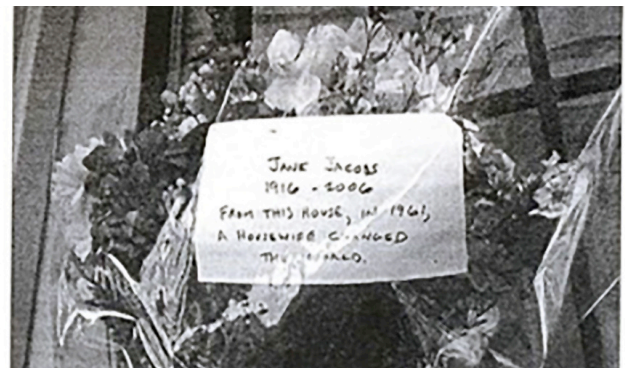


Figure 1: Bouquet of Flowers before Hudson Street 555. Source Schubert 2014b, 3.¹⁸

This notion of an amateur and uncredentialed stay-at-home mother or “layperson...who was not part of any

scientific networks” (Schubert 2014b, p. 4) is, however, inaccurate. Jacobs was actually a professional writer who completed a large number of university undergraduate courses. She belonged to a significant (if non-academic) intellectual community and benefitted from many opportunities to travel and visit firms and (re)development projects in her early adult life.¹⁹ As will now be argued, some of her outlook on economic life was also arguably shaped by the values she absorbed as a child and teenager.

Upbringing and Practical Business Experience

A British reviewer of *The Economy of Cities* observed over four decades ago that Jacobs “possesses such a sharp Yankee confidence in the benevolence of economic growth that the BBC ought to sign her up at once for a confrontation with [then prominent anti-growth economist] E[zra] J. Mishan” (Bendixson, 1970, p. 655). In a typical instance, Jacobs observed in 1967 that “[s]o far from denigrating cities because of the problems they create, we should recognize that these problems are opportunities. What we call faults of cities are really bringing problems to a head where they can be solved... Life keeps casting up new problems, and the cities have been, and certainly will continue to be, the places where they can be solved” (Jacobs 1967 in Allen 1997, pp. 92-93; see also Jacobs 1970).²⁰

Jacobs’ general philosophy owed much to her father, John Decker Butzner (1876-1937), a homeschooled Virginia farmboy who, by the time of his second daughter’s birth, had established a prosperous medical practice in Scranton (Pennsylvania). Jacobs later described him as “intellectually very curious, bright and independent” and of having a reputation as an especially skilled diagnostician, making him something of a “detective” in the medical profession (Wachtel 2002).



Figure 2: John Decker Butzner.

Source: Allen 1997, p. 32

As she formally stated in a foreword to a government interrogatory into possible communist sympathies or leanings (Jacobs 1952a in Allen 1997, pp. 169-170), she was brought up to believe that “there is no virtue in conforming meekly to the dominant opinion;”²¹ that “simple conformity results in stagnation for a society;” that “American progress has been largely owing to the opportunity for experimentation, the leeway given initiative, and to a gusto and a freedom for chewing over odd ideas;” that “American’s right to be a free individual, not at the mercy of the state, was hard-won and that its price was eternal vigilance;” and that the “American tradition of the dignity and liberty of the individual is not a luxury for easy times but is the basic source of the strength and security of a successful society.” As she would state in the interrogatory proper, she ultimately believed “in control from below and support from above” (Jacobs 1952b in Allen 1997, p. 179). The Butznerns also often told their children “what a hard life farming was” (Wachtel 2002). As she recalled towards the end of her life: “My parents were delighted to live in the city. My mother came from a small town and my father came from a farm. They thought the cities were far superior places to live, and they told us why. And there were all kinds of people who believed that [at the time]” (Kunstler 2001).

Jacobs’ three siblings were Elizabeth (Betty) (1910-1993), John Decker Jr (1917-2006) and James (Jim) (1920-2009), all of who would regularly be thanked in the acknowledgment sections of her main works. Betty, typically referred to by her married name Elizabeth Manson, had originally studied interior design at the Pennsylvania Museum School of Industrial Art and later became an esperanto enthusiast.²² James, for most of his career a chemical engineer at the Mobil Oil Company, was also active in local New Jersey politics and education.²³ Jane’s most famous sibling was her brother John who in time became a Judge of the U.S. Court of Appeals for the Fourth Circuit.²⁴



Figure 3, Jacobs and her siblings, 1945. Source: Allen 1997, 45. (Top, from left to right: Elizabeth (Jacobs' cousin), Kay and Jim Butzner, Elizabeth Butzner (Manson), John Decker Butzner Jr and Viola Peterson (Butzner); Bottom, from left to right: Jane and Robert H. Jacobs Jr.

Like all children, the young Jane Butzner was also a product of her broader local environment. For instance, she would later recount how important the nearby reference library, zoo and museum of natural history²⁵ had been to her development and how she “used to like to go to the railroad station in Scranton and watch the locomotives. I got a big bang out of seeing the locomotives and those pistons that moved the wheels. And that interested me how they were moved by those things and then the connection of that with the steam inside and so on” (Kunstler 2001). Perhaps the most important legacy Scranton imprinted in her mind, however, is that once thriving settlements can stagnate and force their best and brightest people to look for opportunities elsewhere.

Jane's lack of interest in formal education and her somewhat rebellious personality made her a mediocre student. At the urging of her father she learned shorthand and stenography upon graduating high school. Afterwards she spent nearly a year as an unpaid intern in a Scranton newspaper²⁶ and a few months with an aunt who ran a community center for the Presbyterian home missions in the mountains of western North Carolina, an opportunity pursued at her parents' behest because of their belief she should “get a good

look at a very different and interesting kind of life” (Jacobs 1961b in Allen 1997, p. 3). The moribund town she lived in, Higgins, was by then slowly emerging from a long period of decline and subsistence farming.²⁷

In 1934 Jane decamped to New York City to join her older sister. Finding work in the middle of the Great Depression proved challenging and she had to settle for a variety of (typically short-lived) clerical jobs in businesses that manufactured candies, clocks, drapery hardware, office supplies and bicycle, automobile, and aircraft components. This time undoubtedly taught her much about personal hardship (at one point the sisters had to subsist on pabulum²⁸), the realities of business life, and the importance of economic development. On the bright side, being frequently unemployed left her much time to explore the city on her own and eventually resulted in both the discovery of the various working districts located between Manhattan's Financial District and Midtown and of Greenwich Village where the sisters soon relocated.

Another landmark in Jane's personal life occurred in 1944 when her sister introduced her to one of her co-workers, an architect by the name of Robert H. Jacobs Jr. (1917-1996), who would soon become her husband and intellectual companion. Although his exact influence on her work is difficult to assess, Jacobs would write in the acknowledgements to *Death and Life* that “[m]ost of all I am grateful to my husband... by this time I do not know which ideas in this book are mine and which are his” (Jacobs 1961, n.p.).

Writer in (In)formal Training

In her first few years in New York City Jane Butzner launched her career as a writer in two ways. First, she published a number of freelance pieces in well-known outlets, with her initial break consisting of four articles on the inner workings of the leather (“Leather Shocking Tales”), cut flowers (“Flowers Come to Town”), fur (“Where the Fur Flies”) and diamond (“Diamonds in the Tough”) districts published in *Vogue* between 1935 and 1937.²⁹ In these and later years readers of popular publications such as *Cue: The Weekly Magazine of New York Life*, *Harper's Bazaar*, and the *New York Herald Tribune* would also come across her work. She further tried her hand, although much less successfully, at poetry and science fiction.

Between 1935 and 1938 she worked part-time as a research assistant for two writers. One was a stockbroker who hired her for a few weeks to help him research a book on financial markets. The other was Robert H. Hemphill,

a financial writer employed by the *New York Journal-American*, for whom she did library research work, cut clippings, and kept track of “bills bearing on economics as they were introduced in Congress and obtained copies of them” (Laurence 2009, p. 29).

Between 1938 and 1940 Jane Butzner enrolled at Columbia University’s Extension Program,³⁰ but did not complete a degree for administrative reasons (a combination of bad high school grades and of having earned too many credits for an extension student) and a personal desire to study whatever interested her. She also published her first (edited) book with Columbia University Press, *Constitutional Chaff: Rejected Suggestions of the Constitutional Convention of 1787* in 1941. According to Laurence (2009), this project was for the most part completed outside of formal schoolwork.³¹ Laurence (2016, p. 55) described *Constitutional Chaff* as a book inspired both by her [Jacobs’] courses in constitutional law and the development of legal institutions and by the ‘enthusiasm and wisdom’ of her friend, landlord, and former employer, Robert Hemphill. While the exact nature of Hemphill’s involvement in *Constitutional Chaff* is unclear, she [Jacobs] wrote in 1949 that ‘the idea of such a study, and the method for working it out was my own conception.’

According to Laurence (2016), Jacobs’ first book was well reviewed and was cited for decades by constitutional scholars. “Likely unaware that Jane Butzner was also Jane Jacobs,” (Laurence 2016, p. 57), scholars outside the disciplines of constitutional law and legal history, had, until recently, missed Jacobs’ opening salvo of illuminating the inner workings of complex systems.

Discussions of Jacobs’ time at Columbia are typically framed along the lines that “she signed up for courses in any subject that interested her” such as biology, chemistry, constitutional law, the development of legal institutions, geography, geology, patent law, philosophy, sociology and zoology and before long “was enjoying school for the first time, feeding her curiosity about how the world worked” (Flint 2009, p. 9). She would later comment that her “formal education in the conventional economics of the day [at] Columbia University... was scanty and superficial” (Jacobs, 2004b in Zipp and Storring 2016, p. 411). In the end though, she “had a wonderful time with various science courses and other things that I took there. And I have always been grateful for what I learned in those couple of years” (Kunstler 2001).

Laurence (2009, p. 76)³² suggests that if she “had matriculated, it would likely have been as a Geography major. She took the most courses in Economic Geography, a

study which anticipated her books on cities and economics.” Furthermore, rather than “being random or unrelated interests,” Jacobs’ science courses “all fell within the larger field of geography” and the “study of natural ecology in these courses complemented and informed the study of human ecology in her geography courses” that would, in time, “produce seminal theories of city functions and dynamics” (Laurence, 2009, p. 78). Indeed, in a piece published in 1940 in *Cue* magazine Jacobs described herself as a “city naturalist” who could understand the built environment by following and studying the “rivers,” “trails,” and “tributaries” of the city’s infrastructure (Jacobs 1940), a characterization that was very much in line with the spirit of human geographers at the time.

Laurence (2009, p. 77) suggests two lasting impacts of Jacobs’ time at Columbia. The first is the critical perspective of her professor (although likely adjunct faculty) Herman Frederick Otte (1940) on the Tennessee Valley Authority, as he was then completing his doctoral dissertation on the topic.³³ The second is her introduction to Belgian historian Henri Pirenne’s (1949/1925) *Medieval Cities: Their Origins and the Revival of Trade*, arguably the book that most significantly impacted her thinking (Laurence 2016).³⁴ Laurence (2016, p. 54) observed: “The life sciences were her key to developing Pirenne’s historically oriented theories of ‘death and life’ into new and timeless principles about city dynamics.”



Figure 4, Henri Pirenne (1862-1935).

Source: http://pepeworks.blogspot.ca/2010_03_01_archive.html

Although Laurence’s description of the academic stature of geography education at Columbia might be somewhat overstated,³⁵ his hypothesis on Jacobs’ choice of major and its influence on the rest of her writing career is plausible and can be supported by additional evidence and speculation. For instance, perhaps her main influence among faculty might have been George Thomas Renner (1900-1955) who was first appointed on a part-time basis as visiting Associate Professor of Geography at Columbia’s Teachers

College in 1936 and later ensconced as a full professor in 1939.³⁶ Although mostly remembered for being the cause of a “great map scandal”,³⁷ Renner was a Columbia PhD, the University of Washington’s (Seattle) first professional geographer (1927-1933), a senior economist and later consultant with the National Resources Planning Board (1934-1943), and much more of a polymath than Otte.³⁸ Like his colleague though, Renner was by and large hostile to New Deal policies. As he would state in 1944, he “got [his] dislike of politics in Seattle and [his] fear of New Deal economics in Washington, DC” (quoted by DeBres 1986, p. 386). One can get a sense of his take on public planning in a 1947 article on the dynamics of industrial location:

To assume, therefore, that the general principle of industrial localization and the several geographical laws of location can be disregarded and reversed by planning, would seem to be a result of both uneconomic and ungeographic thinking. No major industrial region could be deliberately created, and it is doubtful whether any important minor district can be brought into existence merely by the exercise of violation and forethought, without scrapping the entire free-enterprise system and the profit motif. The desire manifested in many states to create areas of intensive industrialization is thus doomed to failure. This does not mean, however, that decentralization is impossible. Rather it means that the geographical limits of such decentralization are fairly rigidly fixed. (Renner 1947, p. 189)

Perhaps just as important, Renner co-authored with Charles Langdon White (1897-1989), then of Western Reserve University (Cleveland), the 1936 textbook *Geography: An Introduction to Human Ecology* (White and Renner, 1936) and is considered the first economic geographer to have adopted an ecological approach to industrial location (Sit 1980, p. 413) in which he suggested studying urban economic linkages through the prism of “industrial symbiosis” rather than the (soon to be) more influential concept of “agglomeration economies.”³⁹ While Renner’s ecological approach failed to gain much of a following, it might have made a more lasting impression on Jane Butzner. As Jane’s son Jim told us in an interview, his mother never forgot anything.⁴⁰



Figure 5, George Renner. (1900-1955)

Source: Percy, 1948, p. 244.

Apart from the specific influence of Otte and Renner, one can also venture a few guesses as to the type of material Jacobs’ professors would have exposed her to. Presumably a few classics in the field could have been covered, be they excerpts from Daniel Defoe’s *A Plan for English Commerce* (1728) and *The Complete English Tradesman* (1726) that discussed regionalized industries in early 18th Century England (1728, pp. 86-88; 1726, 401), how English people learned a variety of trades from other Europeans (1728, pp. 300-303), and the unique role of London at the center of British Trade (Defoe 1726, p. 389) or else Alfred Marshall’s (1920/1890) famous passages on ‘industrial districts’ and the external benefits that single-activity or closely related producers derive from sharing fixed costs of specialized infrastructure and services, skilled labour pools and specialized suppliers while sharing and building upon a common knowledge base. More likely though, Jane Butzner would have been introduced to these concepts through some of the textbooks of the time.⁴¹

Perhaps too she imbibed the case study, bottom up and detail-oriented approach of American economic geography, a sub-discipline that was then very much an off-shot of the German Historical School of economics in terms of both style and substance (Barnes 2000; 2012). As the Institutionalist economist Erich Zimmermann (1888-1961)⁴² observed in the preface to his 1933 book *World Resources and Industries*: “The geographer, approaching the study of economic life from the angle of underlying physical realities, pushes upward from the physical basis toward the cultural superstructure. The economist, in turn, whose main task is the exploration of a limited section of the cultural superstructure, probes downward toward the physical foundation” (Zimmermann 1933, p. vii).⁴³ Or as Dartmouth professor Albert Sigfrid Carlson (1907-1975) commented a few years later, the geographer “is dealing with a dynamic complex world. He realizes that neither statistics nor theoretical knowledge can fully compensate for the lack of personal practical experience. Therefore he emphasizes

the need for actual study in the field and contact with the leaders of industry. He appreciates that the research files of many commercial houses contain excellent treatises on his subject..." (Carlson 1937, p. 271).

Although there is no proof of a direct influence, Jacobs' later work also shows much affinity with the writings of Dartmouth economic geographer Malcolm Keir.⁴⁴ In a collection of essays previously printed in various professional magazines⁴⁵ and academic journals that was first published in 1920 and in a more integrated form in 1928, he described local dynamics later rediscovered under the labels of 'industrial districts,' 'innovative milieu,' 'clusters,' 'regional innovation systems' and 'learning regions.' Keir (1920 p. 61) thus documented that "similar to birds of a feather, professions or businesses tend to flock together;" that the "greatest resource that the Commonwealth of Massachusetts possesses is her abundant supply of skilled men and women collected in various localities where special work is being performed" (idem, p. 73); and that "[a]n adequate supply of especially trained labor is the foremost advantage enjoyed by the individual units that comprised a localized industry" (idem, p. 73).

One obvious advantage of geographically localized industries was that if "one plant desires to expand it can draw upon the reservoir of labor already created." In these environments,

[a]ll the factories in the town are constantly filling this reservoir [of know-how] because each mill is a training school for the others. The young boys upon leaving school follow in the steps of their fathers, learning by actual experience in the factory the moves peculiar to the particular industry, and at home, on the streets, or at recreation imbibing the secret 'rules-of-thumb' current among the workmen and known only to them. The very atmosphere seems charged with a mysterious power drawn upon by the men to further the efficiency of their labor, a force which is lost in a city whose industries are largely diversified. The whole accumulation of skill is at the beck of the firm which needs it, and in an industry where trained men are required, its value is beyond estimate (Keir 1920, p. 73).

Keir (1920, 69) also wrote much about start-up firms in such contexts, such as when he observed that

[w]hen an experienced superintendent decides to become his own boss oftentimes he finds that he can

best succeed in the shadow of the plant where he was once an employee, because in a strange place he is unknown, but in the town where he has worked for years the banks know and trust him and the business he purposes to enter is a tested proposition. It has been stated that every cotton-mill started between 1790 and 1814 was by men who themselves had been trained by Samuel Slater at Pawtucket, Rhode Island. Growth of this kind, through former workmen, has made Trenton the seat of pottery manufacture, and Gloversville the chief center for the manufacture of men's gloves. (REF??)

Like other commentators before and after him, Keir (1920, p. 74) observed that knowledge was geographically sticky as "manufacturers who ha[d] attempted to draw even the most highly trained individuals to act as teachers in another remote city have met with failure after failure because the *group* was not skilled and had not known the trade from childhood." "The group skill found in a localized industry," he added, "is the reason why the industry clings to one small section of the country; it is the greatest single advantage that employers find when they set up their plants where others have thrived for years" (idem).

More originally, Keir also hinted at the importance and advantages of regional diversity, although not as systematically and with as much focus and gusto as Jacobs later would. Like her, he rejoiced in tracing the origins of important firms to modest beginnings serving other lines of work, such as the rise of many New England manufacturing concerns from small subsidiaries of the ship building trade (Keir 1920, p. 40). He also observed that, over time, prosperous settlements tended to become more economically diverse because of "the multiplication of allied industries, the increase in the number of supply houses, or the presence of plants utilizing wastes" (idem, p. 70). In a prelude to later debates on Jacobs spillovers, Keir (1919, p. 47) described the unavoidable "blight of uniformity" that affected employees in specialized industrial towns. The problem, as he saw it, was that geographically localized specialization

tends toward narrowing the minds of the townspeople. A young man brought up in Fall River, say, has but little choice of occupation; he must become a weaver or a loom-fixer or some other artisan connected with cotton manufacture, because by upbringing, education and example he is forced into that path, and furthermore he goes to work at an early age. It may happen that many a square peg is rammed into a round hole in this way, or a life constricted

which might under better conditions have expanded. There is something deadening to the human mind in uniformity; progress comes through variation, therefore in a town of one industry a young man loses the stimulus for self-advancement. (Keir 1919, p. 47; reprinted in Keir 1920, pp. 83-84; and Keir 1928, p. 139)

Social uniformity also resulted in a dearth of variety in terms of role models, lethargy in terms of personal advancement and the creation of a self-perpetuating laboring class, something he deemed “inimical to American ideals” (Keir 1920, p. 84). Another unfortunate result of monoindustrial towns was “indifference toward education... for a desire for knowledge is one of the characteristics attached to progress, inasmuch as aspiration feeds on inspiration” (idem). As evidence of this, Keir observed that the towns of Lowell and Lawrence, each with a population of approximately 100,000 individuals, had but one high school. By contrast, Springfield and Worcester, then towns of similar size “but whose industries are highly diversified” had respectively three and four. Keir (idem, p. 84) inferred from all of the above it was a “disadvantage... for a young man to grow up in a community whose industries are all alike” because “the chances of his of getting a well rounded education are slim” (idem, p. 84).

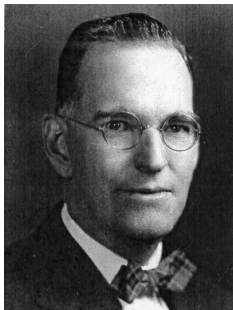


Figure 6: Malcolm Keir
(1887—1964).⁴⁶

Source: Dartmouth Archives

Professional Writer

The Iron Age (1940-1943)

In 1940, because, as she would later say, she could spell Molybdenum (Flint 2009, p. 10)⁴⁷—although perhaps her prior experience in the metals industry, varied coursework and publication record might have helped—Jane Butzner landed a job as an assistant to the managing editor of *Iron Age*, Chilton Company’s⁴⁸ flagship metals industry trade magazine. Hard working and talented, she soon rose to the level of editor and associate editor. In the process, she quickly moved beyond collecting industry statistics by phone and began regular travels in the American manufac-

turing belt “to visit metals industry firms and scrap metal dealers” and “to gather news and information on market conditions in person” (Laurence 2009, p. 90).

In the aftermath of Pearl Harbor, Butzner further traveled regularly to Washington where she interacted with a range of bureaucrats to discuss war production issues, gather news, identify ideas for articles and get expert advice. By late 1942, she began to attend scientific conferences and important industrial meetings throughout the Northeast and the Midwest where she was tasked with developing news items from conference talks and choosing papers to be abstracted (Laurence 2016). Laurence added (2016, pp. 63-64): “She sought out contributions from scientists and metallurgists directly, worked with them on presenting their ideas, edited their manuscripts, and laid out their articles. When necessary, she visited the magazine’s press in Philadelphia to handle last-minute layout and editing problems, and during a vacation period, she managed the magazine’s Cleveland office.”

Although she left the magazine in 1943 on a sour note,⁴⁹ Jane Butzner undoubtedly learned much of value during her stay at *Iron Age*, from the technical details of metal production to the inner workings of large businesses and the regional linkages that united some significant components of the US manufacturing belt.

Government Writer (1943 - [1946] - 1952)

At the end of 1943 Jane Butzner became a feature writer for the Office of War Information⁵⁰ where she was again rapidly promoted and given assignments that resulted in a variety of articles, chapters and pamphlets on US “history, geography, culture, science, military prowess, and other subjects that were translated and distributed overseas” (Laurence 2007, p. 8).

In December 1945, (the by then) Jane Jacobs left government service for nine months, took on various freelance editorial assignments, and was subsequently hired by the State Department’s Magazine Branch where she worked mostly as a writer and editor for *Amerika* (later *Amerika Illiustrirovannoye* or *America Illustrated*), a *Life*-inspired glossy Russian-language magazine designed to provide Soviet citizens with a glimpse of American life.⁵¹ Widely popular among Soviet masses, its distribution was gradually hindered by Soviet authorities while being paradoxically subjected to McCarthyite recriminations and scrutiny, resulting in the suspension of its publication in 1952 (Crane 2010). Interestingly, one of Jacobs’ supervisors was Alger

Hiss whose help she asked in trying to obtain a visa to visit Siberia and whom she listed as a reference on a few occasions. These inconvenient facts undoubtedly explained much of the attention directed her way by the FBI in the late 1940s and early 1950s⁵² and arguably reinforced her inherent libertarian leanings. As she would tell Kunstler (2001) years later:

The fear that [McCarthyism] struck into people. The fear for whom they might associate with. How could all these people turn into such sheep so suddenly? And when this miasma of McCarthyism lifted it was almost as magical. We were trying to get signatures on a petition that a [freeway] wouldn't go through Washington Square. This was in the 50s and we set up a table with petitions near the park and asked everybody who came by and was enjoying the park if they would sign. And so many people wouldn't sign. We'd say, "Well, you don't want a road through here, do you?" No, they didn't want a road through there, but "You don't know who else might be signing. It might be dangerous to sign." Sometimes a husband would tell a wife. So that's when this strange fear pervaded everything.

At *Amerika* Jacobs was given the opportunity to write on a wide variety of topics, including American cities and architecture, school planning, and urban redevelopment. As Laurence (2007, p. 8) observes, her article on slum clearance, written approximately a year after the passage of the United States Housing Act of 1949, gave her the opportunity to follow the development of the urban renewal program almost from its inception and to establish several connections with the architectural writing community of New York City, including editors and contributors to *Architectural Forum* and *Progressive Architecture*. By the end of her nearly ten years as a government writer she occupied the top editorial role in her branch.

Architectural Forum

Looking for a new position, Jacobs hesitated between *Natural History*, published by the American Museum of Natural History, and *Architectural Forum*, a magazine to which her husband already subscribed and where one would find ample discussion of large-scale urban redevelopment projects as well as critiques of the design of schools, hospitals, shopping centers and office buildings (Jacobs

1961b). Part of Henry Luce's Time Inc. magazine conglomerate that included, among others, *Time*, *Life*, *Fortune*, *House & Home* and *Sports Illustrated*, *Architectural Forum* paid much better than *Natural History* and ended up being her choice for this reason.⁵³ Jacobs first did some work on a trial basis in May 1952 and formally joined the magazine in September of that year. She would remain as a member of its senior editorial staff until October 1958 when she took a leave of absence to write *Death and Life*. She briefly returned to *Architectural Forum* after the publication of her book, but formally left it for good in 1962.

Architectural Forum was a good match for Jacobs. First, it accommodated her passion for seeing the bigger picture, the contextualized and systemic view of her subject matter, as its editor-in-chief Douglas Haskell's policy was to "step out of the 'narrow bounds' of architectural criticism, to emulate other forms of cultural criticism, and to write the kind of architectural criticism that had previously resulted in the threat of libel suits" (Laurence 2009, p. 126). Second, the magazine's scope matched Jacobs' interests: "*Forum* would intensify its effort to address the 'problem of cities.' Haskell boasted that the *Forum* was already the most up-to-date American architectural journal where urban redevelopment was concerned" (Laurence 2016, p. 99). After being assigned the school, hospital and shopping center beats, Jacobs eventually became an urban redevelopment specialist. By 1956 she had not only covered various projects in New York (primarily East Harlem), New Orleans, Cleveland, Philadelphia, Washington, and Fort Worth, but she had also visited several prominent architectural firms and got acquainted with most of the major architects and several important urban planners of the time (Laurence 2016).

Like her colleagues, Jacobs was at first supportive of modern architecture and urban redevelopment efforts (Laurence 2016; Zipp and Storing 2016). In time, though, she began to express misgivings, most notably in an influential lengthy essay "Downtown is for People" (Jacobs 1958) published in *Fortune* in 1958. One problem was the obvious contradiction between what she had been led to believe and what she could observe on the ground, including the apparent dishonesty of public officials. As she would comment years later, one of the architects who helped justify the obliteration of Boston's West End in the late 1950s told her "he had had to go on his hands and knees with a photographer through utility crawl spaces so that they could get pictures of sufficient dark and noisome spaces to justify that this was a slum—how horrendous it was" (Kunstler 2001).

As she would write a friend soon after the publication of “Downtown”:

How my ideas developed... Oh my God, who knows how their ideas developed?! The nearest I can pin it down is two things: First of all, I had a pervading uneasiness about the way the rebuilding of the city was going, augmented by some feeling of personal guilt, I suppose, or at least personal involvement. The reason for this was that in all sincerity I had been writing for Forum about how great various redevelopment plans were going to be. How delightful. How fine they would work. I believed this. Then I began to see some of these things built. They weren't delightful, they weren't fine, and they were obviously never going to work right. Harrison Plaza and Mill Creek in Philadelphia were great shocks to me. I began to get this very uneasy feeling that what sounded logical in planning theory and what looked splendid on paper was not logical in real life at all, or at least in city real life, and not splendid at all when in use (Jacobs letter to Grady Clay, March 1959; quoted in Laurence 2009, p. 195).

Her intellectual breakthrough in making sense of causal mechanisms in the complex urban order evolved out of her acquaintance with William Kirk, then head worker of Union Settlement in East Harlem.⁵⁴ As she acknowledged in the introduction to *Death and Life* (1961, pp. 15-16): “The basic idea, to try to begin understanding the intricate social and economic order under the seeming disorder of cities, was not my idea at all, but that of William Kirk, who, by showing me East Harlem, showed me a way of seeing other neighborhoods, and downtowns too.” From then on, she added, she “tried to test out what [she] saw or heard in one city or neighborhood against others, to find how relevant each city's or each place's lessons might be outside its own special case” (idem).



Figure 7: William Kirk (1909—2001).⁵⁵ Source: *Union Settlement: 75th Anniversary Brochure* annotated by Jane Jacobs. *Jane Jacobs Papers at Boston College*. Photo courtesy of Peter L. Laurence, used with permission.

During her *Architectural Forum* years she also developed a relationship with officials in charge of the Rockefeller Foundation's urban design research initiative who, in the wake of “Downtown,”⁵⁶ offered her a grant to write what would eventually become *Death and Life*. According to Laurence (2006; 2016), Jacobs benefitted greatly from her frequent interaction with the Foundation's then Associate Director for the Humanities, Chadbourne Gilpatric (1914-1989),⁵⁷ with whom she exchanged articles and manuscripts, introductions and invitations that further expanded her view of urban planning and acquaintance with important players. Jacobs, in turn, served as an advisor on relevant research projects and proposals, and contributed to the formation of the Foundation's Studies in Urban Design project in the early 1960s.

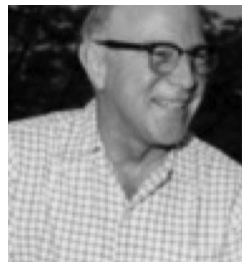


Figure 8: Chadbourne Gilpatric.

Source: Source <http://rockefeller100.org/biography/show/chadbourne-gilpatric>

There can also be no doubt that during her years as a New York-based writer, Jacobs met a number of interesting individuals and learned an assortment of useful facts and ideas from them.⁵⁸ The following excerpt from a speech she gave in Hamburg (Germany) in 1981 is illustrative in this respect:

A scholar who retired some years ago after a lifetime of work in the American Museum of Natural History told me he had been spending a good part of his new leisure exploring post-war housing projects and suburban tracts. What he saw appalled him. Consider, he said, the value that human beings throughout the ages and in all cultures have placed on visual diversity and elaboration. Man is the animal that decorates himself and all manner of things he makes and builds. If we were to find a trait so persistent and widespread in any other species, he went on, we would take it seriously. We would conjecture that so striking and universal a trait had some connections with the success of the animal. His own surmise was that our busy human brains demand a constant flow of extremely diverse impressions and information to develop in the first place, and thereafter must be fed with constant and

diverse flows or they are genuinely deprived. In sum, he said, boredom may be a healthy revulsion against sense and brain deprivation. Paradoxically, he went on, it is thus probably logical for us to behave illogically, even destructively, if that is what we must do to escape boredom (Jacobs 1981, p. 242).

REFLECTIVE CONCLUSION: JACOBS' EARLY YEARS AND ON THE JOB LEARNING

Up to the middle of the 1950s Jane Jacobs was a keen observer of (real world) economic and urban life, a voracious and eclectic reader who probably remembered a number of facts and insights from her undergraduate courses, and a first rate column and short essay writer who interacted with many intellectuals and practitioners. What she was not, however, was a serious theorist. As such, upon beginning the manuscript of what would become *Death and Life*, she “expected merely to describe the civilizing and enjoyable services that good city street life casually provides—and to deplore planning fads and architectural fashions that were expunging these necessities and charms instead of helping to strengthen them.” But by “learning and thinking about city streets and the trickiness of city parks” she was launched “into an unexpected treasure hunt” and “quickly found out that the valuables in plain sight—streets and parks—were intimately mingled with clues and keys to other peculiarities of cities. Thus one discovery led to another, then another” (Jacobs 1993, n. p.).

In other words, while researching what would turn out to be her most famous book, Jane Jacobs became a theorist who championed a by then singular vision of the social order and developed an unorthodox inductive research method. Not surprisingly, her readability, heterodox approach, disrespect for academic conventions, and lack of formal education would often be held against her by academic critics.

Jacobs' intellectual outlook and research method will be discussed in more detail in the second part of this essay, but there can be no doubt her later literary output was shaped in large part by her professional life up to the late 1950s. As Creed Rowan (2011, p. 44) observed, she obviously “picked up her literary craft not from the other urban planners with whom she is so often compared but from city journalists, hard-boiled novelists, settlement-house writers, and others who wrote for the general public.” The publications she worked for, while often not steeped in academic theories and methodologies, provided an environment in which she

learnt much about various aspects of economic life. Indeed, through working in both the private and public sectors—often in managerial roles—she familiarized herself with a wide range of topics and interacted with a remarkably diverse group of individuals (from metallurgists and managers to architects and civil engineers) while visiting numerous industrial operations and urban redevelopment projects. In the process she acquired the type of knowledge and practical experiences many academics lack. In this sense, she was not an “amateur” about the practical workings of economic life. And while she appreciated the contribution of some professors, her lifelong resentment against much of academia—whose seeds were arguably sown during her undergraduate years at Columbia—meant she never felt compelled to abide by (and probably got some personal satisfaction in flaunting) traditional research norms in terms of both methods and exposition.

For reasons we will explore in more detail in part 2, for the remainder of her life Jane Jacobs would rely on direct observation and extremely broad reading to answer a few important questions, an approach that would paradoxically make her a radical thinker and a pioneer of modern inductive research methods. We will suggest that her methodological stance and overall philosophical outlook should be considered more seriously as they pre-dated the key late 20th century insights into the relationship between induction, deduction and the scientific method. Jacobs' philosophical outlook and methodology still, in fact, have much to contribute to our understanding of societal evolution.

NOTES

- 1 In an influential paper, Glaeser et al. (1992) distinguish between MAR (economists Alfred Marshall, Kenneth Arrow and Paul Romer), (management theorist Michael) Porter and (Jane) Jacobs spillovers. The first two describe know-how transfer within a sector (intra-industrial spillovers) and the importance of geographical economic specialization, whereas Jacobs spillovers occur between sectors (inter-industrial spillovers) and are therefore more abundant in a more diversified local economy. In addition, the MAR perspective favours local monopolies, whereas the other two see strong local competition (geographically concentrated clusters of smaller firms) as a better incubator of innovative behaviour. See, among others, Desrochers and Leppälä (2011) and van Oort (2004; 2015).

- 2 Most prominently Brandes Gratz (2010), Flint (2009), Florida (2002; 2008), Goldsmith and Elizabeth (2010), Hirt (2012a), Jacobs (2008), Kanigel (2016), Lang and Wunsch (2009), Laurence (2016), Mennel et al. (2007), Page and Mennel (2011), Schubert (2014a) and Taylor (2013). Zipp and Storrington (2016) is a new compilation of Jacobs' short writings, some of them not previously published.
- 3 To our knowledge, the most significant discussions of Jacobs' approach can be found in Cichello (1989), Keeley (1989), Harris (2011) and, to a lesser extent, Taylor (2006), Laurence (2009), Barnett (2012), Hirt (2012b), Rowe (2014) and Zipp and Storrington (2016).
- 4 Of course, many scholars who bought into a top-down or class struggle-inspired school of thought typically dismissed all contributions that did not take these as given, independently of the methodology used.
- 5 In this paper Jacobs summarized the main outline of her theory of city growth, expanded more on the types of data needed for measuring economic development rates, and discussed in more detail the various barriers to local creativity. She also anticipated much of her later (1984) *Cities and the Wealth of Nations*' arguments on transactions of decline and the perils of standardized regulation.
- 6 We discuss these issues in more detail in Part 2.
- 7 Laurence (2009) is a detailed discussion of how she went about this for the built urban environment.
- 8 Desrochers and Hospers (2007) is a more detailed account of her economic work. See also Hill (1988), Lawrence (1989), Côté (1991), Ellerman (2004; 2005), Iammarino (2011), Ikeda (2012), Staley (1989) and Taylor (2013) for further summaries and discussions. Warsh (2006a; 2006b) provides more detail on her relationship with mainstream economists.
- 9 Slum clearance and urban renewal—or, in the words of writer James Baldwin, “negro removal”—destroyed approximately 500,000 more housing units than it created and typically made it impossible for the poorest citizens to move into new developments (Klemek, 2008).
- 10 See also Jacobs (2004b).
- 11 Although Jacobs used “growth” in this early formulation, in modern parlance she is referring to development (i.e., creating new things or making old things in new ways) as distinct from growth (i.e., doing more of the same). Jacobs (200, : 37) would later describe development as “qualitative change” and expansion (as a synonym for growth) as “quantitative change.”
- 12 Of course, not all economists at the time believed in the inherent superiority of large R&D facilities. See, among others, Rothbard (1959).
- 13 Leppälä and Desrochers (2010) discuss this issue in more detail.
- 14 As Rowe (2014, p. 23) observes, although the book “focuses on Quebec's quest for national sovereignty and is, at face value, of interest only to a subset of Canadians,” it is “in fact a great primer of Jacobs' understanding of the role of city in defining a society's culture and economy and its need to be unfettered to ensure its own survival.”
- 15 The book is a dialogue on the moral foundations of commerce and politics.
- 16 More detailed biographical sketches of Jacobs' life can be found in Jacobs (1961b), Allen (1997), Sparberg Alexiou (2006), Taylor (2006), Laurence (2006; 2007; 2009; 2011, 2016), Klemek (2007; 2008), Desrochers (2007), Flint (2009), Lang and Wunsch (2009), White (2011), Kanigel (2016), and Zipp and Storrington (2016).
- 17 Another important influence in this respect was New York Parks Commissioner Robert Moses' characterization of some of his opponents as a “bunch of mothers” (see, among others, Turner 2009), but a few news media organizations also portrayed Jacobs this way during her activist period in New York City (Klemek, 2008, p. 314).
- 18 As Jacobs died in 2006, Schubert's (2014b) attribution to Schubert (1998) is obviously mistaken.
- 19 Peter L. Laurence (2016, pp. 50-91) expands on Jacobs' freelance writing work, as well as on her formative experiences at *The Iron Age*, the Office of War Information and at *Amerika*, in the chapter titled “The Education of a City Naturalist,” noting particularly how her work nourished her interest in “systems of thought” (Laurence 2016, p. 50) and allowed her to hone her writer's craft between 1938 and 1952. Laurence's following chapter “We Inaugurate Architectural Criticism” (2016, pp. 92-128) focuses on how Jacobs developed and refined her urban planning and design insights as a writer and editor for the *Architectural Forum* starting in 1952 when she joined the magazine to take up large scale urban architectural projects such as hospitals, shopping centers, and schools (Laurence 2016, p. 94).

- 20 Jacobs' outlook became bleaker in her last years (Jacobs 2004a). It is also worth noting she couldn't stand the English class system (Kunstler 2001).
- 21 She further observed upon completing an introduction to Mark Twain's *The Innocents Abroad* how "he was trying to...tell readers what they might see if they looked with their own eyes. He inveighed at great length against guidebooks and people who believed the guidebooks instead of what they were seeing. So this is an old problem. I suppose it comes from people wanting to be correct and not trusting themselves, fearing they'll seem like uneducated country bumpkins in his day, if they told what they saw and how it struck them. I don't remember ever being forced to wear those sorts of blinders when I was a child. Children do report what they see. If they're not pooh-poohed and are listened to respectfully, grown-ups usually hear something interesting. That's a way of encouraging people to look with their own eyes." (Wachtel 2002)
- 22 Betty's training is discussed in Jacobs (1961b) and Kunstler (2001). She worked in the home furnishing department of Abraham and Strauss in Brooklyn when her younger sister first joined her in New York City. Her interest in esperanto is described by a friend on the following webpage https://www.youtube.com/all_comments?v=AUeuQT6t7kg&lc=ydBdAMG-jNx-Avb8hgHrdnY9NhfTm-Nqr4lIqEJnk2Ps and during a conversation with Jim Jacobs, one of Jane's sons, we had with him on March 12, 2016.
- 23 See his obituary at <http://www.wellsfuneralhome.com/obituary/James-Jim-Butzner/Waynesville-NC/669019>
- 24 Perhaps what had attracted the most public attention to John Decker Butzner Jr. during his career was serving on the three-judge panel that appointed Kenneth W. Starr as independent counsel investigating US President Bill Clinton. A Wikipedia page devoted to his life and work can be found at https://en.wikipedia.org/wiki/John_D._Butzner_Jr. His archives are preserved at the University of Virginia.
- 25 In 1920, the collection of what is now the Everhart Museum of Natural History, Science and Art contained more than 2,300 bird specimens, 50 fish, 400 mammals, 150 reptiles, 35 amphibians, 2,100 botanical specimens, 25,000 shells, 300 fossils, and 800 minerals. <http://everhart-museum.org/collections/natural-history-collection/>
- 26 Laurence (2009, p. 27) describes her duties as working as "assistant society editor and general reporter, initially covering society items, civic meetings, and arts reviews, and laying-out the Society page, but later developing her own feature stories for the City Desk." Jim Jacobs, during our interview with him on March 12, 2016, recalled that the young Jane Butzner was told to write the entire Letters to the Editor section of this Scranton paper as no one ever sent anything in. She composed letters for weeks. When she mentioned this at home, her father suggested she write a letter complaining about dogs. Jane puzzled over that: What about dogs? The publication deadlines were very tight: She did not have a lot of time to elaborate on her assignment. Apparently, once her letter complaining about dogs appeared in print, public opinion had been so effectively reawakened Jane did not have to write another letter again. Jim also told us a story about another early assignment Jane Butzner was given: creating recipes. At this point in her life Jane could not cook and had no idea what a recipe would look like, much less what to do in order to test and compile a successful recipe. She got together something along the lines of a Normandy Apple Cake, having known there were apples in Normandy. Apparently, the recipe could not possibly work out the way it was written and this upset her mother. Mrs. Butzner told Jane her mistake was having caused others to waste precious ingredients like eggs, butter and sugar. Jane, however, seemed philosophical about her failure, believing people would simply assume there was a printing error in the recipe, or, better yet, read the recipe and, trusting their personal experience, not attempt it. This is an interesting example of Jacobs' civic-minded upbringing, and her early pragmatic stance of trust in the common sense and intelligence of people.
- 27 Jacobs (1984) contains a more detailed account of the fate of this town (under the fictitious name of Henry) and its people.
- 28 To our knowledge, Kunstler (2001) contains the most personal remarks of Jacobs on this issue. Jim Jacobs, Jane's son, also recounted these stories to us during the March 12, 2016 conversation.
- 29 The flower and diamond articles were republished in Allen (1997, 35-36) and Zipp and Storing (2016, pp. 10-21).
- 30 The program became the School of General Studies in 1947 <https://gs.columbia.edu/gs-history>

- 31 Flint (2009, p. 9) summarizes Jacobs' final stance as viewing the Constitution as "a flexible framework that would evolve over time, rather than a rigid set of rules."
- 32 Laurence (2009; 2011; 2016, pp. 54-55) discusses the manner in which the courses Jacobs took at Columbia fit best under the umbrella of geography.
- 33 The UMI Dissertations Publishing database classifies it as a work of economics and lists the degree date as 1941 (Otte 1941), one year (or at least a few months) after the book's publication (Otte 1940). Assuming this information is correct, Otte probably elected to complete his degree under the umbrella of one of the top—if not the best - economics department in the United States at the time rather than in its much lower ranked geography counterpart. Be that as it may, our assumption that instructors tend to discuss the content of their doctoral dissertation is based on years of personal observation... In her review of the book, Douglas (1941, p. 231) highlights the author's "disparaging attitude towards the Authority." Jacobs (1984) later wrote at length and very critically about the TVA.
- 34 Here is how Jacobs (2004a, pp. 177-178) referred to him in her last book: "Henri Pirenne (1862-1935), with his pathbreaking books on the early economic, political, and social development of the cities of medieval western Europe, laid the foundations for modern understanding of cities. He recognized cities as the engines of economic life and explained why they are. In his *Medieval Cities...* he correlates the deepening poverty of Europe through the tenth century with atrophy of city trade in the Mediterranean world (owing to Christian prohibitions against trading with infidels), and the revival of western and northern Europe with revival of intercity trade and, indirectly through Venice, trade with the more advanced Middle East and Asia. An obtuse foreword by Lewis Mumford to a Princeton paperback edition criticizes Pirenne for his emphasis on cities as economic entities. This is of historical interest in showing how far in advance of the conventional thinking of his day Pirenne's work was, and indeed how far in advance it still is from popular and political—and much academic—understanding of cities, trade, and economic development. Foreign-aid donors and recipients of our time would do well to take to heart Pirenne's lessons on the processes of economic revival and development. His is a basic text for understanding how the world's economic networks operate and how they fail."
- 35 Laurence describes Columbia as one of the most prominent geography department in the United States at the time, but DeBres (1989) and Martin (2015) offer conflicting accounts. Suffice it to say that although Columbia counted a number of well-established faculty in the discipline, they were scattered over a number of administrative units such as Columbia College, Barnard College (for women), Teachers College, Summer Session, University Extension and the School of Business. The productivity of the department as measured by both publications and number of PhD students was also well below that of institutions such as Clark University, the University of Wisconsin and the University of Chicago. This being said, the geography program that emerged at Columbia in the mid-1920s did indeed include a range of undergraduate course options in disciplines such as "economics, history, government, botany, zoology, anthropology or other fields" (DeBres 1989, p. 396).
- 36 Biographies of Renner can be found in Percy (1958), DeBres (1986; 1989) and Velikonja (1994).
- 37 In short, Renner published in a 1942 edition of *Collier's* an article in which he suggested redrawing the world map along cultural lines, including a huge "German-Magyar" state that would absorb Switzerland. The article drew numerous criticisms and was viewed as either offensive or an embarrassment by most geographers.
- 38 At the University of Washington Renner taught courses ranging from "Weather and Climate" to "Problems in Political Geography" (Velikonja 1994).
- 39 Desrochers and Leppälä (2010) is a more detailed discussion of the concept.
- 40 Interview with Jim Jacobs, March 12 2016. Jim said: "She could memorize two hours worth of text and then recite it perfectly. She remembered everything. Her memory was amazing: She just never forgot a thing." Page 3 of 9 of interview notes verified by Jim Jacobs on March 26 2016.
- 41 Taylor (1937) is a survey of the main American economic geography textbooks of the mid 1930s.
- 42 The American Institutional School was also to a significant extent an offshoot of German Historicism. Zimmermann belonged to both the American Economic Association and the Association of American Geographers (Barnett n.d.), but his magnum opus proved much more influential among economic geographers (subsequent editions of his main book were often mandatory readings in graduate geography

- programs until the late 1960s) and was classified in North American academic libraries as a work of economic geography rather than resource economics.
- 43 The fact that neither discipline was heavily mathematized at the time obviously facilitated communication between the two groups, but it was also probably the case that many economists were dismissive of the “maps and facts” nature of much of economic geography research. For instance, Predöhl (1928) chided much of the work done by economic geographers for its apparent lack of theoretical underpinning.
- 44 A brief professional biography of Keir can be found in Martin (2015). Although trained in economic geography, he eventually found his way into the economics department. Several of Keir’s books are freely available at <http://onlinebooks.library.upenn.edu/webbin/book/lookupname?key=Keir%2C%20Malcolm%2C%201887->
- 45 One of these was *The Iron Age* that would soon prove crucial in Jacobs’ career as a writer.
- 46 Date obtained from the Rauner Library Special Collections reference service on April 21, 2015: “Malcom Keir passed away on Dec. 18th, 1964 in Natick, MA.”
- 47 Jacobs later told this story somewhat tongue-in-cheek, but she also observed in *Death and Life* that numerous firms had relocated from the financial district to midtown Manhattan because, “as one real estate broker put it, otherwise their personnel department can’t get or keep people who can spell ‘molybdenum’” (Jacobs 1961, p. 155)
- 48 In its heyday, the Chilton Company was a leading publisher of trade and consumer magazines, professional automotive manuals, and craft and hobby books whose main office was located on Park Avenue and 42nd Street. *The Iron Age* was the company’ first and for a long time flagship publication.
- 49 In short, Jacobs’ editor accused her of being a difficult employee (including the fact she was caught smoking a pipe in her office) and of spending too much time peddling freelance stories to other media—mostly the *Sunday Herald Tribune*—based on the work she did for him, although a case can apparently be made that these were mostly the “human interest” side of the technical reports published in the magazine in which he had no interest. Jacobs accused him of being a chauvinist who would not recognize her title and the value of her work by refusing to pay her the same salary a man in her position would command (Jacobs 1961b; Laurence 2009; 2016).
- 50 Her new workplace was located on Columbus Circle, about 2 miles away from her former employer.
- 51 Jacobs also contributed to the agency’s pamphlet division (Jacobs 1961b).
- 52 Union activities were another concern of her investigators. Jacobs was further influenced by Saul Alinsky to the point of thanking him in the acknowledgements of *Death and Life*, although it is unclear what role he played in her thinking and actions in the late 1940s as opposed to her later activism. See also Flint (2009, p. 16).
- 53 As told by Jim Jacobs. Interview of Jim Jacobs and Margie Zeidler by Desrochers, Ikeda and Szurmak, March 12, 2016.
- 54 Saxon (2001) is an obituary of Kirk.
- 55 Kirk’s date of birth is from <http://www.beecherandbennett.com/obituary/The-Reverend-William-Henry-Kirk/Hamden-CT/216624>
- 56 Because she lacked a formal academic affiliation Jacobs worked out an arrangement with the New School for Social Research.
- 57 A biography of Gilpatric is available on the website *100 Years: The Rockefeller Foundation* <http://rockefeller100.org/biography/show/chadbourne-gilpatric> Gilpatric’s support of Jacobs seems to have been one the highlights of his career.
- 58 This being said, she told Kunstler (2001) she did not hang out with “Greenwich Village Bohemians” that would now be the subject of much attention on the part of creative class theorists. She did, however, get to know Bob Dylan before he became a celebrity (As told by Jim Jacobs during a conversation with Desrochers and Szurmak on May 8 2016 during the “Jane at Home” exhibit).

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Jane Jacobs as Spontaneous Economic Order Methodologist: Part 2: Metaphors and Methods

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I have shown that into every act of knowing there enters a passionate contribution of the person knowing what is being known, and that this coefficient is no mere imperfection but a vital component of his knowledge.

—Michael Polanyi, *Personal Knowledge: Towards a Post-Critical Philosophy* (1958, p. v)

Any human settlement is an economic equivalent to a local ecosystem. Just as ecology is the economy of nature.

—Jane Jacobs, interview by Stewart Brand (1998, n.p.)

Abstract: Jane Jacobs, both the person and her work, appear to be trending upward on the academic interest scale, particularly in the year marking the centenary of Jacobs' birth. Although most researchers are still drawn to her writings on urban spaces and their human interactions, a few have begun to discuss her economic insights, and others yet have published comprehensive biographies. Interest in the inductive methodology Jacobs used to generate her ideas, and in the organized complexity paradigm that shaped her work and worldview, however, has been sparse because of their apparent lack of scientific rigour. This paper, the second of two connected works in which we explore both the development and the full fruition of Jacobs as spontaneous economic order theorist and methodologist, discusses her use of metaphor and inductive methods as tools firmly in, and of, the current philosophical understanding of acceptable research methods in the social sciences. In addition to positioning Jacobs' methods within the realm of the philosophy of science, we also examine her research strategies and discuss the critical reception of the theoretical and methodological aspects of her work.

Keywords: Jane Jacobs, spontaneous order, induction, inductive reasoning, Jacobs spillovers, organized complexity

JACOBS' USE OF LIFE SCIENCE METAPHORS

Methodological Breakthrough: Organized Complexity Metaphors

As Jane Jacobs readily acknowledged, her outlook was profoundly influenced by students of the natural world who had long ago rejected the Enlightenment's view that nature "seeks standardization, uniformity, universality, immuta-

bility" and observed instead that it is "a force forever hostile to uniformity, a force that insists upon diversity. Thus today we think of standardization, and immutability... as being literally unnatural" (Jacobs 1980, p. 113). Indeed, Jacobs added, evolutionary biologists "tend to equate goodness with the correlation between unconstrained smallness and innovation and the sheer exuberant diversity of life" (idem). To her, the parallels with urbanized economic life

were obvious and she made it her goal to uncover striking similarities between “the root processes at work... in human and natural ecologies” (Jacobs 1984, p. 224).

The drive to explain the processes at work in urban ecosystems by harnessing such insights dated back to Jacobs’ first encounters with the sciences: “From the time of her science courses at Columbia, Jacobs followed scientific developments in such emerging fields as genetics, cybernetics, and complexity science, which enabled her to argue that concepts and research methodologies familiar to the life sciences could be applied to cities” (Laurence 2016, p. 54). As Laurence (*idem*) argued,

[d]iscoveries in the biological sciences, which revealed the complex workings of biological systems, helped to corroborate her belief that fully functioning cities cannot be spontaneously generated from utopian and artistic desires.[...] In *Death and Life*, she thus compared the ‘immense and brilliant progress’ made in the life sciences between the 1930s and the 1950s to the stultification of the ‘pseudoscience’ of city planning during the same period with intellectual conviction, not just rhetorical bluster.

Exposing parallels between natural and human ecosystems became Jacobs’ most enduring paradigm, stemming from the conviction that the sciences had the right tools and the right mental models to illuminate the complexity of human organization: “[...] cities had to be considered a part of nature, functioning like other natural and living systems” (Laurence 2016, p. 54).

In *The Nature of Economies* Jacobs argued that both thriving biological systems and healthy economies share four common characteristics: (1) development (either differentiations emerging from within generalities or differentiations becoming new generalities from which further differentiations then emerge); (2) expansion (quantitative change); (3) self-maintenance through “self-refueling;” and (4) evading collapse (i.e., constant self-correction) (Jacobs 2000). When economist Sanford Ikeda asked her what she thought her most important contribution to economic theory was, Jacobs answered “the discovery of the fractal” (Ikeda 2006b, p. 21; see also Jacobs 2004b). Fractals show the same patterns at all scales; Ikeda, an Austrian school economist, interpreted what Jacobs said to mean “the same kinds of emergent forces and complex network relations that support dynamic neighborhoods appear again at the

level of the city, the region, and ultimately on a global scale” (2006b, p. 21).

The City as Organized Complexity in Life Sciences

Although she already referred to herself as a “city naturalist” in 1940, the key passages to understand Jacobs’ overall paradigm and transition to theorist are to be found in her *Death and Life* (1961) chapter titled “The Kind of Problem a City Is” in which she summarized and expanded upon the former Rockefeller Foundation Vice-President for the Natural and Medical Sciences program Warren Weaver’s (1948) classic essay “Science and Complexity.”²¹ Jacobs’ pivotal chapter contains eleven mentions of Weaver, including ample paraphrases and citations. Jacobs set the stage for Weaver’s insights by writing about the role of a philosophy of mind and a philosophy of science: “the mental methods we can use for probing the world [...] methods of analysis and discovery that had gotten into human brains: new strategies for thinking. These have developed mainly as methods of science. But the mental awakenings and intellectual daring they represent are gradually beginning to affect other kinds of inquiry, too” (Jacobs 1961, p. 428). With these new methods of analysis, “the very nature of some puzzles are no longer what they once seemed” (Jacobs 1961, p. 429).



Warren Weaver

Figure 1: Warren Weaver (1894-1978).

Source: Rees 1987, p. 492.

Having set the stage, Jacobs (1961, 429) introduced Weaver’s work:

To understand what these changes in strategies of thought have to do with cities, it is necessary to understand a little about the history of scientific thought. A splendid summary and interpretation of this history is included in an essay on science and complexity in the 1958 *Annual Report of the Rockefeller Foundation*, written by Dr. Warren Weaver [...]. I shall quote from this essay at some length because what Dr. Weaver says has direct pertinence to thought about cities. His

remarks sum up, in an oblique way, virtually the intellectual history of city planning.

Next, Jacobs recounted the three stages of development in the history of scientific thought Weaver had identified based on the type of problems scientists had learned to tackle. First were problems of simplicity that contained two factors directly related to each other in their behavior, such as gas pressure and volume. After 1900, physical scientists developed statistical methods to tackle problems of “disorganized complexity” that involved millions or even billions of variables where systems as a whole, rather than each unique variable, possess certain orderly and analyzable average properties. Examples of this type include the motions of stars, behavior of atoms, or the properties of telephone exchanges. Jacobs wrote: “The life sciences, such as biology and medicine, could not be [probed by this method of analysis {based upon statistical ideas}], as Dr. Weaver points out. [...] the life sciences were neither problems of simplicity nor problems of disorganized complexity; they inherently posed still a different kind of problem, a kind of problem for which methods of attack were still very backward as recently as 1932, says Dr. Weaver” (Jacobs 1961, p. 431).

A third set of problems was later identified between these two extremes in which a moderate number of variables were interrelated. First discussed in the context of the life sciences, such problems included the description of aging in biochemical terms, or why salt water fails to satisfy thirst. As Weaver put it: “These problems, as contrasted with the disorganized situations with which statistics can cope, *show the essential feature of organization...* they are not problems of disorganized complexity, to which statistical methods hold the key. They are all problems which involve dealing simultaneously with a *sizable number of factors which are interrelated into an organic whole*” (quoted by Jacobs 1961, p. 432).

Jacobs’ chapter title was derived from Weaver’s identification of organized complexity as a class of problems, exactly the “kind of problem” (Jacobs 1961, p. 431) to which the dynamics of urban interactions belonged. To Jacobs, the elaboration of urban interactions as a “kind” or class of problem was extremely important as she further first paraphrased, then quoted Weaver:

In 1932, when the life sciences were just at the threshold of developing effective analytical methods for handling organized complexity, it was speculated, Dr.

Weaver tells us, that if the life sciences could make significant progress in such problems, ‘then there might be opportunities to extend these new techniques, if only by helpful analogy, into vast areas of the behavioral and social sciences (Jacobs 1961, p. 432).

With this, Jacobs was, in effect, establishing the theoretical basis for her study of cities. She was, in parallel with Weaver’s text, laying down the foundation for studying urban interactions as scientifically as biologists studied insect colonies or marine ecosystems. “[I]f only by helpful analogy” (idem), Jacobs was ushering in a new era of thinking about cities as a vastly new and more interesting class of problem, more dynamic than economic equilibrium theories and more unpredictable than the behavior of *Homo economicus*, yet still “capable of being understood, instead of considering them, as Dr. Weaver puts it, to be in ‘some dark and foreboding way, irrational’” (Jacobs 1961, p. 433).

Having established a scientific basis for the study of cities via Weaver’s work, Jacobs then sketched out her foundational metaphor:

Cities happen to be problems in organized complexity, like the life sciences. They present “situations in which a half-dozen or even several dozen quantities are all varying simultaneously *and in subtly interconnected ways.*” Cities, again like the life sciences, do not exhibit *one* problem in organized complexity, which if understood explains all. They can be analyzed into many such problems or segments which, as is the case of the life sciences, are also related with one another. The variables are many, but they are not helter-skelter; they are “interrelated into an organic whole.” (Jacobs 1961, 433, original emphasis)

Jacobs indicated she understood the limitations of her foundational metaphor of a city as an instance of organized complexity, as found in the life sciences, with organically interrelated problems:

Because the life sciences and cities happen to pose the same kinds of problems does not mean they are the same problems. The organizations of living protoplasm and the organizations of living people and enterprises cannot go under the same microscopes. However, the tactics for understanding both are similar in the sense that both depend on microscopic or

detailed view, so to speak, rather than on the less detailed, naked-eye view suitable for viewing problems of simplicity or the remote telescopic view suitable for viewing problems of disorganized complexity. (Jacobs 1961, p. 439)

Jacobs argued that the same paradigm could be used to study both *classes* of systems. Metaphors derived from the study of one system could be applied as a scaffold to shore up the basic structure of another. There was, however, a limit to what such a scaffold could do. As we will see, Jacobs used metaphors to establish her models; she turned to other methodological tools to probe and refine those models' inner structure and logic.

Is Metaphor a Valid Method?

The importance of metaphor in framing inquiries in the sciences is clearly articulated through the critical realist stance on the nature of mental modeling. Jacobs' desire to expose, study and understand the mechanisms responsible for the observable phenomena, mechanisms she believed to exist independently of herself, made her a scientist in the critical realist sense of that word (Lewis 1996).² Lewis (1996) explained the process of building insights about unfamiliar topics—"reference fixing"—by introducing the concept of the generative metaphor: "A generative metaphor is not merely an ornate expression of similarities and analogies its author was already aware of, but is the *source* of new perceptions of similarity and analogy, picking out similarities and analogies that were unknown until the metaphor pointed them out and thereby brought them to the author's attention" (Lewis 1996, p. 493, original emphasis). Indeed, Jacobs seemed to regard the *cities as organized complexity in the life sciences* metaphor as a generative metaphor allowing her to apply a suite of new approaches to the study of this as yet unexamined problem. Lewis further noted that:

Generative metaphor enables the scientist tentatively to attribute, independent of any prior understanding of the unobservables, relations of similarity and analogy between those inadequately understood entities, mechanisms, etc., and the subject matter of some better-understood domain of scientific inquiry, so that knowledge about the latter can be used to structure an understanding of the former. (Lewis 1996, p. 493)

This is where, however, a generative metaphor may have proven too heavy-handed for Jacobs, and why, perhaps, we

do not see her build a complex set of metaphors resembling a theoretical system. Instead, Jacobs turned to a different set of tools.

Jacobs wrote: "Why reason inductively? Because to reason, instead, from generalizations ultimately drives us into absurdities" (1961, p. 441). Attributing too many aspects of a previous system or entity to a new and unknown system or entity, "independent of any prior understanding" (Lewis 1996, p. 493), may just have been too much of a generalization to Jacobs. If "knowledge about the latter can be used to structure an understanding of the former" (idem), how much of that prior knowledge may obscure or prejudice the understanding of the unique, the non-obvious, yet essential, qualities of the new entity under study? Kanigel (2016, p. 326) excerpted a letter Jacobs wrote to Stewart Brand³ in 1994 about the kinds of evidence one may encounter: "solid statistical evidence," "random, highly suspect anecdotal evidence," and "systematically illuminating cases." We hypothesize that to Jacobs, Lewis' "prior understanding" from an overextended generative metaphor may have thus got in the way of discriminating between "random, highly suspect anecdotal evidence" and "systematically illuminating cases."

Jacobs wrote about the frustration of trying to understand the relationships governing a system by looking for patterns, testing, over and over, and refuting any that emerged: "I don't like all this confusion. I only keep at it because, hard and uncomfortable though it is, it is worse to stay in such confusion" (Letter: March 18, 1985, quoted in Keeley 1989, pp. 34-35; also reprinted in Allen, 1997, pp. 206-7). This would suggest, however, that the ambiguity of a general metaphor, and not an extended generative metaphor, might have been all that Jacobs needed to establish the epistemic feedback loop completed by her use of induction. Perhaps what Jacobs told Stewart Brand in her 1998 *Whole Earth Catalog* interview may help us see how far Jacobs wanted to take a metaphor: "Any human settlement is an economic equivalent to a local ecosystem. Just as ecology is the economy of nature. [...] You can't prescribe for a global economy any more than you can get a handle on prescribing for a global ecosystem. Also, if you get too abstract about these things they become meaningless" (Brand 1998, n.p.). In any case, Lewis' explication of metaphor as a tool of scientific paradigm building fully situates Jacobs' use of it within modern scientific method. The assertion of critical realism of an "objective" reality outside the observer aligns with the objective value of experience as postulated by Polanyi, which we will see in an upcoming section. It

may be in fact argued that Lewis' reference fixing—a way to gain an epistemic foothold in an intellectually uncharted territory—is very much like Polany's personal knowledge construction. In science, Lewis (1996) stated, knowledge construction starts with the metaphor, and that is also where Jacobs initiated her sense-making. In her early work she used different ecological metaphors (slippage, mutation, floating, feeders) for the patterns she would elaborate upon in later works such as *The Economy of Cities*, but her overall outlook always remained grounded in the vocabulary of the life sciences: evolutionary and dynamic.

LIFE SCIENCE METAPHORS: CRITICAL ANALYSIS

It would appear that Jacobs' use of metaphor was generally judicious as two serious drawbacks have always constrained the sustained application of biological metaphors to the study of economic development. The first is that evolution involves no intentionality toward a specific goal, whereas economic development is driven by the satisfaction of human wants. The second is that, with the exception of the smallest levels of complexity (such as genes and microbes), different biological species do not interbreed, while human beings produce new things by relentlessly recombining artifacts, skills and ideas, including the genes of different animal species. So while Jacobs (2000) arguably has a point in observing that growing economies, like complex ecosystems, are “dynamically stable” inasmuch as they can evade collapse by self-correction through the grace of bifurcations, positive-feedback loops, negative-feedback controls, and emergency adaptations, there is arguably a limit to how far one can stretch such analogies.

Like previous writers on economic development who went down the life science path, Jacobs couldn't avoid some long-standing pitfalls. One such problem is that economic development is the result of individuals trying to solve problems affecting them by combining heterogeneous facts, ideas, faculties, and skills on a scale that is unparalleled in the rest of nature. In this context, what about the imprint of historical experience on human consciousness, intentionality and combinations for the purpose of creating new artifacts in nature? As one of Jacobs' (2000) characters pointed out in a book written in a dialogue format, one should not infer cooperation (or interdependence) when plants or animals don't know they are cooperating. To this objection, another discussant gave the example of a Botswana honey bird that enrolls honey badgers⁴ and human beings by guid-

ing them to a hive in the expectation that they will share the fruit of their capture. But can we truly speak of intentionality when species exhibit only one kind of interdependent behavior? And while beavers mix mud and logs to create dams, can they be said to generate development as opposed to simple quantitative expansion (or growth)? While a life science perspective has its advantages, it also exhibits some limits.

Laurence (2009, p. 363) argued that Weaver's essay “galvanized Jacobs' thoughts about the complexity of the city and provided the theoretical conclusion for the sequential and cumulative observations which [she] had described in the preceding chapters... Weaver's science, however, only proved what Jacobs already knew—“that a city could not be designed like a building or a work of art” (idem). Few early commentators, however, have explicitly discussed Jacobs' work in the context of organized complexity, although some, like prominent Canadian regional development scholar Gerald Hodge (1970, p. 134), had observed that “[r]eaders of *Death and Life* will remember a remarkable chapter called “The Kind of a Problem a City Is,” which should be required reading for all urban professionals.” One other exception is the economic thought journalist David Warsh (1984, pp. 23-24) who observed in his book *The Idea of Economic Complexity* that, more than any other, “it is Jane Jacobs who has illuminated issues of economic complexity in a graceful and penetrating way over a long career” and that “attention to the range of interactions in cities, the diversity of skills and products, and the dominating metabolism of export and import are characteristic of Jacobs' vivid approach.”

The individuals who arguably took Jacobs' methodological stance most seriously are the disciples of the Canadian Jesuit philosopher and theologian Bernard Lonergan (1904-1984). Lonergan's most influential book, *Insight: A Study of Human Understanding*, was first published in 1957 and argued, among other things, that “grasping the intelligible in the concrete and the sensible is what allows us to get from particular cases to general principles and from universal theories and laws back to particular cases intelligently” (quoted in Lawrence 1989, iii).⁵ Because of her fondness for the work and approach to education of these individuals, Jacobs eventually donated her papers and other memorabilia to their academic base of Boston College in 1995. Another thinker with whom Jacobs shared some affinities as to complex system and spontaneous social orders is Friedrich A. Hayek, but while the latter was an admirer of her work, Jacobs was not aware of his as she was laying

the foundations to her study of economic life (Callahan and Ikeda 2014; Staley 1989).

Of course, Jacobs was hardly the first writer to use biological and ecological metaphors or to focus on processes and change in the study of both cities and economic development. Indeed, a survey of such work would have to range at least from the urban ecological models of the first generation of the Chicago School sociologists in the early twentieth century (Lutters and Ackerman 1996) to a large number of economists belonging to almost all schools of thought over more than a century (Hodgson 1998). The appeal of such an approach is obvious. Since the most significant processes in the “natural” and “anthropological” realms characteristically exhibit increasing complexity, acceleration through time, and irreversibility, individuals who observed those aspects of reality noted that evolutionary biology should prove a more fruitful source of inspiration for economic development theorists than classical Newtonian mechanics. Mainstream economists, however, had little use for such notions and typically assumed unrealistic conditions such as exogenous technological change, equilibrium (or the absence of entrepreneurial behavior to disrupt it) and optimization. Through her adoption of an evolutionary framework, Jacobs could bypass all this and focus instead on entrepreneurship, technological change and increased diversification over time, processes that, through their dynamic natures, fit poorly into the standard static models of economic analysis.

The common threads in all of Jacobs’ main books are the benefits inherent to (dense) diversity and unmasking how decentralized and self-generating development processes relentlessly promote ever more diversity over time. For instance, she observed that the “[g]enuine, rich diversity of the built environment is always the product of many, many different minds, and at its richest is also the product of different periods of time with their different aims and fashion. Diversity is a small souls phenomenon. It requires collections of little plans” (Jacobs 1981, p. 249).

Mary Rowe (2014 p. 26) compiled a list of “Jacobs’ Principles” which, when grouped into interrelated clusters, progress from interaction through generation and into the scalable patterns that sum them up:

Autonomy
Informal
Self-regulating
Non-prescriptive

Generative
Bottom-up
Density
Social Capital
Diversity
Particularities and Differences

Patterns of Interaction: Networks
Feedback loops
Organized complexity
Fractals

From the point of view of urban economy (Storring 2014), these principles may be rearranged and grouped as follows:

1. Eyes on the Street
2. Social Capital
3. Generators of Diversity:
 - a. Mixed Uses
 - b. Aged Buildings
 - c. Small Blocks
 - d. Population Density
4. Form still Follows Function
5. Local Economies
6. Innovation
7. Make Many Little Plans
8. Gradual Money
9. Cities as Organized Complexity
10. Citizen Science

Indeed, these themes would be so pervasive in her work that Jacobs felt “she had been writing the same book, over and over” (Rowe 2014, p. 23).

The Kind of Method Induction Is

As Cichello (1989 p. 118) observed, one of the most hotly contested issues in the philosophy of science has always been “how one determines just what is a ‘sufficient’ frequency or regularity, and just how this sufficiency relates to validity,” a question obviously at the heart of many debates on what conclusions can one draw from inductivist approaches. Another known problem of induction is C. S. Peirce’s problem of reliably determining plausible, not just possible, rules (Holland, Holyoak, Nisbett and Thagard 1989). Jacobs’ use of inductive strategies prompted commentators such as Manshel (2010 n.p.) to write that she produced “overblown pronouncements and unprovable theories,” and had a “tendency toward sweeping conclusions based on anecdotal in-

formation,” methodological criticisms that reveal as much about the state of an educated person’s understanding of the aims and limits of science as they do about said (hypothetical) person’s ability to stomach ideas both simultaneously non-ideological (or incompatible with one’s perspective) and unsettlingly iconoclastic. To pry at least the former of these away from the molten core of outrage at Jacobs’ “unprovable theories”, one needs to reach back in time to the foundations of the philosophy of science for a recapitulation of some of its recent transitions.

Hierarchy vs. Complexity: Legacies of Mechanism

Computer science and philosophy scholar Andrei Sorin in his treatise on knowledge construction, *Software and Mind* (2013), built on the work by E. J. Dijkserhuis and Richard Westfall, among others, to illuminate the need to understand and support non-mechanistic methods against the still prevalent mechanistic interpretations of reality. Sorin (2013) wrote that mechanistic approaches combined the insights of earlier Greek atomism with the newer reductionism to arrive at a picture of the world in which all processes, systems and entities could, and should, be disassembled into their constituent parts. These, in turn, would be studied dispassionately one by one, and independently of each other, before being reassembled to give a fully characterized picture of the world. While psychologically satisfying for the practitioners, the mechanistic approach has limiting flaws: “[R]eductionism and atomism are valid only for *independent* [Sorin’s emphasis] phenomena; that is, when the lower-level phenomena can be isolated and studied separately” (Sorin 2013, p. 80). Most systems or phenomena in the life sciences and the social sciences, instead, show a great degree of interdependence between their elements and sub-processes, as Jacobs noted while reflecting on Weaver’s article.

The key conceptual and foundational assumption of mechanism is: “to understand a phenomenon means to be able to represent it with a hierarchical structure” (Sorin 2013, p. 89). This is important to us as it highlights the interdependence between the mechanistic worldview and the understanding of all knowledge as intrinsically hierarchical. Adding new knowledge to a hierarchical knowledge structure may prove problematic: Not only does each new piece of information need to be placed on the right level of the hierarchy, but also, and more to the point, each new piece of information may challenge the hierarchy. Thus, while the mechanistic paradigm does well with systems that are static or lacking complexity, complex dynamic sys-

tems will, by their nature, disrupt a hierarchy that oversimplifies too many of their processes and negates the spatial and temporal interdependence between different “levels”. A hierarchical and atomistic paradigm, in addition, also supports another tenet of mechanistic and Cartesian approaches to science: the preservation of impersonal detachment from the object of observation. Even though we have not yet addressed detachment and objectivity, they will become significant shortly.

Now that we have sketched out the strengths and weaknesses of the mechanistic paradigm of science, we need to establish that this paradigm dominated the sciences and the social sciences when Jacobs’ work first started gaining notice. Next, we will have to connect non-mechanistic methods to the study of complexity, and complexity to induction. Sorin’s work (2013) can help on both counts, first in establishing that non-mechanistic approaches are defined by their ability to account for and accommodate complexity, finally in realizing that mechanistic dogma still permeates the structures of the sciences and the social sciences almost sixty years after Weaver wrote so eloquently about the problems of organized complexity. For help with understanding the nature of scientific knowledge, and for help with evaluating Jacobs’ research methods, we will eventually turn to Michael Polanyi and, finally, to Karl Popper.

Last Stop for Hierarchy: Abduction

Before we analyze inductive thinking as an antidote to mechanistic assumption-building, let us visit one more methodological alternative to induction. C. S. Peirce identified abduction as a method for generating hypotheses by determining which explanation best fits the known facts (Holland et al. 1989). Abduction differs from a generalization in that it attempts to produce an explanation, not just summarize known facts. As Holland et al. explained (1989, p. 89), “[a]bduction will often require search through the default hierarchy of relevant concepts to find the most appropriate explanatory hypothesis.” Since abduction plays a role in the generation and verification of scientific theories (Holland et al. 1989), one could argue that Jacobs may have been convinced she was using induction but was instead picking from known alternatives abductively. Hacking (2001) further muddied the differences between induction and abduction by noting that both were “risky” hypothesis-generation methods based on experience.

No one can assert with certainty that what is happening inside another person’s mind is adequately communicated by that individual’s conscious and unconscious expres-

sions. One may perhaps approximate that reality by analyzing a sufficiently large or sufficiently meaningful sample of that person's documented output. Setting aside Jacobs' own (1961, pp. 440-441) discussion of her use of induction, which we will shortly examine, how else can we recognize and label her mental processes?

Jacobs readily embraced metaphor, as we have shown, but she rarely used the kind of generative metaphors requiring multiple inferences and assumptions through which she would define an entire system in terms of, or analogously to, something else. Instead, Jacobs chose open-ended metaphors that gave her access to tools and methods rather than sets of facts, as we may remember from *Death and Life*: "The organizations of living protoplasm and the organizations of living people and enterprises cannot go under the same microscopes. However, the *tactics* for understanding both are similar" (Jacobs 1961, p. 439, our emphasis)

This observation, and statements like it, particularly in her landmark *Death and Life* (Jacobs 1961, pp. 428-468) methodological chapter provide a sampling of Jacobs' outlook on the kinds of metaphors and inferences with which she was comfortable at the time when she was first coming to grips with them. As stated earlier in a letter she wrote about her methods, she tried to come to the issues she analyzed with very few preconceptions and no real sense of directions as to the evidence she should examine:

When I start exploring some subject, I hardly know what I think. I'm just trying to learn anything I can about it. Rather than reading systematically, which is possible only if you know what you want, I read as omnivorously as I can manage, in anything that interests me. I often don't even know why I'm interested in some facet or other, and all I can say about that is that from experience I've learned to trust myself when I'm interested. (Letter: March 18, 1985, quoted in Keeley 1989, pp. 34-35; also reprinted in Allen 1997, pp. 206-7).

It is important to notice Jacobs' confirmation she did not try to fit any of her initial observations to known models as that kind of systematic ordering "is possible only if you know what you want" (*idem*). Further, Jacobs admitted she found, as she researched, that her idea of what was central to her, or what, indeed, was her purpose, shifted as she continued collecting observations:

As I read, and also notice things concretely, patterns from this information begin to form in my mind. Also, I learn that what I thought originally was "the subject" is not necessarily the subject, or is only an alley or sideshoot of it—that there is a lot else to it, or underneath it. So I make outlines as I go along, but they keep changing, and what I end with bears little relation—or relation in very small part—to what I was starting with, I thought. Very messy. (Letter: March 18, 1985, quoted in Keeley 1989, pp. 34-35; also reprinted in Allen 1997, pp. 206-7).

Jacobs, thus, did not appear to navigate a hierarchy of best-known solutions that fit her data, as she would do if she reasoned abductively. She instead allowed herself to dwell in the "very messy" realm of emerging patterns, knowing full well that even their early categorizations ("outlines") will be changing throughout as more data is gathered. Jacobs' descriptions of her work methods convey her awareness of her own discomfort with the unknowns she was facing, hinting at a tension between a facile resolution, which abduction might have brought her, and her ultimate, and uncomfortable, response of slogging through the unknown until the patterns emerged and could be tested. Her statement "[w]hen I start exploring some subject, I hardly know what I think" (*idem*) coupled with her admission that she often ended up in a very different place from the one where she started may perhaps help us put aside the (reasonable) idea that Jacobs classified her early observations according to some abductive schema of *a priori* hypotheses. Aside from her guiding metaphor of city as organized complexity as observed in the life sciences, which encouraged her to carry out close and detailed observations of various city dynamics, Jacobs appears to have approached her work with her mind a *tabula rasa*.

Now that we have investigated Jacobs' metaphors, their relationship to her methods, and a certain affirmation of her methods as inductive rather than abductive, let us examine the nature of personal observation, its relationship to induction, and the place of induction among the methods of science and social science.

"Passionate Contribution": The New Nature of Knowledge

Let us return to the problem of organized complexity and the insufficiency of mechanistic reasoning in dealing with the analysis of complex problems. The philosopher Michael Polanyi has written extensively about the creation and accumulation of new knowledge, and, what is just as impor-

tant to us, about what it means to “know” in the sciences. In fact, his 1958 book *Personal Knowledge: Towards a Post-Critical Philosophy* addressed the crisis brought about by the perception that subjectivity would destroy scientific objectivity, and, along with it, “proper” scientific knowledge. Polanyi (1958, p. iv) set out to confront this issue directly: “I start by rejecting the ideal of scientific detachment. In the exact sciences, this false ideal is perhaps harmless, for it is in fact disregarded there by scientists. But we shall see that it exercises a destructive influence in biology, psychology and sociology, and falsifies our whole outlook far beyond the domain of science.” Polanyi followed his rejection of detachment with the indictment of the mechanistic idea of a detached and modular knowledge in favour of an understanding of knowledge as a conscious act of personal commitment (*idem*). Knowing something, Polanyi posited, is vitally dependent on the individual involved in the act of knowing making a new connection, now accessible to others—thus not subjective—yet initially obscured, a connection that does depend on that individual’s context, experience, choices and awareness (Polanyi 1958, pp. iv-v, original emphasis):

[T]rue knowledge is deemed impersonal, universally established, objective. [...] I regard knowing as an active comprehension of the things known, an action that requires skill. [...] Such is the *personal participation* of the knower in all acts of understanding. But this does not make our understanding *subjective*. Comprehension is neither an arbitrary act nor a passive experience, but a responsible act claiming universal validity. Such knowing is indeed *objective* in the sense of establishing contact with a hidden reality; a contact that is defined as the condition for anticipating an indeterminate range of yet unknown (and perhaps yet inconceivable) true implications. It seems reasonable to describe this fusion of the personal and the objective as Personal Knowledge. Personal knowledge is an intellectual commitment [...].

Before we go on, let us pause and reflect on the implications of Polanyi’s reconceptualization of the act of knowledge on the legitimization of Jacobs’ methods.

Manshel (2010, n.p.) accused Jacobs of having a “tendency toward sweeping conclusions based on anecdotal information.” Harris (2011, p. 72) argued that Jacobs’ “published works lacks anything that might reasonably be construed as a test or even a methodical demonstration of facts.” For

instance, there is no evidence of “any systematic attempt to observe the sidewalk ballet on Hudson Street at different times of day or days of the week” or that Jacobs “considered trying to trace the long-term fate of paired samples of specialized, as opposed to diversified, cities.” More recently, Lev Bratishenko (2016) described Jacobs’ methods as antiquated, amateurish, sowing prejudice and disinformation:

Her speciality was the induction of rules from patterns discovered by individual observation, like a 19th-century gentleman scientist. Her work gave seriousness to reactions that might otherwise be dismissed as taste, ignorance or prejudice. [...] [S]he seems not to have doubted the objectivity of her observations. [...] She wrote that there were three kinds of evidence: ‘solid statistical evidence,’ ‘random, highly suspect anecdotal evidence,’ and ‘specifically illuminating cases.’ If you agree with the conclusions then the anecdote is illuminating, and if you do not, it is just random. When confronted with the obvious problems of this kind of cherry-picking, her famous retort was, ‘Darwin didn’t have data either.’ (Bratishenko 2016, n.p.)

Manshel, Harris and Bratishenko are, in fact, bearing witness to Sorin’s (2013, p. 14) observation that we “[...] are trained to think mechanistically, and are expected to pursue only mechanistic ideas, regardless of whether these ideas are useful or not. Moreover, non-mechanistic ideas are dismissed as ‘unscientific,’ even if shown to be useful.” Manshel, Harris, Bratishenko and other critics, more than fifty years after the publication of Polanyi’s *Personal Knowledge*, rejected Jacobs’ ideas for lack of rigour. They did so because her ideas were formulated through her engaged observation and targeted expertise, as well as her full intellectual commitment to the systematic use of the inductive method in discovering bottom-up processes, but without recourse to the mechanistic sloughing off of complexity and context. If we are to accept Polanyi’s and Sorin’s insights, had Jacobs eschewed “illuminating cases,” “anecdotal information” and “sweeping conclusions,” the novelty and incisiveness of her observations may have been lost altogether in a decontextualized and detached footnote to some generalized processes that may or may not apply elsewhere. Chances are, however, Jacobs would have missed her insights as she could not have developed them without a deep personal engagement with her subject.

While Polanyi’s explanation of knowledge as an intellectual commitment bearing witness to a deeper, objective

reality is elegant, it is also powerful and moving. Polanyi, like Jacobs, realized that theories not rooted in life are sterile (Polanyi 1958, p. v): “I have shown that into every act of knowing there enters a passionate contribution of the person knowing what is being known, and that this coefficient is no mere imperfection but a vital component of his knowledge.” In this manner, to the horror and puzzlement of many critics, Jacobs was the key “coefficient,” if not the multiplier, of her insights.

Polanyi wrote his indictment of the consequences of the mechanistic approach to knowledge before Jacobs published *The Death and Life of Great American Cities* (1961), yet the two works are close enough in publication date that ideas from Polanyi’s field of philosophy may not have diffused into Jacobs’ sphere, regardless of how voraciously and widely she read.⁶ Jacobs does not cite or mention Polanyi in *The Death and Life* (1961) so it is fair to assume she was not sufficiently aware of his work to have her thinking challenged or inspired by his ideas. As an aside, we had asked both Jim Jacobs⁷ and Lawrence Solomon,⁸ two of Jacobs’ long-standing collaborators and “human resources,” to comment on any writers or thinkers that may have influenced Jane Jacobs or may have gained her notice over the years. Both men articulated a similar response that could be distilled to seeing Jacobs read constantly and widely without ever seeming to concentrate on a particular thinker or school of thought, with the possible exception of Adam Smith.⁹ It was as if Jacobs always looked for raw data while systematically filtering out the interpretations of others that could colour her hypothesis construction.

Induction: “The Scandal of Philosophy”

Induction or inductive inference have been discussed by philosophers of science since the time of Plato and Aristotle, and have continued to be analyzed by Bacon, J.S. Mill, Hume, Kant and others (Popper 1962). As many philosophers, including Polanyi (1958) have noted, inductive reasoning, by proceeding from examples to generalizations, may be used to find not just new hypotheses but also confirmations for pseudoscientific theories because it cannot help to verify any statement’s ultimate adherence to reality. Thus, “the problem of induction,” also known as the “scandal of philosophy,” has become the scandal of psychology and artificial intelligence as well” (Holland et al. 1989, p. 1). First, we will introduce more definitions and examples of induction; next, we will explore the notion of induction as a scandal in science and philosophy. Finally, we will show

how Jacobs worked inductively, according to the principles and patterns we are about to expose.

Induction may be loosely defined as the bottom-up process of hypothesis generation based on an extensive examination of data (Bernard 2000). Glaser and Strauss (1967) characterized inductivist methodologies influentially in their grounded theory approach. Their process is illustrated in Figure 2. Over the years, other inductivist methods such as the “literal replication” approach in which “the researcher makes case selection expecting similar results from a series of cases” or else analyzing contrasting cases presenting mostly similar characteristics save an important one (Hirt 2012, p. 43; see also Yin 1984) have emerged. Bernard (2000) surveyed the most widely used inductivist methods in the social sciences. These were updated by Cresswell (2007) and included narrative analysis, phenomenology, and the grounded theory / content analysis feedback loop, which we will revisit shortly. These types of analysis vary in the types of problems they are most suited to, the units of analysis (such as individuals, groups, cohorts), and the focus of intended outcome. Cresswell (2007, p. 78) described phenomenology, for example, as dealing with the “essence of a lived phenomenon.” Phenomenology, narrative research and grounded theory with content analysis have been used in disciplines ranging from psychology and education to anthropology and sociology. These are, of course, the complex disciplines of life sciences and social sciences where Jacobs, along with Weaver, first noted the absurdity of using mechanistic research approaches.

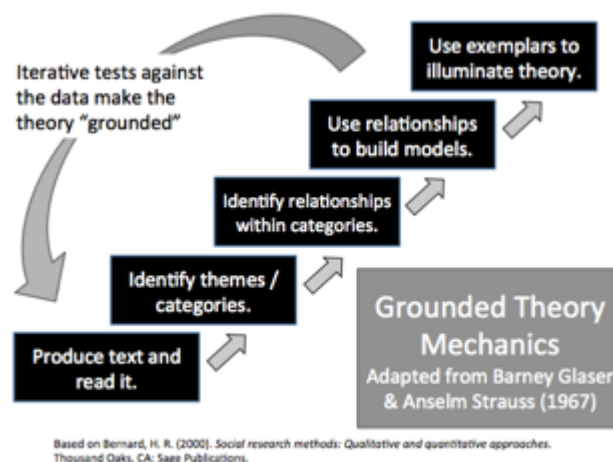


Figure 2: How Grounded Theory Works.

Source: Bernard (2000). Adaptation: Szurmak.

Two things are evident from this lightning tour of inductivist methods. The first of these is the shift in the focus, and a corresponding shift in the shame, of the updated definition of induction. Instead of seeing induction as the regrettable starting point of all theories in the abyss of the particulars, modern induction theories see the method as “encompass[ing] all inferential processes that expand knowledge in the face of uncertainty” (Holland et al. 1989, p. 1). Beakley and Ludlow (2006, p. 101) described inductive methods as “context dependent and guided by prior knowledge,” processes that let one “learn from experience.” Bayesian decision theories, behaviorist psychology and artificial intelligence still bear little resemblance to how people think, but they have made constructing messy hypotheses from complex data more acceptable and, indeed, more elegant. Insertion of new knowledge has been a problem to many of those systems, although the Bayesian algorithms are getting increasingly better at this, as shown by Alexandridis (2006, p. 20), who stated outright that “inductive approaches are more appropriate for studying complex system dynamics, patterns of non-linearity and non-monotonic systemic behavior, and for study of cognitive and learning mechanisms of human inference.” It seems that by the second half of the 2000s the shame of induction dissipated into the fame of Bayesian analysis and algorithmic complexity.

We seem to have dismissed the scandal of induction by showing that by the beginning of the 21st century new fields, and new analytical approaches such as Bayesian analysis, had opened research up to induction. While this appears to stand up to reality, we don’t have to settle for the social acceptance hypothesis of the spread of inductive methods in the sciences. For centuries, the stigma of induction derived from it being the primary method for hypothesis and theory generation while also being called on for verification. How can an inexact bottom-up approach stand up to the rigors of science, especially if it cannot affirm the truth of a statement or a system? Let’s examine the answers by taking another excursion into the philosophy of science.

Karl Popper: Demarcation, Falsifiability and the Perfect Synergy

In his 1935 work *Logik der Forschung*, translated into English in 1969 as *The Logic of Scientific Discovery*, Karl Popper said this about induction: “Now in my view there is no such thing as induction. Thus inference to theories, from singular statements which are ‘verified by experience’ (whatever that may mean), is logically inadmissible” (Popper 1969, p. 18). After apparently trashing the method,

Popper went back to it because of the need to find an acceptable way of disposing of the scandal, which had the effrontery of persisting after Popper slew the beast. Simply put, scientists went on using induction while admitting it was unscientific to use it. Situating induction within the realm of scientific inquiry led Popper (1989) to examine the relationship between experience and objectivity in science. Both of these contributions are vital to our exposition of Jacobs’ methods as scientifically sound. We will start with Popper’s solution to the induction scandal, which will eventually show us why and how the modern uses of induction fit in with science, and Jacobs’ methods fit in with them.

Popper approached the scandal of induction by developing a solution to the problem of demarcation, or reliably distinguishing between science and pseudoscience. Popper (1969, p. 18) stated that:

Theories are, therefore, never empirically verifiable. If we wish to avoid the positivist’s mistake of eliminating, by our criterion of demarcation, the theoretical systems of natural science, then we must choose a criterion which allows us to admit to the domain of empirical science even statements which cannot be verified. But I shall certainly admit a system as empirical or scientific only if it is capable of being tested by experience. These considerations suggest that not the verifiability but the falsifiability of a system is to be taken as a criterion of demarcation. In other words: I shall not require of a scientific system that it shall be capable of being singled out, once and for all, in a positive sense; but I shall require that its logical form shall be such that it can be singled out, by means of empirical tests, in a negative sense: it must be possible for an empirical scientific system to be refuted by experience.

In order to be able to accommodate the life sciences and the social sciences (“natural science”: Popper 1969, p. 18) within the realm of scientific analysis, we must be able to work with hypotheses encompassing complexity, messiness and uncertainty (“statements which cannot be verified”, idem). This is not a problem, in his view, because theories cannot be “verified” or conclusively proven, anyway. What makes a scientific theory or system viable? In order to be scientific, Popper required a hypothesis, theory or system to be capable of being refuted by experience. He bolstered his statement with the following: “Now I hold that scientific theories are never fully justifiable or verifiable, but that they

are nevertheless testable. I shall therefore say that the objectivity of scientific statements lies in the fact that they can be inter-subjectively tested” (Popper 1969, p. 22). Sorin (2013, pp. 213-214, 215) summarized Popper’s later thinking on induction:

What Popper proposes is to combine the methods of induction, which are indispensable for discovering new theories but cannot prove them, with the methods of *deduction*, which cannot create new knowledge but *can* prove statements. [...] The first thing we learn from Popper’s discovery is how absurd is the popular belief that we must *verify* our theories, that we must search for *confirming* evidence. For, no matter how many confirmations we find, these efforts can prove nothing. Rather than attempting to show that a theory is valid, we must attempt to show that it is *invalid*; and the theory will be accepted as long as we *fail* in these attempts. It will be accepted, not because we proved its truth (which is impossible), but because we failed to prove its falsity. Thus, if we sincerely attempt to refute our theories, if we agree to accept only those that pass the most severe tests we can design, our knowledge at any point in time is guaranteed to be as close to the truth as we can get. (Sorin’s emphasis)

Popper (1962; 1989) and Sorin (2013) have thus shown us what constitutes scientific inquiry: Inductively constructing theories based on observations, then attempting to refute them through a deductive process. We will soon show that Jacobs did, in fact, inductively construct theories she then attempted to refute via a deductive process. While doing so, she got as close to the truth of scientific inquiry of cities as she could.

Grounded Theory and the Induction / Deduction Loop

Popper himself, starting with *The Logic of Scientific Discovery*, but even more so in the 1962 to 1989 (5th ed.) follow-ups of *Conjectures and Refutations: The Growth of Scientific Knowledge*, affirmed the need for induction to work with deductive reasoning in order to develop theories that can be both based on reality, and testable.

Getting back to the recent research work in the field, social science has certainly embraced the Popperian reconceptualization of the role of induction. The modus operandi, now widely practiced, is the grounded theory / content analysis loop as described by Bernard (2000) and based on Glaser’s and Strauss’ work (1967). Bernard (2000),

Creswell (2007) and others have included inductive methods as part of a bipartite data analysis and hypothesis testing system. In Figure 3 we have illustrated this feedback loop of inductive theory generation leading to a deductive top-down theory hashing that uses falsifiability, not verification, as the mechanism of (temporary) theory acceptance. The cycle is ready for endless refinements, and induction is never used as the mechanism for the verification or, indeed, the falsification of a hypothesis. Induction is the generative side of the feedback loop. On the testing side, one progresses deductively from a theory to further hypotheses, and one attempts their falsification. This is where induction has quietly found its niche while the debates about the absurdity of an inductive basis for scientific observation have died down. As we will show, this is also how Jacobs appears to have worked, gathering observations in the ways, and on a scale, commensurate with the kind of a problem a city is, and testing her hypotheses precisely the way Popper had demanded that she do, by trying to refute her own ideas, over and over again.

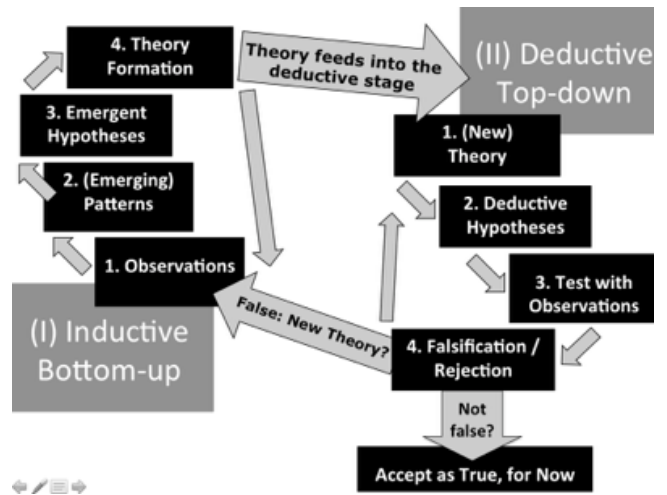


Figure 3: The Feedback Loop between Inductive Theory Generation and Deductive Theory Testing.

Illustration: Szurmak.

The Jacobs Coup: Objectivity AND Falsifiability

While dealing with Popper’s derivation of the correct logical place of induction in scientific theory formation, we also encountered his definition of objectivity. As a parting theoretical shot, we will compare Polanyi’s and Popper’s views on objectivity, reaffirming Jacobs’ adherence to them, while

reminding ourselves that objectivity was also affirmed in the critical realist analysis by Lewis (1996). Polanyi (1958, pp. iv-v) wrote: “Personal knowledge is an intellectual commitment, and as such inherently hazardous. Only affirmations that could be false can be said to convey objective knowledge of this kind.” Since Jacobs worked to refute her theories, we do know that she was able to convey objective knowledge, in Polanyi’s sense of that term, to which she had made a passionate intellectual commitment. Popper (1969, p. 22) added a broader understanding of objectivity, one that Jacobs could be seen to strive for, and achieve:

My use of the terms ‘objective’ and ‘subjective’ is not unlike Kant’s. He uses the word ‘objective’ to indicate that scientific knowledge should be justifiable, independently of anybody’s whim: a justification is ‘objective’ if in principle it can be tested and understood by anybody. If something is valid’, he writes, ‘for anybody in possession of his reason, then its grounds are objective and sufficient.’

Jacobs endeavoured to make her assertions testable and falsifiable, and, above all, understandable by any reader of her accessible books. Even though her hypotheses may have relied on diverse and seemingly “unscientific” source materials ranging from news clippings to personal unstructured observations, they remained objective as long as they could be “tested and understood by anybody.”

Jacobs’ Practice of Induction

Building on Weaver’s essay and her own experience, Jacobs made the case for the inductive approach before Popper’s reconceptualization, and long before grounded theory methods became widespread. Problems of organized complexity, she argued, could not be dealt with satisfactorily through the economists’ and most social scientists’ deductive and statistical methods. Jacobs (1984, p. 206) further suggested that “history does not repeat itself in details, but patterns of economic history are so repetitious as to suggest they are almost laws.” The best way to go about uncovering them, she suggested, was

1. To think about processes;
2. To work inductively, reasoning from particulars to the general, rather than the reverse;
3. To seek “unaverage” clues involving very small quantities, which reveal the way larger and more

“average” quantities are operating.
(Jacobs 1961, p. 440).

If Jacobs insisted that the very essence of cities dictated the study of processes and their catalysts, why did she advocate the inductive method? Because, as she put it (Jacobs 1961, p. 441), “to reason, instead, from generalizations ultimately drives us into absurdities.”

One can surmise that her experience with the urban planning profession had convinced her that deductive reasoning was more likely to result in the adaptation of inadequate analogies and metaphors that, once entrenched, would prove difficult to identify, correct and discard.¹⁰ As she would tell Kunstler (2001) decades later, architects and public officials could justify their behavior to her “because urban renewal was a greater good, so they would bear witness for this greater good. Why was this a greater good? Everybody knew it because slums are bad. But this isn’t a slum... They didn’t care how things worked anymore. That was part of it... Also they didn’t seem to care what part truth and untruths had in these things.” In Jacobs’ (1961, p. 441) words, people trained in deductive thinking “frequently seem to be less well equipped intellectually for respecting and understanding particulars” than people untrained in expertise, but possessing relevant local knowledge.

As she further argued:

Inductive reasoning is just as important for identifying, understanding and constructively using the forces and processes that actually are relevant to cities, and therefore are not nonsensical. I have generalized about these forces and processes considerably, but let no one be misled into believing that these generalizations can be used routinely to declare what the particulars, in this or that place, *ought* to mean. City processes in real life are too complex to be routine, too particularized for application as abstractions. They are always made up of interactions among unique combination of particulars, and there is no substitute for knowledge of the particulars (Jacobs 1961, p. 441).

Why then seek “unaverage” clues involving small quantities? Because statistics typically told very little about how the quantities are working in systems of organized complexity. What one needs instead are “pinpoint clues” that are often “the only announcers of the way various large quantities are behaving, or failing to behave, in combination with each other” (Jacobs 1961, p. 443). These “pinpoint

clues” were connected to “specifically illuminating cases” in that both involved an unapologetic and intimate knowledge of the phenomena under study, not any generalizations or approximations.

Jacobs would further expand on her method through the voice of her character Kate’s explanation of how she went about looking for moral syndromes in her 1992 book *Systems of Survival*:

First, I immured myself in the library, opening to closing. Read, read, read, and took notes... Hit and miss at first, but sharpened as I went along. Biographies; business histories; scandals, sociology, although that was less help than I expected,¹¹ except for some of the Europeans. I dipped into general history and... skimmed some cultural anthropology. Nights at home I clipped newspapers. I drew on three kinds of evidence. Whenever I ran across behavior that was extolled as admirable, I cast it in the form of a precept... I should emphasize, though, that not one of these precepts is here because it turned up as a unique or even a rare instance. Every one showed up over and over, in varying contexts...

Precepts I first drew from one of my three kinds of evidence were reinforced when they turned up, as they did more often than not, in one or both of the other kinds of evidence I used... when I repeatedly ran across evidence for a precept, I included it regardless of any preconceptions I had... In the haste imposed on me, I may have missed important precepts, but I doubt it, because the time arrived when I wasn’t catching new fish, just netting repetitions. Then I holed up at home and tried to make sense of my notes. (Jacobs 1992, pp. 25-27)

Repeatedly, as we pointed out in the section where we rejected abduction as Jacobs’ methodology, Jacobs refused to honor any preconceptions, working instead with the data and whatever emergent hypotheses they manifested. As is obvious from her various books, the range of evidence she built upon is often staggering. For instance, in *Systems of Survival* (1992) she discussed English youth gangs, the pre-historic cultures of India, the Third World debt crisis along with the influence of the Italian mobsters in Canada, the customs of East African tribes, and her father-in-law’s stint as a military doctor in the American Civil War. In *The Nature of Economies* (2000) she freely borrowed ideas and insights from biology, evolutionary theory, ecology, geol-

ogy, meteorology, anthropology, history, political science, economics, and other disciplines. And throughout it all, she assiduously read daily newspapers such as the *Wall Street Journal* and Toronto’s *Globe and Mail*. In the end, though, perhaps the most telling comment on her research method was made by her husband who guesstimated that she tossed out “about 87 percent of her ideas into the wastepaper basket” (quoted in Allen 1997, p. 14).

And so it came to be that having honed her theory building skills in the research and writing of *Death and Life*, Jacobs unleashed her method on issues of urban economic development and stagnation after observing that there were no agreed-upon patterns to explain them. Consistent with her approach, she commented in a 1967 speech that she didn’t know “where to begin,” but observation soon suggested the hypothesis that “a city that is not stagnating economically is a city that is continually casting forth new kinds of economic activity” (Jacobs 1967 in Allen 1997, p. 91). From this insight followed a series of questions, such as “Why do some cities produce these new things?” and “Why are some cities creative only for a time, and then halt?” She then decided that perhaps the best way to shed some light on these problems was to learn more about the history of successful businesses “in the hope that some patterns of what was important would emerge” (idem). They soon did, and reading business histories (many of which were at first taken from the pages of *Fortune*)¹² soon became tiresome as it amounted to “reading the same three historical novels over and over and over again” (idem.). As she put it:

The characters wore different clothing and had different accoutrements around them, at different periods, but they were the same old three stories. As these were American business histories, I wondered if this was quite special to us, and decided to try a different place and time. What better place than London, in medieval times. Luckily for me, I read the wonderful account, written at the turn of the century by George Unwin, of the guilds and companies of economic importance in Tudor and Stuart times. There, sure enough, were the same three plots. I looked further afield; Japan, Russia and China seemed to have the same three plots. I have not yet found a fourth. It may very well be there, but I have not found it (idem.).

The key insight she derived from her research was “that new economic activities come out of the internal economies of cities.” The way she derived the insight was, once again,

by interrogating the data and looking for refutation of hypotheses in different contexts.

When Jacobs worked with source materials and observations, she was arriving at hypotheses that were based on these inputs inductively. Once she had refined hypotheses into theories, she no longer turned to induction for testing. Jim Jacobs offered a description of his mother's method that identified it as inductive in the generative phase, and relentlessly deductive in the testing phase: "Jane tended to reject her work and rewrite it when she spotted contradictions with the evidence, be it what she had been reading, what she knew [...]. Construct a hypothesis bubbling up from the evidence and test it repeatedly against the data to find contradictions. Jane always looked for contradiction, not confirmation."¹³ Decades before either Popper (1989) or Bernard (2000) fully described it, Jacobs was using the research method at the heart of the inductive/deductive synergy. Jim Jacobs further confirmed Jacobs' facility with the method, noting that finding the contradiction would help her focus on the aspects of her work that needed refining, always keeping in mind the need to find an explanation, a mechanism at the root of what she observed:

She was aware of the difference between correlation versus cause and effect, and of the potential separation in time between cause and effect. She searched for the underlying mechanism that could connect events in a causal way; next, she tested the mechanism over and over again, particularly to establish its consistency and recurrence over historic time periods. Validity of the mechanism would be confirmed by its recurrence in different places and at different times.¹⁴

Despite the evidence showing Jacobs' use of induction as ground-breaking and, in fact, predating the use of inductive / deductive feedback loops in the social sciences, we still need to address criticisms of Jacobs' data collection and working habits. After all, how can one do research without a lab, research staff, or even a research plan? Jacobs may not have had a lab, but using the whole city as real-time experiment, and getting occasional help from family, colleagues and friends, she definitely had a research plan and a strict regime she followed for all but her last book.¹⁵ She also had a habit of keeping her efforts modestly under wraps, disguising rather than emphasizing the wide-ranging data collection and the endless trial and error of hypothesis construction:

If I wanted, I could go on and on, but that would only be tiresome and repetitive and perhaps self-indulgent in displaying my industriousness and labor! I go in for a different type of self-indulgence. While I'm not an artist, I do feel bound to try, as far as I'm able, to produce a work of art as well as a piece of truth—and one thing about a work of art is that it conceals, rather than parades, the laboriousness that went into it which was, after all, nothing but the work in its service. (Letter: March 18, 1985, quoted in Keeley, 1989, 34-35; also reprinted in Allen 1997, pp. 206-7).

Because of criticisms of Jacobs' method, we made a point of asking her colleagues, collaborators and close family members who watched and facilitated her work to reflect on her methods. Their descriptions spoke of a disciplined researcher who carefully constructed her arguments before writing them down, and then relentlessly revised and tested them in an effort to disprove them.¹⁶ Indeed, in his brief two-day visit to the Jacobs' archives one of us (Desrochers) came across a not insignificant amount of case material that never made it to her books. Both of us also had a chance to examine some files that Jacobs used to sort her clippings (shown in image 4) and see the wealth of handwritten observations and notes on pieces of paper, index cards, or directly on sources, as shown in images 5 and 6.¹⁷ These folders and annotated sources bore witness to much analysis, classification, re-classification and re-purposing of source materials, as well as the repeated handling and reuse of sources. Jacobs did appear to expend a significant amount of time and intellectual capital on the acquisition, analysis and storage of her source material, showing a systematic scholars' attention to the processes of research.

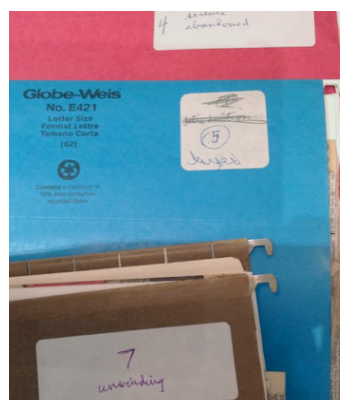


Figure 4: File Folders Jacobs Used to Classify and Store Information.

Source: Authors' Interview with Jim Jacobs, March 26, 2016.

Photo: Szurmak.

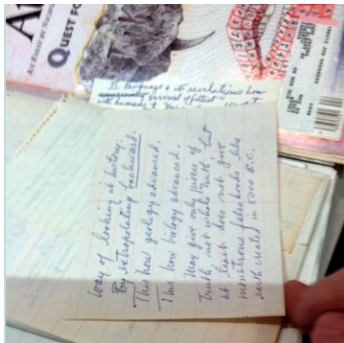


Figure 5: An Annotated Magazine Article from a Jacobs Folder.

Source: Authors' Interview with Jim Jacobs, March 26, 2016. Photo: Szurmak.

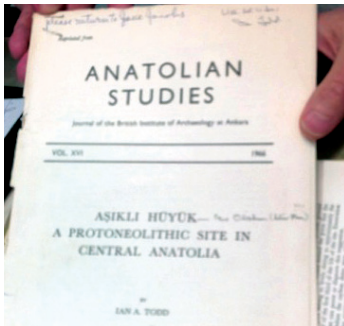


Figure 6: An Annotated Journal Article Reprint from a Jacobs Folder.

Source: Authors' Interview with Jim Jacobs, March 26, 2016. Photo: Szurmak.

As witnessed repeatedly, and recounted by both her son Jim¹⁸ and Energy Probe collaborator Lawrence Solomon,¹⁹ Jacobs had a work process to which she adhered tightly and which she had refined, and used, starting with *The Death and Life of Great American Cities*, through all her books except for *Dark Age Ahead*²⁰. The workflow Jacobs followed could be summarized as follows:

1. Gather information:
 - a. Read widely, including books, articles, magazine stories and newspapers such as *The Wall Street Journal*.²¹
 - b. Observe: “Jane said: Just look. Jane walked and looked. That was *Death and Life of Great American Cities*.”²²
2. Strategize entire chapters in her mind before writing anything.²³
3. Transfer material from her brain to the page by typing it out fluently on a manual typewriter, not a word processor.²⁴
4. Interrogate her work by reading it to herself and arguing back at herself to find contradictions with the evidence.²⁵
5. Revise (in pen on typescript, as evident in Figure 7) or throw out pages that didn't meet the contradiction test.²⁶
6. Rewrite.
7. Again, interrogate against the evidence to eliminate dissonance and contradictions between theories and facts by tweaking theories.
8. Go back to Step 5.²⁷

Jacobs adhered to the inductive generation/deductive testing methodology through every stage of her writing, revising repeatedly and rejecting anything that could be falsified.

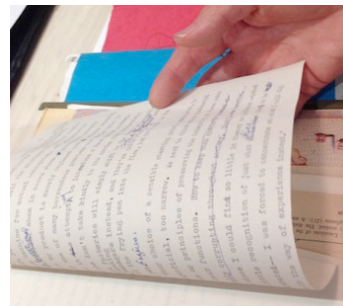


Image 7: An Annotated Typescript Page from a Jacobs Folder.

Source: Authors' Interview with Jim Jacobs, March 26, 2016. Photo: Szurmak.

In addition to her family and colleagues, Jacobs had methodological supporters among her critics. Cichello (1989, p. 158), for one, observed her work closely, suggesting, in the same year that Popper published his inductive/deductive method synthesis, that Jacobs' research method was authentically inductive, with a rigorous deductive testing process:

she is more concerned with grounding statistical data within the underlying intelligibility of the process that they measure, than with statistics for their own sake. She moves from specific and particular observations to general laws and theories, which she in turn is able to apply to other specific situations. Her work is guided by a relentless wonder, by a series of ever-expanding questions, displaying a naturally inductive mental process which the mind can be trained to perform accurately and rigorously.

In scrutinizing concrete economic processes, Jacobs spends a great deal of time trying to discover the conditions under which they function best. She seeks to understand the role that these conditions play in growth and development in order to know how to

foster and encourage innovation and creativity elsewhere.

However, she does not believe that there is a necessary cause and effect relationship between these conditions and innovative growth. Jacobs makes a distinction between creativity and efficiency, insisting that while efficiency can be forced and guaranteed, creativity cannot. The creative process is messy, inefficient, and unpredictable. We can foster the conditions of freedom and opportunity which creativity needs, but we cannot coerce or guarantee results.

Cichello's (1989) analysis was not only insightful and detailed, but also nuanced in how it identified a potential driver of Jacobs' genius, the spark of creativity. "[M]essy, inefficient and unpredictable" (Cichello 1989, p. 158) was very much how Jacobs seemed to find her work on a daily basis, but it had the unexpected and elusive quality of brilliance.

Jacobs' Chronology: Pioneering Inductive Methods

Jacobs used inductive methods to distil her hypotheses from her voluminous observations before 1961; Glaser and Strauss published grounded theory in 1967; Yin published in 1984; the key text on induction by Holland et al. appeared in 1989. Bernard, Cresswell, Hirt and Alexandridis all published in 2000 or well afterward. To our knowledge, no one, it seems, used inductive methods or the inductive/deductive loop on real social science cases, real data and real cohorts the way, and to the extent, Jacobs did before the 1980s. If, for the sake of the argument, we were to calculate a median year from our references, it would be 1996, thirty-five years after Jacobs' most influential book was published. It would be an understatement to say that the widespread acceptance of inductivist methods for hypothesis generation in the social and life sciences took decades. Jacobs was not only an early adopter; she was a pioneer of a method that had not yet been theoretically developed and described when she was first using it to shape her insights into the dynamics of cities.

Judging by Jacobs' current critics, inductive methods are still commonly misunderstood. Simply put, Jacobs scooped the entire field, outpacing two or more generations of researchers. Academics, but also journalists and critics working outside the academia, still lack the background to integrate inductivist methods into their vision of the sciences. Without understanding that (seemingly random) participant observations of city street interactions con-

stitute acceptable grounded theory methodologies in the social sciences, those still predominantly trained in the mechanistic vision of a "pure" science will continue having methodological issues with Jacobs for working with non-reproducible anecdotes, personal observations, and asynchronous historical cases (Bratishenko, 2016; Harris, 2011; Manshel, 2010). Taylor (2006; 1984) observed that "[p]roponents of the hypothetico-deductive method are notorious for their disdain of induction and Jacobs bears the full brunt of their scientific narrow-mindedness." Now that we know that Jacobs' methods adhered to Popper's reconceptualization of the inductive / deductive synergy, those who still disdain Jacobs' work for methodological reasons show themselves to be, again, scientifically narrow-minded.

In "The Kind of a Problem a City Is," Jacobs (1961) wrote about the ability of science to advance from simple two-variable problems to those of both disorganized complexity and organized complexity. Jacobs opened the chapter with (1961, p. 428): "Thinking has its strategies and tactics too, much as other forms of action have. [...] Among many revolutionary changes of this century, perhaps those that go deepest are the changes in the mental methods we can use to probe the world." Jacobs could not have said it better if she were trying to describe the revolution of displacing the "objective" mechanistic analysis in favour of non-mechanistic approaches. And she was, of course: She realized that working inductively, "reasoning from particulars to the general, rather than the reverse" (Jacobs 1961, p. 440), avoided the pitfalls of being driven into absurdities of sterile generalizations. While she embraced inductive reasoning as the obvious way to make sense of the rich data of organized complexity, academia did not catch up to her insights until decades later, and even then, haltingly. Moreover, the academia and the fourth estate failed to see what, exactly, she was doing, and what she was *not* doing, inductively. Michael Polanyi (writing relevant pieces between 1958 and 1966) was the only major thinker to predate Jacobs' 1961 publication. Knowing this may, in turn, illuminate the hostility towards Jacobs' genius as a product of unfamiliarity rather than malice.

CRITICAL ASSESSMENT OF JACOBS

Pragmatism versus Ideology

Now that we have discussed Jacobs' research and writing methods, even more problematic in our opinion is the contention that Jacobs simply illustrated her prior beliefs through a haphazard selection process and did not enter-

tain consistent or ideological “positions” on issues. We have already shown that Jacobs did not work abductively to prove a priori hypotheses. Still, critics like Manshel (2010) accused Jacobs of arriving at conclusions that were sometimes “overblown and/or oblivious to the facts.” Cases in point were Lincoln Center that was “instrumental in revitalizing the surrounding neighbourhood” and how “hyper-gentrification... obliterated demographic diversity in the West Village” (idem) Again, while these specific accusations might have validity, some evidence nonetheless suggests that Jacobs did indeed change her mind over time on issues such as urban renewal policies, the Marshall Plan and the “political and economic unification of Western Europe,” eventually rejecting ideas she originally supported (Jacobs 1952 in Allen 1997, p. 174) before reaching different conclusions at a later date (Jacobs 1984).

Of course, the belief that one can let the facts speak for themselves is ancient and has long been criticized on the grounds that facts only speak through prior human (mis) conceptions (Mises 1957). Indeed, Jacobs readily admitted: “Everybody’s got a worldview whether they know they have it or they don’t... And they are making coherence of what’s good, what’s bad, what will work, what won’t work, what’s noble, what’s ignoble, and so on...all through this filter...” (Kunstler 2001). She nonetheless suggested it was possible to “stay flexible enough or curious enough and maybe unsure of yourself enough, or maybe you are more sure of yourself—I don’t know which it is—that the new things that come in keep reforming your world view” (idem). Yet, she arguably could not let the evidence speak on the generally accepted notion that restricting the supply of land and legislating its use through various measures (e.g., rent control, zoning, etc.) would result inevitably in increased scarcity and higher prices of housing.²⁸

Another common critique of Jacobs’ method was that learning about the present in light of a by-gone era was pointless because of changed conditions and the emergence of new actors, most prominently large R&D laboratories. This belief was arguably dominant among regional development experts by the middle of the twentieth century. Technological changes and the enhancement of labour and entrepreneurial mobility, many of them argued, meant that “such local [Marshallian industrial] specialization... [had] become increasingly rare” while, by contrast, “external economies on the broader basis of urban size and diversity [had] remained a powerful locational force” (Hoover and Giarratani, 1984/1970, p. 121). Schrag (1969) thus (rather lyrically) dismissed Jacobs (1969) as often reading “like a

passion of worlds long gone, separated by continents and ages of time, a romance washed up from a distant shore, well reasoned, documented and persuasive, but mythic nonetheless. A fable of creation,” for what indeed could pin makers, saddlers, potters and wheelwrights teach the world of “ABM and NASA”? Friedmann (1970, p. 479) similarly argued that:

the world had come a long way since the days of [brasiere inventor] Mrs. Ida Rosenthal, and history may be of little aid to us in the future. If industrial research is centrally controlled, as it appears to be in many companies, the location of this activity may be of less importance than the structure of the industry, its business environment, the amount of resources it is devoting to research, and the direction of its laboratories. What may have been true until recently may no longer be true, except perhaps for perilously competitive economies such as Hong Kong’s, where a measure of the old artisan spirit still seems to prevail.

And yet on this, as on a number of other issues, it was Jacobs rather than her critics who was admittedly proven right in later years in light of the demise of many big R&D units and the rise of regional economies such as Route 128 (Boston), Silicon Valley (Bay Area) and Hong Kong/South China.

We posed the question of Jacobs’ ideological leanings, and her willingness to change her opinions and positions, to Lawrence Solomon. Solomon was a long-time colleague of Jacobs and the co-founder, with Jacobs, of Energy Probe, a non-governmental environmental policy organization, in the late 1970s. Solomon summed up Jacobs as: “principled, fearless, non-ideological”.²⁹ He added that Jacobs disliked welfare and public housing, was “allergic to expropriation,”³⁰ both physical and ideological, scoffed at population control ideas, and at attempts by any and all governments to over-regulate and control. Energy Probe’s statement of principles is still filled with values Jacobs would agree with as it aims to “work for environmental sustainability by promoting property rights (private or communal), markets, the rule of law, the right to know, accountability through liability, cost and risk internalization, economic efficiency, competition, consumer choice, and an informed public” (Energy Probe 2016, n. p.).

Solomon suggested that unlike the “academic” side of Jacobs usually on display, her real driver was the desire to act and to solve practical problems. Jacobs “always talked

policy, never politics.”³¹ Those seeking to understand her may be surprised, Solomon said, by the extent to which she was motivated by advocacy: “When there was a fight, she changed her approach. She’d fight tooth and nail. You’d never guess that if you only knew her books.”³² This pragmatic and passionate approach was consistently displayed when it came to aesthetics as well. A building’s primary function was to do or facilitate something: “[S]he did not care about the shape. She cared about the function.”³³ This functional, pragmatic, solution-driven approach may yet be the closest to a *modus operandi*, if not an ideology, for Jacobs.

Jacobs’ views and actions on municipal zoning in Toronto may be a particularly good example of her “policy over politics” and “function over form” approach. Jacobs maintained that the ideal city evolved into mixed-use zoning.³⁴ While she opposed restrictive zoning in principle, she appeared to prefer fighting specific battles that resulted in tangible positive results for the city, as opposed to getting mired in ideological debates. Jacobs, with then Toronto mayor Barbara Hall, led the fight to have mixed use established on King Street.³⁵ Once the two women won, King Street became a vibrant mixed use area, and a destination for diners, art aficionados, and seekers of artisanal products. As policy analyst Janet Neilson³⁶ noted, when it came to municipal zoning, Jacobs “would prefer to transform [it] rather than abolish.”³⁷ While Jacobs was definitely against “strict zoning that tries to segregate uses,” Neilson noted, “it’s hard to make the case that she was against zoning all together”³⁸ as she approved of heritage zoning. In the *Death and Life of Great American Cities*, Jacobs had, in fact, called heritage zoning a case of “zoning for diversity”:

Zoning for diversity must be thought of differently from the usual zoning for conformity, but like all zoning it is suppressive. One form of zoning for diversity is already familiar in certain city districts: controls against demolition of historically valuable buildings. Already different from their surroundings, these are zoned to stay different from them. (1961, p. 252)

Here Jacobs saw the selective use of zoning as a tool to preserve diversity while still cautioning against zoning as a panacea. Jacobs appears to have practiced case-by-case analysis using her inductive method to arrive at practical solutions balancing between regulatory guardianship and individual needs. With Jacobs, as the New York clergyman S. Parkes Cadman once said, it can be said that a “little ex-

perience upsets a lot of theory” (cited by Laurence 2009, p. 274).

City as Organism

If Jacobs’ use of induction was ahead of its time, in our opinion her increasingly strident position that cities are quasi-organisms with lives of their own wasn’t (and was arguably mistaken). In this, though, Jacobs is for once among the mainstream of urban and regional development theorists. For instance, if Friedmann (1970, p. 480) faulted her for emphasizing “artisan creativity,” his alternative was to look at “the behavior of systems of cities and the structure of political controls by which such systems maintain their stability.” For his part Fox (1970, p. 465) suggested that a “better framework lies in central place theory.” In the last three decades regional development scholars who have put more emphasis on localized innovation have examined it through frameworks such as “innovative milieux,” “learning regions,” “regional innovation networks,” “industrial districts,” and “clusters” (Rutten and Boekema 2007). In these perspectives the units of analysis are aggregates that in reality do not engage in production and exchange, nor do they enter and exit markets.

In our opinion, while Jacobs was on the mark when she described cities as nexus of trade and business hatcheries that greatly facilitate injecting improvisations into daily life, her increasingly holistic stance over time lost track of the fact that cities do not arise out of thin air and are, in the end, sustained through both individual human actions based on local transactions and affected by local conditions (including government controls of all kinds) and other transactions and institutional arrangements that take place at a much larger geographical scale.

The way out of this conundrum for regional analysts, we suggest, is an ontological stance that is built on methodological individualism, a topic one of us explored in more detail elsewhere (Leppälä and Desrochers 2012). Suffice it to say here that in his review of *Cities and the Wealth of Nations* development economist Peter Bauer (1985a n.p.; see also Bauer 1985b) hit the nail on the head by observing that:

Mrs. Jacobs rightly argues that the practice of economists of concentrating on nation-states causes them misleadingly to group together rich regions and poor ones within the same nation. But much of her discussion is marred by similarly inappropriate abstraction in treating cities and markets as if they were single decision-making units of homogeneous entities whose

components had identical interests. Thus she may write of a city or a market as though it were an organism with a life of its own.

Friedmann (1970, p. 478) also arguably made a valid point when he discussed Jacobs' musing on the importance of inter-city trade and distant cities as opposed to the immediate hinterland of one urban agglomeration:

In the end, it does not seem to matter where the markets for new industries are located, but only that markets exist and that they stimulate new productive activity. Whether within the city, in the city's immediate hinterland, or in distant regions, it is market development rather than trade that is decisive to a city's growth.

While Jacobs might often have been right when most credentialed experts were wrong, there is little doubt in our opinion that her work would have benefited from the criticisms of knowledgeable and open-minded academics such as Peter Bauer before it was published in book form. To our knowledge, only *Systems of Survival* underwent something like peer-review when an academic conference was devoted to an early discussion of Jacobs' main ideas for the book (Lawrence 1989).

Theorist or Popularizer?

Perhaps one of the strangest claims made against Jacobs by some commentators was that she was anti-theoretical. As Harris (2011, p. 69) observed, "[t]he conventional wisdom, fostered by Jacobs herself, is that she worked inductively and was averse to theory. This is a quarter truth. Far from being averse to theory, she devoted most of her life to developing it. All her major works are guided by clear questions and a theoretical purpose." This is indeed one of Jacobs' main inconsistencies, for, as Warsh (1992) observed, if she had little use for most experts, she was an expert herself. To rephrase somewhat Harris' comments, one could suggest that, like many theorists, Jacobs was allergic to other people's theories and thought her alternative superior. "What makes her truly distinctive" though, Harris added, was that, not unlike "those advocates of old-style urban renewal whom she so vigorously criticized, Jacobs 'rarely felt the need to define her own ideas explicitly and consistently in relation to those of other theorists.'³⁹ Rather than upgrade or extend an existing idea, or work within an established grid of assumptions, she preferred to bulldoze everything and start from

scratch" (Harris 2011, p. 70). And because she "apprenticed as a reporter" she was "ill equipped, as well as disinclined, to construct a fully documented narrative" (Harris 2011, p. 72).

These charges strike us as valid if somewhat unfair, if only because Jacobs typically attacked specific problems from a much greater variety of angles than people trained in, and belonging to, particular academic sub-cultures. As anyone who seriously attempts to cross disciplinary boundaries or who was assigned to a university-wide ethics review board can attest,⁴⁰ similar realities are often described and examined in very different ways by insular academic tribes who do not even share a common language, and in some cases seem to believe either that reality is optional or beyond their field of inquiry. Getting back to basic insights and patterns seems the only logical approach for a theoretically-minded independent writer who is writing for a broad audience and communicating her findings through a commercial publisher. Unlike subsidized academics given the rare privilege of writing without having to worry about being read, Jacobs was very mindful of the fact that her publisher not lose money with her books.⁴¹ Perhaps another reason for Jacobs' reluctance to truly engage academics is that the minor sub-disciplines (urban and economic sociology; urban and economic geography; urban economics and regional science) and more established fields (urban planning, development economics and business ethics) that should have been her natural intellectual feeding grounds were, by and large, hostile to her bottom up and generally *laissez faire* conclusions.

Joseph Stiglitz (2007) said a few years ago of journalist Naomi Klein (2007) she "is not an academic and cannot be judged as one," a statement that in our opinion should be interpreted as not faulting her for not writing and doing research like an academic. For the sake of the reader, this should not shield a public intellectual from critical scrutiny as to the validity and consistency of her ideas, and in our opinion Klein is arguably too much of a demagogue, as opposed to an original theorist, to be compared to Jacobs. What should ultimately matter though is that Jacobs was both a theorist and a public intellectual whose analysis should be compared and contrasted to that of other thinkers and theorists based on her overall arguments and synthesis—as was for example the case in Glaeser et al. (1992)⁴²—rather than by whether or not she was part of a conversation in a particular sub-discipline.

Another consideration is that Jacobs' ultimate goal was to identify perennial economic patterns. Seen in this light,

whether she identified those patterns by reading Herodotus, Alceus or early 20th century economic geographers rather than more recent academic researchers who often reframed older ideas with new jargon, expository methods and empirical evidence should not be viewed as an intellectual deal breaker, at least inasmuch as recent academic work in economic development typically fails to acknowledge predecessors or parallel research lines in adjacent academic sub-disciplines. What would really matter then is whether or not Jacobs' synthesis addressed all the issues relevant to her particular questions in a manner that was internally consistent while adding to previous formulations.

One way to make the previous considerations more tangible is to look at the long-standing view that local economic diversity is more desirable than dominance by a single industry. Traditional arguments to this effect broadly fall within three categories. The first is "urbanization economies," or the idea that diverse firms in close geographical proximity to one another benefit from a wide range of better and more affordable services than would otherwise be the case (e.g., software programmers whose skills can be adapted in a wide range of industries). Second, a diversified economic structure is deemed more desirable for local job creation when a new productive activity is added to the local mix because of the presence of a large number of potential local suppliers the new firm can buy from. Finally, diversified local economies are inherently more stable and resilient than highly specialized ones when one line of work (e.g., Kodak film production) becomes obsolete, or when distant competitors⁴³ overtake local firms.

Jacobs' writings, however, went beyond these arguments and explained in more detail the importance of local economic diversity for entrepreneurial and innovative activities, including the importance of new combinations for innovative work and how crucial local economic diversity is for this process. It is true that a few decades before her Keir (1919) had lamented the deleterious effect of the "blight of [local] uniformity" on human creativity. Closer in time to Jacobs, the economist Simon Kuznets (1960, pp. 328-29) had discussed the "interdependence of knowledge of the various parts of the universe in which we human beings operate" where, for instance, "discoveries and inventions in the field of tensile strength of metals contribute to discoveries and inventions in the field of electric currents." He suggested that "creative effort flourishes in a dense intellectual atmosphere, and it is hardly an accident that the locus of intellectual progress (including that of the arts) has been preponderantly in the larger cities, not in the bucolic sur-

roundings of the thinly settled countryside." This was attributable to the "existence of adequately numerous groups in all fields of creative work" and the "possibility of more intensive intellectual contact, as well as of specialization, afforded by greater numbers." While Jacobs did not mention either Keir or Kuznets, we contend that her discussion of these ideas was arguably more detailed and therefore original. The criterion by which Jacobs should be judged is therefore not whether she was the first to state an argument, but rather whether or not she fleshed it out better than previous writers.

It is also through such criteria that one should examine the charge that, especially in *The Economy of Cities*, she was merely popularizing earlier concepts such as agglomeration economies, export-based multiplier, and opportunity and transaction costs already discussed at some length by scholars such as Thompson (1965), Tiebout (1962), Lichtenberg (1960), Pred (1966), Myrdal (1957) and Pirenne (1949/1927) (Keeley 1989c; Algaze 2001). Here we suggest that these authors themselves often did not cite a range of predecessors who had expressed similar ideas (see, for instance, the literature review of Krzyzanowski 1927) and that, as discussed in more detail by Keeley (1989c), Jacobs' formulation of somewhat similar insights was more complex than that of either Tiebout (1962) or Thompson (1965).⁴⁴

This being said, Jacobs did acknowledge a few scholars to whom she was particularly indebted. A case in point is historian Asa Briggs' (1963) treatment of the distinct economic characteristics of Victorian Manchester and Birmingham, arguably Jacobs' (1969) key comparison in her case for the benefits of economic diversity that departed from the teaching of conventional urban economics. Briggs' key passages are worth quoting:

...the two cities were very different from each other during all periods of the nineteenth century. Four conditions of work in Birmingham set the terms of its social history. First, there was great diversity of occupation... Second, work was carried on in small workshops rather than in large factories, and economic development through the century multiplied the number of producing units rather than added to the scale of existing enterprises. Manchester was quite different in this respect... Third, a large proportion of the Birmingham labour force was skilled and therefore relatively well-off economically... Fourth, there was considerable social mobility in Birmingham, or at

least considerable local optimism about the prospects of “rising in society” (Briggs 1963, pp. 188-189).

Another consideration to keep in mind when discussing Jacobs’ work is the then dominant perspective on the issues she addressed. Suffice it to say that if in 1955 the urban historian Eric E. Lampard (1955, pp. 83–84) could observe in a literature survey that “no systematic study has ever been made of the role of cities in recent economic development,” by the time Jacobs entered the scene the dominant framework of analysis was largely centered on “statements of the spatial conditions required for economic success, but they are not explanations of the process of economic development and spatial evolution” (Watkins 1980, p. 129) and virtually ignored entrepreneurship and small innovative firms (Baumol 1968). Indeed, as Miyao (1987) could write after the publication of *Cities and the Wealth of Nations*: “Despite the long-standing recognition of the role of urban growth and dynamics among economists, most urban models in the economic literature have been completely static in nature, and very little has been done to formulate dynamic urban models.”

Speaking directly to Jacobs’ economic contribution, the Austrian School economist Sanford Ikeda (2006a) expressed similar ideas when he wrote that “[l]ong ago, mainstream economics stopped thinking about markets as urban, and replaced it with what Jacobs called the ‘plantation model,’ in which diversity of inputs and outputs and the uncertainties of time were replaced with simple production functions in a world where time doesn’t matter and preferences don’t change.” In this perspective the emphasis “switched from diversity and complexity to homogeneity and simplicity, from dynamics to statics, and from creativity to efficiency” as mainstream economics became “fixated on this notion of ‘efficiency,’ where today is basically the same as yesterday and tomorrow the same as today, and nothing can be made to work better than it already is.” For Jacobs though, the “successful city is inherently inefficient, and that’s a good thing because a successful city is an incubator of new ideas, where ordinary people, not just ‘creative types,’ can be innovative. Innovation, trial and error, can be messy and inefficient.”⁴⁵ A few years later, Ikeda (2012, p. 80) added that

[t]o the extent that current thinking about economic progress, whether in developing or mature economies, does not take adequate account of the centrality of cities, entrepreneurial discovery, the non-market foundations of economic development such as trust and

social networks, and the importance of demand- and supply-side diversity, Jacobs offers a valuable alternative perspective. Hers is a narrative of a dynamic process in which, in the context of economic freedom, diversity and density give rise to discovery and development.

Arguably, Jacobs’ synthesis and extension of insights that might have once been better appreciated, but had essentially been forgotten by prominent researchers at the time of her writing, was valuable. Besides, Jacobs was certainly original (if not right) in her theory of agricultural origins as a by-product of early urbanization (Bender 1975). The pioneering economic complexity theorist Peter Albin further observed upon the launch of *Cities and the Wealth of Nations* that Jacobs “takes account of what I would call the complexity variable” and “sees cities as multilayered units with much redundancy, and with adaptive capacity” (quoted by Warsh 1992, p. 398). He suggested that she be “looked at more seriously by economists, as the source of a structural theory of technical change, where the word “urban” is less important than underlying terms like complexity, redundancy, thresholds and the rest” for there was in his opinion no similar theory “anywhere in the [economic] literature” (idem).

It is possible, though, that Jacobs did not acknowledge the influence of writers whose reputation was somehow tainted, such as her likely professor George Renner whose work we profiled in the first part of this essay. Algaze (2008, p. 30) further believed she must have come across Herbert Spencer’s (1898) writings for he long ago believed that a “tendency toward increasing heterogeneity was inherent in all features of the universe.”

To be fair, however, even a number of prominent writers sympathetic to her perspective had misgiving about her contributions based on her lack of knowledge or misunderstanding of basic economic theory. The political economist Mancur Olson thus criticized *Cities and the Wealth of Nations* in the following terms:

[Jacobs] has got a strange sort of inductive discovery of the market in [*Cities and the Wealth of Nations*], and even, I think, in *The Economy of Cities*, which has come with the most complete innocence of economics as a discipline. In a way she argues for the market without knowing it. Now she mixes it up with all sorts of ideas about cities which are not really to the point and some ideas about import-replacement which are simply confused and with a general slander against

economic theory because in fact she doesn't understand it. But I think she has some extremely valuable insights, and I think we should value them all the more because she came by them on the strength of her own observation. (quoted by Warsh 1992, p. 397)

Perhaps the most lethal critique of Jacobs' economic work was penned by the free-market development economist Peter Bauer (1985a) who highlighted, among other issues, how her description of economic theory seemed limited to development economics and Keynesian macroeconomics; insufficient appreciation of price theory and of the benefits of agricultural specialization (cash crops); distorted time perspective; and lack of appreciation and insufficiently critical assessment of how economic protectionism and political controls often hurt rural populations for the benefit of their urban counterparts.⁴⁶

However, even Bauer found lasting value in Jacobs' work. He thus observed that, in spite of her shortcomings, Jacobs' understanding of economic development and economic change was "well above most of the familiar contemporary academic and political literature" (Bauer 1985a) on the topic. Suffice it to say that had development luminaries such as Jeffrey Sachs read—and had the modesty to learn from—her, fatally flawed scheme like the "Millennium Villages" project would have never even been conceived as something worth investing in.⁴⁷ Optimistic population and resource economist Julian Simon also became somewhat enamored with her perspective, but unfortunately his untimely death deprived Jacobs of a potential champion.⁴⁸ Austrian economists Callahan and Ikeda (2003) further observed that, despite some gaps in her knowledge of economic thought and theory, Jacobs' writings illuminate how a "well-functioning urban area" and developing economies emerge "as the result of human action but not human design.... from a myriad of individuals each pursuing their own interest and carrying out their own plans, within a framework of rules that encourages peaceful cooperation over violent aggression." Finally, in an ongoing effort through several popular books, Steven Johnson (2001; 2010; 2014 among the most notable) has brought Jacobs' thought back to both the academia and to a new generation of readers, starting with a passionate narrative of her spontaneous order metaphors in *Emergence* (2001).

For all their flaws, Jacobs' economic writings often better stood the test of time than those of her highly credentialed contemporaries. This can likely be traced back in no small extent to her broad worldview and inductively-based

hypothesis creation methodology that always attempted to ground her understanding in real-world conditions and processes without preconceptions and disciplinary hierarchies.

REFLECTIVE CONCLUSION

The ideas of Jane Jacobs have elicited a range of reactions in a multitude of readers, scholars and writers, both in the academia and in wider intellectual circles. Some of these reactions have led to celebrations of her work and life, for example the widely popularized *Jane's Walks* (Storring 2014). Jacobs the urban activist, pragmatic and focused on specific change, became Jacobs the conservationist, the icon of environmentalism, the conveniently pessimistic author of *Dark Age Ahead* (Jacobs 2004a). The novelistic deification of Jacobs as Saint Jane, alongside Saint Bridget Stutchbury, Saint Rachel Carson, and Saint James Lovelock, all gracing the liturgical calendar of a group of agriculturalist disaster survivors in Margaret Atwood's dystopian novel *The Year of the Flood* (2009, pp. 161, 349), shows where the image of Jacobs has traveled in popular culture, and, perhaps, how far the tide of enduring interest has deposited her from where the urban planners and economic geographers would have expected to find her.

Critical voices among public intellectuals still remind readers that deification distorts. Some critics do so in order to swing the pendulum in the other direction, but few of them can avoid the fact that Jacobs' work remains read and relevant. Bratishenko (2016 n. p.), in an effort to "re-balance" Jacobs' life in light of her less known works compiled by Zipp and Storring (2016), condemned Jacobs for "tunnel vision," NIMBY-ism and for her life-long adherence to free-market principles. Bratishenko (2016) wrote, bitterly, that Jacobs failed—as a theorist, as an activist, as an icon—in not being able to save neighbourhoods, including her own, from gentrification. She failed because she lacked the necessary ideological accoutrements of a modern urban saint: the Marxist desire to redistribute and equalize. "Jane Jacobs, crypto-libertarian, offers nothing that would upset the capitalists, and we should not be surprised that she continues to be relevant" wrote Bratishenko (2016 n. p.) in an effort to paint her as a friend of rapacious developers and big business.

In a concise statement on Jacobs' main shortcomings as a social analyst, Harris (2011, pp. 80-81) commented that "[b]y the normal standards of scholarship, in the humanities as well as in the social sciences, her books are defi-

cient in key respects. They assert but fail to demonstrate; they rely on anecdotes; they rarely engage with the ideas of other writers who have tackled the subject.” One could also reasonably assume that in an age dominated by the stylistic conventions of critical theory and postmodernism her readability is also held against her by a number of urban theorists.

One can think of a few defenses of Jacobs in this latter respect. As Creed Rowan (2011, p. 44) observed, and as we showed in our first article, Jacobs obviously “picked up her literary craft not from the other urban planners with whom she is so often compared but from city journalists, hard-boiled novelists, settlement-house writers, and others who wrote for the general public.” And although she appreciated the work of some professors, her lifelong resentment against much of academia and her much broader range of interests than those entertained by more conventional thinkers meant she never felt compelled to abide by (and probably got some personal satisfaction in flaunting) traditional research norms in terms of both methods and exposition.

Perhaps Bendixson (1970, p. 654) put it best when he observed that

Jane Jacobs has rare qualities as an observer and commentator on city life. She manages to combine the viewpoint of a corner tobacconist or sweetshop owner with a knowledge of what writers such as Herodotus have had to say on the matter. Hardly any other living urbanist shares this breadth of outlook, and yet it is obvious that cities—the most complex of all our institutions—cannot be explained by anything less comprehensive. As it is, the fate of city-dwellers everywhere tends to hang to a frightening degree on the understanding and policies of traffic engineers, students of labour markets, architects and other experts.

While Jacobs’ decentralist outlook has had little if any impact among prominent economic geographers, it was appreciated by a number of free-market economists whose work put them somewhat apart from the dominant neo-classical paradigm.

In order to make sense of the economic world around her, Jane Jacobs relied on direct observation and common sense. Paradoxically, this common sense made her something of a radical thinker and a pioneer of modern inductive research methods.

As we have shown, Jacobs introduced and refined methodological innovations of inductive hypothesis forming and

deductive testing that should be acknowledged by scholars as trail-blazing. Whereas the grounded theory / deductive testing feedback loop is now used widely in science and social science research, Jacobs’ deliberate and committed use of this method pre-dated the key late 20th century insights into the relationship between induction, deduction and the scientific method, landing her in hot water with the establishment for her methodological amateurism. Her overall outlook should be a model, inasmuch as profoundly original thinking can be a model, of how to express a deeply individual and engaged knowledge in objective and universally accessible ways.

NOTES

- 1 Warren Weaver left the mathematics department of the University of Wisconsin in 1932 to join the Rockefeller Foundation (Rees 1987 is a detailed biography). Laurence (2006, p. 165) observed that Jacobs came upon this essay serendipitously as it was reprinted in the Rockefeller Foundation’s 1958 Annual Report that first listed her grant to study “the relation of function to design in large cities.”
- 2 To a critical realist, objects, entities and events exist independently of their observers’ perception of them. Lewis (1996) describes the world with those properties as structured and intransitive.
- 3 Stewart Brand is the creator of the *Whole Earth Catalog*, described as a “counterculture magazine and product catalog” at https://en.wikipedia.org/wiki/Whole_Earth_Catalog. Likely because of an overlap of interests and methodologies, Jacobs and Brand had crossed paths on a number of occasions, Jacobs writing reviews for Brand’s books, and Brand interviewing her in 1998, among other documented interactions.
- 4 Honey badgers (*Mellivora capensis*), found across much of central and southern Africa and in southwestern Asia, are small carnivorous mammals taxonomically in the Weasel family (Shapiro n.d.) yet resembling wolverines or skunks. Highly intelligent and fearless, honey badgers appear to be able to strategize and work collaboratively with select other species of animals while hunting.
- 5 On the commonalities between Jacobs and Lonergan, see Lawrence (1989) and Byrne (2003).

- 6 Interview of Jim Jacobs and Margie Zeidler by Desrochers, Ikeda, and Szurmak, March 12, 2016, p. 1 of 9.
- 7 idem
- 8 Conversation with Lawrence Solomon conducted by Desrochers and Szurmak at the Toronto Green Beanery *Grounds for Thought* event “The Real Jane Jacobs” on July 26, 2016.
- 9 While Jim and Larry Solomon only mentioned Adam Smith, we discuss Asa Briggs (1963), one of the few influences Jacobs acknowledged, in another section of this article.
- 10 See, among others, her discussion of Boston’s North End neighbourhood as seen through the eyes of an urban planner.
- 11 As Jacobs told Kunstler (2001) about the only sociology course she took at Columbia: “I sat in on one in Sociology for a while and I thought it was so dumb.” One suspects, however, that this wasn’t a Chicago School-inspired urban sociology class...
- 12 Personal communication with Desrochers, 2003. Apparently Jacobs was still on good terms with the *Time Inc.* conglomerate.
- 13 Typed notes of the interview of Jim Jacobs and Margie Zeidler by Desrochers, Ikeda, and Szurmak, March 12, 2016, p. 1 of 9. Notes were read and verified by Jim Jacobs on March 26, 2016.
- 14 As per note 13.
- 15 As per note 13. “Jane wrote *Dark Age Ahead* while recovering from a stroke. The recovery was apparently quite fast, but Jim said that for a period of about eight weeks Jane could not communicate by speaking. She seemed to have the episodic sections of the book pop out of her mind, but she just typed them out without the whole process of mental layout, revising and reading the work “at” herself, and then meticulously questioning and rewriting it until there were no contradictions. This vast difference in her writing process explains the different texture and content of the book.” p. 2 of 9.
- 16 Interview of Jim Jacobs and Margie Zeidler by Desrochers, Ikeda, and Szurmak, March 12, 2016, p. 1 of 9. Notes were read and verified by Jim Jacobs on March 26, 2016.
- 17 As per note 16.
- 18 As per note 16.
- 19 As per note 16.
- 20 As per note 16.
- 21 Conversation between Lawrence Solomon, Desrochers and Szurmak, July 26, 2016.
- 22 As per note 21.
- 23 As per note 16. Jim Jacobs: “When she got up in the morning, you could see the look on her face, in her eyes, that she was “seeing” in her mind what she would be writing later in the day. Her ideas would be composed and ordered in her mind and she looked as if she were reviewing them, on a page, in front of her eyes. She was thinking about her ideas before she started writing. She could hold entire pages in her head.” p. 1 of 9.
- 24 As per note 21. Solomon said: “She typed her manuscripts, revised with pen, up to 6 drafts. She would think a lot before starting. Typewriters require you to think. Jane wrote out the whole chapter. Sentences were fully formed.”
- 25 As per note 16.
- 26 As per note 16. Jim Jacobs: “She was her own arbiter and audience, and she was highly critical. If she was not happy with the text, it went to the bin. The bin got taken out one day a week, on Tuesday. The rejected typescript pages would be in the house for a few days until garbage day arrived when the bin would be put outside. Once Jane threw out some pages, she would re-write the piece from inside her head again. Sometimes she went back to the bin and brought some pages back. Some ideas made sense again once she re-thought them.”
- 27 As per note 21.
- 28 Interview of Jacobs by Desrochers, Hospers, Ikeda and Shimizu, 2004.
- 29 As per note 21.
- 30 As per note 21.
- 31 As per note 21.
- 32 As per note 21.
- 33 As per note 21.
- 34 As per note 21.
- 35 As per note 21.
- 36 Neilson now goes under the name of Janet Bufton.
- 37 Social media conversation between Bufton, Ikeda and Szurmak, August 2-5, 2016.
- 38 As per note 37.
- 39 We will not address the common charge that in her earlier books Jacobs (1961; 1969) was still writing like a magazine columnist and did not provide her readers with a suitable bibliography (Abrams 1969; Friedmann 1970; Hodge 1970; Starr 1969) because she addressed

the problem in her later work. Besides, the lack of acknowledgement of recent work in the field of local and regional development was arguably even worse in the case of Paul Krugman (see the very diplomatic critique of Fujita and Thisse 2009).

- 40 This was Desrochers' lot for a few years...
- 41 Conversation between Jacobs' son Jim and Desrochers, 2008, and between both authors and Jim Jacobs on March 12, 2016.
- 42 For a critique of the framework used in this paper see, among others Desrochers (2001) and Desrochers and Leppälä (2011).
- 43 For some historical perspective on these issues, see Desrochers and Sautet (2008).
- 44 In short, Keeley (1989c), building on a personal communication with French-Canadian economist Marcel Côté, suggests that Jacobs differed from her predecessors by detailing the emergence of new growth in particular situations and by emphasizing the multiplying effect of import replacement.
- 45 During our interview on March 12, 2016, Jim Jacobs offered a view on Jacobs' "city as an incubator" in which everyone has a chance to innovate. Jane's theory of cities as sporadic incubators of innovation centered on what Jim called a large, unemployed, and affluent labour force concentrated in an area also replete with other underused resources. Such a scenario would naturally arise in a city during a serious economic downturn when entire industries would be speedily put out of business by a new development, or else by outside competition, be it by similar businesses or a new substitute for an old way of doing things, as happened in post-war Los Angeles. These industries would still have capital, a motivated and skilled labour force, real estate and machinery. What was needed was the impetus to do something else, something new in response to the crisis. Jim likened the scenario to that of bare agricultural soil with lots of fertilizer, or to an expanse of land after a forest fire. Jane saw industries retooling around new ideas and new production, spawning rapid growth over the five or so years until market saturation. At saturation, new entrants could not come in nimbly and add, while tweaking their product, to the industry output. A new entrant would be like a sapling trying to come through the undergrowth in a maturing forest: Able to germinate but not able to get enough sunlight and water (market share and advertising presence) to flourish beyond the initial stage.

- 46 For other critics of Jacobs from a classical liberal perspective on issues such as her insufficient appreciation of the role of prices or misunderstanding of the nature of stagflation, see Callahan and Ikeda (2003), Ikeda (2012) and Walker (1984).
- 47 As of this writing, Munk (2013) was the most readable criticism of the project.
- 48 In an essay published posthumously, Julian Simon (Kuran 2000, p. 105) observed that "Jane Jacobs (1969, chap. 1) argued with impressive anecdotes that even ideas that were mainly practiced in the countryside and have long been thought to have been developed there ... were really invented in cities and then diffused to the countryside. Density is an index of both the supply of new technology, through the number of trained minds to produce new ideas, and demand, including (1) the number of producers who will use the new techniques... and (2) consumers who will buy the products that are supplied with the new techniques."

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Experimenting in Urban Self-organization. Framework-rules and Emerging Orders in Oosterwold (Almere, The Netherlands)

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Abstract: The intent of this article is to explore the scope and working of “framework-rules” in relation to self-organization in urban development, both theoretically and empirically. It explores the strategies promoted in Oosterwold (Almere, The Netherlands), and the framework-rules that discipline its emergent development, without wanting to suggest that Oosterwold is a “best practice”. It is an extreme case that helps us to broaden our thinking about governing urban development.

Key words: Almere, Oosterwold, spontaneous order, planning, emergence, Jane Jacobs

I. INTRODUCTION

Almere Oosterwold is an experimental large-scale transformation in the Netherlands, which will be developed mostly on a greenfield surface of 43 km², generating a low-density urban area (with the space for between 15,000 and 18,000 new dwellings). Oosterwold has no master plan or zoning map, but only a limited number of “framework-rules” (Moroni 2015). Oosterwold will therefore be developed in the next twenty years by largely relying on self-organization. According to the strategy promoted by the Municipality, this is an “experimental garden”¹ as there is little experience of this kind in the Netherlands, nor elsewhere (Municipality of Almere 2009). The general idea for Oosterwold is to have a fully demand-driven large-scale transformation which, with the passage of time, will emerge by small private initiatives. All this without any direct public investment as regards collective infrastructures or land preparation.

The intent of this article is to explore the scope and working of framework-rules in relation to self-organization in urban development, both theoretically and empirically. It explores the strategies promoted by the city of Almere, and the framework-rules that discipline its emergent devel-

opment, without wanting to suggest that Almere is a “best practice.” It is an extreme case that helps us to broaden our thinking about governing urban development. The paper is divided into four sections: the first Section structures the main theoretical questions; the second Section analyses the case study of Almere Oosterwold; the third Section discusses the results and evidence; the fourth Section presents the general conclusions.

II. THE PROBLEM

2.1 Emergent orders and urban planning

Michael Polanyi says that an emergent order “is achieved among human beings by allowing them to interact with each other on their own initiative.” The crucial point is that “the use of these spontaneous forces implies that many features of the process creating the order will be beyond our control” (Polanyi 1951/1998, p. 195). An emergent order is produced by voluntary actions respecting few general and abstract rules. In this case, individuals may freely use their knowledge; while society may employ its *dispersed knowledge* (Hayek 1945). An emergent order is therefore neither a

specific product of deliberate human action nor a full natural phenomenon independent from human action. Rather, it is the result of human action but not of human design (Hayek 1967). In other words, it is the emerged product of aggregated actions of agents which shows a certain level of coherence or patterns. Patterns are not mere aggregations of actions but systemic wholes (Harper & Endres, 2012).

Thus, an emergent order differs both from “chaos” and “made order.” On the one hand, it cannot be compared with a made order since it possesses an emergent and unintentional character (nobody planned it in detail or can exactly predict its evolution). On the other hand, nor can it be compared with chaos, since it possesses a certain level of internal regularities or patterns.

Jane Jacobs was the first who clearly described the city as a particular kind of complex emergent order (Ikeda 2011, 2012; Ikeda & Callahan 2014). In general, Jacobs looked at the city as a living system: a dynamic order, the place of actions and the product of actions; a never-ending process of transformation and adaptation (Cozzolino, 2015b). For this reason, Jacobs’ view must be considered a watershed in the field of urban studies. After Jacobs, the challenge seems to be that of testing the concept of emergent order not only to describe the city, but also to reflect on how to regulate its evolution. In this regard Mark Pennington (2002, p. 56), writes that:

the myriad interdependencies that link the patchwork of land uses of both urban and rural environments are classic examples of spontaneous social and economic orders, the complexities of which cannot be overseen synoptically. As Jane Jacobs’ work demonstrates so well, the fundamental human character of land-use processes makes the form, pattern and place of development unpredictable and beyond the scope of planners, whether technocratic experts or members of citizens’ juries.

Land-use plans and building codes play a crucial role in the extent to which emergent configurations may occur in cities and, consequently, in their propensity to host unexpected adaptations over time (Ikeda forthcoming). Thus, in a strict sense, a reliance on emergent orders means preferring framework-rules that should guarantee enough room for people to act on their own creative impulses (Holcombe 2011). In this perspective, given certain framework-rules, the independent and differentiated members of a system may self-coordinate into an adaptive and ordered con-

figuration that activates the dispersed knowledge (Moroni 2007). In this regard, the recent theoretical and practical innovations in the Netherlands seem to offer valuable insights. Today in the Netherlands we might be observing a paradigmatic shift from a comprehensive-integrated planning approach, to the idea of “organic development” (Buitelaar et al. 2014).

2.2 Framework-rules for self-organizing emergent orders

Agents’ actions in space take place within certain rules, which may be more or less favorable to the creation of viable emergent orders. This idea can be schematized using four correlated concepts: (i) “framework-rules,” (ii) “individual actions,” (iii) “time dimension,” and (iv) “emergent order.”

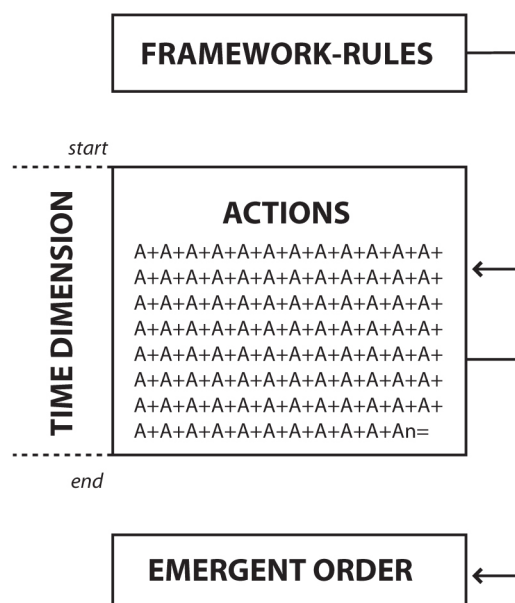


Figure 1: The interplay among rules, actions, and orders

Framework-rules have three main features (Moroni, 2010 and 2013). First of all, they are open enough to guarantee broad scope for experimentation; in this way rules allow agents to act according to their knowledge and choose the technical and design solutions that they prefer (note that rules of this kind may be stringent²). Second, they are as generic as possible and applicable to the whole area at issue (in the sense that they should not refer to any specific situation or land). Third, they focus on permissible and non-permissible actions (in particular, to avoid negative externalities) rather than on a comprehensive end-state.

Framework-rules discipline individual behavior in space, conditioning the range of possible actions that individuals may or may not take. Every action contributes to a complex emergent process of space modification and adaptation (in this sense every action can influence or provoke other actions). Actions are definable as purposeful behaviors taken by agents. Conscious or purposeful behaviors are, by their nature, clearly in contrast to unconscious or not purposeful behavior (Mises 1963/1998, p. 11). Moreover, free actions are distinguishable from actions that are the result of specific commands (Hayek 1960, p. 48). Private initiatives, in respect of the framework-rules, play a vital role in shaping the environment into a process of real self-organization. Therefore, public intervention aimed at deliberately constructing specific orders is kept to a minimum level (Ikeda 2004).

The time dimension is crucial in this regard. Order emerges incrementally over time (step by step), within a process of adaptation and mutual adjustments among agents (Buitelaar et al. 2014). All this happens according to agents' actual needs and opportunities. In this perspective, the framework-rules cannot predefine the final detailed outcome; rather, they leave the future open to a wide array of solutions, within a process of long-term transformation.

The main point is that in this case (framework-)rules are not used instrumentally to obtain specific (future) spatial configurations, but rather to facilitate social-spatial interaction among agents (Brennan & Buchanan, 2000) and to keep people (concentrated in a place) in peace with each other (Epstein 1995).

THE CASE STUDY³

3.1 Traditional Dutch approach vs. organic development

The Dutch have a long history of the active coordination of land use by public bodies (in cooperation with private parties). The internationally well-known results of the large-scale land reclamations (*inpoldering*) are a clear example of how “the Dutch created Holland.” This active land-use planning goes further than the passive planning which is practiced in most other countries by merely steering, through the powers of the planning system, the initiatives taken by citizens and firms to change the use of land (Needham 2014, p. 19). Instead of only avoiding the coexistence of incompatible land uses (WRR 1998; Van der Cammen & De Klerk 2003), Dutch public bodies were traditionally involved in regulating, financing, organizing and constructing inte-

grated developments (Buitelaar, Galle & Sorel 2014). This integrated comprehensive approach is a distinctive feature of the Dutch style of spatial planning in comparison to other countries (Nadin et al. 1997); whole areas were designed by planners, including housing, infrastructure, green and public services. This “planning by projects” (Needham 2014, p. 20) has been typical of the large-scale development of suburbia since the early 1990s.⁴ Dutch national planning has gained an “almost mythical status” in the international academic literature (Hajer and Zonneveld, 2000). The country is acknowledged for its “high degree of spatial ordering” (Healey 2004, p. 63). This approach is often tightly connected with an extensive system of rules and regulation, eloquently summarized by the title of Faludi's and Van der Valk's (1994) book *Rule and Order*.

Throughout the years urban land-use planning has become more legalistic as there is a growing number of legal requirements. New rules have been implemented with regard to flora and fauna, air quality, soil contamination, noise nuisance, external safety, archaeology and heritage, water quality and quantity, and more (e.g. Beunen & Van Assche, 2013; Buitelaar, Galle & Salet 2013). Paradoxically those rules—aimed at ensuring a “right” land use—have increasingly become a millstone around the planners' and developers' necks. This is because the preparatory stage of land-use plans has become very complex and time-consuming to meet all these, sometimes contradictory, requirements (Buitelaar, Galle & Salet 2013).

3.2 The economic crisis as a turning point for the Dutch development model

This comprehensive integrated approach seems less and less to be the favorable development model. This is mainly the result of the financial crisis that started at the end of 2008 and the economic recession(s) that followed, which had great effects on (re)development plans at the local level. Many plans had to be postponed or even canceled as property developers faced a drop in demand for new houses, office space, and retail space. The losses that resulted induced them to retreat from public-private partnerships, leaving local governments with undeveloped land and growing interest costs (Buitelaar & Bregman 2016).

A more “organic” development process is seen by many as a feasible alternative approach. In this case, the role of the municipality is *enabling* instead of *active*, and the type of management could be characterized as *process management* rather than *project management* (Buitelaar et al. 2012;

2014). Urban development in this respect is less dependent on a public-private partnership between the municipality and a property developer as it was in the comprehensive integrated approach. Instead, private initiatives of end-users gradually shape the development. Regulating land uses becomes less an act of planning and more one of organizing private initiatives. Organic development might be (or ought to be) accompanied by less complicated rules and thereby a less complex rule system so as to enable private initiatives. This need for “simplification” seems to have received broad consensus in recent Dutch academic and policy debates. For instance, the legal system of spatial planning, environmental protection, and nature conservation is considered too complex (Ministry of I&M, 2011), and therefore a major reform of the legal system around planning and environmental laws is taking place at the time of writing. Improving the way municipalities can facilitate organic development processes is one of the goals of the new laws.

3.3 Oosterwold as an extreme case of organic development

One of the Dutch municipalities trying to organize for “organic development” is Almere. Almere can be seen as an interesting example of moving from one side of the spectrum to the other: from the blue-print approach to more spontaneous development (Cozzolino 2015a). The city is an “extreme case” (Flyvbjerg 2006) of the change in Dutch planning and development. Almere is situated approximately 30 kilometers northeast of Amsterdam. The city was



Figure 2: The location of Almere in The Netherlands

literally designed on the drawing board as a “New Town” because it is built on “new land” resulting from reclamation of a part of the IJsselmeer during the 1960s. From 1977 onwards, over 75,000 dwellings were built, providing housing for over 190,000 residents. Its construction was primarily focused on the production of houses by means of strong top-down state interventions and investments. This happened following rigid and detailed blueprint designs. Entire districts of Almere were built all at once with not much space for further adaptations. Almere-Buiten, Almere-Haven, and Almere-Stad are typical examples.

In 2006, the appointment of a new alderman Adri Duivesteijn would prove to be a key moment in the development in Almere. A former member of parliament, Duivesteijn is a strong advocate of self-build housing (Oosterman & Retegan 2015; Oosterman 2015). The previous blueprint city, developed without much citizen involvement, is now a frontrunner in facilitating private initiatives and smaller landlords. The Almere neighborhoods Noorderplassen-West and Homeruskwartier are telling examples of this new approach. In both neighborhoods the final effect has been a mix of architectural diversity and innovations (Collison 2011).

The latest plan for the development of a new part of Almere—Oosterwold—goes a step further than “just” issuing plots for self-build homes. Oosterwold’s development relies on a “radical strategy of self-organization” (RRAAM et al. 2012). It is probably the most “organic” development in the Netherlands, certainly the largest.

City	Project	Dimension (ha)	Type of development
Almere	Oosterwold	4,300	Urban extension
Utrecht	A12	1,150	Urban extension
Amsterdam	Amstel III	250	Redevelopment
Assen	Havenkwartier	125	Redevelopment
Bunnik	Vinkenburg	120	Urban extension
Almere	Homeruskwartier	106	New neighborhood
Rotterdam	Coolhavenelland	36	Urban regeneration
Amsterdam	Cruquiusgebied	17	Redevelopment
Deventer	Havenkwartier	15	Redevelopment
Nijmegen	Vossenpels	15	Redevelopment
Groningen	Ebbingekwartier	9	Redevelopment

Table 1. Examples of organic development projects in The Netherlands (source: Rauws 2015).

Oosterwold covers an area of approximately 43 km² mostly undeveloped (agricultural) land. It is situated in two municipalities: Almere and Zeewolde. In the long run around 15,000 houses, 20 hectares of office space, 135 hectares of industrial sites, 1,800 hectares of urban agricultural land, and 450 hectares of new public green could be developed (Gemeente Almere & Gemeente Zeewolde 2013, p. 23). *Could*, because there is no predefined program. Based on the regulations for Oosterwold, these figures are “maximum thresholds” for the long term (twenty years), which could be developed or not. Both extreme scenarios—and all the results in-between—are acceptable according to the development strategy of Almere.

A first main difference between the approach chosen in Oosterwold and the traditional comprehensive integrated approach is the former’s emphasis on *demand* rather than *supply*. In the comprehensive integrated approach, planning (and sometimes even construction) started before buyers and tenants were in the picture. In Oosterwold, the municipality draws up a scenario and welcomes developers’ initiatives. This development is not done by means of a public-private partnership between the municipality and one or more large developers. Instead *anyone*—individuals or groups, professional developers and housing associations—interested in developing in Oosterwold is invited to participate. Only a limited number of rules are introduced to regulate the future transformation, giving guidance so

that each individual initiative will contribute step by step to the transformation of the area (MVRDV 2011). Step-by-step development can be seen as the opposite of integrated development. This latter traditional mode of development is even deliberately discouraged by the way in which the plan regulates land use.

The second main difference between the approach chosen in Oosterwold and the comprehensive integrated approach is closely related to the first: instead of using a comprehensive land-use plan to organize, finance and regulate the land-use transformation, the single/individual plot is considered as the focal point. By focusing on this small scale rather than the final aggregate result, the development is the opposite of the comprehensive type, and in many respects, becomes emergent.

3.4 The framework-rules of Oosterwold

The Municipality enables the development of Oosterwold through a reduced set of framework-rules and parameters which are mostly generic and not map-dependent (there is no zoning plan within the Oosterwold area, apart from three areas designated as non-developable). Moreover, local government prevents the introduction of specifications and normative measures additional to what is already regulated at national level (contrary to what often happens in the field of land-use planning). The land in Oosterwold is partially

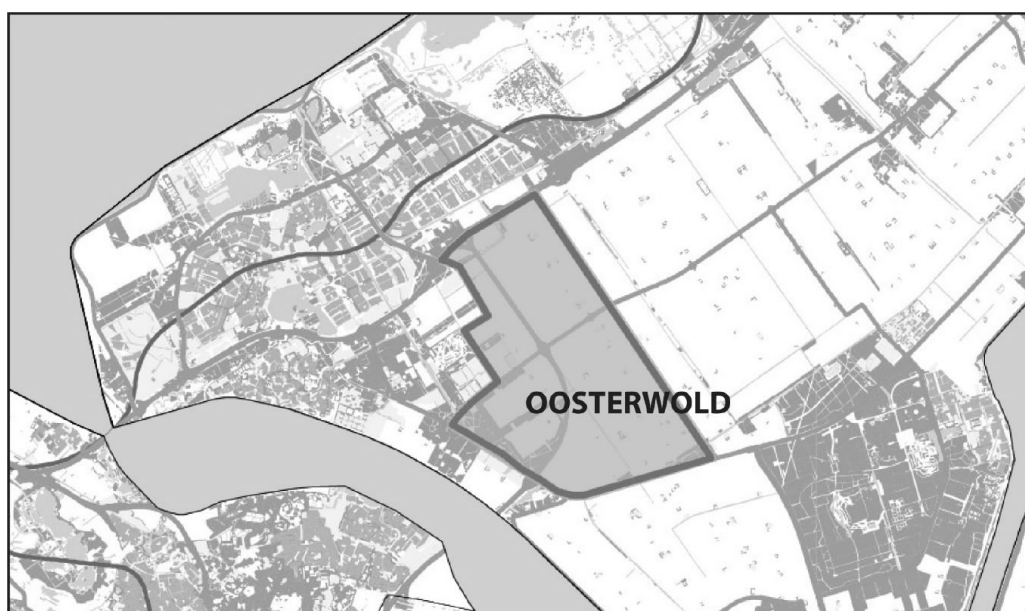


Figure 3: The Oosterwold area

owned by the national government, and a public agency manages the process of land selling.

Land-use developments are regulated in the Oosterwold “plan” (*bestemmingsplan*). Rules regulating the development of Oosterwold are generic (there is no predetermined land subdivision) and they mostly aim to avoid conflicts among initiatives instead of prescribing a certain kind of end state (Gemeente Almere & Gemeente Zeewolde 2013, p. 43). These rules regulate the relationship between private actions and the public interest, and assess fair play between existing landowners and development by new initiators. Public investments will follow private investments, instead of the other way round, as is more common in the Netherlands. These rules regulate not the entire Oosterwold area, but only the part on the territory of the municipality of Almere. This is called phase 1. The other part of Oosterwold, on the territory of the municipality of Zeewolde, will be regulated later on. However, the general plan is sufficiently clear for initiators to be able to apply for a building permit (*omgevingsvergunning*) with the shortest procedure.⁵ Particularly interesting is article 13 (*Ontwikkelregels*) of the plan: the development rules. Other articles define for instance the concepts used in the plan and regulate the existing land uses.

Plots are developed according to the development rules (article 13). Once initiators can demonstrate that the rules will be respected, they sign a contract with the municipality. This private law contract is used by the municipality in addition to the public law plan to ensure cost recovery for planning costs and possible future infrastructure investments. After signing the contract initiators can start to build on their plot. In order to coordinate different private initiatives, and monitoring the overall development of Oosterwold, the municipality provides an open-source map representing the location of different initiatives, as well as their phase of development.⁶

The framework-rules in Oosterwold mainly cover four issues: (i) the choice and the spatial layout of plots, (ii) permitted uses, (iii) the floor area ratio, and (iv) the self-reliance of plots (in terms of energy production, sanitation, and financial issues).

Choice and layout of plots. Initiators can choose between three types of plot: “standard plot,” “agricultural plot,” and “landscape plot.” The total amount of land allocated to each type of plot across Oosterwold is regulated: “Standard plot” 73%; “Agricultural plot” 10%, and “Landscape plot” 17%. These types of plot have different parameters and must be

developed with a maximum and minimum of land uses (two adjacent plots can be combined to meet the maximum and minimum demands). See the following table:

Land-use parameters	Plot type		
	Standard	Agriculture	Landscape
Buildable area	≤25%	≤7.0%	≤6.0%
Infrastructure (incl. parking)	≤11.0%	≤2.0%	≤2.3%
Publicly accessible “natural green”	≥0.0%	≥0.0%	≥80%
Publicly accessible “dispersed green”	≥7.0%	≥1.5%	≥1.5%
Water	≥2.0%	≥1.5%	≥2.3%
Agriculture	≥50.0%	≥80.0%	≥0.0
Total subdivision in Oosterwold	73%	10%	17%

Table 2. Plots types and land-use parameters.

Initiators can choose any plot size in any shape. This freedom is restricted only by the financial possibilities of initiators and the availability of land. In particular, the availability of land is restricted by two public conditions.

The first condition is that, at the end of the development, the *overall subdivision* of land uses in Oosterwold should be equal to: 20% housing, retail, services and office buildings; 6.5% pavement; 20.5% of public green; 2% water, and 51% agriculture (the area manager is responsible for controlling that the aggregate sum of all initiatives respect such parameter).

The second condition states that all the land in Oosterwold is available for initiators except for three specific zones, which have detailed collective provisions: the area indicated as *Eemvalley* developable only as landscape plot; an area reserved for a *future railway*; certain areas indicated as *forest* in which real estate development is prohibited (however, the mayor and aldermen can decide to deviate from this rule for publicly accessible facilities if they contribute to the “recreational attractiveness” of Oosterwold and do not “disproportionally damage” the existing values of the landscape).

List of permitted buildings uses. Some specific uses in Oosterwold are clearly forbidden, such as large-scale shops (bigger than 2,000 m²), intensive livestock farms, casinos, and brothels. Apart from these, all other uses are permissible: the rules allow for residential development, services, hotels/B&Bs, infrastructures, offices, commercial (shops,

bars, cafes and restaurants), industrial (within limits of environmental classification, listed separately in an appendix based on national regulation). (As regards industrial activities, the mayor has the power to grant exemptions if the pressure of these activities on the environment is equal or less than those activities already permitted).

Floor Area Ratio. A Floor Area Ratio (FAR) of 0.5 is applied to the buildable area of each plot. An exemption from this rule is possible, and the FAR can be stretched to 1. In that case the extra built-up area should be compensated on an adjacent plot so that the combined plots have a maximum FAR of 0.5. In general, there are no (local) restrictions as regards the number of floors or the maximum height of buildings, as well as there are no specific restrictions as regards building designs, construction materials, and technological solutions.

Self-reliant plots. All initiators in Oosterwold have to take care of their own energy production, sanitation, and negative externalities. These rules mainly aim to avoid external effects, instead of regulating a certain predetermined end. Therefore, as regards ecological values, public safety, noise, or water, no “uneven situation should emerge.” In this regard, in the appendix of the plan various “decision trees” are added to help initiators to determine: whether or not their application will meet these requirements; and whether further proofing is necessary (by means of investigations) or other steps are required (request a deviation from existing rules). The point is that these rules oblige initiators to

internalize all negative external effects. To provide some examples, these rules require that: anyone who wants to start a business in Oosterwold must keep a certain distance from adjacent plots in order to internalize the external effect of nuisances (the distance depends on the kind of activity, specified in an appendix, and activities that involve a great deal of noise must be situated on a larger plot);⁸ facilities for generating sustainable energy (such as a wind turbine) may not hamper the possibilities of other plots to generate sustainable energy on their own; each initiator should connect its plot to the existing road network and provide sufficient parking spaces according to national norms for parking spaces (the City can decide to deviate from these guidelines and accept fewer parking spaces, if there are no particular problems).

DISCUSSION

With Oosterwold the municipality of Almere is clearly promoting and favoring the realization of a particular urban-agricultural lifestyle. However, this is certainly a remarkable case study that highlights the relationship between self-coordination and planning. Moreover, it is a good example of large-scale development governed only by few public framework-rules (without previous public investments).

The framework-rules for Oosterwold are generic and do not refer to any specific situation or plot. Instead of having different regimes for different zones within the Oosterwold development area, framework-rules are applied equally

Rules for initiators	Degree of freedom	Comments
Plots availability	High	Almost all the land of Oosterwold is open for private actions. Initiators can choose any plot shape, size, and dimension.
Plots layout	Low	Plot layout is determined by land-use parameters ensuring the agricultural vocation of Oosterwold.
FAR	Low	The density of Oosterwold is low and will be always concentrated in the middle of plots. Once all the FAR is used, there will not be any room for further expansion.
Buildings	High	Initiators are free to design their buildings according to their preferences, knowledge and resources.
Admitted uses	High	All uses are permitted with exception of large-scale shops, intensive livestock farms, casinos, and brothels.
Self-reliance	High	Initiators are free to find or use the technological solution they consider more suitable to internalize negative externalities.

Table 3. “Degrees of freedom”

to the total area. They discipline the overall development of Oosterwold by regulating the construction of plots (for instance by setting certain parameters that the plots must respect within their boundaries, and the relation that plots shall have with their neighbors). All this is reached by setting rules that mainly aim to avoid certain negative externalities (Moroni 2012), and set few positive conditions to facilitate the creation of collective benefits (for instance, the edge of every plot must be publicly accessible and at least two meters wide). Moreover, the preference for using “open” rules leaves more room for initiators to find new solutions, and experiment with innovative actions. This leaves space for the greater use of dispersed knowledge.

Although all the plots will be mostly devoted to agricultural activities, the way in which the framework-rules regulate the list of permitted uses in Oosterwold allows for a large degree of flexibility to initiators, who can voluntarily choose the use (or combination of uses) of their plots, as long as they respect the requirements of the overall land-use subdivision. Therefore, over time, the spatial distribution of activities will be driven by social and market demand.

The transformation is incremental. The framework-rules last for twenty years, within which an independent (but at the same time correlated) succession of private initiatives will shape the emergent character of the area. All initiatives will be correlated to each other; in fact, to include new plots within the previously built environment, all initiators must meet certain conditions. These conditions will ensure the evolution of an overall organic development between different and independent initiatives (for instance, the creation of the road network, open green areas, pedestrian and cycle paths, etc.). In other words: step by step, each initiative will be inserted into a framework, respecting and reinforcing the evolutive process of transformation.

However, the framework-rules introduce some conditions which tightly bind the future of Oosterwold, constraining the “range” of possible emergent orders. We may call these conditions “invariants.” Such invariants are unmovable and stable conditions that must be shared by all initiators: their function is to raise the level of predictability of future transformations toward some preferred collective situation. Obviously, the more use is made of “invariants” the less room there will be for unpredictable initiatives.

Three “invariants” are of particular interest: (i) the assignment of particular prescriptions to three different areas; (ii) the total amount of buildable FAR (floor area ratio); and (iii) the overall land subdivision. Therefore, although the development of Oosterwold comprises a great degree of in-

ternal flexibility (and it closely relies on self-organization), to some extent part of the final configuration of Oosterwold is already known since the beginning.

The first is a case of “spatial invariant.” Three areas have been withheld from free private initiatives receiving specific vocations: first, the *Eemvalley* that has landscape destination; second, an area preserved for *future railway* construction; third, an area indicated as *forest* prohibiting real estate development. Spatial invariants introduce stable conditions that do not complicate the transformation of Oosterwold; they are very simple and easily understandable.

The second is a case of “dimensional invariant” as regards the maximum density of Oosterwold. A Floor Area Ratio (FAR) of 0.5 is applied to the buildable area of each plot. This means that when and whether all the FAR is built, there will be no space for future expansions. In other words: the plan sets a clear limit on the future growth of Oosterwold, which compels the area to remain a suburb. However, after twenty years the rules may be re-discussed, with the possibility of increasing the FAR.

The third is a case of “performative invariant” as regards the overall land-use subdivision. This condition is more complicated than the others. The final configuration of Oosterwold (that will be reached through unknown future voluntary private actions) has to conform to a general and generic land-use subdivision (that is: 20% housing, retail, services and office buildings; 6.5% pavement; 20.5% of public green; 2% water and 51% urban-agriculture) which disciplines the final combination of aggregate actions. Moreover, the implementation of this process is complicated. On the one hand, the area manager has a fundamental role in organizing the initiatives; on the other hand, as the area is developed, the space for new initiatives will decrease, and the implementation will become in its turn more complicated. In brief: with the passage of time, in order to obtain the general overall land-use subdivision, the range of possible initiatives will diminish, and the rules will be more prescriptive.

FINAL REMARKS

The (public) framework-rules for Oosterwold have been designed to allow a high degree of flexibility; however, inevitably, such framework-rules are top-down and imposed, while the aggregation of all initiatives (i.e., the final spatial configurations) will be obviously mainly emergent and bottom-up.

Completely emergent configurations are by definition unpredictable and beyond anyone control: evidently, this is not the case of Oosterwold. In fact, the emergent development of Oosterwold is influenced by certain “public conditions” which determine and control some salient aspects: for instance, the agricultural vocation of the whole area. However, in the opinions of some initiators, these framework-rules enable the action of private actors and the self-organization of different individuals having similar lifestyles.

The transformation of Oosterwold is now slowly emerging in the wake of small initiatives (so far, plots average ranges from 1,000 to 3,500 m²). On May 2016,⁷ “initiators” started to build a total of 42 houses, and other 30-40 will start to build their plot before the end of the year. Besides them, 140 “initiators” started the application process for new developments (2016).

Three types of initiator are recognizable: (i) “the self-builder,” a single initiator who directly build and develop the plot; (ii) “the cooperative,” self-organized initiators that jointly act to diminish certain collective costs (for instance the costs regarding energy production or sanitation, as well as the design costs, or procedural costs); (iii) “the real estate,” initiators who buy, organize, build, and then sell plots to future inhabitants.

Most of the initiatives are concentrated in the same area sharing the road previously developed by the first initiator. In this regards, it is noticeable that initiators have voluntarily created a “road-association” to share all the costs regarding road development and subsequent maintenance.

Oosterwold is definitely an interesting experiment. But, there are some critical points that could create problems during the development. For instance: the degree of discretionality of the area director, and of the mayor and aldermen; the concrete form and content of the signed agreements between the public party and the private ones; possible frictions between initiators for collective spaces construction and maintenance (for example, streets and green areas); or possible problems regarding the interpretation of “agricultural land-use” (some initiators have already expressed doubts about the vagueness of such a term; in their opinion, this can bring the public agency to behave in a discretionary manner, and favor some initiators over others).

Only at the end of the development process will it be possible to assess in detail what has worked and what has failed in this particular experiment (and what is tied to specific local conditions, and what is instead exportable). Further

research and evaluation will therefore be necessary as the experiment proceeds and on its conclusion to express a more thorough critical judgment. As said in the introduction, the case of Oosterwold is not considered here as a sort of “best practice,” but as an interesting experiment that requires assessment and monitoring.

NOTES

- 1 The term “experimental garden” was used by Esther Geuting in September 2014 in an interview. At that time Esther Geuting was the area director of Oosterwold, working for the municipality of Almere.
- 2 For instance, as we will see later, in Oosterwold the edge of each plot must be publicly accessible.
- 3 From a methodological point of view, to reconstruct the case, in addition to the study of official documents (for instance the land-use plan, the strategy plan, and so on), and of particular websites (e.g. <http://maakoosterwold.nl/>), the research group went three times to Almere (September 2014, October 2015 and May 2016) to see the place and interview the area director of Oosterwold Esther Geuting, and Ivonne de Nood (new area director since November 2015). In 2014, a meeting with Jeroen Zuidgeest (responsible for the strategic project carried out by the MVRDV design firm) was organized to understand their choices and motivations.
- 4 In Dutch commonly known as *Vinex-wijken*. VINEX is the Dutch abbreviation of the Fourth Policy Document on Spatial Planning Extra, the planning document 1988 which appointed (among other things) the locations of these suburbia.
- 5 This is a broad building permit that integrates several previously separate permits such as the building permit, demolition permit, and permit for felling trees. The shortest “regular procedure” takes eight weeks. The building permit is regulated in the General Provisions for Environmental Law Act (*Wet Algemene bepalingen omgevingsrecht*, abbreviated as “Wabo”).
- 6 The map is shared and visible online (<http://maakoosterwold.nl>). On the map such initiatives are marked with four different colors. Each color represents a specific phase of advancements: (i) *declaration of interest*, (ii) *letter of intent*, (iii) *agreement*, (iv) *construction*.
- 7 However, exemptions can be made if different initiators of plots decide to cooperate and accept the nuisance.

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Modern Cities as Spontaneous Orders

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Abstract: People and firms move to cities in search of two things, accessibility to a variety of destinations and space. They evaluate possible sites, trading off these objectives—even as they engage in many other trade-offs. Cities are formed as large numbers of entities do the same—often having to account for each other’s choices. Firms and people are involved in many complex supply chains—as buyers and as sellers. Smithian exchange prompts the formation of supply chains for things; Schumpeterian innovation prompts the formation of supply chains for ideas. Both are formed in light of Coasean transactions costs. Transaction cost economies are available in cities. People and firms choose propitious locations that accommodate the various networking choices which support their roles in various supply chains; this often involves the trading off of physical and virtual networking options. The evolution of transactions costs is reflected in the concurrent evolution of cities and networking opportunities. Cities survive and prosper as long as they are attractive to capital and labor, notably entrepreneurial talent, as everyone seeks favorable locations from which to operate. Relatively flexible land markets are essential; it is unlikely that top-down planning can accommodate all of the complexity involved. We cite evidence that U.S. cities are mostly developed in the bottom-up fashion we are describing—in spite of the widespread view that, left alone, cities will “sprawl” and, therefore, require top-down guidance.

Keywords: Economic Growth, Cities, Clusters, Agglomerations

The man of the system seems to imagine that he can arrange the different members of a great society with as much ease as the hand arranges the different pieces upon a chess-board. He does not consider that the pieces upon the chess-board have no other principle of motion besides that which the hand impresses upon them; but that, in the great chess-board of human society, every single piece has a principle of motion of its own, altogether different from that which the legislature might chuse to impress upon it.

— Adam Smith

The curious task of economics is to demonstrate to men how little they really know about what they imagine they can design.

— Friedrich von Hayek

Their intricate order—a manifestation of the freedom of countless numbers of people to make and carry out countless plans—is in many ways a wonder.

— Jane Jacobs

UNDERSTANDING MODERN CITIES

There are three prominent approaches to the study of cities. First, the widely cited model developed by urban economists suggests that the various land uses arrange themselves in terms of how they value (various) accessibilities. Accessibility to the urban core or urban center is usually the focus of these models. Competitive bidding causes equilibrium land rents to emerge so that no one has an incentive to change locations. The model predicts that cheaper access prompts more spread out cities (see, for example, Brueckner 1987). The prediction is sustained insofar as increasing spread is apparent almost everywhere, over the evolution from “pedestrian city” to “streetcar city” to “automobile city” (Mueller 2004). But these models are for the most part static and they deal in aggregates. Their focus is on just one kind of supply chain, households’ supply of labor as they evaluate journey-to-work options. It is unclear that this approach can capture the rich set of interactions that characterize cities. The interactions that we want to highlight are the ones that inform and prompt more complex location choices.

Another important approach to the study of cities is associated with visionary city planning. This thinking is in the tradition of architecture-high modernism-urban design. High modernism presumes substantial knowledge and wisdom at the top, ignoring the reality of widely dispersed knowledge (see, for example, Scott 1998). It is the approach championed by Le Corbusier, Robert Moses and many others. “Garden city” and urban containment designs are examples. These are popular among city planners and policy makers. They champion “contained” cities and higher densities (and associated lifestyles) and suggest that top-down planners know the locations where compact development ought to be encouraged—via regulatory means or direct subsidies. But it is not clear whether these plans have made a perceivable difference as metropolitan areas continue to disperse. Are these plans too static and end-state focused to be useful? Can human design capability scale up to the level of cities?

A third approach is associated with Jane Jacobs and her followers (see, for example, Ikeda 2012). It recognizes *complex self-ordering arrangements*. We argue that this is the most useful way to think about cities. We owe unprecedented prosperity¹ to the workings of Smithian exchange and Schumpeterian innovation. Both of these phenomena are realized via the many supply chains in our lives—for things

as well as for ideas. Networks and chains involve transactions costs. Firms’ choices regarding what to make and what to buy have a spatial dimension: how remote are various possible suppliers? Discussions of transactions costs suggest a discussion of clustering, cities, and networks. Recognizing all this, we note that people choose locations and make their networking choices simultaneously. Building on the insight of Coase (1937), we note that the evolution of cities together with the evolution of networking opportunities reflect the *evolution of transactions costs*.

Prosperity requires growth and growth requires the effective coordination of large numbers of private plans via markets and prices. Smithian growth (comparative advantage) hinges on the development of supply chains for goods. Schumpeterian growth (entrepreneurial discovery) hinges on the development of supply chains for ideas. Both require effective decentralized coordination. Both have a spatial dimension. All supply chain participants seek to overcome transactions costs and, therefore, seek propitious locations. This requires well-functioning cities and effective land markets.² In the modern context, then, discussions of growth require discussions of cities—and how they help participants deal with transactions costs.

The argument suggests that cities provide opportunities *that cater to effective participation in the various supply chains that people and firms want to participate in*. This highlights the importance of flexible land markets and market-compatible land use arrangements, including the complexities of occasional and varied clustering. Locators must be able to find propitious locations that enable them to stay in business and even prosper. It is unlikely that competitive cluster composition can be achieved via top-down planning (Desrocher and Sautet 2004).³

CITIES, CLUSTERS, COMPLEXITY AND GROWTH

Consider Figure 1 and its map of the locations of software firms in the San Francisco Bay area in 2013. Readers will recognize the area as Silicon Valley and beyond, covering approximately 1,500 square miles of land. Is this a city? A cluster? An agglomeration? Are there many sub-centers? Networks? Are people networking face-to-face? On the telephone? Electronically? Do we see proximities? Arrangements to facilitate spillovers? To facilitate serendipitous connections?

We believe that the conventional descriptors of settlement patterns are inadequate. The same goes for the stan-

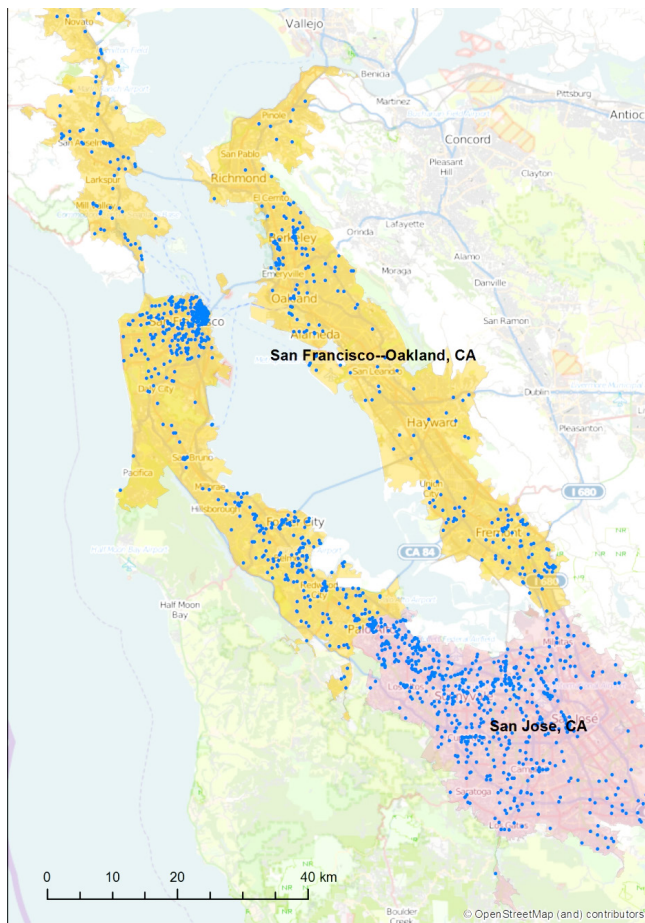


Figure 1: The location of all software establishments in the San Francisco Bay Area, 2013 (Geographic Research, Inc., 2014). From Angel and Blei (p. 27, 2015).

dard theories and discussions of cities. Distances between firms are seemingly greater than what we think of as “proximate.” Interaction choices and the resulting spatial patterns are part of the same discussion; people arrange and benefit from a complex blend of networking activities; they thereby cultivate and maintain various strong as well as weak ties.

As in Figure 1 and many similar places, the land involved is expensive but people and firms are nevertheless choosing to bear the expense in order to be proximate *in some sense*. The standard definitions of “density” are not useful because of the geographic scale and distances involved; simple large-area density averages ignore most of the interesting details. In the modern world, agents manage and trade off the costs and benefits of many networks in their lives. These involve all manner of access, including electronic, air travel, face-to-face meetings that are in their immediate neighbor-

hood or not. Face-to-face meetings are still the way that trust is established and widely diffused tacit information is exchanged. People choose favorable locations from which they can best manage all of their networks. As networking opportunities change, these choices can change; that would, in turn, change the urban environment. Economists point out that institutions evolve to facilitate economic growth (Greif 2015). We add that transactions costs also evolve—and urban environments evolve accordingly.

The city’s many locators (existing and potential) continuously seek to discover, evaluate and engage in a large number of complex trade-offs—in production and in exchange. This includes the careful evaluation of locations and interaction opportunities. Everyone seeks propitious locations. This includes their efforts to be productive by learning and exchanging ideas. These locators develop and manage supply chains for various products as well as for ideas. Cities offer the opportunity to form convenient supply chain links for both. New ideas typically come first. Jane Jacobs emphasized the detailed complexion of cities, as the many people who manage and participate in large numbers of supply chains (as buyers and as sellers) seek and find favorable locations.

It appears, then, that only the third (Jacobsean) approach to the study of cities mentioned in the introduction recognizes the fact that cities facilitate open-endedness, dynamics, and the essential role of discovery. If cities are to be reliable “engines of growth” the bottom-up process described by Jacobs is essential. Top-down planning cannot “solve” the complex assignment of activities to sites that is involved. Each activity that ends up in the city ends up at some location—from which it attracts and repels many others. Significant complexity is involved in light of many locations and many locators. The success of complex assignments and how responsive the many locator-location pairings are to ever-changing conditions over time is what renders the city competitive or not.

Cities compete for labor and capital. To be competitive, they must be congenial to the extent that those who choose to function in any city can do so with realistic prospects of success. Bertaud (2014) suggests that labor’s ability to access jobs explains metropolitan area success. Well and good; most city dwellers supply labor to local firms but there are an uncountable number of other supply chains to consider. Everyone (all persons, all firms) who locates in a city supplies and demands a variety of goods and/or services; everyone participates in many supply chains and evaluates many potential locations in terms of their propitiousness

for all of this participation. Cities that succeed and grow are evidence that this complex problem is somehow being solved—or at least satisfactorily addressed. In the next section, we consider evidence that the development of U.S. cities continues along these lines.

People settle in cities expecting two things: accessibility to a variety of others and living space. As already mentioned, urban economists have built various equilibrium models that reflect this trade off. Suburbanizing cities with significant auto use are the real-world realization of how large numbers of people in modern cities meet these dual demands. Policy makers have reacted in two ways. The first emphasizes that, left alone, the development of cities involves significant uncompensated externalities and is “unsustainable.” The other is that people’s revealed expressions of lifestyle demands are not plausible or credible. Given the chance, most people will accommodate or even demand compact cities served by expanded public transit—if they are somehow given the option.

We have already suggested that the “urban containment” dreams have come up short in light of events. Rather, left on their own, people manage to get the job done; those who do manage to stay in business signal that they have been able to find a workable location.

SPONTANEOUS SPATIAL ORDER

Two lines of research corroborate our view. The first of these investigates the suburbanization of jobs in concert with the suburbanization of people. The “Edge Cities” idea recognizes that it is not simply residences that disperse.⁴ We have already noted that the simplest monocentric models developed by urban economists predict that as (dollar and/or time) transport costs (per unit of distance) fall, the city will spread out. But the monocentric model is not plausible because so many employers have relocated away from the center. We have already cited evidence that suggests they had relocated in ways that contain their employees’ commuting costs.

- Glaeser, Kahn and Chu (2001) examined the locations of places of work for the 100 largest U.S. metropolitan areas using 1996 data. They found that, on average, only 22 percent of the people worked within three miles of the city center; more than 35 percent worked more than ten miles from the city center. The oldest cities had the largest shares working near the center.

- Kneebone (2009) updated the Glaeser et al. study with 2006 data. She reported that for 98 metropolitan areas, only 21 percent worked within three miles of the center; 45 percent worked more than ten miles from the center.
- Levinson (2013) developed job accessibility data for the largest U.S. metropolitan areas for 2010. The methodology involves measuring morning-peak automobile job access from an average point in each area. For the ten largest areas, 40 percent of the jobs were accessible in 30 minutes; 69 percent were accessible in 40 minutes.
- Carlino (2000) examined changes in the distribution of jobs between 1951 and 1996. He reported that the distribution had become more equal within as well as between metropolitan areas. The denser counties attracted fewer jobs than the less dense counties.

Planners have embraced ideas of “spatial mismatch” and “jobs-housing balance” (at some indeterminate geographic scale) along with the presumption that improved matches can somehow be planned and achieved by higher authority. Journey to work distance reductions are the goal. Yet an examination of actual settlement pattern reveals that much “balancing” goes on quite spontaneously. The larger point is that the discussion is naïve about what is meant by “matching.” The marriage market (and the job market) are complex: they reveal that one has to want and simultaneously be wanted by the same party.

Critics of how U.S. cities develop have cited peculiar policies that they say are to blame but this claim is undermined by the fact that suburbanization occurs in places with very different policies (Gordon and Cox 2011). This is illustrated by the population growth trends in the world’s high-income metropolitan areas. Among the approximately 70 core municipalities that reached a post-World War II peak population exceeding 400,000, all but two had peaked and experienced population declines by the early 2000s. This excludes municipalities that grew spatially by annexation or consolidation or which had significant areas of greenfield land development available immediately following the War (Cox 2014). Suburbanization, lower density, largely automobile-oriented development, has been the dominant mode for decades, both in the United States and in most other developed nations. This does not mean that suburbs look the same in the United States as in Europe, but they are still lower density and rely on automobiles, while a small minority of employment is in the urban core. For example, Angel,

Parent, Civco, and Blei (2010) use a global sample that indicates a 56 percent decline in urban densities between 1950 and 2000 in Europe and Japan. Five built-up urban areas were 85 percent less dense than in 1800.⁵ Moreover, later data indicate that among built-up urban areas of more than 500,000 population, European built-up urban area average densities that are substantially lower (Cox 2016).

Job suburbanization can mean many things. It is interesting if it reflects the co-location of employers and employees. The following studies make use of the most widely available data on location choice, those that describe trip making within cities. Commuting is usually of greatest interest as it is typically the most significant regular destination. Various studies by various authors using various approaches reach the same conclusion, that job (and other) access in large U.S. cities is remarkably good. Consider these findings:

- Alex Anas concluded that “The data on the largest U.S. MSAs show that commute times increase only slightly with city size: the elasticity of the average commute time with respect to the number of workers was about 0.1 in 1990 and 2000” (2012, p. 146).
- Angel and Blei (2015, p. 1) report that “... metropolitan labor markets in the U.S. are held together by nimble and self-adjusting commuting patterns between self-adjusting residence and workplace locations that ensure that larger cities do not lose their productive advantage because of the added costs of long commuting trips along congested transport networks.”
- Evidence developed by An, Gordon, and Moore (2014) considers work as well as non-work trips. Most people are not commuting cost minimizers because they trade-off their interest in access to a variety of sites. The travel times they analyzed are for various sub-metropolitan areas (for the sample of large U.S. MSAs); from the data on individual households, the authors were able to compute travel time means as well as variances. Several interesting findings are found. The metropolitan sub-areas’ means and variances do not differ in any systematic way. This is the case for all three area types. There is no evidence of “costs of sprawl”. There is evidence of co-location: vast numbers of origins and destinations have been chosen in a manner that limits separations.
- Bumsoo Lee (2011) was able to locate and categorize U.S. metropolitan area workers by place of work, whether in

the central business district, in a sub-center, or anywhere else (“dispersed”). And, no matter in which metropolitan area, the “dispersed” workers reported the shortest average commute times. “Sprawl” (if we are to use that word) looks sensible.

- Cox (2014a) reports results from the Tom Tom international traffic index.⁶ He notes that “All but one of the 10 least congested large cities in the Tom Tom report are in the United States. The least congested is Kansas City,⁷ with a peak period index of 19.5, indicating that a 30 minute trip in free flow is likely to take 36 minutes due to congestion. Kansas City has one of the most comprehensive freeway systems in the United States and has a highly dispersed employment base. US cities also occupy the second through the sixth least congested positions (Cleveland, Indianapolis, Memphis, Louisville, and St. Louis). Spain’s Valencia is the seventh least congested city, while the eighth through 10th positions are taken by Salt Lake City, Las Vegas, and Detroit.”
- Crane and Chatman (2004) also examined the decentralization of jobs and housing in major U.S. metropolitan areas, specifically, they ask: “Does the average commute increase or decrease when employment decentralizes?” They find that “the more suburbanized is employment—that is the more sprawl—the shorter the average commute” (p. 312). They refer to physical distance (miles). Their source is panel data from the American Housing Survey.
- Cox (2014b) reports that job growth has been strongly associated with population growth in the urban sectors of metropolitan areas. This analysis relied on a classification of Zip Codes within metropolitan areas by “functional urban core,” “early suburban,” “later suburban,” and “ex-urban” sectors—based on population density, mode of travel to work, and housing age.

Findings like these suggest that either an amazingly omniscient super-planner of U.S. cities is having great success or that the decentralized and spontaneous choices of large numbers individuals (employers and employees in this case) reveal that each recognizes their interests in co-locating—as much as possible and in light of all the trade-offs facing each of them. This is not “sprawl” or “traffic doomsday.” These are not simply “unplanned” cities. The plans of large

numbers of individuals are seemingly coordinated—with benign results.

It is also likely that the reason for these findings is that the conventional wisdom in urban planning has had little effect, especially in commercial and business locations. In much of the nation, zoning decisions are the responsibility of local levels of government, which are well below the metropolitan area level. This may have permitted the proliferation of “edge cities” and even shopping malls to a greater degree than would have occurred in a more centrally planned environment; they were probably developed in response to local conditions

Municipalities like Southland, Michigan (Detroit); Irving, Texas (Dallas-Fort Worth); Bellevue, Washington (Seattle); Clayton, Missouri (St. Louis); Overland Park, Kansas (Kansas City); Schaumburg, Illinois (Chicago); or Walnut Creek (San Francisco) can establish themselves as a competitive alternative to the principal downtown area. Even more important, as the nation has moved from polycentricity to even more dispersed employment patterns, other municipalities have allowed businesses to locate where it makes the most sense, given their requirements. All of this decentralized decision making may help explain how it is that U.S. major metropolitan areas have the shortest commute durations in the world.

Even in metropolitan regions with some of the strongest land use planning regimes, for example the San Francisco Bay Area and Portland, the legacy of decentralization has created a fabric that may have precluded strict control over employment dispersion. In the Bay area, Silicon Valley, stretching from the southern San Francisco metropolitan area to the northern San Jose metropolitan area, was already firmly established long before urban planning regulations became strong. In Portland, the growing information technology sectors of suburban Washington County were also in place before the land use regulations strengthening in the 1990s. This legacy may have helped to moderate commuting times and could negate some of the worst consequences of an overly planned environment for years to come. If U.S. cities are not planned in the conventional sense of how the term is used, perhaps the multiplicity of plans that emerge bottom-up have trumped the top-down plans.

Top-down plans will always be with us. To what extent do they matter? Do they simply impose costs? McCloskey’s “great fact,” the amazing rise in the economic fortunes of so many people around the world, was realized often in spite of the considerable efforts by top-down planners every-

where. In most cases they are overwhelmed by bottom-up forces. This does not mean that top-down impulses are benign or to be ignored. But it does attest to the great power of bottom-up forces.

CONVENTIONAL URBAN PLANNING VS SPONTANEOUS SPATIAL ORDERS

Whereas the idea of centrally planned economies has fallen on hard times, the idea of top-down planning of cities and regions remains respectable almost everywhere. In the modern version, the threat of environmental crisis is invoked and city planning is seen as an important antidote. Across the U.S., a large number of urban and regional planning measures are now in place. What have they accomplished? Researchers at the Brookings Institution (Pendall, et. al. 2006) made an effort to find ways to categorize and describe local government policies that regulate land uses and development between entire metropolitan areas (the relevant economic dimension of cities).⁸ When we consider recent evidence on the evolution of U.S. metropolitan areas we have to recognize the concurrent effects of the efforts of many planning agencies and local governments to control land uses and development. The Brookings researchers sought to classify the bewildering set of approaches implemented in the largest U.S. metropolitan areas. Moving from a survey of state, regional, and local planning practices to a factor analysis, the authors classified metropolitan and local practices via an eight-part ranking, the toughest labeled “Reform,” which included “Containment,” “Containment-lite,” “Growth management,” and “Growth control.”

The “Reform” category included a number of metropolitan areas with urban containment policies, with urban growth boundaries intended to produce more compact cities and to shorten travel distances. Such land use strategies have been identified in virtually all of the largest US metropolitan that have developed “seriously unaffordable” house prices in recent decades. Urban containment boundaries, and their equivalents, may be the strongest form of land use regulation that has been applied to U.S. metropolitan areas (Cox and He 2016).

For the 51 U.S. largest urbanized areas in the 51 metropolitan areas with more than 1 million population in 2010, only 12 showed increased average population density for the years 2000-2010, but three of these were not in the Brookings study.⁹ Further, none of these increases were significant—in no urban area was the higher of the average density of 1950 achieved or the overall average of

1950 for the same urban areas.¹⁰ The various planning policies and approaches were categorized and identified by the Brookings authors but seemingly these policies have little effect re-shaping U.S. cities. There may be multiple reasons for this, such as the radical revisions necessary to make the previously existing built environment more compact are expensive and difficult to implement, that households continue to seek more spacious suburban housing and the automotive mobility on which a vibrant metropolitan area economy depends cannot be easily replaced by strategies that are slower and offer so much less in terms of geographical job access, such as mass transit, walking or cycling.¹¹ At the metropolitan area level, it is difficult to see a substantial link between recent metropolitan development patterns and observed planning policies. The few MSAs that experienced density increases in 2000-2010 did not share a single identifiable planning approach in the Pendall system. Bottom-up forces are strong. Land uses are durable. The forces, notably people's preferences that gave us those spatial patterns are powerful.

Consider the following familiar story. "In many economics textbooks, the presence of externalities is invoked as a justification for government intervention in the marketplace. Yet the private sector often finds its own solutions to externality problems. This is the secret of the shopping mall's success. Because a property developer owns the entire shopping complex, its profits depend on the entire mall, not on any particular shop. By choosing the right mix of tenants and charging rents that reflect each store's contribution to the mall's overall revenues—including the business it brings to other stores—the developer can 'internalize' the externality and maximize its profits."¹² The mall owner and developer, the residual claimant, has the incentive to internalize externalities, to plan infrastructure, "land use" arrangements and "public facilities" in a package that works best. Finding this "sweet spot" involves the standard but complex series of trial-and-error entrepreneurial discovery and adjustment. It is steady and on-going effort that explains how residual claimants earn a return on investment.

A number of "edge cities" (suburban office centers) have been developed adjacent to or even in connection with major retail shopping malls. Further, in some cases, edge cities have started with a model similar to that of a mall, within initial plans and development under the control of a single developer (such as Las Colinas in Dallas-Fort Worth).

Is the mall an example useful for the discussion of larger places, even whole cities? In a previous paper (Gordon and Cox 2014) we speculated on the extent to which such "is-

lands of planning" could be scaled up. Anything that can be metered can be privatized and transacted. The growth of private communities (not just those gated) in the U.S. has been well documented (Nelson 2005). These include various configurations of private infrastructure. In exurban settings and if the development is of a large enough scale, the infrastructure (potable water, sewage, electricity) could be free-standing and independent. If an urban infill project is involved, its own infrastructure will have to link to non-private systems at some point. Certainly far enough up the food chain, there will be "mega-projects" which private developers are unlikely to provide. The latter are also the ones that have encountered the biggest difficulties (Flyvbjerg, et al. 2002). The private pieces are also less likely to be subject to pork politics.

Some authors are optimistic about the possibilities.

... [O]ne way to generate more infrastructure and planning is to lower transactions costs by extending the property line. Walt Disney World and Jamshedpur [India] demonstrate that private developers will internalize externalities and plan and build infrastructure projects capable of exploiting economies of scale if the property line extends to the size of the city" (Rajagopalan and Tabarrok 2014, p. 226).

Public goods would become club goods; excludability would be feasible and the incentives to supply would bring forth entrepreneurial effort.

There is also the suggestion that there could be competition between higher-level governments for the contracts to supply these hook-ups. Arnold Kling (2008) has suggested "competitive government"; "In democratic government, people take jurisdictions as given, and they elect leaders. In competitive government, people take leaders as given, and they select jurisdictions."

By world standards, the U.S. economy has remained dynamic and innovative for many years in spite of ever more intrusions by politicians and regulators. We have documented land use arrangements in U.S. cities that are successful in terms of the available data on location, commuting and interacting that we were able to find. Likewise, the growth of private communities in the U.S. continues despite various roadblocks that are put up by traditional providers and their allies and constituents.

CONCLUSIONS

What does it all mean? What do we know? Plans are everywhere. Every person, every business, every household has some kind of informal plan by which they hope to survive and perhaps thrive. We know that markets are good at coordinating large numbers of decentralized plans. We also know that even the market economies are governed by politicians heavily invested in a variety of top-down plans. In the case of cities, such plans are often implemented with the goal of prompting “compact” development that is supposed to achieve closeness and travel economies. Our reading of the available U.S. evidence is that (i) most of the visions of the top-down planners have not been realized; (ii) the decentralized plans of an uncountable number of individuals have dominated the top-down plans; and (iii) travel costs have largely been contained in spite of the fact that top-down plans seemingly designed to achieve this result have been superseded.

The consequences of the top-down plans, however, have not been entirely benign; they have made housing expensive. Restrictions limit housing supply elasticities—with the expected consequences in terms of declining housing affordability. Failed policies usually give rise to more policies designed to undo their effects. The connection between high land costs and land use regulations has been established in a number of studies (Quigley and Rosenthal 2005; Glaeser and Gyourko 2008). This outcome does not appear to have been intended (Nelson, et al. 2002)¹³ but it did provide an opening for a set of policies to support a politically influential “affordable housing” industry. The “great recession” that began in 2008 is likely to have been prompted by a politically motivated concocted housing boom and its inevitable aftermath.

NOTES

- 1 McCloskey (2010) refers to it as “The Great Fact” (p. 48); Phelps (2013) titles his book *Mass Flourishing*.
- 2 The possible public goods nature of ideas is not relevant because bidding for sites near information sources brings prices and market exchange into play.
- 3 Even the idea of a successful “cluster,” often citing Silicon Valley, is unclear; the example straddles a large area which includes both sides of San Francisco Bay.
- 4 “Almost nobody saw it coming. The people we pay to be urban planners never imagined a future in which ordinary people pick up and move their city functions as close as possible to their suburban homes” (Garreau 1995).
- 5 Author’s calculations.
- 6 http://www.tomtom.com/en_gb/trafficindex/
- 7 <http://www.rentalcartours.net/rac-kc.pdf>
- 8 This research is focused only at the labor market or housing market level (the metropolitan area) and does not differentiate between regulatory structures within metropolitan areas.
- 9 Average metropolitan population densities are widely used by analysts because the data are easily available. But there are two obvious problems: first any average defined over large areas with considerable variances ignores significant amounts of information; second, metropolitan areas are defined by political boundaries which are weak approximations of the actually developed (built-up) areas. One of us (Cox) has computed the correlation between metropolitan area average densities and the corresponding urbanized area average density; the correlation was just 0.55.
- 10 For densification to have any serious public policy implications with respect to the goals of urban containment policy, much higher densities would be required. The comparison to 1950 densities understates the comparative density averages because the building blocks of urban areas in 1950 were municipalities, while the building blocks in 2010 are the much smaller census blocks. Thus, 1950 urban area populations often have large rural components (such as in Los Angeles and New Orleans). Application of 2010 criteria would produce lower average densities.
- 11 The most recent research at the University of Minnesota Accessibility Observatory illustrates the differences between modes of travel in their ability to

provide access to metropolitan employment across the United States. Estimates are developed of the percentage of labor market (metropolitan area) jobs that can be reached in a particular time by the average labor market resident worker. (Owen, Murphy and Levinson, 2016, Owen and Levinson 2014, Owen, Levinson and Murphy 2016). Data, from the author's calculations are provided for 30 minute access, which is slightly higher than the average one way work trip travel time in the United States of 26 minutes (Polzin 2016). The resulting figures are, for automobiles, a maximum of 100 percent of jobs are accessible within 30 minutes during peak periods, a minimum of 30 percent and a median about the approximately 50 largest metropolitan areas of 63 percent. For transit, the numbers are a maximum of 8 percent, a minimum of 0.6 percent and a median of 1.5 percent. For walking, the maximum job accessibility for the average worker is 1.2 percent, with a minimum of 0.1 percent and a median of 0.5 percent.

12 *The Economist* March 1, 1997

13 The cited work is drafted from a perspective that housing affordability is an important goal. At least some of the authors have been identified with advocacy for urban containment policies. Similar sentiments are found in other publications by urban containment advocates.

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NIMBYs as Mercantilists

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Abstract: Urban property owners use their political power to restrict development near their homes through their support of zoning and growth management laws. While these rules reflect homeowners' individual preferences, collectively land-use regulations prevent gains from trade. Large, dense cities provide unparalleled potential for exchange and innovation, but zoning rules restrict the potential for population and employment growth in these centers of productivity. City residents who support these rules that limit urban growth parallel the 18th century mercantilists that Adam Smith opposed in his treatise, *An Inquiry into the Nature and Causes of the Wealth of Nations*. Both interest groups seek to advantage their short-term economic interests through government-granted privilege, but in the long-run, both land-use restrictions and mercantilism impoverish nations by preventing exchange and economic growth.

Keywords: mercantilism, spillover effects, agglomeration benefits, urban development, entrepreneurship

INTRODUCTION

Adam Smith taught the world that mercantilism impoverished 18th-century nations by erecting barriers to trade and reducing opportunities for specialization and economic growth (Smith 1976). Regulations that restrict urban development likewise reduce opportunities for innovation and specialization by limiting cities' population size and density. Even as improvements in communications technology and falling transportation costs reduce the burden of distance, many industries still benefit from the geographical proximity of human beings that only dense development can provide. As Adam Smith demonstrated in his treatise against mercantilism, the division of labor is limited by the extent of the market, and today land-use regulations are limiting the extent of urban markets (Smith 1976, p. 31). Removing land-use regulations allows greater gains from trade as more people are allowed to live in important economic centers like New York City and Silicon Valley.

This paper will explore the reasons that cities facilitate economic growth, drawing on the work of Jane Jacobs, Israel Kirzner, and Sanford Ikeda, along with the empirical work of Edward Glaeser, Geoffrey West, Chang Tai-Hsieh and Enrico Moretti to demonstrate the importance of cities and population density. Because of the proximity of humans to one another plays such an important role in entrepreneurship and economic growth, regulations that

limit urban development come with a high toll for economic progress and improvements in standards of living. In a globalized economy, limiting the number of people who can live in the world's most productive cities makes people around the world worse off. Given this relationship between urban growth and economic growth, why are land-use regulations that restrict population growth and density so prevalent and popular? I argue that like mercantilists who protected their narrow interests at the expense of broad economic growth, property owners, or "NIMBYs," who use the political system to block development near their homes likewise seek to restrict supply in order to increase their financial well being. While land-use restrictions carry clear benefits for property owners, these benefits come at the cost of economic growth, and they ultimately reduce well-being for everyone.

This paper will first explore the theoretical foundations for the role of cities in economic growth. Then I will review the empirical literature that supports the relationship between urbanization and economic growth. In the third section I will analyze the commonalities among groups that oppose free trade and groups that oppose free markets in real estate. In the fourth section I will review potential policy reforms to promote elasticity in housing markets. And finally I will conclude with an analysis of the consequences of land-use regulations for economic growth.

Cities and the Market Process

In his body of work Israel Kirzner provides an analysis of how entrepreneurs spot profit opportunities in order to equilibrate markets. In a world of uncertainty, Kirzner explains that entrepreneurs have to “pierce through the fog of uncertainty” of future market conditions in order to identify profit opportunities (Kirzner 1985, p. 53). Kirzner’s work brought to light the role of entrepreneurs in equilibrating markets across time and space by continually putting resources to better uses. While he placed little emphasis on the entrepreneurs’ physical locations, Kirzner’s entrepreneur clearly took advantage of his surroundings. Sanford Ikeda explains that the entrepreneur’s environment is his “action space” (Ikeda 2007, p. 214):

An action space is a “place,” a place where actions and interactions happen, by design or unplanned, formally or informally. They include places to work, play, and meditate; places to sleep, eat, and walk; places to converse, plan and make contact in private and in public, places to discover, regret, and to trust or distrust... From the perspective of the economist, of course, the more interesting occurrences in action space tend to be the ones that are unplanned, informal, and public because that describes the chief realm of the market process and of the entrepreneurship that drives it.

The Kirznerian entrepreneur profits by seeing the opportunity that others failed to see, so, all else equal, entrepreneurs will find more profit opportunities in more diverse settings. Cities facilitate innovation by placing people with diverse backgrounds and goals in close proximity. In *The Death and Life of Great American Cities*, Jane Jacobs (1961) identifies four qualities of diverse neighborhoods that create safe and living cities:

- At least two primary land uses;
- Small blocks;
- Buildings of diverse ages and types; and
- A high density of buildings and people.

These diverse physical characteristics facilitate population diversity. Because diverse neighborhoods have buildings of different ages, prices, and purposes, they bring together people of different demographics and income levels in a walkable environment. Diverse neighborhoods create an urban environment in which people of all different professions, interests, and income levels, come into con-

tact with one another as they go about their daily routines. Diverse neighborhoods provide an action space in which Kirznerian entrepreneurs can “pierce through the fog of uncertainty.” In contrast to other theorists such as Alfred Marshall (1890), Kenneth Arrow (1962), Paul Romer (1986), and Michael Porter (1980), Jacobs predicted that cities with a large diversity of firms facing stiff competition leads to the highest growth rates (1969).

In her work on economic development, Jacobs explains that cities create an environment in which interaction among diverse people within a living city allows for the easy transmission of ideas across industries. She asserts that city economic development occurs through a process that she calls “import replacement” (Jacobs 1985). Her import-replacement model is a bottom-up process through which urban economies begin producing themselves what they previously purchased from other cities. Over time, economic progress makes it more cost-efficient to produce these goods locally than to import them. With this new income, the city can then begin importing new goods. According to her theory, regional economies grow by beginning to make locally what they previously imported. The production and export of these goods in turn allows them to begin importing new goods that were previously unaffordable. As with the Kirznerian entrepreneur, Jacobs’ entrepreneur works incrementally, spotting arbitrage opportunities to put resources to better and better uses over time. Jacobs describes the process by which relatively undeveloped city economies use the import-replacement process to increase their productivity and purchasing power (Jacobs 1985, pp. 37):

As cities like Chicago, Pittsburgh and Cincinnati grew, and in the process laid a foundation for versatility at producing, they also replaced with their own production wide ranges of the imports they were receiving from eastern cities—and in their turns exported some of those same items as well.

[...]

Cities that replace imports significantly replace not only finished goods, but, concurrently, many, many items of producers’ goods and services. They do it in swiftly emerging, logical chains. For example, first comes the local processing of fruit preserves that were formerly imported, then the production of jars or wrappings formerly imported for which there was no local market of producers until the first step had been taken.

Jacobs (1984) contrasts her view of cities as the appropriate unit of analysis for entrepreneurship and economic growth with the Smithian focus on nations as the appropriate unit of analysis. In *The Wealth of Nations*, Smith's treatise against mercantilism, Smith argues that barriers to exchange across countries restrict economic growth. While Jacobs finds urban labor markets—rather than areas defined by national borders—to be the appropriate unit of analysis for studying economic development, both theorists stress the importance of free exchange across borders and the centrality of urban markets in providing the action space for the division of labor that isn't possible in a small town. While Smith's work focuses on the importance of national barriers to exchange, he recognized the Jacobsian insight that some exchanges are limited by the size of cities. Smith cites the examples of porters, who wouldn't be able to find buyers for their trade in small towns, thereby limiting them to working in large markets (Smith 1976, p. 31).

The diversity of people and professions that cities house provides opportunities not only for specialization, but also for spillover effects as innovations travel across firms within a single industry. A cluster economy is a locality with a concentration of interconnected firms, in which firms that compete with each other and sell to one another are located close together. Silicon Valley is perhaps the best-known cluster economy, and it clearly demonstrates the benefits that accrue to innovators from interacting with others in related industries. The concentration of tech firms in close geographical proximity puts entrepreneurs in the position to spot profitable opportunities. Industry concentration facilitates a labor market environment in which firms have a pool of qualified workers that they need for expansion, and workers have the safety net of multiple potential employers. On the sales side, Pierre Desrochers (2001) explains that cluster economies that sell business-to-business products provide firms with the customer base that they need to succeed.

Silicon Valley is an urban action space where geographical proximity has made entrepreneurs more successful than they would be without the inspiration that they provide one another. Walker's Wagon Wheel was a bar in Mountain View, CA where in the 1970s and 1980s, engineers met to talk about their work and ideas. The Homebrew Computer Club, a social group founded in 1975 for computer hobbyists, played a crucial role in the development of personal computers. The programmers, engineers, and inventors who attended the club's early meetings would go on to revolutionize computing thanks, in large part, to the informa-

tion they gathered from swapping ideas, hardware, and skills from the other group members they encountered informally. The club began meeting in garages, parking lots, and university auditoriums, but it was only possible because these enthusiasts all worked for semiconductor companies that brought them to the same region of California.

Because of these benefits to geographic proximity, geographic clusters have existed throughout history and continue today. Amsterdam's diamond trade, New York City's publication industry, and Hollywood's film industry all provide examples of firms' dependence on proximity to one another. Clusters also benefit workers who have the opportunity to easily move between firms within a cluster, improving their bargaining power for wages and benefits. While policy analysts have focused on the benefits of actively developing cluster economies (Sautet, Desrochers, and Hospers 2008) Jane Jacobs advanced a theory that a diversity of industries would instead benefit economic growth. Empirical research has validated her insight that diversity, rather than a concentration of firms in one industry, results in larger productivity gains (Glaeser et al, 1992). Jacobs calls idea-sharing across industries "drift" (1985, p. 225). She points to Ida Rosenthal's innovation in women's bras, an idea that Rosenthal developed while working in a dress shop and looking for a way to make dresses fit better (1969, p. 53). Her work in a dress shop was the action space in which she saw the opportunity to create a new industry. While some empirical work discussed in the next section provides evidence in favor of Jacobs' theory as a better explanation of long-run economic growth relative to industry clusters, both theories have strong descriptive power for explaining how the urban environment supports entrepreneurship.

Aside from providing a platform for entrepreneurship, cities also create conditions that fuel competition between suppliers to consumers' benefit. The concentration of firms within a small area in dense urbanities means that urban consumers have many options for where they can take their business. This proximity disciplines service-sector firms that provide goods consumers purchase locally, including restaurants, supermarkets, and salons. The services that these businesses provide cannot easily be substituted with imports from other outside locations. Tyler Cowen (2013) points out that one way to find great food is to find a neighborhood where there is stiff competition for a particular type of food. For example, Indian food in the New York's East Village or pho in Northern Virginia's Eden Center is

likely to be good because restaurants serving sub-par food will swiftly go out of business.

As transportation costs have fallen and telecommunications have made long-distance collaboration easier than ever, some theorists have argued that “distance is dead” (Cairncross 2001). Locating in cities comes at a high cost to firms that must pay substantially higher rent and taxes in the countries’ most productive cities relative to less-urbanized locations. In the face of these technological improvements, however, firms and individuals are demonstrating their willingness to pay increasing premiums to locate in these cities. Michael Storper and Anthony Venables (2004) put forward a framework to explain this premium based on the importance of face-to-face communication. They assert that face-to-face communication carries much more uncodifiable information than other forms of communication can transmit. They write, “Humans are very effective at sensing non-verbal messages from one another, particularly about emotions, cooperation, and trustworthiness” (p. 355). Because cooperation and trustworthiness are essential to success within a firm and in transactions between firms or individuals, face-to-face communication reduces transaction costs and facilitates exchange. They term the benefits to productivity that stem from this communication “buzz.”

Storper and Venables point out the seeming contradiction that cities that provide the most opportunities for in-person collaboration are also key sites for international exchange in increasingly globalized industries. They write, “The most globalized cities also seem to have the most localized buzz. This is not surprising in view of the analysis provided here. The highest levels of international business require insertion into locally-grounded government and political networks in order to function efficiently” (p. 366). Even with online platforms that make it possible for an individual in any country to transact with someone in almost any other country, localized networks developed through face-to-face conversation still provide the social lubricant that facilitates exchange.

Peter Gordon and Sanford Ikeda (2010, p. 3) explain the role that cities provide as the spatial component of economic growth:

There is positive feedback as the expectation of economic opportunity in an area itself acts as an attractor. People then attract more people, and this tends to create more economic opportunities, which in turn increases density.

Cities provide an environment in which people come into contact with many other people in both business and social settings, providing the growing market for trade that Adam Smith recognized as the key to economic growth.

The forces that make cities fertile ground for innovation and economic growth cannot be removed from the physical location of the city regardless of future advances in transportation and communications technology. Daniel Rodriguez and David Schleicher (2012) term individuals’ and firms’ decisions about where to locate the “location market”. Some agglomeration benefits—the gains firms have from being located near one another—can be “extremely local” (p. 643) such as the benefits of stores and restaurants that serve a particular cultural group locating on the same block. They explain that these agglomeration benefits accrue not only to consumers who patronize the specialized benefits, but also to society as a whole because location markets facilitate collaboration and innovation.

Empirical evidence on cities and economic growth

Empirical evidence bears out the importance of cities in providing the space for entrepreneurship and exchange, which explains why people pay a premium to locate in diverse cities to gain access to the positive externalities of idea sharing that this environment facilitates. For example, American patents are more likely to be cited by firms located domestically, within the same state, and even more so, within the same Metropolitan Statistical Area (Jaffe 1993). This provides support for Jacobs’ theory that people and firms located near one another are more likely to learn from one another through casual interactions and through labor market mobility. The positive externalities that firms provide within a metropolitan area may explain why individuals and businesses pay a premium to live in expensive cities. Glaeser and Mare (2001) point out that American city residents earn a 30% wage premium relative to non-urban workers. Why would firms be willing to locate in cities where they have to pay consistently higher wages rather than moving to a location with lower wage rates? Glaeser and Mare hypothesize that the spillovers that workers take advantage of in cities make them more productive, so firms wouldn’t be able to achieve the same productivity and innovation gains if they chose not to pay this premium to employ city residents.

Based on these studies that indicate that cities provide the setting for innovation, Glaeser and Mare posit that cities create learning environments that are particularly attractive to highly-skilled young people. They find that young peo-

ple disproportionately choose to live in cities, particularly young people with college degrees and those in industries in which they will benefit from the learning opportunities that cities provide. Some have predicted that the transition to a service-based economy, in which workers can be productive from anywhere and collaboration can be facilitated through email or video chat, will result in the decline of cities as centers of productivity (Cairncross 2001). According to this hypothesis, people will find it less valuable to locate in cities. However, Glaeser and Mares' findings provide reason to believe that as employment in knowledge-based jobs increases, the returns to living in cities and benefitting from tacit knowledge spillovers will increase for firms and individuals.

In research on wage growth, Glaeser, Kallal, Scheinkman, and Shleifer (1992) test Jacobs' theory of spillover effects across industries. They find that city economies that are less dominated by a small number of industries see higher rates of labor productivity growth, supporting the Jacobs hypothesis that cities support economic growth by bringing together people from diverse professions whose interactions facilitate innovation.

Whether the cluster theory of economic development or Jacobs' theory of economic diversity has a larger effect on growth rates, clear evidence points toward the importance of cities in facilitating economic growth. In an anecdotal example, Ed Glaeser (2012) points out that Manhattanites' hourly wages are 170% higher than the U.S. average, demonstrating the relationship between human density and productivity. This observation is borne out in global data. A research group at the Santa Fe Institute headed by Luis Bettencourt and Geoffrey West (2007) has found that city size has increasing returns to scale for both wealth creation and innovation. They find that city population size corresponds to wealth creation through a power law with an exponent of 1.2. Bettencourt and West do not look at density of buildings or population but rather simply the population sizes of labor markets.

In addition to providing opportunities for learning through spillover effects, research supports the theory that urban environments provide social benefits to exchange. Since Smith's insight into the importance of the division of labor, many economists have built on his work to demonstrate the importance of the ease of transacting in facilitating trade and economic growth. One important element in facilitating exchange is social trust. As Kenneth Arrow (1972, p. 343) observed, "Virtually every commercial transaction has within it an element of trust. Certainly any

transaction conducted over a period of time. It can plausibly be argued that much of the economic backwardness in the world can be explained by a lack of mutual confidence." While theorists such as Robert Putnam (1993) have hypothesized that trust is best developed in small, rural communities in which most members know one another, evidence does not bear out this theory. On the contrary, Jan Delhey and Kenneth Newton (2005) find that countries with small agricultural sectors and a high rate of urbanization tend to have higher rates of social trust. While research has not demonstrated a causal relationship between urbanization and trust, Jacobs' theory suggests that residents of living cities have more experience interacting and transacting with out-groups. The environment that brings diverse people together creates the chance for positive interactions with members of out-groups, creating a population with higher levels of social trust.

While the benefits of cities for economic growth are clear, policies at the federal, state, and local level all make city living more expensive. In particular, local land-use regulation rules that restrict the supply of housing make housing more expensive. Edward Glaeser and Joseph Gyourko (2005) explain that these regulations are responsible for a large portion of the rapidly rising housing prices in many large American cities. They describe this effect as the "zoning tax," and the find that not only New York, but also Boston, Los Angeles, Newport News, Oakland, Salt Lake City, San Francisco, San Jose, and Washington, DC all have zoning taxes that account for more than 10 percent of the cost of housing. Supporters of land-use regulation argue that it provides a policy mechanism for homeowners to protect their neighborhood from higher intensity land uses. For example, Randal O'Toole argues that "zoning exists to protect existing neighborhoods from unwanted intrusions" (2016, p. 17). While land-use regulation certainly does offer benefits to homeowners who support maintaining the form of their neighborhood, the substantial costs of these regulations are not weighed against their benefits in the current land-use process.

The costs of regulation are borne not only by renters who have to pay for these rules in the cost of their housing; these rules also have macroeconomic effects. Chang-Tai Hsieh and Enrico Moretti (2015) have examined how regulations that prevent workers from living in high-productivity cities reduce economic output at the national level. New York, San Francisco, and San Jose are the three American cities with the highest labor productivity. Because regulations in these cities have created an inelastic housing supply, this high la-

bor productivity has resulted in higher wages and higher housing costs rather than employment growth. The authors find that lowering the level of land-use regulation in these three cities to the level of regulation in the median US city would be expected to increase GDP by 9.5 percent. In other words, if the nation's most productive cities could expand housing to accommodate more employment growth, the mean American wage could rise significantly.

Barriers to Exchange: NIMBYs and Mercantilists

As Adam Smith observed, process of increased exchange, specialization, and the economic progress may cause harm to those who have built careers or businesses around current technologies. Smith pointed out that because mercantilists—those who supported protectionist policies to reduce international exchange—saw trade as a zero-sum game, they supported tariffs to shield domestic businesses from the competition of superior good imported from abroad. While in the short-run tariffs may benefit an industry by creating a market for goods that wouldn't be competitive in a free market, in the long-run this competitive process is the key to economic growth (Smith 1976, pp. 488-498).

Like mercantilists, NIMBYs—an acronym for “not in my backyard,” referring to homeowners who oppose development near their property—seek to restrict the competitive process. NIMBYs lobby local government officials to limit new housing development in their city, to preserve their neighborhoods for single family homes exclusively, or to otherwise prevent market forces from determining the outcome of real estate development. While NIMBYs are sometimes branded selfish or racist for obstructing new housing or housing for lower-income residents (Gerrard 1993), William Fischel (2005) explains that homeowners are rationally trying to inflate the value of their largest asset. Municipalities' land-use regulations typically reflect their homeowners, or Fischel's term, “homevoters” preferences. These homevoters' incentive to exclude low-income people from high-income communities may be explained by the Tiebout-Hamilton model of local public goods. According to this model, locally provided public goods may be provided efficiently through the process of people “voting with their feet” to live in the jurisdiction that best meets their preferred bundle of public services and taxes. Under this model, cities with a high level of public services will face an incentive to exclude lower-income residents who would add to the burden on public services without proportionately increasing the tax base.

While Adam Smith promoted a system under which mutually beneficial free exchanges guided economic activity, in his time and today people seek to use government to achieve their preferred outcome. Mercantilists supported tariffs to keep out imports, and NIMBYs support land-use regulations to keep out new housing. And like the mercantilist policies that prevented economic growth through the free movement of goods across borders, NIMBYism stifles growth by preventing the free movement of people toward the cities where they can be most productive. Both mercantilists and NIMBYs use their influence over public policy to restrict free trade. Their preferred policies protect their own narrow economic interests in the short run, but in the long run, both prevent gains from trade that would be possible in a free market, reducing the potential for economic growth.

Policy Reforms that Could Improve the Urban Action Space

Both theoretical and empirical research points to the crucial role that cities play in economic development and rising living standards. But myriad regulations restrict city size and population density—from restrictions on multifamily buildings to urban growth boundaries—hampering the development of the urban action space that Jacobs and Ikeda identify. In spite of the enormous costs of these land-use regulations for economic growth, individuals who lobby in favor of land-use regulations are often acting rationally in their own financial interests. What is individually rational is collectively irrational. To put in perspective Hsieh and Moretti's estimate of the potential for a 9.5% increase in U.S. GDP that could result from land-use deregulation in San Francisco, San Jose, and New York City, that would translate to an average raise of nearly \$5,000 per person per year. Every year that high-productivity cities prevent building and block out new residents, economic growth suffers enormously.

Given policymakers' focus on economic growth and job creation, at first it seems surprising that they allow for the persistence of land-use regulations that reduce entrepreneurship. For example, Washington, DC Mayor Muriel Bowser supports several economic development programs to promote wage growth; however, she also opposes some land-use regulation reforms that could improve housing affordability while also making DC workers more productive through knowledge spillovers (O'Connell 2014). David Schleicher (2013) argues that because many large cities don't have competition between political parties, city council members have a large degree of control over land-use de-

decisions in their district. Homeowners have intense preferences against new development in their districts while they have weak preferences about most issues in city politics, so council members prioritize anti-development positions.

Various scholars have proposed limiting land-use restrictions, with the goals of opening up the country's most productive regions to population growth. In *Triumph of the City*, Glaeser (2012, p. 161) suggests a historic preservation budget under which only a fixed number of a city's buildings could be subject to landmarking. To add a property to the list of preserved buildings, regulators would have to take another building off the preservation roles, giving the regulators an incentive to select for protection only those buildings with the most historic importance, and allowing the housing supply to expand in areas deemed less important. Similarly, law professors Roderick Hills and David Schleicher (2011, p. 25) recommend "zoning budgets." They point out that municipalities commonly implement low-density building rules and even downzone prime land without consideration of tradeoffs:

On any given zoning vote, the supporters of restrictive zoning have an advantage over the supporters of additional housing supply even when less restrictive zoning across a given local government might be preferred by city residents. In effect, local governments exceed their "zoning budgets," imposing restrictions in excess of what their own planners and politicians declare to be the optimal amount of regulation, because landuse regulation procedure causes them to ignore the long-term effects of individual zoning decisions.

A municipal budget ordinarily forces policymakers to make tradeoffs between potential spending projects, but matters of regulation face no similar constraint. Hill and Schleicher propose that municipal executives be required to set a goal for population growth and this growth rate be put to a vote by the city council. Under this requirement, some amount of upzoning—a change in rules to permit greater density of development—would be required, and all downzoning—a change in rules to permit less density of development—would need to be offset by upzoning elsewhere in the municipality.

While a zoning budget or a historic preservation budget could force policymakers to make choices among potential regulations, they are not necessarily tools that will move a city toward an efficient level of housing. Like other tools de-

signed to set restraints on rule promulgation, a zoning budget would be subject to the arbitrary, politically determined level of new development that legislators select. Setting an allowable amount of development requires an implicit cost-benefit analysis by policymakers rather than using the market's signals about whether new housing should be provided. A zoning budget might lead to an increase in the housing supply over what would be provided in a given city without such a budget because it would internalize some of the tradeoffs for policymakers of allowing new housing. However, it would still set the amount of housing through the political process rather than allowing demand to determine the quantity of housing supplied.

In a 2012 paper Schleicher proposes a policy he calls Tax Increment Local Transfers (TILTs). Allowing more development within a jurisdiction increases the size of its tax base, and TILTs would allow those property owners near the new development to share in the gains by dividing some portion of the increase among them. TILTs would provide an incentive for neighbors to support new development that could be profitable, whereas currently they have little reason not to oppose any new development that might lower their property values or increase congestion.

CONCLUSION

Both economic theory and empirical research demonstrate the importance of the urban action space for exchange and economic growth. Adam Smith created an enduring model of free trade that helped facilitate radical improvements in living standards starting in the early days of the industrial revolution and continuing today. Likewise, a closer examination of the economics of cities could greatly improve living standards. The arguments against free trade—domestic firms would suffer from competition, specific individuals may be harmed when consumers are given better alternatives—are similar to the arguments against liberalizing land-use regulation. Suburban homeowners are likely to see land values plummet in a more competitive housing market, but the nationwide decrease in income mobility and economic growth associated with land-use regulation are too high a cost to allow housing mercantilism to persist any further into the 21st century.

Homeowners are a powerful political force in any municipality, whereas people who cannot afford to move into a jurisdiction have no political voice at all in that jurisdiction. Institutional reforms such as zoning budgets, TILTs, or other rules that place limits on how much municipal pol-

icymakers can restrict growth have the potential to improve the efficiency of land-use policy, and they would reduce the regressive effects of current policy. Permitting people to move to the cities where they have access to the best opportunities will not only benefit these individuals, but it also will ultimately facilitate greater economic growth overall.

If implemented, reform proposals, including zoning budgets and TILTs, have the potential to increase efficiency in land use and reduce the regressive effects of land-use regulations. However, the same vested interests that have led to the current, inefficient regulatory regime also pose political challenges to passing these proposed reforms. One possible way to reduce the strength of local opposition to additional housing is to move the implementation of zoning budgets or TILTs from the local to the state level. While mayors must answer to homeowners in a relatively small geographical area, state policymakers have a broader geographical constituency, and are farther removed from opposition to development at the local level. Schleicher observes that more development is permitted in cities where mayors have relatively more authority over development because mayors are less influenced by residents with hyper-local concerns about new development (Schleicher 2013, p. 1709). This effect is even greater at the state level, where policymakers are less subject to pressure from NIMBY pressure to restrict growth and more likely to be motivated to pursue policies that will foster economic growth across the state. While Schleicher and others have done interesting work on land-use reforms, identifying politically feasible policies that will permit more efficient land-use outcomes is an area ripe for further research.

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A City Cannot be a Work of Art

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Abstract: Jane Jacobs famously argued that “a city cannot be a work of art.” A living city is a spontaneous order far too complex for the human mind to design or to direct in detail. Thinking of a city as a designed outcome and not as an emergent process, or trying to organize a city before appreciating what it is and how it works, or treating a city as if it were a work of art, tends to stifle spontaneity and drain it of life and intelligence. Rather, a city is a place where people with diverse knowledge, skills, and tastes change space, make and break ties, and transform resources and ideas in innovative and controversial ways. It’s an unpredictable, messy, even dangerous, but deeply creative process.

Keywords: action space, city, complexity, urban planning, urban design, Jane Jacobs, spontaneous order

One of the common mistakes urban planners make is to assume that you can impose a deliberately constructed pattern onto a cityscape and expect people to adjust their behavior to it in just the way you want them to. It doesn’t work that way, especially with big plans involving large numbers of people, no matter how beautiful or efficient the design may be. To quote Jane Jacobs: “A city cannot be a work of art.”

WHAT A CITY IS NOT (AND IS)

As Jacobs explains in her book *The Death and Life of Great American Cities*:

Artists, whatever their medium, *make selections* from the abounding materials of life, and organize these selections into works that are under the control of the artist...the essence of the process is disciplined, highly discriminatory selectivity *from* life. In relation to the inclusiveness and the literally endless intricacy of life, art is arbitrary, symbolic and abstracted...To approach a city, or even a city neighborhood, as if it were a larger architectural problem, capable of being given order by converting it into a disciplined work of art, is to make the mistake of attempting to substitute art for life. The results of such profound confusion between

art and life are neither art nor life. They are taxidermy. (1961, pp. 372-3, emphasis original)

So how do we avoid turning the results of urban design into taxidermy and killing off a city by planning? I think the short answer is that we avoid it by recognizing that there’s a tradeoff between the scale of a design and the degree of spontaneity, complexity, and intricacy in the resulting social order that the design allows.

Now, saying that a city cannot be a work of art doesn’t mean of course that a city cannot be beautiful or that deliberate design can never enhance that beauty. But I am suggesting that beauty that is designed as a work of art is fundamentally different from the undersigned beauty that emerges from a lifetime of experience. The skillfully made-up face of a fashion model and the face of a 90-year-old grandmother are both beautiful, but in profoundly different ways.

And I’m not saying that small is always beautiful, either. What I am saying is that there’s a reason why mega- and giga-projects tend to be more beautiful the farther away from them you are, while the deep beauty of a living city becomes visible, as I said, up close on the street.

When she wrote that a city cannot be a work of art, I believe Jacobs was thinking less about aesthetics *per se* and more about the problem of social order—about how a city manages to solve the problem of achieving social coopera-

tion among thousands and millions of strangers. And for the same reason she didn't think that a city could be a work of engineering. Both the engineering perspective and the aesthetic perspective abstract from an organic whole; both substitute the vision of a single mind for the intricacies of a system that is the result of many minds. These reasons parallel those of F.A. Hayek (1967) who warned of the dangers of conflating planned orders for unplanned or "spontaneous orders."

The economist Richard E. Wagner (2010) draws the same distinction in his contrast between "piazza and parade." In a parade, each person follows an explicit, pre-assigned set of commands consciously constructed by some kind of overall planner. While any social framework constrains individual choice to some degree, a parade, on the street or especially on an American football field, is perhaps the most extreme example of this. To achieve the pre-ordained pattern, no marcher can deviate from her assigned movements and her individuality must be submerged into the collective. Individual choice in this context, aside perhaps from the choice of the marcher to join the parade in the first place, must be ruled out. Individuality, the freedom to deviate from one's role in the collective, would spell disaster and therefore it can't be tolerated. The relations among the marchers have to be formal and narrowly constrained.

People of course also relate to one another in a piazza. Whether sitting, standing, or walking (or dancing), there are rules each person needs to follow in order to preserve order. But those rules are typically informal, tacit, and negative in the sense that they tell you what you cannot do rather than what you can do. Perhaps you're not allowed to toss trash into the fountain or play loud music or assault passersby. Anything else not forbidden—bathing in the fountain or singing to soft music or talking to strangers or whatever—is allowed. The scope of what you can do in this hypothetical piazza is infinitely broader than what you cannot do, indeed must do, in a parade (e.g. take five steps forward, turn 90-degrees to the right, and so on).

Let me define this kind of piazza-order, a **spontaneous order** as

a stable set of relations among individuals that emerges unplanned from their collective interactions and that is sufficiently coherent to enable them to form and carry out their plans with a reasonable expectation of success.

It is in this sense that Hayek refers to a spontaneous order as "the result of human action but not of human design." The people whose actions constitute the order may or may not be aware *that* their choices contribute to the pattern, but they certainly do not know precisely *how* their choices do so. Examples of spontaneous orders include language, culture, legal interpretation, market prices. Quite a wide-ranging list!

In fact, because of the central role of cities in the development of so many spontaneous social orders, I believe we should view a living city as a spontaneous order *par excellence*. The city is a social order that breeds and sustains the most important, spontaneously generated social orders that constitute civil society.

That's why Jacobs was so harshly critical of highly centralized, heavy-handed post-World War II-style urban planning, in which planners worked to transform messy piazzas into pretty parades. Indeed, her criticism was basically that the planners of her day were typically unaware of the essential difference between the two. They tried to substitute their vision of the ideal city—clean, segregated, geometric, large-scale—onto patterns of social interaction and order they did not see or understand or care about. They were for the most part committed to what they believed was the common-sense goal of restoring efficiency to the unplanned city and didn't mind being bold or brutal. For examples we need look no further than to Brasilia or more recently to China's ghost cities.

She was no less critical of contemporary urban theory. The paradigm is Louis Wirth's (1938, p. 18) model of a city as a 3-variable problem—population, density of settlement, and degree of heterogeneity—with which he argued it was possible to "explain the characteristics of urban life and to account for the differences between cities of various sizes and types." In contrast, Jacobs saw a living city as a problem of "organized complexity," which involves "dealing simultaneously with a sizable number of factors which are interrelated into an organic whole" (1961, p. 432); that is, a spontaneous order.

Much more congenial to her way of thinking were the design theories of Kevin Lynch (1960) or William H. Whyte (1980) or Jan Gehl (2013). She might have been very sympathetic to the traffic philosophy of "shared space" that is spreading across Northern Europe today. They each pay careful attention to what real people do and how they interact with one other and with the built environment. Each to some degree understood with Jacobs that a living city is a spontaneous order.

Now, what about those tradeoffs?

What the Tradeoffs Are

First of all, Jacobs observed that the artist *abstracts* from life, with all its “inclusiveness” and “literally endless intricacy.” Many architects, especially those with great ambition, seem to treat urban environments as a mere canvas for their personal creations; a canvas which if not already blank has to be wiped clean before they can get to work. The good architects at least try to take into account how their constructions fit or don’t fit into the existing built environment and how real people might actually use them. But whether you’re an architect—or an economist—predicting how people will respond to a change is a pretty iffy thing. From my perspective that ifiness comes from two factors: complexity and radical ignorance.

Complexity in this context means that the interactions among people are so numerous or varied or changeable that the costs of being aware of all of them is too high for anyone to calculate. Hayek defines the “degree of complexity” in terms of the “minimum number of elements of which an instance of the pattern consists in order to exhibit all the characteristic attributes of the class of patterns in question...” (Hayek 1964). In a world with only a few variables, such as those described in a high-school algebra problem, it is possible to have all the knowledge you need to get the correct answer. In the real world, however, the number of relevant variables is too large; that is, the number of ever-changing interactions among people in society is so large, and our cognitive powers are too limited, to find a “solution.” Indeed, compared to the vast complexity of the social order, predicting this week’s weather is a pretty simple matter.

Radical ignorance means being unaware of information that would be relevant to making a decision, not because the cost is too high, but because we are unaware that the relevant information even exists. For example, you might be very hungry but walk blithely by Restaurant X, which serves food that would satisfy your hunger. A simple solution escapes your notice because of your lack of alertness. So whether the problem is complex or relatively simple, not knowing that you do not know means you cannot solve the problem because in some sense you are unaware that the problem even exists.

Acting in the presence of complexity and radical ignorance means that it is impossible to trace all the consequences of your action because (1) you are not even aware of at least some of the consequences and (2) the ramifications

of your action are too numerous or subtle to follow given your limited mental capabilities even if you were in fact aware of them. So as a rule the bigger the scale of the changes you wish to make in the real world, or the more detailed the design you wish to impose on a given scale of activity, the harder it will be to predict what is going to happen.

One of the lessons economists learned from the 20th century debate over collectivist central planning—the so-called “socialist calculation debate”—is that the “optimal” level of central planning is a lot lower than most of us think. The local knowledge that makes things work is inherently beyond the grasp of the central planner and accounting for incentives is problematic. And the more someone tries to design a social order, the more people will strive to adjust to her interventions in unforeseen ways, thwarting her intentions. In the context of urban design, that means that substituting the genius of the planner for the collective genius of ordinary people diminishes the intricacy, complexity, and yes the deep beauty of the resulting social order, and generates negative unintended consequences.

The larger and more elaborate a design is in relation to the social space it’s trying to fit into, the narrower will be the scope of unplanned activities that it can permit. That’s because a structure, of any scale and degree of design, necessarily constrains to some extent how people will use it and the space around it. Building a mid-size townhouse within a commercial block changes the character of the rest of that block and perhaps also the surrounding neighborhood. The bigger the structure, the bigger the change will be.

In addition, constructing something that takes up an entire city block, like the Empire State Building, not only limits what people can do in and around that space but it also challenges the designer to try to account for the way people will want to use it. Scaling up to something like Lincoln Center or Hudson Yards exponentially increases the difficulty of predicting people’s behavior in and around that space and of constraining how they actually will use it. If she wants to preserve the potential for unplanned liveliness, the designer will need to leave substantial room for adjustment over time, otherwise the level of social complexity will be limited by her imagination at a single point in time.

A city can handle endless waves of complex, on-going problems if the *rules* that govern interaction, and the *spaces* within which people interact, allow many minds to discover those problems and to work on them over time. Good urban design therefore needs to take seriously into account a city’s “invisible infrastructure”—i.e. the patterns of contact, use, and ever-changing social networks that promote order

and social cooperation—that enable individuals to harness their local knowledge and human capital. The built environment should complement emergent order, not try to replace it with deliberate design.

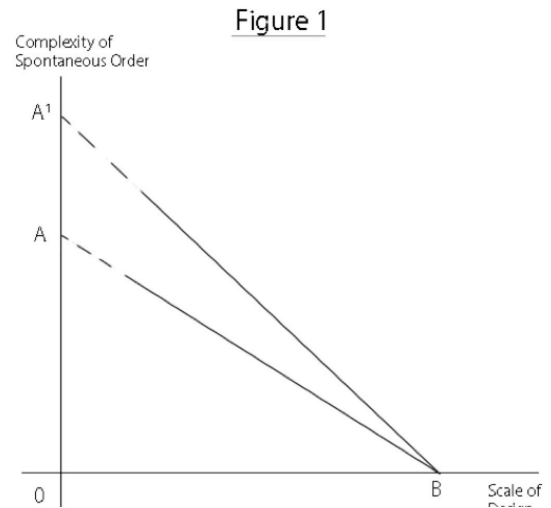
It's a mistake then to approach building structures as different in scale as the Empire State Building, Lincoln Center, or Hudson Yards as one merely of degree. With respect to their impact on the invisible social infrastructure, they are fundamentally different in kind. Increasing the scale of design/construction cuts ever more deeply into the living flesh of a city. The challenge for the designer/builder of public space then is to enable, rather than replace, the spontaneous, low-level planning of ordinary people, and to preserve—largely by keeping away from—the “action spaces” where informal contact and networking, trial-and-error, diversity, and discovery usually happens. Too often, scaling up progressively drains the life and intelligence from of a city.

What the Tradeoffs Might Look Like

We can visualize the tradeoff between the scale of design and the complexity and spontaneity of a social order as a downward-sloping curve. A sort of “scale-versus-order-possibilities frontier.” (See Figure 1.)

In addition to scale and order/complexity, a third element I would add to the tradeoff is the passage of time. You can to some extent plan for complementarity, but you can't really plan for spontaneous complexity and intricacy. Fortunately, time allows people some freedom to adjust social networks and physical spaces to better complement their own plans, in ways that the designer cannot foresee. That is, for any given scale, time lets people figure out novel uses for, or changes to, the space as originally designed. Those unthought-of uses constitute an increase in the level of complexity in a spontaneous order. Over time, then, the frontier can shift outward.

Figure 1 reflects these relations:



The scale of a structure and the designed or planned uses of the space within that structure are two different things (even though simply increasing scale does itself increase to some degree the designed element in a previously undersigned space). Increasing the dimensions of a room doesn't necessarily mean the elements that go into its design become more complex. But to keep things simple, Figure 1 treats scale and design as tightly positively correlated. Thus, as scale increases so do the designed elements—you move from point A to point B—and together they decrease the potential for spontaneous order.

Then, as time passes, the frontier shifts up from AB to A'B', where point B represents the case where the structure occupies 100% of the relevant action space. So for any given scale, the passage of time allows people to find new, unplanned ways to interact with others in that space, thereby increasing the level of spontaneous order. How far it might shift in a given time period and the particular shape the tradeoff might take are critical issues, but they are beyond what I wish to discuss here.

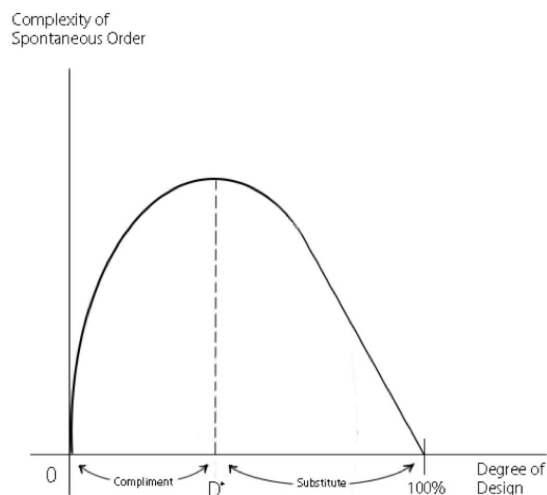
But thinking of the relation between scale, order, and time in this way can still help to explain how, despite the monumental scale of ancient Rome or Haussmann's Paris or Niemeyer's Brasilia or Ceausescu's Bucharest, time has made those places more livable.

Now, what about the impact of deliberate design itself on spontaneous order?

Figure 2 isolates design from scale. It depicts a possible tradeoff between the potential for spontaneous order on the

one hand, and the degree to which the order in the structure is planned rather than unplanned.

Figure 2



While I believe a space in which there is no deliberate, overall design can still give rise to spontaneous order, I have drawn the curve emanating from the origin—no overall design, no spontaneous order—but it rises steeply at first to reflect my own priors. It then reaches a maximum level of potential spontaneous order at D^* , beyond which design begins to substitute for rather than complement, unplanned order.

So, precisely because it is not a work of art, not the result of deliberate design, a city can achieve astonishing levels of intricacy, or of Jacobs’ “organized complexity.” But if not a work of art, then what *is* a city? I’ve been using the term “spontaneous order,” but what does it mean?

THE CITY AS A SPONTANEOUS ORDER

Jacobs defined of a *city* as “a settlement that generates its own economic growth from its own local economy” (Jacobs 1969, p. 161).

Ancient Rome and contemporary Washington, D.C. are not cities in this sense because on net they consume more wealth than they produce. While you could argue that each of these cities does create some wealth, in the form of legislation and regulations that foster economic development, the net value of that output is, to say the least, open to question. On the other hand, New York City is a city in Jacobs’ sense because, in addition to the net wealth it creates for the rest of the world, it generates more tax revenue for the rest

of the country than it takes in in subsidies. In this sense, too, Paris, London, and Tokyo are also cities.

Note that Jacobs’ definition of a city is an economic one. It is different from, say, that of Richard Sennett: “...a city is a human settlement in which strangers are likely to meet” which would apply to a prison, a mall, or Yankee Stadium. And it certainly contrasts as we have seen with Louis Wirth (1938) who distilled the essence of a city as a kind of mathematical function determined algebraically by population, density, heterogeneity.

But it is a bit awkward to deny that such wealth-draining metropolises as ancient Rome and contemporary Washington are cities. Perhaps Max Weber’s distinction between a “consumption city” and a “production city” might be more helpful. Instead, however, I have found it useful to term a “living city” what Jacobs defines as a city, and to use the term “city” to refer to any large settlement where strangers peacefully interact over a long time.

In addition to my earlier definition in terms of a set of stable and coherent relations or patterns that is the result of human action but not of human design (Hayek 1967), a spontaneous order, as I’m using it here, also has the property of “emergence,” which is the ability of a complex system to arise from a multitude of individual interactions and to adapt to changing conditions without central command (Johnson 2002).

It’s true that at some scale there is always deliberate design. Spontaneity seems to exist at a level just beyond a particular set of designed elements. Thus the decision to buy from a particular supplier is deliberate, but the pattern of response of the entrepreneur over time to unexpected changes in supply (for example) is not. The architect’s plan for a home is designed, but how it interacts with other houses and those who live, work, and play in and around them over time to generate the character of a neighborhood is not. The spontaneity of an order then refers to the unplanned patterns that emerge over time outside the boundaries of design.

As I’ve suggested, however, beyond some point conscious design and spontaneity become substitutes rather than complements.

That is, like Jacobs, I see cities as highly adaptive systems that can achieve a level of complexity and orderly dynamism well beyond anything anyone could impose by design. As a spontaneous order, a living city is the result of human action but, for the part that matters most, not of human design. It is largely emergent, self-regulating, and self-sustaining.

I say “largely” of course because sometimes a city starts out as a deliberate creation and at different points in its history it may be subject to extensive re-design. But even so, over time it evolves in ways that no one who played a part in its deliberate construction could have foreseen. The original designers of the New York City subway system in the late 19th century could not possibly have correctly predicted how the network would evolve over the next 100 years. And the ambitious public mega-projects undertaken at various points in a city’s history—much like Haussmann’s Paris—are eventually absorbed into the urban matrix. A city outgrows the elements designed at its beginnings or later in its history. The living flesh of a city heals, but no one can predict just how.

Like the spontaneous orders of language, judge-made law, and culture, cities evolve in response to myriad impulses from the people who constitute them. Cities thrive when there is freedom in one’s voluntary interactions with others. When they flourish, cities draw together socially distant strangers who are seeking “profit,” however differently each might interpret that word. And as Hayek explained in his essay of 1945, “The use of knowledge in society,” because people with limited knowledge can use the money prices that emerge from countless market exchanges as signals, the market process is much smarter than any human mind. In exactly the same way, the collective intelligence of a city can solve problems that no one can solve by herself. Even more importantly, cities serve to make us aware of what those problems are in the first place.

Now it’s true that some of these problems would not have existed but for large numbers of people with diverse knowledge, skills, and tastes packing themselves together into dense agglomerations. But these are also the conditions that foster informal contact. They make cities incubators of ideas and the principal sources cultural, technical, and scientific innovation. Innovation and creativity are not possible without experimentation, trial-and-error; and trial-and-error is characteristically messy and often dangerous. Even though the number and diversity of opportunities you find in a city significantly lowers the uncertainty and the cost of experimenting, failure and disappointment will always be part of the bargain. Life on the cutting edge is the price and the value of living in a dynamic social order.

Rem Koolhaas (1994, p. 59) put it well:

The entire spectacle defines the dark side of Metropolis as an astronomical increase in the potential for disaster only just exceeded by an equally astronomical

increase in the ability to avert it. Manhattan is the outcome of that neck-and-neck race.

That, of course, could be said for any living city.

A living city is largely the unintended consequence of people following their own plans, their own dreams. And when free to do so they will shape and abide by norms, conventions, beliefs, and institutions—i.e. the “rules of the game”—that promote social cooperation and create wealth in ways no one can fully imagine. And their choices will also intentionally or unintentionally nudge those norms, conventions, and the rest, in unpredictable directions. That is, as long as they are free to do so.

“Freedom” here entails movement; in particular, the ability to break old, strong ties and to make new, weak ties. All that making and breaking, like all change, entails some amount of disappointment, even tragedy. But the payoff, the “bright side of metropolis,” is creativity and innovation. In that sense, innovation and disappointment, creativity and conflict, go hand-in-hand. The same human tendencies that create the dark, destructive side of metropolis are responsible for the bright, creative side. Trying to eliminate the dark side, to put a stop to unwanted change, or imposing rules to avoid disappointment, stifles creativity and results in even more profound disappointments. In other words, it results in taxidermy. As long as ordinary people are free to apply their intelligence, knowledge, energy, and resourcefulness where they see the opportunity to do so, the forces of creation can stay just ahead of the gales of destruction. People will adjust to or change the built environment; more importantly, they will adjust to or change the invisible, social infrastructure.

But then amidst all this change and motion, how can we tell when things are getting better or worse?

CITIES CANNOT BE EFFICIENT IN THE STANDARD, ECONOMIC SENSE

Before we can correct what we think is wrong with a city, we need an appropriate standard of what is right. That standard of rightness in turn depends on our understanding how the thing we are trying to fix is supposed to work.

In this regard I’m afraid neither macroeconomics nor microeconomics is much help at all.

In traditional macroeconomics, too much important detail is lost in its pre-occupation with aggregates and averages. For example, standard macroeconomic theory treats capital as homogeneous, and so makes no distinction be-

tween a hammer and a harbor, except that a harbor may be the equivalent of many, many hammers. Such an approach is too blunt an instrument for getting to the level of detail needed to grasp the complex, complementary time-structure of capital of an economy, let alone to tell us what would be necessary to promote that structure (Lachmann 1978).

The limitations of standard microeconomics are in some sense even more severe. Efforts to make cities run more efficiently, for example, when “efficient” means something more than simply “the way I want to see things done,” run up against a deep conceptual problem (Ikeda 2010). Strictly speaking, an action is efficient when a person achieves a given end with the least costly of all available means. In other words, *if* you know what the most valuable end that you could be pursuing is, and *if* you know what the correct value of each of the possible means to achieve that end are, then your choices have a very good chance of being efficient. It would simply be a matter of matching the known, least-cost means to the known, highest-valued ends. But if you lack knowledge of any part of that ends-means framework, if your knowledge is not perfect, it would be impossible to tell whether any particular ends-means combination is efficient or inefficient. You can’t compare a given outcome with an ideal outcome if you don’t know what that ideal outcome might be. Efficiency might be an appropriate measuring rod in Louis Wirth’s 3-variable city but useless in a Jacobsian system of organized complexity.

The starting point of Jacobs (or of Hayek or of Israel Kirzner 1973) is that a person is aware of only a small portion of the total amount of information she needs for the successful completion of her plans. Also, people make mistakes, plans conflict. Again, the social processes in cities are precisely what facilitate the discovery of conflicts and errors as well as harness the knowledge needed for their resolution.

Real markets are never efficient and neither are real cities. But the good news is that, given the nature of the trial-and-error process, we wouldn’t want them to be. As Jacobs (1969, p. 86) puts it:

But I propose to argue that these grave and real deficiencies are necessary to economic development and thus are exactly what make cities uniquely valuable to economic life. By this, I do not mean that cities are economically valuable in spite of their inefficiency and impracticality but rather because they are inefficient and impractical.

To someone trained in standard economics that sounds paradoxical. If you understand why a city cannot be a work of art, however, it’s common sense.

A living city works by effectively combining what I call the “4 Ds,” diversity and density to generate discovery and development. Without going too deeply into what a normative standard consistent with promoting creative discovery would look like, I’ll just say that it would focus on whether the rules of the game empower creativity, more than on trying to prevent the gales of dark destruction. The focus would be on what keeps creation ahead of destruction, and not on how closely the outcomes we can measure match the ideal outcomes that we can imagine.

CONCLUDING THOUGHTS

Viewing cities as spontaneous orders and not as works of art helps to explain the tradeoff between scale and spontaneous order, as well as the role of time in softening the severity of that tradeoff. Complexity and creativity are at odds with scale and the comprehensiveness of design because increasing scale impinges on the “action spaces” where creative, informal contact tends to happen (Ikeda 2012). Design might complement that informal contact to a point, but beyond a fairly low level it begins to overwhelm it.

Again, small is not always beautiful, and big is sometimes unavoidable. That makes it all the more important to understand the impact of scale and design on spontaneous social orders and complexity.

That applies as much to private as it does to public projects. When the designs are small relative to the surrounding social milieu, the downside of the tradeoff isn’t very steep. The problems start when budget constraints are soft and projects become mega-projects and mega-projects become giga-projects. I don’t want to sound too ideological—Jane Jacobs somehow avoided being ideologically pigeonholed all her life—but soft budget constraints are primarily the domain of governmental and, especially, of so-called public-private developments: Those elephantine-starchitectural-wonder-complexes that too-often strive for off-the-charts wow-factors. Without legal privileges, subsidies, and eminent domain, could the scale and degree of design of purely privately funded developments even begin to compare to those? I don’t think so.

The rules of the game of urban processes interact in complex ways. So deliberately re-constructing those rules to achieve a particular outcome is akin to trying to impose a particular design on the social order, killing the social or-

der in the process, although perhaps preserving the appearance of life. Taxidermy again. (That, by the way, is why I have problems with landmarks preservation on the scale practiced in many major cities today, including New York.)

I worry that we pay lip service to “mixed uses” and “density” and “diversity” without really understanding exactly what these mean and how they are important for economic development and liveliness. Jacobs explained how a living city fosters economic development and liveliness—for her the two go together—by promoting the diversity of land-use and of skills, knowledge, and tastes. A government can’t build an entire city (or neighborhood even) because it can only go so far in constructing that kind of diversity and the self-regulating processes and the invisible infrastructure that emerges from it and sustains it. But in the ordinary course of its activities a government and its planners can at least refrain from doing the things that would thwart the emergence of the invisible social infrastructure that gives rise to that diversity, development, and liveliness.

And because I’m afraid they won’t refrain, I worry that when planners propose fixes for traffic, poverty, crime, discrimination, pollution, obesity, economic ennui, or whatever, they do so without seeing or caring about the things that constitute what Ken-Ichi Sasaki (1998) calls a city’s “urban tactility,” another part of the fine-structure of society that is the result of human action but not of human design.

So, I end with this final thought: The more precise and comprehensive and accurate your image of city is, the less likely that the place you’re imagining really is a city. A city is not man-made thing.

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The State of Indian Cities

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Abstract: It is now well established that India is urbanizing at a fast pace and Indian urban governance is severely lagging behind, causing a breakdown in urban service delivery. This paper argues that the main reason for urban dysfunction in India is that urban local governments, despite having constitutional recognition, do not have federal or fiscal autonomy. The Indian constitutional structure does not reflect genuine federalism, only decentralization of functions without any devolution of power. This is particularly true in the context of fiscal federalism because urban governments have very little revenue raising authority, unless devolved by state legislatures, making them largely reliant on intergovernmental transfers. Implications of this structure are that policies will not be designed to compete for urban citizens' taxes, and expenditures do not align with the preferences of urban citizens.

Keywords: Fiscal Federalism, decentralization, urban governance, India, constitution

I. INTRODUCTION

The world is in the midst of a great migration, within national boundaries—from rural to urban areas. For the first time in history, more than half the world population lives in cities. The trend towards urbanization is only growing, and by 2050 over 70% of the world's population will be urban. This trend is projected to have a greater impact in developing countries. The urban population of India has increased from 286 million in 2001 to 377 million in 2011. This trend is expected to continue; and urban population in India is estimated to reach 600 million by 2030. This will require over a trillion US dollars in capital investment including 700-900 million square metres of new commercial and residential space each year to serve existing and new urban citizens (McKinsey 2010).

In addressing these needs, the key problem is not that of the resources and expense required for expansion and maintenance of these cities in India. Increases in the urban population, which foster more productivity than rural areas, will generate enough wealth to support the

expansion (see Jacobs 1984; Ikeda 2012). Indian cities currently account for 66% of GDP in India and by 2030 they will account for nearly 75% of GDP (Ministry of Urban Development 2015). The relevant problem is institutional—one of urban planning, and more importantly, of the political system within which urban plans are developed and executed (Rajagopalan and Tabarrok 2014).

In India, despite the increasing productivity of urban areas, service delivery in urban areas is extremely poor. Indian cities are drowning in waste with a high degree of air and water pollution, creating public health crises (Narain 2012). Most Indian cities do not have basic infrastructure—such as a fully functioning sewage system, garbage disposal system, fully connected piped water delivery, electricity, fire safety measures, mass transportation system, or roads—in line with citizens' needs (Ahluwalia 2011).

Walking through any city, there is a visible, and an invisible aspect to urban design and governance. The visible or spatial aspect is planning and reserving space for future streets, sewage, garbage disposal, electricity, mass transit or underground access, parks, etc. The invisible aspect is the

structure of governance of the city. This paper mainly deals with the question of structural or constitutional design within which urban local governments operate. Problems in the visible aspects of the city, like the ones plaguing Indian cities, reflect deeper problems in the structural design of governance structures.

The problems of poor urban services can be traced back to a long and complicated history of undermining local government in India. Since the early twentieth century under the colonial government, local governments have always fallen under the control of provincial governments.¹ This trend has continued in post-colonial India.² In 1950, the Constitution of India had no provision or structure for *urban* local government—forming these governments was left to the states. It was the constitutional reform in 1993 (through the 73rd and 74th Constitutional Amendments) led to the establishment of rural and urban local governments in the constitutional framework.

This paper details the reasons for poor urban governance, despite formal recognition of urban government in India since 1993. It argues that one of the reasons for urban dysfunction is that urban local governments, despite having constitutional recognition, do not have fiscal autonomy. The Indian constitutional structure does not reflect genuine federalism, merely decentralization of functions without any devolution of power. This is particularly true in the context of fiscal federalism because urban governments have very little revenue raising authority, unless devolved by state legislatures, making them largely reliant on inter-governmental transfers for revenues. Consequently, policies are not designed to compete for urban citizens' taxes, and expenditures do not align with the preferences of urban citizens. While political federalism has various weaknesses within the Indian system, fiscal autonomy is the worst casualty of the centripetal nature of Indian federalism.

It is important to analyze the constitutional and federal structure of India, to better understand the problems with urban governance in India. PK Tripathy (1974) famously said that India is a quasi-federal republic—which means that it is not federal. Parikh and Weingast (1997) have criticized India for being federal in its political structure, but failing to meet additional conditions of market preserving federalism. The political and the economic critique of the federal (or lack thereof) structures, show that federal arrangements have a very clear impact on urban governance. As Sivaramakrishnan (2013) revisits the reforms of 1992 to create urban local governments, he recognizes the tremendous failure of the constitutional amendments in creating a

genuine devolution of power. Mohanty (2016) focuses more specifically on finances of municipal governments and analyzes the imbalances in fiscal federalism, leading to low investment in urban public goods. Continuing this literature, this paper emphasizes that to understand these problems of local governance, it is imperative to look at the structure of federalism and fiscal federalism in India. It argues that the fiscal autonomy of local urban governments is the key to unlocking the governance reforms in cities in India.

In section 2, I describe the general state of urban governance in Indian cities. In section 3, I revisit the political economy literature on fiscal federalism, in particular the difference between federalism and decentralization. And in Section 4, I first describe the federal structure of India and argue that Indian local governments do not reflect federalism, and fiscal autonomy, merely decentralization. In Section 5, I conclude, mainly by calling for structural reform of the fiscal structure to improve urban governance in India.

II. THE PROBLEM: GOVERNANCE AND SERVICE DELIVERY IN INDIAN CITIES

Existing and emerging Indian cities have failed to provide appropriate and safe infrastructure to meet the demands of its urban citizens. This is true across regions, across states, across rich and poor areas, and across political parties governing these areas. Services such as sewage disposal, garbage disposal, roads, electricity, and clean water are either unavailable to fulfill the demand, or are of very poor quality.

In a City Sanitation Study conducted by the Ministry of Urban Development (2010), not one of the 423 cities studied was found to be 'healthy' and 'clean' by public health and sanitation standards. Nearly 190 cities were rated to be in a state of emergency with respect to public health and the environment degradation. The Center for Science and Environment, in its report analyzing the wastewater management of 71 Indian cities, demonstrates that Indian cities are drowning in their own excreta, because of inadequate provision to treat sewage (Narain 2012). Only a handful of Indian cities can boast a 100% sewage network within the city. 4,861 of the 5,161 towns/cities in India (approximately 94%) do not have even a partial sewage network. About 18% of urban Indian households defecate in the open because of lack of access to toilets. Only a fifth of the waste generated is treated before disposal (Ahluwalia 2011).

Existing sewage treatment facilities cannot handle even two-thirds of the demand and less than half of these state sewage treatment plans are in working condition. As a result, most of the sewage water waste is dumped in rivers untreated (Ahluwalia 2011, pp. 50-53). The situation is not much better for solid waste. Solid waste is either left untreated or illegally dumped on public land or water bodies, leading to contamination of groundwater and surface water, or burnt, leading to pollution of air through unregulated burning of waste (Ahluwalia 2011, pp. 53-56). It is estimated that the lack of wastewater treatment leads to over \$15 billion spent in treating water-borne diseases in India (CII and CEEW 2010).

The situation regarding garbage collection and disposal is only marginally better. Garbage is dumped in public dumpsites either directly by households, or by private garbage collectors, who go door to door for a fee. Once dumped, the collection of the garbage from dumpsites is infrequent; the garbage is not properly processed, and disposal rules are rarely followed. Neither households nor municipalities in India practice segregation of biodegradable waste from the rest. Private scavengers, who hunt for plastic, metal, and glass, to sell them for recycling, are the only members segregating garbage—and are treated poorly by the state authorities and within the social structure of Indian society. Public awareness on the costs and benefits of garbage segregation and disposal practices is quite low, and it is commonplace to see large public garbage dumpsites in the middle of cities.

In addition to land and water pollution, air pollution has also gone unchecked. The motor vehicle population in India has increased a 100-fold from 1951 to 2004, while the road network has expanded only eight times (Uddin 2009). Only a handful of Indian cities have a mass transit system. Public transport accounts for only 22% of urban transport in India. The share of public vehicles in the overall mass transit fleet in India has decreased from 11% in 1951 to 1.1% in 2001. In 2009, only 20 out of India's 85 cities with a population of 500,000+ had a city bus service. This problem is caused by inadequate investment and a tax structure that is biased against public transport. The total tax burden for public transport vehicles per vehicle km is 2.6 times higher than the tax burden for private vehicles, making public transport cost ineffective and uncompetitive (Ahluwalia 2011, p. 56).³ As a result of poor roads and burgeoning numbers of motor vehicles, congestion is a massive problem in most urban areas. Of India's two million kilometres of roads, only 0.96 million are surfaced and about one million kilometers are poorly constructed. India's 53 national

highways carry about 40% of the total road traffic. Along with cities, approach roads connecting cities to villages and other urban areas are dysfunctional or congested.

Indian cities and rural areas are also weak on fire safety. The Standing Fire Advisory Council has recommended setting up fire stations based on response time—five to seven minutes in urban areas. The current infrastructure exceeds the recommended response time by an order of 10 or more. The main reason is a severe shortage of fire stations. India has 2,987 fire stations against the requirement of 8,559—a deficiency of 65%. The maintenance of fire service is a municipal function, but funds to improve the infrastructure and quality of manpower needed to tackle fire incidents are provided by the federal government (The Quint 2016). Unfortunately, this has proved inadequate and fire safety infrastructure is typically very poor across urban India.

Finally, one of the most pressing shortages in India, even in urban areas, is provisioning of electricity. At least 300 million of India's 1.25 billion people live without electricity and most of these people are in rural areas. Many living in urban slums are also without electricity, either because they cannot afford to connect to the grid, or such connections are unavailable. The Power Grid Corporation of India operates more than 70,000 miles of transmission lines. The grid's transmission connections between regions remain inadequate—this was the primary cause of the 2012 blackout, the largest blackout in the world in terms of number of people affected. India's switching and control technology has hardly been upgraded in the last two decades (Martin 2015). Power losses in transmission and distribution across India average around 25%, and in some areas they can reach 50%. This means that half of the electricity being generated either never reaches an end user or is used but never paid for by the end user.

In short, the urban Indian citizen is faced with a fairly dismal state of affairs, when an average day is a struggle for electricity, clean water, modern toilets, transport, and safety. In each of these areas, public provisioning is so inadequate and poor that citizens rely heavily on private providers for public goods (Rajagopalan and Tabarrok 2014). The problem is not just in a single sector, but also across all divisions of public goods provisioning. Goods and services provisioned or regulated by the federal, state, or local government have one thing in common—poor service delivery in urban areas. This is also true across state lines, irrespective of political party affiliation, and of the presence or absence of natural resources in the region. The problem is one of institutionally weak local government. It is useful to ana-

lyze the structure and functioning of local governments in India to understand these chronic problems of urban governance.

III. FEDERALISM

Federalism is defined as a hierarchy of governments in which: (1) two or more levels of government govern the same jurisdiction and citizens; (2) each level of government has a well-defined scope of authority; and (3) each level of government possesses a guarantee of autonomy within its own sphere of authority (Riker 1964). This arrangement of governments typically has central, provincial, and local governments within the same national territory. There are many reasons, political and/or social and/or economic, that nations have a federal structure of governance. I mainly on the economic arguments.

3.1 Fiscal Federalism

There is a rich literature in political economy on the economic benefits of federalism and decentralized decision-making. John Stuart Mill (1977, p. 541) wrote:

It is obvious to begin with, that all business purely local, all which concerns a single locality, should devolve upon the local authorities. The paving, lighting, and cleaning of the streets of a town, and in ordinary circumstances the draining of its houses, are of little consequence to any but to its inhabitants. But among the duties classed as local or performed by local functionaries, there are many which might with equal propriety be termed national, being the share, belonging to the locality, of some branch of the public administration in the efficiency of which the whole nation is alike interested: the goals, for instance—the local police—the local administration of justice.

There are many different economic arguments hidden in Mill's insights that seem to be largely based on common sense. But it is useful to separate the different economic arguments in favor of federalism.

First, is that the central government can never possess enough information to tailor policies to specific local circumstances. This argument is essentially an extension of Hayek's scholarship on the knowledge problems associated with central planning (Hayek 1937). Hayek's argument on federalism does not compare governments with markets,

but more centralized state authorities with their decentralized, local counterpart. Because local governments are more likely to have better information about preferences of citizens, impacts of policies, and relevance of projects, local governments will make better governance decisions (Hayek 1948).

A related, but distinctive argument, is about competition of local governments within a federation. Tiebout (1956) argued that federalism would pressure local governments to compete for revenue, providing a tight feedback mechanism of citizen preferences. Tiebout argued that citizens could 'vote with their feet' and choose between services of competing local governments leading to two consequences. The first is that where the preferences of citizens vary, competition among jurisdictions leads to an optimal mix of policies across jurisdictions. The second, and key to Tiebout's argument, is that competition among jurisdictions will force local government officials to directly face the consequences of their policy choices.

The third, and in an operational sense the most common, argument is found in Oates (1972) where he argues that federalism is the optimal form of government, and in particular, focuses on the optimal assignment of policies and taxes across levels of government. Oates states that the main principle for provisioning public goods is that the lowest level of government that is *capable* of producing a particular public good should be assigned the authority to produce that good. Oates argues that there are economies of scale at higher levels of government, and arguments in favor of greater centralization. And there is greater knowledge of citizen preferences at lower levels of government, an argument in favor of greater decentralization. Therefore, a federally structured government can enjoy benefits of centralization while avoiding its problems, if the structure is set up for the optimal provisioning of public goods.

While Hayek and Tiebout's arguments focus on the institutional structure within which federalism would create a process that leads to efficient outcomes, Oates' arguments are essentially one of optimality as echoed in the decentralization theorem. The decentralization theorem states—in the absence of cost-savings from the centralized provision of a [local public] good and of inter-jurisdictional externalities, the level of welfare will always be at least as high (and typically higher) if Pareto-efficient levels of consumption are provided in each jurisdiction than if any single, uniform level of consumption is maintained across all jurisdictions (Oates 1972, p. 54).

Bish and Ostrom (1973) provide an extension to the decentralization theorem, by making a compelling case for further decentralization and autonomy. They argue in favor of small and local governments, notwithstanding the theoretical capability of producing the “optimal” level of public goods and services. They provide evidence of how smaller jurisdictions can contract with other jurisdictions to provide services, thus allowing the capture of economies of joint production. They demonstrate that there is no need for governments to consolidate to achieve economies of scales described by Oates, when contracting is an alternate option to achieve the same outcome. In other words, they argue for even greater level of local decision-making than Oates.

These arguments are not just echoed within the public finance literature, but are also mirrored in urban planning literature. These broader concepts of federalism have also been applied to urban governance, most notably in the work of Elinor Ostrom. These ideas are perhaps best reflected in the work of Jane Jacobs. Though Jacobs is not interested in federalism or political structures *per se*, her views on local government have imbibed these arguments on economic benefits of federalism. She considers three levels of local urban government (or levels of decision-making): (1) the city as a whole; (2) in case of larger cities, districts composed of one hundred thousand citizens or more; and (3) street neighborhoods. Jacobs argues “city administration needs to be more complex so that it can work more simply” (Jacobs 1961, p. 434).

3.1 Federalism versus Decentralization

At this point it is useful to understand the differences between federalism and decentralization; an important distinction in the context of Indian local governments. All federal systems involve decentralized political authority, though not all forms of decentralization constitute federal systems.

Parikh and Weingast (1997) argue that the defining characteristic of any federal system is that a hierarchy of governments with a delineated scope of authority (for example, between the national and subnational governments) exists such that each government is *autonomous* within its own sphere of authority. Decentralization, on the other hand, means that there is a hierarchy of governments, with delineated functions and scope, but autonomy is not a necessary condition.

Many of the arguments forwarded by economists in favor of federalism, while couched in federal terms, are really arguments in favor of decentralization. These arguments are

variations of the main argument in Oates (1972, p. 55). As discussed above, Oates decentralization theorem merely requires each public service should be provided by the jurisdiction having control over the minimum geographic area that would internalize benefits and costs of such provision. The decentralization theorem does not carry the requirement of autonomy of the local government; simply that the local government must be in charge of provisioning the relevant public good.

Eusepi and Wagner (2010) critique the Oates (1972) decentralization model as an institutionally sterile understanding of federalism. This is an important criticism because within Oates’s analytical framework, he leads almost directly to a treatment of federalism as decentralization, because he presumes that the knowledge necessary to secure allocative efficiency is possessed at the central level. In other words, if one were to merely look at the decentralization theorem, it would seem that allocative efficiency is not a working property of an institutional framework, which is openly competitive, but rather is something that can be determined independently of any institutional framework. And further that such an independent determination would mimic the results of the competitive institutional framework of federalism.

Eusepi and Wagner (2010) make a distinction between genuine or spurious federalism. They argue that genuine federalism entails competition among governments, which can create a framework wherein governmental power at one level restrains government at the other level. This form of federalism operates on polycentric principles of open competition where the pattern of activities among governments is an emergent product of that competitive process. A system of competitive federalism requires independent, competitive action among governments for votes, and for revenues from the citizens. Spurious federalism, on the other hand, is merely a decentralization of power; it does not require genuine autonomy. Furthermore, decentralization implies that the power devolved by the higher-level government may be taken away, whereas genuine federalism requires that that power cannot be “given” to sub-national government by another higher level.

The Hayek/Tiebout/Eusepi-Wagner conception requires genuine federalism where local governments have authority, specifically revenue raising authority, and are not mere extensions of higher levels of government. On the other hand, Oates’s conception is compatible with both federalism and decentralization. Another important distinction is that Oates’ focus is much more on specific policies and taxes

and public goods, whereas Hayek and Tiebout's conception of federalism is about the optimality of the system—with applications beyond fiscal matters. Within the urban governance literature, the scholarship of Ostrom, and of Jane Jacobs echoes much of the Hayek-Tiebout idea of federalism and local government.

3.2 Fiscal Autonomy

Perhaps the most important part of federalism is fiscal autonomy. i.e. the local government is not only autonomous in its function, responsibilities, and decision-making; but also autonomous in raising revenues and determining expenditures.

In standard public finance theory, the various levels of government require specific fiscal instruments. On the revenue side, governments will typically have access to tax and debt instruments (Oates 1999). However, in a federal system, in addition to the revenue and debt instruments, there is another method of acquiring funds—through intergovernmental transfers or grants. In theory, one level of government may generate tax revenues in excess of its expenditures and then transfer the surplus to another level of government to finance part of the latter's budget. Intergovernmental transfers constitute a distinctive and important policy instrument in fiscal federalism that can serve a number of different functions. Such transfers can, in theory, be used to improve allocative efficiency by internalization of spillover benefits to other jurisdictions.

They are also used as a tool to aim at specific distributive goals, such as fiscal equalization. Intergovernmental transfers are of two different forms, in pursuance of the above goals. Conditional grants place various kinds of restrictions on their use by the recipient government, while unconditional grants may be used for any purpose the recipient government chooses. Theory prescribes that conditional grants should be only employed where the provision of local services generates benefits for residents of other jurisdictions; where spillover benefits to others need to be incorporated into the decision-making calculus. Unconditional grants are typically the appropriate vehicle for purposes of fiscal equalization, i.e. to channel funds from relatively wealthy jurisdictions to poorer ones. Such transfers balance the fiscal need versus fiscal capacity of the local government. These formulae result in a larger share of the transfers going to those jurisdictions with the greatest fiscal need and the least fiscal capacity.

Much of the theory on intergovernmental transfers in the standard public finance literature has come under criticism

by public choice scholars (Buchanan 1950; Buchanan and Wagner 1970; Brennan and Buchanan 1980). In theory, under the assumption of benevolent actors, intergovernmental transfers can be efficient. However, if the assumption is relaxed and self-interested political actors are placed at national and sub-national levels of government, intergovernmental transfers can actually undermine the benefits of federalism.

It is imperative for local governments to solve their own budgetary problems. It is also imperative for local governments to link local revenue to local economic prosperity. This condition provides important incentives for local officials, as their government's fiscal health is directly related to local economic prosperity. If, in contrast, local governments are given additional sources of revenue through intergovernmental transfers—their incentives are no longer tightly linked to their citizens. This undermines the benefits that are generated by competitive federalism, as predicted by Tiebout (1956) and Buchanan (1995), through the pressures of potential exit by citizens.

The most important aspect of fiscal autonomy is that governments within the federal system face hard budget constraints. There are three ways to impose hard budget constraints on sub-national governments. The first is to limit the borrowing ability of the sub-national governments (including open-ended access to capital markets, and borrowing from the central bank). The second is to limit or constrain ways by which local governments can access revenue from other jurisdictions through intergovernmental transfers. Particularly, 'fiscal equalization' transfers must be strictly limited, to prevent sub-national governments that perform poorly from getting larger subsidies. The third is to ensure that local government can, and is allowed to, go bankrupt within the system. Parikh and Weingast (1997) argue that some of these conditions for fiscal autonomy are also instrumental in market preserving federalism.

There are two fiscal links for local governments; one with the citizens, the other with higher-level governments. If local governments face hard budget constraints, and have genuine fiscal autonomy; then the link between the local government and citizens is strengthened. Incentives of government officials must align with the preferences of the citizens, or at least a section of the citizens in a democratically elected sub-national government. On the other hand, if intergovernmental transfers are used to either: (1) increase the dependency of local governments on higher level governments; or (2) to soften the budget constraint faced by local governments; then the link between local government

officials and higher government officials is strengthened. Incentives of local government officials will then align with the preferences of higher-level officials from the bureaucracy and the legislature. Therefore, the very purpose of local governments, to mirror the preferences of citizens, will be undermined.

Federalism without fiscal autonomy will not result in the many economic benefits of federalism. Systems that are structured as federal, but lack provisions for fiscal autonomy, are what Eusepi and Wagner (2010) would dub spurious federalism. If local governments are not responsible for their own budgets, and these budgets are not linked tightly between the local government and the citizens; then this is merely decentralization of authority and decision-making. This is an important distinction for the efficacy and accountability of local governments.

IV. FEDERALISM IN INDIA

This section evaluates the Indian federal system on the principles discussed above—federalism, decentralization, and fiscal autonomy to sub-national governments in India. A number of scholars have commented on the structural and fiscal problems of Indian urban local governments (see Ahluwalia et. al. 2014 and Sivaramakrishnan 2011). The section seeks to evaluate whether the structure of local governments in India has the features of federal and autonomous decision-making described in section 3. Or if the constitutional structure contributes to these fiscal problems.

4.1 The Constitutional Framework for Urban Local Government

India is a federation with 29 states and 7 union territories. The Constitution of India establishes dual centers of government (the Union at the Centre and the States), each assigned with powers to be exercised within its jurisdiction. It outlines various provisions for both vertical and horizontal power sharing.⁴ The Constitution divides legislative power between the Union and state legislatures; these powers are assigned in three lists in Schedule VII. The Union List details the subjects on which Parliament may make laws (Schedule VII, List 1); the State List details those under the purview of state legislatures (Schedule VII, List 2); and, the Concurrent List has subjects in which both Parliament and state legislatures have jurisdiction (Schedule VII, List 3).

The Constitution, however, provides primacy to the Union on concurrent list items: i.e. if there is a conflict between a central and state legislation, the central legislation

will prevail. The Union also enjoys residual power, i.e. power over matters not enumerated in the State or Concurrent Lists are reserved to the Union (Schedule VII, List 1, Entry 97). Several relatively broad provisions exist, which give the Union the ability to override the states' authority in special circumstances (for a detailed description of these clauses see Section 4.2 below). When conflicts over legislation arise between the Union and the states, the Supreme Court determines the competence over a jurisdiction.

Similar to the provisions for legislation, at its inception, the Indian Constitution also clearly lays out expenditure authority, revenue-raising instruments, and legislation required to implement expenditure and revenue policy, between the Union and states. In addition to legislative competence, the Constitution also specifies expenditure responsibilities of the Union and State Lists, with a Concurrent List covering areas of joint authority (see Schedule VII).

Like legislative power, in taxation power also, the Union has residual power over any tax not mentioned in the State list. The details on allocation of tax power, as well as tax revenue between the Union and states are specified in various provisions in Part XII of the Constitution (Articles 268-79).

The Planning Commission and the Finance Commission are the two main central authorities responsible for distributing the revenue between the Union and states. The Planning Commission was set up to implement the Five Year Plans, the main authority for implementing socialist development goals in India. The Planning Commission is not a constitutional body but was created by a cabinet resolution in 1950 to implement central planning in India.⁵ The Finance Commission is a constitutional authority, constituted by the President once in five years (Article 280). It makes recommendations on the distribution of the total revenue between Union and states, and also between states. While the Planning Commission determines Plan expenditures, the Finance Commission has authority over all non-Plan expenditures. Usually about two-thirds of the expenditures were allocated through Finance Commission and one-third was allocated through the Planning Commission (Singh 2003).

The Finance Commission can only recommend; it is up to the central government to accept the recommendations and devolve revenue to the state governments. Historically, the central government has had more and better sources of revenue than state governments. Therefore, the Finance Commission is merely an instrument that recommends decentralization, but it is up to the central government to devolve power to the states. One of the main functions of the

Finance Commission is to fill the gap between committed expenditures and expected revenues for state governments. It is in charge of making recommendations for intergovernmental transfers, and also comes up with a fiscal allocation plan, which is based on principles of fiscal equalization.

In 1950, at the time of ratification of the Constitution, the power to constitute local governments was vested with State Legislatures. “Local Government, that is to say, the constitution and powers of municipal corporations, improvement trusts, district boards, mining settlement authorities and other local authorities for the purpose of local self-government or village administration” (Schedule VII, List 2, Entry 5). Therefore, there was no constitutional position for urban local governments, except to vest the authority with the state. State Legislatures could, if they saw fit, devolve the power further by constituting and empowering municipal governments.

Within this framework, a number of municipal bodies were constituted through different state legislation. The constitutional position of these local governments remained subordinate for the first few decades of the Indian Republic. Consequently, they were subjected to interference, supersession, and most importantly, were financially dependent on their state governments. Urban local bodies like Municipal Corporation of Calcutta or Madras; that were set up and had functioned for decades in colonial India, fared poorly post-independence, as they were superseded or suspended.

Due to the pace of urbanization, and the very poor state of urban local governments, the Constitution was amended in 1992 to include local governments in urban as well as rural areas. The 74th constitutional amendment [hereinafter 74th CAA] introduced a new section “Part IXA—The Municipalities” to the Constitution, comprising newly introduced Articles 243P – 243ZG. The 74th CAA’s passage marked the first time that urban local bodies received constitutional authority. It defined urban local bodies, and created a democratically elected vehicle for devolving administrative powers, functions, and sources of revenue to local governments. These local governments were elected every five years (Article 243U).

The 74th CAA created three tiers of local bodies (based on the size of urban areas) constituted by democratically elected officials (Article 243Q): (1) municipal corporations for large urban areas; (2) municipal council for smaller urban areas; and (3) nagar panchayats for areas transitioning from rural to urban. Administratively, each urban local body is divided into wards, a territorial area with a popula-

tion of 300,000 residents (Article 243S). Much of the 74th CAA is devoted to creating this democratic framework.

The 74th CAA also laid down requirements for the regular conduct of municipal elections and the reservation of electoral seats for scheduled castes, scheduled tribes, backward classes, and women (Article 243T). These newly introduced constitutional provisions also created potential for devolving greater functional responsibilities to municipalities and required the creation of several administrative bodies such as Wards Committees, District Planning Committees, and Metropolitan Planning Finance Commissions.

State Legislatures may endow local governments with the authority to perform functions listed in the Twelfth Schedule (Article 243W). These functions listed in the Twelfth Schedule include urban planning, regulating land-use, planning for economic and social development, building roads and bridges, supplying water, and managing solid waste, public health services, fire services, urban forestry management, alleviating urban poverty and upgrading slums etc. However, there is no requirement for state legislatures to devolve these powers. Therefore, despite the setting up of the three different types of urban local governments, the constitutional provisions left open the possibility that these governments would have no functions to perform.

The financing of urban local bodies is to be provided by State Finance Commissions. These State Finance Commissions can only recommend the allocation of funds between the state government and local government bodies to the State government, with the State government in turn determining the allocation of funds to urban local bodies (Article 243Y). In other words, like the Central Finance Commission, the State Finance Commission is also merely an instrument that recommends decentralization, but it is up to the state government to devolve power, and functions to the urban bodies.

4.2 Federal or De-centralized?

There are two aspects to Indian federalism. The first is the relationship between the Union and States and the second is the post-1992 relationship of urban local bodies with the state and Union.

A. Union—State

A number of constitutional provisions create a singularity or monocentric power in the hands of the central government, instead of the duality or polycentric power required by federalism. While there is a structure where states have decision-making authority; in a number of areas the nation-

al government (1) determines if it will devolve the power to the states; or (2) can override the state decision-making authority. Such areas of state government decision-making, which can be circumscribed by the national government, limit states to decisions that will be taken on terms set by the national government. Some of the relevant constitutional provisions are detailed below.

Despite a separation of legislative power between the Union and states through the lists in Schedule VII, there are a number of clauses where the Union can overrule or undermine the states' legislative competence and authority. If there is any repugnancy or conflict between legislation by Parliament and legislation by a state on a topic in the concurrent list, then the Parliament will prevail (Article 254(1)).⁶

Legislative powers of the Union are further strengthened because the Union has the residuary power for legislation. The lists in Schedule VII, which document the areas of legislative competence for the Union, states, and both, are not exhaustive. In such cases, Parliament has exclusive power to make any law with respect to any matter not enumerated in the Concurrent List or State List (Article 248 and Schedule VII, List 1, Entry 97).

The State List is not completely off limits to the Union. If the Council of States (Upper House of the Parliament) passes a motion that it is necessary or expedient in the national interest that Parliament should make laws with respect to any matter enumerated in the State List, then Parliament may legislate on that subject (Article 249). This power is further expanded if there is declaration of a state of emergency, where Parliament can make law on any matter in the State List (Article 250).

Parliament can also make laws on any subject in any jurisdiction if such laws are enacted part of implementing any treaty, agreement or convention with any other country or countries or any decision made at any international conference, association or other body (Article 253).

The emergency powers given to the Union can undermine state legislature and executive authority. Article 356 of the Constitution allows the central government to take over the state when the government of the state is not "in accordance with the provisions of this Constitution." Under this emergency provision, also known as President's Rule, the Union can remove the Chief Minister and the Cabinet of that state and also dissolve or suspend the Legislative Assembly of the state. Each proclamation in this regard has to be confirmed by both Houses of the Union's Parliament.

⁷ Proclamations of President's Rule have been imposed for

the flimsiest of reasons like the breakdown of law and order, alleged corruption, lack of political stability in a coalition, etc. Over the years, the provision has been invoked numerous times, mainly to penalize state governments formed by opposition parties (Tummala 2002).

Finally, most of the provisions in the Constitution can be unilaterally amended by Parliament, without the requirement of ratification by the states. Of the 395 Articles and 12 schedules in the Constitution of India, only 30 Articles and one schedule requires state ratification for amendment. Primarily, amendments to provisions pertaining to separation of powers and federalism, also called 'entrenched clauses' of the Constitution, requires ratification by at least half the State legislatures; in addition being passed by Parliament, and Presidential approval.⁸

According to Weingast and Parikh (1997), in the context of market preserving federalism, India fails to meet the following criteria. First, states do not have primary authority over the economy within their jurisdictions. Second, revenue sharing among governments should be limited and all governments should face hard budget constraints, which is not the case in India. Third, the allocation of authority and responsibility should not be altered by the national government unilaterally, which is also not the case in India.

Given the centripetal nature of the Indian constitutional structure, and from the provisions detailed above, it seems that Indian federalism does not display polycentricism and autonomy of state governments. Instead it describes decentralization of power within a monocentric structure. It can at best be characterized as quasi-federal.

B. *Urban Local Government—Union/State*

Unlike the relationship between the Union and state governments, which has some elements of federalism although severely weakened by the provisions detailed above, the relationship between states and urban local bodies is entirely one of decentralization, and not federalism.

While the 74th CAA provides a platform for empowering municipalities, it is important not to overstate their revised constitutional powers. The 74th CAA did not automatically give local bodies autonomy. Rather, Article 243W of the Constitution gave states the discretion to devolve political, administrative, and fiscal power to municipalities.

"The Legislature of a State may, by law, *endow*" [emphasis added] a municipality with any of the eighteen functions listed in the Twelfth Schedule of the Constitution. This provision defines the limits on what powers may be devolved, stating that the municipalities should have "such

powers and authority as may be necessary to enable them to function as institutions of self-government,” but that their power may be restricted to “the preparation of plans for economic development and social justice” and “the performance of functions and the implementation of schemes as may be entrusted to them including those in relation to the matters listed in the Twelfth Schedule” (Article 243W).

The 74th CAA did not mandate implementation of self-government at the local levels. Instead, it mandated the creation of self-governing bodies, but left the question of delegating powers and functions to the state legislatures (Murthy and Mahin 2015). In other words, the amendment created the *potential for further decentralization*, without mandating decentralization. Further, because the choice to devolve power vests with the state legislature, urban local bodies do not fulfill the requirement of “autonomy” under Riker’s definition of federalism.

Most of the provisions introduced in Part IXA deal with details on the structure of local bodies, elections to these bodies, and representation of different groups. If the goal of these provisions was to create representative government at local levels in urban areas, then the provisions merely succeeded in the representative part, but not in any actual governance. While the formation of and elections to these urban bodies is detailed in the constitution, the state legislatures still have the power to frame laws on how these bodies actually function. In this sense, the 74th CAA did not change much—the power still remains vested with the state legislature, which it may choose to devolve.

Though the results are dismal so far, the 74th CAA may, through the existing federal structure between states, create a dynamic of competition among states in the future and indirectly help empower the local governments. Where more states devolve power, it may put more pressure on other states to also devolve power to local governments. If important political, administrative, and fiscal functions are actually devolved by states, then municipalities could realize the perceived benefits of decentralization, including the promotion of grassroots democracy and improved delivery of public services in urban areas. In other words, the decentralization in the 74th CAA creates a *potential* for gain from future Tiebout style competition.

4.3 Fiscal Autonomy of States

While political federalism has various weaknesses within the Indian system, fiscal autonomy of sub-national governments is the worst casualty of the centripetal nature of

Indian federalism. There are multiple aspects that undermine Indian states and urban local bodies’ fiscal autonomy.

First, according to the principle of separation, taxes are exclusively assigned to the Union or the states. The Constitution has assigned the broad based taxes to the Union. And though a large number of tax categories have been assigned to the states, their revenue base is smaller, and most of the revenue is raised from sale of goods.

This division of tax categories has resulted in significant fiscal imbalance vertically and over a third of the state expenditure is covered by intergovernmental transfers from the Union. This is not an accident, since the framers created a fiscal structure that was centripetal. The constitution created a provision for intergovernmental transfers from the Union to the states, and also created an authority in the Finance Commission to recommend the appropriate allocation of funds through intergovernmental transfer. But the numbers are not promising.

Rao and Singh (2007) find that the ability of the states to finance their current expenditures from their own sources of revenue has seen a long-run decline, from 69% in 1955-1956 to 52% in 2002-2003. In 2002-2003, the states raised about 38% of government revenues while they incurred 58% of expenditures (Ibid). This trend has continued. The Fourteenth Finance Commission reports that for 2012-13 the states raised 41.11% of the revenues and incurred 53.84% of total expenditures. Transfers from the Union make up the difference. Further, the Commission also reports an increase in Union Transfers to states as a percentage of GDP. Between 2004-05 and 2012-13 there is an increase of about 0.7% in the aggregate Union transfers to States as a percentage of GDP.

Table 1 shows the trend of all transfers from the Union to States from 1984-2015. The Thirteenth Finance Commission had noted revenue transfers over the years had exceeded the indicative ceiling of 38% of the gross revenues of the Union Government. This ceiling was previously set by the Twelfth Finance Commission for its term. The Thirteenth Finance Commission suggested raising the ceiling to 39.5%. According to the report of the Fourteenth Finance Commission, the shares of revenue transfers from the Union Government to State Governments was 41% total revenue transfers and had surpassed the revised ceiling. This trend of transfers from Union to States confirms: (1) the centripetal nature of the Indian fiscal system, where the Union determines a lot of the projects and plans for state expenditures; followed by (2) a high degree of state dependency on the Union to meet its expenditures.

Finance Commission (FC)	Finance Commission Transfers			Other Transfers			Total Transfers
	Share in Central Taxes	Grants	Total Finance Commission Transfers	Plan Grants	Non Plan Grants	Total Other Transfers	
VIII FC 1984-89	20.25	2.52	22.77	13.56	1.54	15.1	37.86
IX FC 1989-95	21.37	3.42	24.79	14.49	1.06	15.55	40.33
X FC 1995-2000	22.22	2.34	24.56	10.57	0.67	11.24	35.79
XI FC 2000-05	20.59	3.88	24.47	10.10	0.70	10.80	35.27
XII FC 2005-10	22.03	4.70	26.73	10.99	1.07	12.06	38.79
XIII FC 2010-15	23.95	3.93	27.87	12.87	0.59	13.45	41.33

Table 1: Transfers from the Union to States as Percentage of Gross Revenue Receipts

Source: Fourteenth Finance Commission Report (2015)

The most important aspect of these intergovernmental transfers is the high level of discretion involved in determining allocation. Though the trend of aggregate transfers has remained stable, the actual amount received by each state government varies over the years. The allocations are formally based on fiscal need and capacity, there are a host of other variables that come into play. Rao and Singh (2007) and Khemani (2009) demonstrate that, an important variable determining state allocation of revenues was political alignment of the party in power at the Union and the party in power in the state.

Through this system of revenue allocation to create the vertical fiscal imbalance, the central government, through the institutions of Planning Commission and Finance Commission, historically exerted a lot of control over the economy, and not just on the issue of macroeconomics stability. The dual transfer mechanism through the two commissions created a lot of room for discretion. Further, the lack of coordination between the Finance and Planning Commissions, both given quite different tasks, consequently created a soft budget constraint for the state, and an excuse to run deficits. Because the Finance Commission allocates transfers, in large part to cover the shortfall between expenditures and revenues, states have an incentive to commit to expenditures beyond their means in order to receive those transfers.

But the problem is not simply one of incurring a deficit; there is also the question of the ways by which states run up

deficits without incurring any penalty. This is particularly true for states that are politically aligned with the Union. Khemani (2007) finds state governments that are formed by the same party as the Union government run higher than average deficits; and correspondingly, states governed by rival political parties have lower deficits, even if these parties are members of a coalition government at the Union. In other words, if the Union government is friendly, then state governments are less likely to be penalized for running up deficits. This essentially strengthens the relationship between sub-national governments with higher level governments, and simultaneously compromises the relationship between sub-national governments and its voters and tax payers. Because the strong link between citizens and state governments is broken due to the lack of fiscal balance and autonomy—the penalty and reward for actions is now linked with federal bureaucrats and politicians. Consequently, the reality does not mirror the predictions of decentralization models and theorems.

4.4 Fiscal Dependence of Urban Local Bodies

The problem of the lack of fiscal autonomy is even more severe at urban local bodies. The main reason is that the 74th CAA only created a list of policy areas that may be devolved to urban local governments by the state legislatures (Twelfth Schedule), but did not create a list of taxes that could only be levied by municipal governments.

The 74th CAA created two main provisions addressing the issue of finances of urban local governments. The first provision is to devolve powers to local governments to raise its own revenue. It left the authorization of taxes, tolls, charges and fees, assigned revenues, grants-in-aid and so on to state legislatures (Article 243X). A few states have devolved certain sources of revenue to fund municipal expenditures. While others have curtailed the powers of urban local governments to levy taxes.

The second provision is for intergovernmental transfers to make up the shortfall between own revenues and expenditures of local governments. Like the Central Finance Commission, state finance commissions are merely advisory and it is incumbent upon the state government to determine the allocation of funds to urban local bodies. Article 243Y provision mandates the State Finance Commission to review and recommend the 'principles' of devolution of state revenues to municipalities, determination of revenue sources to be assigned to or appropriated by municipalities, provision of grants-in-aid to municipalities and 'measures' needed to improve their finances. Just as the Central Finance Commission impedes the fiscal autonomy of the states through transfers, the State Finance Commissions undermine the fiscal autonomy of local governments through transfers.

The administrative units formed by the 74th CAA were created as vehicles for channeling money to local government authorities, with the goal of creating a more representative government at the local level. However, the local governments had little or no autonomy in their fiscal decisions. State Finance Commissions often do not function properly, which negatively impacts the financial revenues of a municipality. The quality of state finance commission reports is inconsistent, due in part to the lack of data from urban and local bodies, limited capacity, and lack of ownership by state governments. And even when the state finance commissions are functional, the state legislature may not operationalize the recommendations.

Urban Local governments have an additional source for intergovernmental transfers with the 74th CAA—the Union government. The Constitution mandates the Central Finance Commission to recommend, "measures needed to augment the Consolidated Fund of a State to supplement the resources of its Municipalities on the basis of the recommendations made by the Finance Commission of the State." (Article 280(3)(c)).

Despite these constitutional provisions to raise municipal finance, local governments face challenges. The Fourteenth

Finance Commission of India recognized that governing cities is becoming a challenge due to issues of insufficient finances, weak institutional framework and lack of capacity for service delivery. India's municipal tax to GDP ratio is low. The Commission reported that the municipal tax—GDP ratio was 0.39% in 2002-03 and 0.40% in 2007-08 and has declined even further to 0.33% in 2012-13. This is low compared to Union tax—GDP ratio of 10.3% and state tax—GDP ratio of 6.8 % for the same period. The ratio of municipal tax to GDP is also low compared to other countries. For instance, the municipal tax—GDP ratio was more than 2% in 22 out of 34 OECD countries in 2010 (Mohanty 2016).

The ratio of all municipal revenue to GDP in India was estimated at 1.03% for 2012-13. This is quite low when compared to international standards for municipal finances. Mohanty (2016) compares the municipal revenue to GDP in India with: Poland (4.5%), South Africa (6.0%), Germany (7.3%), Brazil (7.4%), Austria (7.8%), United Kingdom (13.9%), Norway (14.2%), Italy (15.3%), Finland (22.4%) and Denmark (37.1%). India has a very long way before it can catch up with OECD countries' fiscal policies towards urbanization.

The low share of municipal revenue in the period is despite a consistent increase in the urban share of GDP. The Central Statistical Organization reported that the share of the urban sector in Indian GDP increased from 38% in 1970–71 to 52% in 2004–05. This number is currently at 66% and projected to reach 75% by 2031. The reason that this urban growth in population and in productivity does not translate well for municipal finance is that local bodies in India suffer from a lack of an independent tax base. The sources of municipal revenues in India—taxes, user charges and fees, transfers, and loans—are relatively narrow compared to other federal countries. The shortfall in finances is made up through transfers.

One of the most important aspects of long term urban planning, is stability in the sources of municipal finance. In particular, local governments' reliance on its own revenues, instead of intergovernmental transfers. Indian municipal finance performs poorly on this count. In 2002-03, 'own revenues' accounted for 63% of total municipal revenues in India (Mohanty 2016). Table 2 compares the source of revenues between 2007-08 and 2012-13. The share of own revenues for has decreased from 55.7% to 51.6 % and, therefore, the share of intergovernmental transfers has increased from 44.3% to 48.4%. The transfers, from both the State and Union, have increased. While the financing of local gov-

ernments from states level governments has increased, it is important to note that this revenue increase is not because of greater devolution of authority (as conceived by the 74th CAA), but simply an increase in intergovernmental transfers. In other words, it does not improve the fiscal autonomy of local governments, and instead increases the fiscal dependence on state level governments.

	Sources of Revenue	Percentage of Total Municipal Revenue (2007-08)	Percentage of Total Municipal Revenue (2012-13)
A.	Own Sources		
1.	Total Taxes	37.20	32.00
	Property Taxes	16.53	15.64
	Other Taxes	20.68	16.35
2.	Non Taxes	18.50	19.70
	Total Own Source Revenue	55.70	51.60
B.	Other Sources		
	GOI Transfers	7.10	5.60
	Central Finance Commission Transfers	2.00	3.90
	State Assignment/ Devolution	18.90	19.20
	State Grant-in-aid	13.50	15.30
	Others	2.70	4.40
	Total Other Source Revenues	44.30	48.40
C.	Total Revenues	100.00	100.00

Table 2: Trends in Municipal Revenues in India by Source
Source: Mohanty (2016)

Table 2 also shows that while transfers for Union government are consistent for the two periods, the transfers from state governments have increased. This type of reliance on transfers is problematic. There is a high variation among state commissions in understanding and financing local expenditures. Even where state finance commissions are functioning well, state governments often do not follow their recommendations and, as a result, do not commit the required resources to local governments. In contrast, the central government of India generally accepts the recommendations of the Central Finance Commission, even though they are not mandatory. When states do not implement the recommendations of state finance commissions, the transmission of funds to local bodies is delayed despite the fact that states have to pay interest to the local bodies. Resultantly, many municipalities have unpredictable funds

transfers from state governments, which compromise their ability to discharge their functions. The reluctance of states to follow the recommendations of state finance commissions that are working well is yet another barrier to improvements in municipal finance in India.

As mentioned in section 4.1, the 74th CAA created three types of urban local governments: (1) municipal corporations for large urban areas; (2) municipal council for smaller urban areas; and (3) nagar panchayats for areas transitioning from rural to urban. Table 3 compares own revenues and intergovernmental transfers for all three types of local government for 2007-08 and 2012-13.

Two important trends emerge from the data in Table 3. First, for all three types of urban local governments, the 'own sources' of revenue have decreased, and the intergovernmental transfers from the Union and States have increased. The second is that the smaller the size of the urban local government, the greater its reliance on intergovernmental transfers.

	Sources of Revenue	Municipal Corporation		Municipalities		Nagar Panchayat	
		2007-08	2012-13	2007-08	2012-13	2007-08	2012-13
A.	Own Sources						
1.	Total Taxes	45.5	40.9	18.6	14.7	10.8	8.2
2.	Non Taxes	22.2	23.9	9.3	10.5	11.3	11.8
	Total Own Source Revenue	67.6	64.8	27.9	25.2	22.1	20.1
B.	Other Sources						
	GOI Transfers	7.0	4.6	8.4	7.3	3.0	2.2
	Central Finance Commission Transfers	0.8	2.1	5.3	8.8	2.8	8.8
	State Assignment/ Devolution	11.4	12.6	31.2	29.0	63.1	49.9
	State Grant-in-aid	10.4	12.2	24.2	23.8	6.9	14.0
	Others	2.7	3.8	3.0	5.8	2.1	5.2
	Total Other Source Revenues	32.4	35.2	72.1	74.8	77.9	79.9
C.	Total Revenues	100.0	100.0	100.0	100.0	100.0	100.0

Table 3: Distribution of Municipal Revenues by Category of Urban Local Bodies

Source: Mohanty (2016)

This prevents smaller urban areas from planning for the future and expanding per the needs of their citizens. It essentially requires state level and union level governments to have the knowledge and foresight to plan for the growth of urban areas. An important implication of the fiscal dependence of smaller urban areas is this may put greater pressure on large metropolitan areas. This is because the migrants from rural to urban areas are attracted to the existing infrastructure and opportunity in the larger established metropolitan areas, instead moving to closer nagar panchayats where urban services and governance is inadequate.

With an increasing urban population, the per capita total municipal revenues is estimated at \$50 and the per capita *own* municipal revenues is estimated at \$27 for 2012-13. This, consequently, has an impact on per capita municipal expenditure, which is one of the lowest in India. According to the McKinsey Report (2010) India's annual per capita spending on cities is \$50, including capital and operational expenditures. This is only 14% of the per capita spending on cities by China (at \$362) and less than 10% of the per capita spending on cities by South Africa (\$508). An important implication of such low expenditure is on infrastructure building. India's per capita annual urban spending on capital expenditure is \$17. This is only 14.6% of the per capita capital expenditure by China (at \$116) and only 13.3% of the per capita capital expenditure by South Africa (at \$127). The report recommends that India increase the per capita capital expenditure eightfold, to keep up with urbanization over the next few decades.

Mohanty (2016) compares the trends of municipal expenditures in OECD countries and finds India severely lagging. The municipal expenditure to GDP ratio in India was 1% for 2012-13. Mohanty draws a dramatic contrast compared to the municipal expenditure to GDP ratios of: Belgium (7.0%), Germany (7.9%), Austria (8.2%), France (11.8%), United Kingdom (14.0%), Italy (15.9%), Finland (22.6%), Sweden (25.1%) and Denmark (37.3%).

One reason for such low expenditures is that most urban local governments in India do not spend all of the resources allotted. The reason is the unpredictability of future revenues, since most of the revenues are not raised through taxation but received through intergovernmental grants. These grants depend on the preferences of high level government, as well as political considerations (such as parties in power at higher level governments, religious and caste politics, linguistic fractions, etc.). A temporary resolution to this this problem, other than devolution of fiscal power to local governments, is institutionalizing a minimum share of

inter-governmental grants. However, that will further increase the reliance of local governments on higher level governments and sever the right relationship between local governments and its citizens. The only permanent solution is to give greater fiscal autonomy to local governments and reduce the reliance on state government transfers.

On the other end of the spectrum some urban local governments overspend without any penalties imposed by higher level governments. Local governments in India are only partially to blame for incurring expenditures beyond their estimated revenues. They do not have sufficient sources of revenue generation because the state governments have not devolved the power in most cases. At the same time, they are democratically elected officials who need cater to the demands of citizens. In the absence of such devolution, their only option is to rely on intergovernmental grants from the Union and State.

The trends in the fiscal health of municipal governments is a direct consequence of the constitutional position of these governments. Constitutionally, they have been given a lot of functions and responsibility, and the appropriate democratically elected manpower. However, the constitutional structure has not created a system to support the fiscal needs of these governments. The democratically elected officials of urban local governments are trapped between appealing the higher level state governments for resources, and appealing their vote base within the urban area. Their incentives are better aligned with higher level governments because the citizens are merely voters, and not taxpayers. The main source of revenue comes from higher level politicians and bureaucrats.

The current constitutional structure that favors decentralization has many problems—mainly low municipal revenues, low municipal expenditures, and high dependence on intergovernmental transfers. These problems can only be resolved by moving from a system of decentralization to federalism. i.e. creating greater institutional and fiscal autonomy for urban local governments and in the process reducing the fiscal reliance on higher level governments.

V. CONCLUSION

The poor state of cities in India is quite easily discernable to citizens, visitors, and experts. The dysfunction can be mild, as is the case with large metropolitan areas attracting a lot of resources and attention, or severe, in the case of most emerging cities in India. But there is no question that the problem is systemic, and not restricted to a type of city,

region, or political organization. That is the impetus to look at the constitutional structure to understand urban governance in India.

The first insight from analyzing the constitutional structure is that the Indian system does not reflect genuine federalism, but merely decentralization by the Union. And that this decentralization may or may not cascade down to urban local bodies. Second, that this constitutional structure has created a tremendous imbalance in the fiscal structure in India, undermining the fiscal autonomy of sub-national governments. Consequently, democratically elected officials at sub-national levels do not reflect the preferences of their citizens, but the preferences of higher-level government actors in order to attract funds. Therefore, and finally, this problem cannot be resolved by simply increasing the resources available to urban local bodies in a top-down manner, but requires genuine reform of the federal structure of India—mainly to create greater fiscal autonomy of local governments.

NOTES

- 1 Reforms in 1919 by Montagu and Chelmsford, which resulted in local self-governments falling under the control of provincial governments. This was replicated in the Government of India Act, 1935, where once again local governments came under the control of provincial governments, and the powers, function, and revenues were limited by provincial and state legislatures. The 1935 Act was also largely the basis for the administrative structure of the Constitution of India (see Sivaramakrishnan 2016, pp. 560-63).
- 2 During the Constituent Assembly Debates, the assembly's views on local government were divided into two camps. Members like K.T. Shah and R.K. Sidhwa, who believed in the Gandhian vision of self-sufficient village republics, advocated structuring local government at the village level. The Drafting Committee Chairman, B.R. Ambedkar, argued that village local self-governments did not really merit the stature of separate entities (Ibid.). Eventually a compromise was found, though tilted more towards Ambedkar's vision. The Constitution of India did not mandate creation of local governments, but suggested, under Directive Principles of State Policy, that State Legislatures may take steps to organize village local government (Article 40).
- 3 In some cases it is much worse. For instance in Delhi, the tax per annum on a personal vehicle priced at 400,000 rupees is 533 rupees. The tax on a vehicle serving as a public transport bus is 13,675 rupees (Ahluwalia 2011, p. 58).
- 4 Vertical power sharing is the allocation of areas in decision making to be handled by the various levels of government. Horizontal power sharing is the sharing of authority between the branches of government at the central and the sub-national levels. This paper largely focuses on vertical power sharing.
- 5 NITI Ayog recently replaced the Planning Commission.
- 6 Article 254(2) provides an exception to the above rule where the state law will prevail over the Parliamentary law if the President saves the repugnant provision.
- 7 The Supreme Court placed additional limitations on the President's ability to use Article 356 of the Indian Constitution to dismiss state governments in *SR Bommai v Union of India* (1994) 3 SCC.
- 8 These are Articles 54, 55, 73, 162, 124-47, 214-31, 241, 245-55, 368; and any of the Lists in the Seventh Schedule.

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The Kind of Problem Gentrification Is: The Case of New York

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I.

In this paper I attempt to provide a synopsis of the history and scholarship of what we call “gentrification.” This word is defined by the *Merriam-Webster Dictionary* as “the process of renewal and rebuilding accompanying the influx of middle-class or affluent people into deteriorating areas that often displaces poorer residents.” The *Oxford English Dictionary* is pithier: “The process by which an (urban) area is rendered middle-class.” *Dictionary.com* is more verbose: “The buying and renovation of houses and stores in deteriorated urban neighborhoods by upper- or middle-income families or individuals, thus improving property values but often displacing low-income families and small businesses.”

I have chosen to focus on New York City. According to *Governing* magazine’s “Gentrification in America Report” in 2015, New York City since 2000 has led all U.S. cities in the number of census tracts that have gentrified, a total of 128 (Maciag 2015). The next highest number belongs to Philadelphia, at 84.1. In sheer volume of gentrification, New York City leads the way. It is also the U.S. city with the longest history of gentrification (dating to long before that term was coined). It is the U.S. city that has been most intensively studied by gentrification scholars in academia. And it is the U.S. city with which the present writer is most familiar.

In this paper I make the case for viewing gentrification in terms of four distinct historical phases. The first phase occurred in the 1920s, a decade marked in New York City by a severe housing shortage (much more severe than today) and by developing visions of a deindustrialized Manhattan, as reflected in the *Regional Plan of New York and Its Environs* of 1929. The decade saw the redevelopment of one marginal or working-class neighborhood after another (West Village, Turtle Bay, Yorkville) into the abode of the rich and fashionable. Many other neighborhoods (East Village, Brooklyn

Heights) were set for the same transformation until the stock market crash of 1929 halted the process. The second phase took place from the 1950s to the 1970s. This is the period of what was generally regarded as urban decline, marked by deindustrialization, the movement of educated, middle-class people to suburbs outside the jurisdictional boundaries of major cities, rising crime and other social pathologies, racial tensions, “urban renewal” (which sought to replace traditional city neighborhoods with campuses of subsidized high-rise housing), and, in New York, the near-bankruptcy of city government (with the attendant cutbacks in services). Yet, at the same time, a statistically small but significant band of mostly young, college-educated, and largely professional people, mainly in couples with or without children, chose to reject what they felt to be the bland conformity of suburbia and purchased houses in neighborhoods, particularly in Brooklyn, that were widely believed to have long since passed their heydays. This is the period that saw the gentrification of Brooklyn Heights, Fort Greene, Cobble Hill, Carroll Gardens, Boerum Hill, and Park Slope in Brooklyn and of large parts of the Upper West Side of Manhattan. This was not, generally, a period of housing shortages in New York City. The houses purchased by the young “brownstoners,” while often requiring substantial rehabilitation, were remarkably inexpensive. The third phase is the 1980s. New York City had got back on its fiscal feet, we experienced a Wall Street boom of historic dimensions, and New York began to loom large as a “global capital.” Though crime and other serious social problems, such as homelessness, remained or became very high during the decade, gentrification occurred at a rate reminiscent of the 1920s. Many of the Brooklyn neighborhoods that had gentrified between the 1950s and the 1970s experienced a second wave of gentrification, or went into a kind of gentrification overdrive. Some early brownstoners who had

bought unrenovated houses for tens of thousands of dollars were able to sell their renovated houses for hundreds of thousands of dollars or even more than a million dollars. Places like the East Village, which speculators and developers had been ready to pounce on in the closing months of 1929, were finally (if unevenly) gentrified. The gentrification of the 1980s ended as abruptly as had that of the 1920s, and for the same reason, for in October of 1987 the stock market crashed, and housing prices all across the city tumbled. In some gentrifying neighborhoods, house prices fell by forty percent in the late 1980s and early 1990s. Finally, the fourth phase of gentrification followed the historic reduction in crime that began late in the administration of Mayor David Dinkins and continued through the administrations of Rudolph W. Giuliani and Michael Bloomberg, and what the late geographer and scholar of gentrification Neil Smith called the “revanchist” policies of the Giuliani and Bloomberg years—“broken windows” policing, privatizations of public space, the Times Square and Bryant Park cleanups, and so on—aimed at luring affluent new residents and tourists to the city. Partly as a result of policies (including restrictive land-use policies) and partly as a result of large-scale economic forces that had made investments in the real estate of a handful of major global cities so attractive to global elites, real estate prices in New York City reached, in adjusted terms, all-time highs after taking more than a decade to get back to what they had been before the 1987 crash. Moreover, the rise in prices—and an outward-spreading gentrification that extended its tentacles to remote neighborhoods (such as Bushwick and even East New York) that had never before been considered candidates for gentrification—continued even after the financial calamity of 2007-08, which was in large part a reaction to the nationwide real-estate boom of the early 2000s.

The paper is in three sections. The first section deals with the emergence of the term “gentrification,” dating to its supposed first use in 1964, and with the dawning sense, mainly as reported in the *New York Times*, of urban transformations that could be described under that term, up to 1979, by which time the outlines of the post-industrial city had become reasonably clear. The second section surveys the history of gentrification in New York City, going back to the row house renovation movement of the first decade of the 20th century. It is *very* rare to find a study or survey of gentrification that takes this sort of historical perspective, with the result that many people today, whether scholars at major universities or commenters on real-estate web sites, presume gentrification to be a problem peculiar to our own

time. The third section provides a brisk summary of gentrification studies in and outside of academia. “Gentrification studies” in academia, found principally in departments of sociology and geography, is rarely cited outside of academia. Studies of gentrification from outside of academia, or outside departments of sociology and geography, rarely cite the social sciences scholars who have specialized in gentrification. I thought it would be helpful to have a broad overview of what has been written, and is being written, by a very wide assortment of scholars and commentators. In my Conclusion, I define the four distinct phases of gentrification in the history of New York City. My hope is that this overview may help us to think more clearly about gentrification. No one knows the future of gentrification, as a sense of its past shows.

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The word “gentry,” which dates to the Middle English of the 13th or 14th centuries, and shares a root with “gentile” and “gentle” (as in “gentleman”), refers, in its strictest use, to the social class just below the nobility. In modern usage, “gentry” may mean bourgeois, or the meritocratic elite. In this section, I trace the increase in the use of the abstract noun “gentrification,” which in the 1970s appeared in the *New York Times* in an article roughly every other week, and by the first decade of the 21st century appeared in the *New York Times* in approximately two articles a day. In 1979, in one of the earlier *New York Times* articles to mention “gentrification,” the writer Blake Fleetwood noted the trends that, with strikingly little variation, continue to be described in the same terms today. I conclude with a brief description of Fleetwood’s article to show that the *what* and the *where*, if not necessarily the *how* or the *why*, of gentrification were pretty much set in many New Yorkers’ minds as long ago as 1979.

The term “gentrification” was popularized in 1964 by the prominent British sociologist Ruth Glass in her introduction to a Centre for Urban Studies omnibus volume titled *London: Aspects of Change* (Glass 1964). By this word she described what she saw happening to a working-class district of London called Islington. In the postwar years, Islington had been “discovered” by members of the new meritocratic elite, who found the district’s convenient location, low housing prices, and distinctive housing stock to be an irresistible combination. Georgian terrace houses that had been subdivided into multiple dwellings were now be-

ing stitched back together and restored by the new owners, and in the process tenants were sent packing. The starkness of what was happening could hardly have escaped the notice of a keen urban observer and good Marxist like Ruth Glass. (That gentrified Islington would, in 2006, be called by the *Guardian* “the spiritual home of Britain’s left-wing intelligentsia” is thus a tad ironic.) We may note that from its first use the term “gentrification” has been a pejorative.

Using the ProQuest Historical Newspapers database, which allows full-text searching of newspaper archives, we find that the first use of “gentrification” in the *New York Times* occurred in 1972 in an article on the overheated London housing market of the inflationary Heath years. In the article, Suzanne Haire wrote:

“Gentrification”—the expulsion of the working class from their traditional territory—has spread much further afield. “Big money tidal wave hits Wapping,” announced a headline the other day. Wapping, half a mile east of the Tower Bridge, used to be a dockworkers’ community with wharves and warehouses. But the dockers are gone and blocks of flats will rise on the site of old wharves. A modernized old Georgian customs house has already been sold for £65,000—then the equivalent of \$165,000—though everyone admits that transportation to Wapping is bad, shopping facilities are minimal and the environment is depressing (Haire 1972).²

“Gentrification” does not appear in the *New York Times* again until 1977 when, in an article titled “Working Class in London Resists Incursion by the Gentry,” Robert D. Hershey Jr. wrote, “The newcomers quickly modernize the interiors, paint the outside trim a brilliant white and add such amenities as plants, iron railings and perhaps a Victorian-era light fixture. At first they also tended to paint the doors a bright color, but doors now are often refinished to expose the natural wood” (Hershey 1977).

In 1978 the *New York Times* wrote of gentrification in the Marais, in Paris (“the driving out of the poor and working class for an influx of chic residents, restaurants and boutiques”) and in Amsterdam (gentrification “has produced impressive renovation of decayed structures, but it has also sparked working-class resentment because the newer residents tend to take up more living space and drive up the cost of housing”) and, again, in Paris before, on December 17, coming to America in an article on, of all places, Cleveland. The article, by Robert Reinhold, quotes Rutgers University’s George Sternlieb, at the time one of the most widely cited urban experts in America (sort of a Joel Kotkin of the late 1970s and early 1980s), as saying that the impact of gentrifi-

cation was being overstated: “What you have is a new small city emerging—young, sophisticated, high swinging—that has very little relationship to the older mass city around it” (Reinhold 1978). It was in the Amsterdam article of June 11 that “gentrification” appears for the first time without quotation marks.

Finally, the *New York Times* applied the word to New York City for the first time on January 14, 1979, in a remarkable article in the *New York Times Magazine* by Blake Fleetwood, “The New Elite and the Urban Renaissance.”

People often snicker when they first hear of it. A renaissance in New York City? The rich moving in and the poor moving out? The mind boggles at the very notion. After all, what about the graffiti, the abandoned buildings, the chronic fiscal crisis? Hard as it is to believe, however, New York and other cities in the American Northeast are beginning to enjoy a revival as they undergo a gradual process known by the curious name of ‘gentrification’--a term coined by the displaced English poor and subsequently adopted by urban experts to describe the movements of social classes in and around London (Fleetwood 1979).

“The signs,” wrote Fleetwood, “are all around us.”

Young professional people are flocking into New York City. Rents are higher than ever before, and vacant apartments are hard to come by. The price of a cooperative apartment has doubled in the last three years. Brownstoners have renovated large sections of the West Side and Chelsea in Manhattan and Park Slope in Brooklyn. It will take a long time for the effects of gentrification to make themselves felt in areas such as Harlem and the South Bronx—if indeed they ever will (Fleetwood 1979).

But, “as the heart of New York revives, it may pump new life into old, outlying neighborhoods. For, as rents rise still higher and the prices of co-ops and brownstones continue to go up, the gentry will be forced to move into and upgrade marginal areas.” Bushwick, anyone? And to the young urban professionals (or “Yuppies,” as they would be called beginning in the early 1980s), “are being added increasing numbers of affluent foreigners who are accelerating the pace of gentrification.” Fleetwood provides a brisk summary of the “urban crisis,” as it was called, and of the conventional wisdom regarding it—such as the view that central cit-

ies were obsolete and that policy should aim at hastening their abandonment. Then Fleetwood writes, “what many people failed to realize during the agonizing period of the early 1970’s—when New York seemed to be running out of money, jobs and even people—was that the bloodletting may well have been a natural adjustment to the problems that had been accumulating for the previous three decades.” Fleetwood quotes the major New York real-estate owner Lewis Rudin: “Our surveys have indicated a dramatic increase in foreigners, out-of-towners and young people coming back to the city”—words that might have appeared, verbatim, in the *New York Times* this morning, thirty-eight years later. “All of a sudden, from having a tremendous number of vacancies in both office space and apartments four years ago, we literally have no vacancies.”

Fleetwood cites the English urban geographer Peter Hall’s *The World Cities* (a 1966 book reprinted in 1977) on how a handful of major cities around the world were taking shape as “idea factories” where brokers, lawyers, consultants, academics, media and advertising workers, writers and photographers—all those Robert Reich labeled as “symbolic analysts” and said formed, despite the wild discrepancy of income between the freelance writer and the successful fund manager, a cohesive class of common interests—produced work meant to be consumed globally (Reich 1991). It is well to note that this kind of “globalization” was already a much-discussed phenomenon half a century ago. The “renaissance” of New York, and its concomitant gentrification, were thus seen as consequences of the fundamental economic shift taking place in New York and, to a lesser extent, in other cities that were also experiencing gentrification. Fleetwood quotes the *Economist* magazine: “New York City is becoming the capital of the world even as it is becoming noticeably less the all-dominating city of the United States.”³

The word “gentrification,” according to the ProQuest Historical Newspapers database, occurred in 28 articles in the *New York Times* between 1970 and 1979, in 684 articles between 1980 and 1989, in 400 articles between 1990 and 1999, and in 780 articles between 2000 and 2009.

III.

Virginia Pope wrote, in the *New York Times* of November 20, 1927:

Things are happening down Greenwich Village way.
Old landmarks are disappearing. Houses in which

celebrities once lived are giving way to tall, modern buildings. Even the old frame dwelling south of Washington Square—where the city hangman is said to have lived when the gallows stood where Stanford White’s arch now stands—has given up the struggle. (Pope 1927)

In this section I will show that though the term “gentrification” may date from the early 1960s, and did not gain traction in New York until the 1970s, it describes a phenomenon that is much older. Indeed, New York City has experienced several waves of gentrification. A row house renovation movement in the early 20th century made “silk purses from sows’ ears” and led rich New Yorkers to move into recently poor neighborhoods. The “roaring twenties” saw gentrification cover broad sections of the city in a process halted by the onset of the Great Depression. The next major wave occurred in the 1950s through the 1970s. The third wave, in the 1980s, picked right up where the 1920s wave ended, until it, too, was halted by a financial calamity, the stock market crash of 1987. A fourth wave took root in the 1990s and reached a crescendo in the second decade of the 21st century.

“The transformation,” wrote Virginia Pope of Greenwich Village in 1927, “began some time ago when people of discriminating taste began buying old houses and changing them within and without. Today a walk down any street west of Sheridan Square toward the North River will show whole blocks of houses being made over.”

Pope noted that “The westward movement is most noticeable along the queer streets that run on the bias and execute unsymmetrical angles between Seventh Avenue and Hudson Street. Morton, despite bands of happy children, whose playground is the pavement, bears a promise of taking on quite an aristocratic air, and so do Commerce and Bedford Streets.” The “gentrification” of these streets was well under way in 1927. But by the time Jane and Robert Jacobs bought their house at 555 Hudson Street in 1947, the process of gentrification that Virginia Pope wrote about had ended—or, more accurately, gone into a protracted hiatus. The Great Depression, World War II, and postwar “urban renewal” put the brakes on a process that had already transformed many parts of New York—and was set to transform many more—until the stock market crash of October 1929 put a (temporary) end to it.

Virginia Pope wrote about the West Village. An example of abortive 1920s gentrification would be the area not yet known as the East Village, the northernmost portion of the

Lower East Side, situated to the east of Washington Square. This had been an “aristocratic” neighborhood of substantial row houses carved out of the old Stuyvesant estate in the early 19th century. In the second half of the 19th century the patricians were mostly gone, replaced by German immigrants. The Germans in turn yielded to newer immigrants from eastern Europe, especially Jewish immigrants from the Russian Empire, and Second Avenue between Houston and 14th Streets became the fabled “Yiddish Rialto.” But for all the glitter of the Yiddish theaters and of the Café Royal, this was one of the poorest parts of Manhattan, an overcrowded neighborhood of tenements, and one of the least likely parts of Manhattan to go upmarket.

But in 1929 the marketing brochure for a new high-rise apartment building at the northeast corner of Second Avenue and 10th Street stated: “In the heart of the old aristocratic Stuyvesant and Astor Place section, a new and distinctive residential neighborhood is rapidly springing up. This district, so rich in City tradition, is once more coming into prominence as a desirable location for the modern home” (Columbia University Libraries 1929). The building, Warren Hall, developed by Henry Kaufman, was designed by Emery Roth, famed for his luxury towers on Central Park West. “The roof apartments are designed in the form of country bungalows, yet have all of the city conveniences, large private roof gardens and wood-burning fireplaces.” The brochure concluded: “The building will be completed in October, 1929.”

It was not just one starry-eyed developer who had his sites on this neighborhood. Across the street, the venerable Church of St. Mark’s in the Bowery also sought to cash in on the red-hot real-estate market. The pastor, the Rev. William Norman Guthrie, hired no less than Frank Lloyd Wright to design three distinctive high-rise apartment buildings to be grouped around the church. “Odd-Type Buildings to Overlook Church” said a *New York Times* headline—on October 19, 1929.

Here was a neighborhood primed for gentrification. But the gentrification was nipped in the bud. Warren Hall opened as scheduled, but the Frank Lloyd Wright buildings were never built, and for the next half century or so the neighborhood remained poor, with high rates of disinvestment, abandonment, and crime. Nonetheless, it followed a kind of blueprint when, beginning in the 1950s, many writers, artists, actors, dancers, musicians, filmmakers, and their bohemian hangers-on, no longer able to afford Greenwich Village to the west, moved into the old tenements, row houses, and lofts from the Bowery east to

Avenue D. Soon the press began calling the area the “East Village.” By the 1980s gentrification went into overdrive, symbolized by the conversion of Christodora House, a unique, high-rise settlement house overlooking Tompkins Square, into luxury condominium residences. Christodora House was vandalized on the August 7, 1988, during an anti-gentrification demonstration that turned into an ugly, violent riot (Purdum 1988). The demonstrators—which included young people who lived as “squatters” in abandoned buildings—could do nothing to stem the tide of gentrification.

American cities, not least New York, grew by the “upward and outward” model: The more “upward” one’s income, the more “outward” from the center of the city one tended to move. As improvements in transportation in the early 19th century made commuting possible for the first time, well-off New Yorkers went constantly on the move. The first commuter suburb was Brooklyn Heights, across the East River from lower Manhattan. The development of Brooklyn Heights as an affluent commuter suburb resulted from the introduction in 1814 of steam ferry service between Brooklyn and Manhattan (Jackson 1985, pp. 25-32). The steam ferry was the first practical form of urban mass transportation, and in the decades that followed various land-based forms of transportation, such as the horse omnibus, the horse streetcar, and the steam railroad, together with the cutting through of streets, led New York’s middle and upper classes to move ever northward up Manhattan Island from their original base at the southern tip of the island. Beginning around 1820, the well-to-do shunned density and crowding, seeking always to live in the most up-to-date houses in the quietest, most salubrious neighborhoods, where everything was new and where commerce and residences were “zoned” in strictly separate sections. (Before zoning laws, which in New York date to 1916, this “zoning” was accomplished through restrictive land covenants.) The well-to-do moved north from the Battery to the area we now call SoHo, where today you can see interspersed among the late 19th-century cast-iron loft buildings a number of 1820s Federal-style row houses attesting to those long-ago days when this was an elite residential zone. In his 1880 novel *Washington Square*, which is set in the 1840s, Henry James has his protagonist, Dr. Austin Sloper, reminisce about his late wife: “in 1820 she had been one of the pretty girls of the small but promising capital which clustered about the Battery and overlooked the Bay, and of which the uppermost boundary was indicated by the grassy waysides of Canal Street.”

Dr. Sloper has moved to the north side of Washington Square, where the houses were built in the early 1830s. (The oldest house on the north side of Washington Square, No. 20 Washington Square North, was built in the late 1820s as a *country house* by a wealthy man whose primary residence was downtown at Bowling Green.) Fashionable New York of the 1830s formed a lateral band in the blocks just north of Houston Street, from Washington Square east to Lafayette Place and St. Mark's Place. From there, the elite moved north to Union Square, which was once an elegant residential square, and Gramercy Park, which is still an elegant residential square, thence to Murray Hill, in the East 30s and 40s, thence to the Upper East Side of Manhattan (Lockwood 1976). The most desirable areas were those farthest from the rivers. New York's working waterfronts were once the city's economic lifeblood, far too valuable in their wealth-producing capacity to be replaced by residential or recreational uses. Not until recent years, when New York has shed the waterfront industries that had been a mainstay of the city's economy for more than 300 years, has the city been graced with glittering waterfront parks and esplanades and condominium towers. Thus, Fifth Avenue and Park Avenue, as inland as you can get on Manhattan Island, became the most prestigious addresses.

The well-to-do tended, throughout the 19th century, to stay put for, on average, about fifteen years before marching off to the newest *faubourg* to the north, usurping farmland for new subdivisions of row houses and mansions. We have a name for this process: *sprawl*. We may view the development of Manhattan as a glass filling with milk. The island filled to the brim around 1900. That is when the last of Manhattan's farmland yielded to the developers. Of course, the process continued—as it continues to this day—beyond Manhattan, and many people happily left Manhattan for new subdivisions, typically much more in line with our modern idea of “suburbia,” in the outer boroughs of New York City and beyond in New Jersey, New York State, and Connecticut.

There were, in the 19th century, excellent reasons for moving outward. Perhaps chief among these was the metropolitan scourge of infectious disease. If the same percentage of New Yorkers today died in an epidemic as died in the cholera epidemic of 1834, we would count as many as 200,000 deaths, a figure that makes the mind reel. The movement uptown was a movement to greener pastures, so to speak, away from the crowded and pestilential conditions that inevitably engulfed any established neighborhood in these years of historic population increases.

In addition, from the 1830s on, the rise of the commuter lifestyle meant that whole sections of the city were, for the first time, exclusively domestic. This domesticity—“family values,” we might say—became an ideal that accounts, in part, for Americans' desire—not shared by Jane Jacobs!—to keep sharply separate the domains of commerce and of the nuclear family.

The Manhattan ideal had always been to own a new house in the latest style. If one's budget did not permit the construction or purchase of a new house, one bought (or rented) a house that was “pre-owned.” That was *déclassé*, and it was a measure of J.P. Morgan's disdain for fashion that he chose to live in a pre-owned house. By the time of the Civil War, the middle class found itself in a squeeze, unable to afford even a pre-owned house, and desperate to avoid the fate of the very poor, which was to live in the multiple-unit residences known as tenements. Many middle-class New Yorkers chose to reside in boarding houses. For all their inconveniences, especially for families, at least boarding houses were *houses*. The second half of the 19th century may even be called the boarding house era in New York's history, and most of the city's row houses put in a stint as a boarding house (Cromley 1990, pp. 11-31). Eventually, marketers gently coaxed the middle classes to accept apartment living, and within a very short period of time Manhattan became an island predominantly of apartment dwellers. Apartment developers piled on the amenities, marketers touted convenience, and architects strove to make middle-class apartment buildings look nothing like the tenements of the poor. Some neighborhoods developed from the start, or nearly so, with a mix of apartments and row houses. The Upper West Side of Manhattan is the most famous example, where such apartment buildings as the Dakota, on Central Park West, date back to the earliest years of the neighborhood's development. But other early apartments for the middle class were inserted into older, downtown, neighborhoods. Famously the first of all the city's middle-class apartment buildings, the Stuyvesant, was built on East 18th Street, just south of Gramercy Park. Where Henry James's bourgeois physician Dr. Austin Sloper lives in the 1840s in the still-fresh 1830s row houses of Washington Square North, in 1882, every one of the five full-floor apartments in the “French flat” building at 21 East 21st Street, near Gramercy Park, was occupied by a physician and his family (Gray 2007).

But what most comports with our idea of gentrification is perhaps the row house and stable renovation movements of

the early 20th century, which may be regarded as the first of four phases of gentrification in New York City's history.

In 1909, a prominent Denver architect, Frederick J. Sterner, had recently moved to New York when he renovated a 60-year-old Greek Revival row house at 139 East 19th Street. The block, between Irving Place and Third Avenue, had once been fashionable, but by 1909 was tired and shabby, with loft buildings coming to dominate Irving Place and the Third Avenue El roaring past at the other corner. It had been many years since figures of fashion had made their homes in the area. "It took Frederick Sterner to reverse this trend" (Gray 1997). Sterner removed the house's front stoop (he considered it pompous), covered the house's red-brick facade in a cream-colored stucco, put in a sloping, red-tiled roof, and around the entrance added accents of beautiful, museum-quality Mercer art tiles. When he was finished, the house was like a shaft of sunlight on an otherwise dark and dreary block. From a house exactly like thousands in the city, he crafted a Mediterranean fantasy, or, as Helen Lowry put it in the *New York Times* in 1921, he made "a silk purse out of a sow's ear" (Lowry 1921). Sterner's house garnered immediate and sustained attention. It alerted New Yorkers to the possibilities of old houses. In 1911, *House Beautiful* magazine, in an article on 139 East 19th Street, asked: "Why does anyone build a city house when a remodeled one can be made so fascinating?" Sterner started a revolution. He was, said Helen Lowry, "the father of a new period as truly as was ever George Washington, Father Abraham or the Pilgrim Fathers." That "new period" was the one of "gentrification," although it would be many more years before the term was coined. And indeed Sterner, in collaboration with the banker and aesthete Joseph Thomas, undertook the renovations of several other houses on the block, as major figures from the worlds of the arts and fashion—from the silent film superstar Theda Bara to the banker and legendary art collector Chester Dale—moved to the street. None of these people would have considered moving there only a few years earlier. Sterner himself moved to Yorkville, a working-class section of the Upper East Side of Manhattan, where he did much of what he had done on 19th Street, and helped make Yorkville into a place of fashion. The area would, with the construction of ultra-luxurious high-rise apartment buildings along the formerly very modest East End Avenue in the 1920s, become one of the most chic sections of all New York.

Something of the sort was in the air even before Sterner. In 1902 the sculptor Frederick Triebel leased a disused stable in MacDougal Alley, in Greenwich Village. The stables

of this mews once served the fine houses of Washington Square North, where Henry James's Dr. Austin Sloper lives. But as the patrician class decamped for northerly precincts, it took with it its horses. Newer residents of the Village were poorer, and did not own horses and carriages. And that left many superannuated stables. Triebel's inspiration was that one of these structures would make an ideal sculptor's studio. And so he installed skylights and moved in with his family (Gray 1994). MacDougal Alley, a "dirty, foul-smelling court," according to the *New York Sun*, was soon transformed, as Triebel's friends—including such prominent sculptors as Daniel Chester French, Henry Kirke Bush-Brown, and James Earle Fraser—joined him in the alley. In 1906 the *Craftsman* magazine wrote of MacDougal Alley: "in the summertime the doors of the studios are thrown open, and the artists' wives take their chairs on the clean, cemented court, while the children play in perfect safety around them." And then, a year later, a MacDougal Alley studio was purchased by another notable sculptor, this one named Gertrude Vanderbilt Whitney. This remarkable woman was very serious about her art, and about her patronage of other artists, and wished to be right in the center of things, which in 1907 meant being in MacDougal Alley. She was also one of the richest women in America. And thus began the downtown diaspora of uptown plutocrats' children.

The January 9, 1921, *New York Times* ran a front-page headline "Mrs. W.K. Vanderbilt to Live in Avenue A." More precisely, Anne Harriman Sands Rutherford Vanderbilt was moving to a then little-known two-block section of Avenue A called Sutton Place. Mrs. Vanderbilt, the widow of the grandson of Commodore Vanderbilt, had recently sold her and her late husband's 50-year-old house, one of the city's most stupendous mansions, on Fifth Avenue and 52nd Street, in order to renovate a by comparison extremely modest house in a neighborhood the *Times* said "a generation or so ago was the heart of a charming home district" (Mrs. W.K. Vanderbilt... 1921). Since then, however, it had become a working-class neighborhood, even a "slum," with tenements and factories and subdivided row houses adjacent to the noisome working waterfront of the East River. Mrs. Vanderbilt's new house faced across 57th Street to a brewery. The movement, not only of Mrs. Vanderbilt but of a whole group of society figures, including Anne Morgan, the daughter of J.P. Morgan, to Sutton Place was, said the *Times*, "due to the scarcity of homes and also to the renewed activity in private dwelling buying for occupancy. This condition of affairs has led to the development of several east

side blocks.” As Helen Bullitt Lowry, a sharp-eyed observer of the quirks and mores of her time, wrote in the *New York Times* in 1921: “The Vanderbilts and Morgans and Judy O’Grady have become sisters under the stucco. For the first time in the history of respectable cities...the millionaires are moving into the cheap old dwelling houses that were foreordained at their beginnings to harbor, in the relaxation of their evening suspenders, middle-class filing clerks and floorwalkers with tired feet” (Lowry 1921). Soon, Sutton Place was, as it has remained to this day, one of the most exclusive neighborhoods in Manhattan, home over the years to such people as J. Paul Getty and Aristotle Onassis.

Note what the *Times* said: “renewed activity in private dwelling buying for occupancy.” This is something much like what we have seen in recent years, as old houses that had been put to other uses, perhaps become schools or been broken up into apartments, have been bought and returned to use as single-family homes. In addition, and more significant, the people, like Mrs. Vanderbilt and Miss Morgan, who did this buying sought not to live in apartments, which suited most other people of their rank (by 1921 a Park Avenue apartment was already the ritziest address in America), but in the kinds of old houses that, as *House Beautiful* put it in 1911, “can be made so fascinating.” All of the gentrification of the 1910s and 1920s can be seen to have, as today’s academic social scientists like to say, both a “production side,” in which old, marginal areas of the city could be seen to have great potential for profit, and a “consumption side,” in which those moving to these areas seek out a certain lifestyle or, to use a phrase beloved of academics, “habitus.” And this habitus, if you will, can be seen in all the gentrified developments of the era, in which new tastes and modes of living sprang up in reaction to the Gilded Age excess, well known to Mrs. Vanderbilt and Miss Morgan and Mrs. Whitney of MacDougal Alley, that seemed no longer to make sense after World War I (when many Francophilic New York society ladies volunteered in French military hospitals) and at a time of tremendous personal liberation, especially for women. Women’s clothing was no longer constraining, architecture was simpler and jauntier, manners more relaxed, servants many fewer. There was sexual experimentation. And café society was born.

In 1927 the literary critic Edmund Wilson wrote, in the *New Republic*, in tones reminiscent of the plaintive blogger of *Jeremiah’s Vanishing New York*, “Returning to New York at the end of the summer, one was astounded to find...whole blocks of familiar shops, delicatessen stores and old saloons snatched away without warning from under one, so as to

change the very configuration of the streets....during the summer, there have been erected on lower Fifth Avenue two monstrous apartment houses....They loom over the Village like mountains, and they have completely altered its proportions....Such distinction as still lingered in the Village with the low roofs of the old provincial city has thus been rendered largely vain: one can see nothing but those coarse swollen mounds, blunt, clumsy, bleaching the sunlight with their dismal pale yellow sides and stamping down the old fashionable square and the newer Bohemian world alike” (Wilson 1927). Two things here bear pointing out. One is Wilson’s invocation of the “old provincial city,” presumably an ideal to be upheld, however *unprovincial* New York, and Greenwich Village, had become by 1927. Second, those “coarse swollen mounds” are, in 2016, many sensitive and nostalgic New Yorkers’ very idea of “old New York,” and are protected landmarks.

As Robert Fogelson notes in his illuminating book *The Great Rent Wars: New York, 1917-1929*, between 1903 and 1917 New York City developers added an astonishing 400,000 rental apartment units to the city’s inventory—more than 28,500 a year (Fogelson 2013, p.18). In 1909, the vacancy rate was 8.1 percent (*ibid.*). Beginning in 1917, the year the U.S. entered World War I, this all reversed. A standstill in residential construction led to housing shortages. In 1920 the vacancy rate fell to 0.3 percent (Fogelson 2013, p. 29). By comparison, the 2014 residential rental vacancy rate was 3.45 percent (Gaumer 2015). In 1920, in response to the dizzying rise in rents, New York State enacted rent control. Challenged in the courts by landlords, the matter was finally adjudicated by the U.S. Supreme Court in April 1921. Justice Holmes said rent control was “too obviously justified to need explanation” (Fogelson 2013, p. 249). Rent control expired in 1929, was hardly needed in the 1930s, and, as a result of the wartime emergency, was re-instituted, this time by Federal decree, in 1943. There are several respects in which the New York City of today resembles that of the 1920s: income inequality (which peaked in 1929), the housing shortage (even more severe than now), and gentrification.

The gentrification of the 1920s ended abruptly with the stock market crash of October 1929 and the ensuing Great Depression. Gentrification did not resume for a while. The 1950s and 1960s were decades of what was widely described, with good reason, as decline in most older American cities, including New York. Many old neighborhoods were transformed by “urban renewal” (or, as some of its critics termed it, “urban removal”), other old neighborhoods continued a

spiraling physical deterioration that began with the disinvestment of the Great Depression, crime soared, and many urban problems began to appear to be intractable as the vast majority of well-educated, middle-class Americans chose to live in suburbs well outside the jurisdictional boundaries of major cities. In New York, the inevitable conflict between escalating costs to deal with increasing social problems and a declining tax base led to the city's perilous fiscal condition of the mid-1970s. The situation in New York City seemed so dire that in February 1976 Roger Starr, Housing and Development Administrator in the administration of Mayor Abraham Beame, advocated "planned shrinkage" (Fried 1976). "Under this," wrote the *New York Times's* Joseph P. Fried, "the population losses occurring in certain slum areas, including Brownsville in Brooklyn and the South Bronx, would be 'accelerated' by public policy." According to Starr, the goal was "to hasten the population decline already begun in these neighborhoods so that, ultimately, further cutbacks in city services could be concentrated in a limited number of areas." In the 1970s, New York City lost more than 800,000 residents. In defense of his South Bronx district, Representative Herman Badillo said, "If there is no money for rebuilding, you certainly can demolish the abandoned buildings and give money to community people to plant crops and flowers." It is shocking from the standpoint of 2017 to recall how closely, forty years ago, discussions of New York City resembled early 21st-century discussions of Detroit. But what today seems most salient about New York from the 1950s through the 1970s is not physical deterioration, or crime, or population losses, but rather the trickle back into the city of a portion of the educated middle-class and the resumption of the row house renovation movement that had been a feature of the 1920s. In the 1950s, Brooklyn Heights was "rediscovered" by a hardy band of young professionals who appreciated the old houses—and the one-stop commute to Wall Street. (This movement even featured in the popular culture: The family—the Lanes—in the *Patty Duke Show*, which aired from 1963 to 1966, were one such Brooklyn Heights family.) In the 1960s, young professionals seeking to buy old brownstones set their sights on Fort Greene and Cobble Hill and Park Slope. At the same time, the Upper West Side of Manhattan emerged from a decades-long torpor. Artists, especially sculptors (who have the most peculiar spatial needs), began moving into the disused manufacturing lofts of lower Manhattan, just as they had once moved into the disused stables of Greenwich Village. While all of these movements of people are ones we associate with gentrifica-

tion, it is important to note that from the 1950s through the 1970s these movements took place against the background of what appeared to be a declining city. Not until the 1980s, when New York had pulled back from the fiscal brink and Wall Street enjoyed an historic boom, did something like 1920s-style gentrification return to New York, and property values throughout the city skyrocket.

On October 19, 1987, the Dow Jones Industrial Average, having reached an all-time high in August (2722.42), fell by 508 points, losing 22.6 percent of its value in one day. Just as happened in 1929, a real-estate slump followed in New York City. Four years later, in the *New York Times*, Thomas J. Lueck wrote of a woman who bought a 400-square-foot apartment in Christodora House in 1986, "near the height of New York City's real estate boom," for \$125,000. In 1991, she was trying, without success, to sell, "even at a loss" (Lueck 1991). According to the Consumer Price Index, \$125,000 in 1986 would be \$173,000 in 1995. Yet in 1995, a 400-square-foot apartment in Christodora House sold for \$70,000, and a year later an apartment of that size sold for \$80,000.⁴ It was looking as though the anti-gentrification protesters of 1988 were having the last laugh. The next year a 400-footer sold for \$150,000. That's more than twice the price of two years earlier, but still not keeping pace with inflation (in 1997 our original \$125,000 was worth \$181,000). Not until 2000 does that change, when a 400-square-foot unit went for \$230,000. In 2005, an apartment of that size sold for \$600,000 (almost three times the rate of inflation). In 2013, when our original \$125,000 was worth \$261,000, a 350-square-foot apartment in Christodora House sold for \$750,000. Last year, a 500-square-foot apartment sold for \$931,000.

"In some corners of the city, the experts say," writes Lueck, "gentrification may be remembered, along with junk bonds, stretch limousines and television evangelism, as just another grand excess of the 1980's." Lueck quotes Columbia University urban planning professor Elliott Sclar: "As the dust settles, we can see that the areas that underwent dramatic turnarounds had severe limitations. Rich people are simply not going to live next door to public housing." I wonder what Professor Sclar (who is still at Columbia) thinks of the north side of 18th Street between Ninth and Tenth Avenues, in the shadow of the High Line. On that block stand the Fulton Houses, a 945-unit New York City Housing Authority low-income project from the early 1960s. Just to its west stands Chelsea Modern, a chic, glassy 27-unit condominium building designed by the acclaimed

architect Audrey Matlock and built in 2009. One apartment in Chelsea Modern sold for nearly \$11 million.

In reference to such places as the Lower East Side and Manhattan Valley, where gentrification had extended its tentacles just before the crash, Clark Halstead, a Manhattan real-estate broker, used the term “degentrification.” And Lueck quotes an anti-gentrification activist in Manhattan Valley: “Gentrification hasn’t done as much damage as we feared. Perhaps because it has ground to a halt.”

Park Slope, in Brooklyn, is a poster child of gentrification. Since 1982, the *New York Times* has four times featured Park Slope in the newspaper’s popular “If You’re Thinking of Living in...” column in the Sunday Real Estate section. In 1982, the column noted that houses in “prime areas” were going for \$200,000 (Bird 1982). In 2015 dollars that’s \$495,000. In 1987 (the height of the eighties boom), the *Times* reported that a 3-story brownstone in central Park Slope cost \$750,000 (McKinley 1987), or, in 2015 dollars, \$1.578 million. In 1992, the *Times* said a central Slope house went for \$500,000 (Senft 1992), which is \$852,000 in 2015 dollars. Note the drop. It’s nearly half. Prices did drop precipitously between 1987 (the year of the stock market crash) and 1992, citywide by about 30 percent, but by more when expressed in real dollars. Then, in the 1990s, prices began to rise again: In 1998, a high-end Park Slope house went for \$1 million (Rather 1998), the 2015 equivalent of which would be \$1.48 million—showing, as in the case of Christodora House, how long it took New York City real estate to get back, in real-dollar terms, to where it had been in the 1980s.

IV.

“Gentrification studies” is very hot in academia. While economists and urban planners certainly study gentrification, the most intense group of gentrification scholars is to be found in university departments of sociology, geography, and anthropology. The sheer volume of academic writings on gentrification is daunting. As Tom Slater, of the University of Edinburgh, one of the most prolific figures in gentrification studies, has noted, gentrification studies represents “an immense body of scholarship, one so large that it makes summaries, syntheses, and concise critique a considerable challenge” (Slater 2011). Having described the basic history of gentrification in New York City up to just before our own time, my purpose of this section is to provide a brief, and inevitably sketchy, account of the interpretative strategies applied by the gentrification scholars

who have grown numerous in recent years both inside and outside of academia.

Among the academic scholars of gentrification belong Slater, the late Neil Smith of the City University of New York, David Ley of the University of British Columbia, and Peter Marcuse, professor emeritus at Columbia University. To this group we might add Suleiman Osman, of George Washington University, the author of the provocative, widely reviewed, and remarkably even-handed book *The Invention of Brownstone Brooklyn: Gentrification and the Search for Authenticity in Postwar New York* (Osman 2011), and Sharon Zukin, of the City University of New York, author of the widely cited *Loft Living: Culture and Capital in Urban Change* (Zukin 1982). It should be noted that Slater, Smith, and Ley are geographers, Marcuse an urban planner, Zukin a sociologist, and Osman a historian. On the other side are the writers and scholars Slater rather sneeringly labels “pseudo-intellectuals,” including Harvard economist Edward Glaeser, the University of Toronto’s Richard Florida, the architect Andrés Duany, who founded the Congress for the New Urbanism, and the writer Leo Hollis, author of *Cities Are Good for You: The Genius of the Metropolis* (Slater 2014). Recently, Tom Slater has written of University of Strathclyde urban design professor Sergio Porta, whose idea that gentrification naturally arises from the location of “betweenness centralities” in city plans, in such a way as to leave no doubt that he is the latest inductee into the ranks of the “pseudo-intellectuals” (Slater 2015).

In general, leading gentrification theorists such as Smith and Slater do not believe that economists or urban designers have a broad enough perspective to grasp the true nature of gentrification. As Tom Slater says, “The rising house expense burden for low-income and working-class households, and the personal catastrophes of displacement, eviction, and homelessness, are symptoms of a set of institutional arrangements (private property rights and a free market) that favor the creation of urban environments to serve the needs of capital accumulation at the expense of the social needs of home, community, family” (Slater 2011, pp. 571-572). In 1986, Neil Smith and Peter Williams argued against a too-restrictive use of the term “gentrification.”

If we look back at the attempted definition of gentrification, it should be clear that we are concerned with a process much broader than merely residential rehabilitation. Even into the late 1970s, this particular definition of gentrification *vis-à-vis* redevelopment may have made some sense. But as the process has

continued, it has become increasingly apparent that residential rehabilitation is only one facet (if a highly publicized and highly visible one) of a more profound economic, social, and spatial restructuring. In reality, residential gentrification is integrally linked to the re-development of urban waterfronts for recreational and other functions, the decline of remaining inner-city manufacturing facilities, the rise of hotel and convention complexes and central-city office developments, as well as the emergence of modern “trendy” retail and restaurant districts. Underlying all these changes in the urban landscape are specific economic, social and political forces that are responsible for a major reshaping of advanced capitalist societies: there is a restructured industrial base, a shift to service employment and a consequent transformation of the working class, and indeed of the class structure in general; and there are shifts in state intervention and political ideology aimed at the privatization of consumption and service provision. Gentrification is a visible spatial component of this social transformation (Smith 1986, pp. 2-3).

The original use of “gentrification” by Ruth Glass referred specifically to the rehabilitation of terrace houses in an old urban district. Smith and Williams, twenty-two years later, suggested a more expansive use to cover basically *anything* associated with the transformation of city economies from ones based on manufacturing to ones based on finance and services. We see in the New York City of the 1920s that gentrification was about both Frederick Sterner’s renovated row houses in Yorkville and the new high-rises of East End Avenue, about both the renovated stables of Washington Mews and the new high-rises (decried by Edmund Wilson) of lower Fifth Avenue. And it was even about Christodora House at Tompkins Square: Yes, it was a settlement house serving the poor residents of the area, but it was designed to incorporate an income-producing apartment hotel. In the 1920s, the deindustrialization of New York had yet to take place, and the city would remain the largest manufacturing center in the world until well after World War II. But it is worth noting in this context that some historians see in the *Regional Plan of New York and Its Environs* of 1929 a blueprint for that city’s transformation from a manufacturing to a financial and service center, and that it is hard, in reading that remarkable document, to tell where prophecy leaves off and prescription begins. (Neither Smith and Williams nor any of the other contributors to the seminal

1986 book *Gentrification of the City* mention the *Regional Plan*.) In their book *New York: An Illustrated History*, Ric Burns, James Sanders, and Lisa Ades call the *Regional Plan* “the most ambitious and far-flung reconception of the city ever undertaken” (Burns, Sanders, and Ades 1999, p. 374). The plan was sponsored by the Russell Sage Foundation beginning in 1921, when “a group of the most powerful men in New York,” from bankers to foundation heads to real-estate developers, came together to discuss and plan the future of the city. The plan was regional in scope, covering twenty-two counties in three states. Manhattan “was to be a new kind of center, stripped now of its port and manufacturing functions and given over largely to the new ‘clean’ industries arising in midtown and downtown: finance, banking, insurance, law, advertising, communications, and the executive offices of national corporations.” The plan envisioned Manhattan as the first post-industrial city of the world. It would be a place stripped of its grittier aspects, a place of offices, shopping and entertainment, and exclusive residential neighborhoods housing the captains of industry and the growing meritocratic elite. The plan did not foresee the globalization and other economic trends that would, some decades later, bring about the displacement of the city’s manufacturing. Rather, the plan suggested the relocation of Manhattan’s industry to the outer boroughs and suburban counties, where it could more readily be served by truck transportation. The plan envisioned a dramatic increase (that never happened) in regional rail transportation, and also the construction of a vast and intricate network of high-speed automotive roadways. The roadways, or many of them, were built, by Robert Moses, who was guided by the plan (though he played no role in creating it). The *Regional Plan* bears mentioning because it shows that there has been a persistent dream among an elite segment of New York society of transforming Manhattan into a gleaming post-industrial city. And this dream, it may be said, and the plan it created, shows, to some extent, the intentionality behind the city that has been gentrified in the broad sense described by Smith and Williams.

The work of the late Neil Smith (1954-2012) has been particularly influential. I would go so far as to say that in my own experience, Smith’s account of gentrification is as close to mainstream as any account gets among academic social scientists. Smith offers us two (among other) key concepts. These concepts are the rent-gap theory, and the revanchist city theory. Smith is said to be the leading figure in “production side” gentrification theory, which stresses the defining “role of capital and its institutional agents (public

and private) in creating gentrifiable spaces” (Slater 2011, p. 574). The “rent gap” is “the gap between the actual *capitalized* ground rent (land value) of a plot of land given its present use and the *potential* ground rent that might be gleaned under a ‘higher and better’ use. The latter might be brought about through the rehabilitation of existing structures on the land, complete redevelopment, or other transformations of existing uses and structures. Gentrification...is clearly one means by which the rent gap can be closed” (Smith 1987, p. 462). Smith is also known for his concept of the “revanchist city.” *Revanche* is French for “revenge.” In France after the Franco-Prussian War and the fall of the Second Empire, a nationalist political movement emerged both to regain Alsace and Lorraine, which had been lost to the Germans, and to ensure that nothing like the radical Paris Commune, which had briefly filled the power vacuum left by the fall of Napoleon III, would show its face again. Smith claimed that New York, following the urban decline and the failure of liberal urban policy in the 1960s and 1970s, and the tremendous rise in crime in the 1980s (New York City’s homicide rate peaked in 1990), was primed for an analogous revanchist movement, which was led by Mayor Rudolph W. Giuliani and involved “broken windows” policing, the privatization of public space, the clean-ups of Times Square and Bryant Park, and so on, all to make the city more comfortable for the middle and upper classes, to lure tourists, and to abet gentrification (Smith 1996).

Smith’s insistence, and that of many other academic scholars of gentrification, that gentrification inevitably leads to displacement is not shared by *all* scholars in the field of gentrification studies. In their paper “Gentrification and Displacement,” Columbia University urban planning professor Lance Freeman and Frank Braconi, of New York City’s Citizen Housing and Planning Council, and Freeman in his book *There Goes the ‘Hood: Views of Gentrification from the Ground Up*, argued that displacement caused by gentrification is not only overstated (Freeman and Braconi 2004; Freeman 2006). In fact, gentrification may work *against* displacement. Though the authors don’t say so, they echo a point made by the urbanist William H. Whyte in his 1988 book *City: Rediscovering the Center*: “Check the year-by-year changes in neighborhood households and you will find very few cases of direct displacement; that is, a renter going out the door as a homeowner comes in. Low-income renters are frequent movers; 40 percent of the renters in a city neighborhood will move” (Whyte 1988, p. 328). As Freeman and Braconi note, gentrification brings neighborhood improvements that provide an incentive for people to

stay. Overall, fewer people will move out of a gentrifying than out of a non-gentrifying or deteriorating neighborhood. Freeman’s and Braconi’s data was from the 1990s, and the situation may well be different now. It is also worth noting that the authors cite rent regulation as one of the ways disadvantaged people are able to stay put in a gentrifying neighborhood. In 1979, Hunter College’s Peter Salins, an urban planner and a great authority on New York City’s housing market, told the *New York Times* “there have been many more people pushed out by abandonment than have ever been moved out by so-called gentrification” (Freeman 1979).

“Those explaining gentrification from a consumption perspective,” wrote Slater, “reacted to simplistic neoclassical accounts of demographic changes and lifestyle preferences by illustrating how changes in the industrial and occupational structure of advanced capitalist cities, occurring as they did at a time of significant social and cultural upheaval (post-1968), produced an expanding pool of gentrifiers with a disposition towards central-city living, and an associated rejection of suburbia for the blandness and monotony it symbolized” (Slater 2011, pp. 574-575). The dominant figure in “consumption-side” gentrification studies is David Ley, a geographer at the University of British Columbia, whose most influential work has studied gentrification in Canadian cities. A key work by Ley is *The New Middle Class and the Remaking of the Central City* (Ley 1996). This “pool of gentrifiers” may be seen to be a “new middle class,” an educated meritocratic elite comprising Robert Reich’s “symbolic analysts” and Richard Florida’s “creative class.” Some commentators, such as Joel Kotkin, like to point out that for all the soaring property values in some central cities, the middle classes continue to opt for suburbia, especially when children are part of the picture (Kotkin 2013). Thus, those who opt for city living, whether with or without children, do so for “lifestyle” reasons. Nowhere is this better explained as it relates to the brownstone renovation movement of the 1950s and 1960s than by the historian Suleiman Osman in *The Invention of Brownstone Brooklyn*. The young, educated middle-class protagonists of Osman’s book sought to live more “authentically,” in historically dense, racially and ethnically diverse communities, in which their own sweat equity in the rehabilitation of their old houses gave them something of the sense of living in a handmade world. Osman examines the contradictions of this movement, as, inevitably, the interests of the young newcomers and those of the other residents collided, as for example when rooming houses, which had been an important housing safety

valve for a vulnerable portion of the urban population, were renovated back into single-family homes (Osman 2011). Osman does not use the word *habitus*, made famous by the enormously influential French philosopher and social theorist Pierre Bourdieu after he borrowed it from the art historian Erwin Panofsky's book *Gothic Architecture and Scholasticism*. The term refers to the constellation of mental and physical habits, tastes, values, and social practices that form the shared basis of a given group in society (Bourdieu 1977). In describing brownstoners' quest for authenticity and reflexive recoil from suburbia and its perceived values, Osman is describing their *habitus*. An example of an important gentrification study that makes explicit, named use of *habitus* is David Ley's essay "Artists, Aestheticization and the Field of Gentrification" (Ley 2003) and Tim Butler and Garry Robson's *London Calling: The Middle Classes and the Remaking of Inner London* (Butler 2003). The *habitus* is at the heart of group identity, class formation, and social reproduction. For many gentrifiers, living in the central city is felt as, in David Ley's words, "a credential, a mark of distinction in the constitution of an identity separate from the constellation of place and identity shaped by the suburbs" (Ley 1996, p. 211).

Tom Slater's "pseudo-intellectuals" do tend to take rather a more benign view of things, not in that they do not feel that gentrification operates with diminishing returns, but that they do not accept such ideas as the view of the revanchist city that is taken as gospel by many academics. Edward Glaeser, Glimp Professor of Economics at Harvard, is one among many who has written that central city housing in the most productive cities around the world needs, rather urgently, to be made more affordable to a broader swath of the public (Glaeser 2011). It is a matter of national economic importance: A productive city of four million people will be an even more productive city with an extra million. But that extra million won't be productive until it joins the other four million. Thus, as the *Economist* magazine pointed out in 2015, the loss to GDP is staggering:

High housing prices force workers towards cheaper but less productive places. According to one study, employment in the Bay Area around San Francisco would be about five times larger than it is but for tight limits on construction. Tot up these costs in lost earnings and unrealised human potential, and the figures become dizzying. Lifting all the barriers to urban growth in America could raise the country's GDP by between 6.5% and 13.5%, or by about \$1 trillion-2 tril-

lion. It is difficult to think of many other policies that would yield anything like that (Space and the City 2015, p. 11).

And it is all because homes in the most productive central cities have become so prohibitively expensive. Gentrification scholars following Neil Smith would say that that is the handiwork of "capital and its institutional agents." Others, however, would say that a combination of well-meaning legislation—including but not limited to rent regulation and restrictive zoning—and rent-seeking behavior (including NIMBYism in its many forms) has made it all but impossible for the market to keep up with demand. Glaeser says we need to add more housing, any kind of housing, and we should reduce barriers to building tall residential buildings. (Glaeser himself grew up, happily, in an Upper East Side high-rise.) The liberal blogger Matthew Yglesias, the economics writer Ryan Avent, and the liberal economist and columnist Paul Krugman are among those who promote this idea (Yglesias 2012; Avent 2011; Krugman 2016). Richard Florida, whose *Rise of the Creative Class* may be the most widely read book on cities to be published in the 21st century, argues that economic dynamism does not attract the creative class; the creative class attracts economic dynamism (Florida 2002). Thus, cities should focus their development efforts on attracting the creative class. Indeed, this is not only what cities should be doing, it is what successful cities have already, and sometimes inchoately, been doing. Florida stresses the lifestyle attractors of the creative class. This class seeks to live in places that embody their values. They want vibrant street life, bike lanes, historic architecture, places for outdoor exercise, cafés and restaurants, farmers' markets, a strong local music scene, and "diversity," which in the Florida version does not mean economic diversity of the kind that might be found in New York in the 1950s, but cosmopolitanism, multiculturalism and, especially, a welcoming atmosphere for gays and women. In other words, Florida offers a vision of the *habitus* of gentrification. And he suggests that if cities enact policies to provide for these things—if they build bike lanes, alter their zoning codes to allow old factories to be converted to apartments, build waterfront greenways, ban discrimination against gays, and fund the arts—then economic success will follow, as the right kind of young, educated, talented workers will be drawn to those cities. Florida may appeal to policymakers across the U.S. and Canada, but he is also harshly criticized from both the left and the right. From the right, he is pilloried for his view that cities should priori-

tize lifestyle accommodations over old-fashioned tax policy (Malanga 2004). From the left, Florida gets raked over the coals for his seeming neglect of the working class and of the most vulnerable members of society for whom bike lanes and laws encouraging outdoor cafés are hardly the public policies that address their needs (Slater 2014).

In the June 6, 2016, issue of the *American Conservative*, that magazine's national editor, the polymathic writer Benjamin Schwarz (who is not so much a conservative as a heterodox admirer of the Marxists Eric Hobsbawm and E.P. Thompson), in an essay titled "Cities without Children," discussed the concept of the Vibrant Urban Neighborhood, or VUN, as championed by Florida and as it has emerged as the template of the gentrified neighborhood. Schwarz writes,

The VUN—with its standard-issue bike shops and vintage clothiers, its "authentic" live-work spaces and dive bars, its predictable purveyors of vinyl records and locally sourced foodstuffs, its *de rigueur* venues for generically hip "live music," its uniform throngs of overwhelmingly unmarried and childless active or aspiring knowledge workers ritualistically intoning the shibboleth of "diversity"—has metastasized from those erstwhile white-hot centers of hipness—Williamsburg, the Mission, Wicker Park, Silverlake—converting Bell Town and Bushwick, Echo Park, Seward, and the Pearl District, transforming D.C.'s H Street Corridor, LA's Highland Park, and dozens of other districts (Schwarz 2016).

It is hard to find commentary on contemporary gentrification without a litany of the lifestyle accouterments of the so-called creative class. This reminds us of how strongly gentrification is an aesthetic—and, much more than that, a habitus. As such, we can see it as very much a consumption-side phenomenon. Schwarz smartly writes of how promoters, like Florida, of the VUN pay lip service to Jane Jacobs. (Florida, it should be noted, knew his fellow Torontonian Jane Jacobs and is an attentive student of her work.) But, Schwarz notes, "contemporary celebrants of 'vibrant' cities would find the urban neighborhood life of Jacobs' time—even in New York, by far the country's most sophisticated, chaotic, and lively city—largely bereft of what has come to be understood as vibrancy." Indeed, the West Village, and other neighborhoods, described by Jacobs in *The Death and Life of Great American Cities* in 1961 bears no resemblance to the gentrified neighborhoods of today. Not that gentrifi-

cation was not taking place in the West Village in the 1950s, for it surely was. In what had been a largely working-class neighborhood hard by the working waterfront of the West Side piers, where longshoremen, when they got off work, went to the corner tavern for a shot and a beer, steadily crept the "knowledge workers," such as Jane and Robert Jacobs. She was a journalist and editor, he an architect. Soon after they were married, the Jacobses decided they did not want to follow the generational blueprint and move out of the city to raise their family. As they looked around for a neighborhood they liked and a house they could afford, they found 555 Hudson Street, a 16-foot-wide, three-story house with a first-floor storefront. They bought it for \$7,000, in cash, in 1947 (Flint 2009, p. 14). Many newcomers, like the Jacobses, had "discovered" the neighborhood after being priced out of the blocks nearer Washington Square, to the east. The newcomers liked the crooked streets and quaint houses of this far western edge of Greenwich Village. But one person's "quaint" is another person's "substandard," and the area was marked for "urban renewal," or the government-financed rebuilding in which old houses and tenements would be replaced by modern housing. Jane Jacobs famously, and successfully, led the fight to prevent this from happening to her neighborhood. They had bought a fixer-upper, and fixed it up. Some academic scholars of gentrification view Jane Jacobs as an apologist of gentrification. In 2007, in an essay on the exhibition *Robert Moses and the Modern City*, Neil Smith wrote:

Where today's Moses revisionists and the Jacobs defenders meet, is in the politics of gentrification. They are for it, just by radically different means....As for Jane Jacobs, she has become the patron saint of a petit bourgeois gentrification whose self-righteousness fortifies itself precisely in its opposition to the big capitalist gentrification of Moses and the master builders. Even if it is largely supplanted around the world by a wholesale remaking of urban space along class lines, block-by-block gentrification persists today and carries the imprimatur of Jacobs' 'fix-up-the-neighborhood' ethos (Smith 2007).

When, in an illuminating interview with Jane Jacobs in 2001 the writer James Howard Kunstler asked her how she felt her old West Village neighborhood had fared since she wrote about it forty years earlier in *The Death and Life of Great American Cities*, Jacobs said,

Oh, it has done very well. If other city neighborhoods had done as well there would not be trouble in cities. There are too few neighborhoods right now, so that the supply doesn't nearly meet the demand. So they are just gentrifying in the most ridiculous way. They are crowding out everybody except people with exorbitant amounts of money. Which is a symptom that demand for such a neighborhood has far outstripped the supply (Kunstler 2001).

In *The Death and Life of Great American Cities*, Jacobs wrote of “unslumming”:

The key link in a perpetual slum is that too many people move out of it too fast--and in the meantime dream of getting out. This is the link that has to be broken if any other efforts at overcoming slums or slum life are to be of the least avail. This is the link that actually was broken and has stayed broken in places like the North End [of Boston], or the Back-of-the-Yards in Chicago, or North Beach in San Francisco, or the unslummed former slum in which I live (Jacobs 1961, p. 271).

As for “unslumming,” according to the Consumer Price Index, the \$7,000 the Jacobses paid for their house in 1947 is the equivalent of \$74,000 in 2015. In 2015, 47 years after the Jacobses moved out of the house, 555 Hudson Street sold for \$3.3 million. The neighborhood that New York City had designated as a slum in the 1950s was, half a century later, the most expensive neighborhood in Manhattan. Even in the 1950s, there were those who saw that the neighborhood's fate was to become more and more expensive. The journalist Anthony Flint, in his book on the struggle between Jacobs and Moses, wrote of James Kirk, a sixty-year resident of the Village and former president of the Greenwich Village Association, who opposed Jacobs' vision of neighborhood preservation:

For the past ten years, dock workers, truckmen, longshoremen and people like that who lived in the Village near their pier work have had to move away because of evictions,” he told reporters in October 1961. “Their buildings were torn down to make way for new luxury apartment buildings, or they were converted into smaller apartments which are too expensive and not large enough for their families (Flint 2009, p. 120).

Kirk did not see Jacobs' “unslumming,” in which neighborhood residents stay put, but rather something more like gentrification, and the fear of displacement. This shows, I think, the fine line between unslumming and gentrification. As Jacobs told James Howard Kunstler, there may be too few potentially unslummable neighborhoods, with the result that unslumming hypertrophies into gentrification.

The Jacobses' neighborhood in the 1950s was still largely working-class, but increasingly home to artists and writers, young professionals, gays, and so on. But the quotidian life of the neighborhood was hardly hip or glamorous. And, as Schwarz notes, the New Yorker of today who spouts Jacobsian wisdom, if whisked back in time to Hudson Street of the late 1950s, might find that it lacks much, indeed most, of what “vibrancy” connotes in the 21st-century city. I say that Jane Jacobs described her neighborhood in a transitional period. By the time her book was published, the deindustrialization of New York had set in. There are those—Neil Smith, or Robert Fitch, the author of *The Assassination of New York*⁵—who believe the deindustrialization was a deliberate policy carried out in the interests of those who stood to benefit from a “higher and better” use of the land. It is hard to argue with this, especially if you have ever seen the *Regional Plan* of 1929. But, as the *Regional Plan* failed to foretell, New York would have deindustrialized anyway. In any event, deindustrialize the West Village did. The docks shut down, the factories closed or relocated, and so on. And more and more of the “creative class” moved in. The American industrial city of the 1950s is gone, and it is not returning. As a result, some industrial cities, such as Detroit, have suffered horribly. Some industrial cities, such as Pittsburgh, have more or less successfully reinvented themselves as post-industrial cities. And some industrial cities, such as New York and Chicago, had more diversified economies and deeper resources and stronger global connections than other cities and were able to move forward from the decline of their industrial bases. The transitional period was of course wrenching. The disinvestment, abandonment, crime, and debasement of the public realm from the 1960s to the 1990s were even more significant than gentrification in displacing the poor, shutting down mom-and-pop stores, and so on.

Finally, in order to grasp the kind of problem gentrification is, we must understand that not all gentrification is the same. When Benjamin Schwarz pillories the VUNs and says they exist for young people without children, he seems to be engaging in a straw-man polemic. Park Slope, Brooklyn, is a VUN, a place of beautiful historic architecture, sky-high

property values, walkable leafy streets and a 585-acre park acknowledged as one of the world masterpieces of landscape architecture, of more bars, cafés, and restaurants than a person could sample in a lifetime, of what has to be one of the highest wine store-per-capita rates in the country, of excellent public transportation, of lots of attractive, energetic young people on the streets, and so on—and yet the neighborhood is defined by its families and children. Amy Sohn’s novel about the neighborhood is called *Motherland*, and the humorist John Hodgman, who lives in Park Slope, says “I live in a utopian commune ruled by children.” Schwarz does not mention Park Slope in his article, but he does mention Williamsburg, also in Brooklyn, and a VUN that, if not as child-centric as Park Slope, nonetheless is a place of more and more children. Of course, one could carp about how children have become another lifestyle accessory, about the absurdly expensive children’s clothing stores and the status competition among parents, about helicopter parenting and all the kids wearing helmets and knee guards while riding their Razor scooters—but those are not the things Schwarz has chosen to ridicule. The point is, we do all tend to get a bit carried away by clichés. In this sense, an overemphasis on lifestyle or habitus may lead us astray, by leading to too great generalization.⁶

On the other hand, it is important to see that taste and habitus are indeed drivers of gentrification. Economists who suggest that urban housing shortages are really shortages of housing for the well-to-do, which forces the well-to-do to seek what housing it can, thus placing upward price pressure on old houses and marginal neighborhoods, may to some extent miss the point. Many of these well-to-do *prefer* old houses and marginal neighborhoods. The “brownstoners” of the 1950s and 1960s did not move to Cobble Hill or Park Slope—or Hudson Street—because of a dearth of luxury high-rises. And so it is today. The reappraisal of the virtues of city living that took place in the 1950s and 1960s, and of which Jane Jacobs was a part, led to the “valorization” (to use a term favored by many academics who write about gentrification) of brownstones and lofts. And so I believe we have to make distinctions, such as one between those who rent apartments in the glossy glass high-rises designed by Costas Kondylis at the far western end of 42nd Street, and those drawn to the leafy Victorian streets of Cobble Hill. The two, by the way, cost about the same. And both count as “gentrification.”

That is why we have to make a distinction between gentrification from the 1950s to the 1980s, and gentrification since the 1980s. The original gentrifiers, the “brownston-

ers” and loft lovers, had numerous housing options. They could have followed the majority of their generational cohort into suburbia, or they could have rented apartments in the moderately priced and generally well-managed white-brick high-rises of the Upper East Side or around Gramercy Park. But a small, hardy band set out for Brooklyn, seeking adventure and authenticity. L.J. Davis’s 1971 novel *A Meaningful Life*, about a trade magazine editor who lives with his wife in a perfectly nice Upper West Side apartment and then decides to buy and renovate a brownstone in Clinton Hill, Brooklyn, turns the quest into a kind of absurdist farce—except that anyone who went through the same process, of ridding a brownstone of its rooming-house tenants, of realizing the needed repairs and restorations were far beyond one’s capabilities, of feeling profoundly alienated in a hostile neighborhood, may well read it as a social document. The first wave of academic gentrification studies, not to mention the very term “gentrification,” refers primarily to that.

But that initial wave, or those initial waves, at least in New York, Boston, and San Francisco, took place in cities that were not beset by crippling shortages of housing. New York City in the 1970s *lost* nearly a million in population. One of the city’s greatest problems, as in Detroit today, was housing abandonment. And, according to Neil Smith’s rent-gap theory, disinvestment and abandonment were necessary conditions for the flourishing of gentrification. Today, most of that low-hanging fruit has been plucked, and new waves of gentrification, or hyper-gentrification, appear to be occurring.

V.

I believe there have been four distinct phases of gentrification in New York since the early 20th century. There are commonalities and differences, and these I think can be seen to advantage in the following schematic format.

1920s: severe housing shortage, rent control, movement of the very rich to marginal neighborhoods (Sutton Place, East End Avenue, far West Village), personal emancipation, beginning of an immigration hiatus, *Regional Plan of New York and Its Environs*.

1950s-1970s: deindustrialization, movement of “brownstoners” to marginal neighborhoods with high rates of disinvestment, abandonment, and deteriora-

tion; rent control, ascendancy of the historic preservation movement.

1980s: end of the fiscal crisis, historic boom on Wall Street, repositioning of New York as a global capital, ferocious gentrification and increase in property values up to the stock market crash of 1987.

1990s-today: gingerly uptick following the 1987-1992 fall of the property market and abrupt halt of gentrification, historic reductions in crime, “revanchist” policies, renovation of Bryant Park, makeover of Times Square, and since 2000 galloping escalation of housing prices, housing shortages (though not as severe as the 1920s), heavy foreign and corporate investment in real estate throughout an unprecedentedly broad swath of the city (from 57th Street to East New York), strong immigration (near to but not equaling that of the early 20th century), a more diverse and global population than ever before, transformation of the formerly industrial waterfronts to recreational uses (High Line, Brooklyn Bridge Park, Hudson River Park).

Gentrification is many-sided. We may ease some of the burdens it places on the city by building more housing. But we must remember that gentrification has occurred in times both of housing surplus and of housing shortage. But, as Jane Jacobs suggests, it is not just that demand for housing has outstripped the supply, it is also that demand for certain kinds of housing, and of certain kinds of neighborhoods, has outstripped the supply.

Finally, the history of gentrification tells us that it is not a continual or irreversible process, although it usually requires a major economic slowdown to halt the process. There were in New York major housing-market resets after the 1929 and 1987 crashes, but only market hiccups after 9/11 and the financial implosion of 2008. And if New York should prove resilient through future crises, then perhaps *The Onion* may prove the most prescient of all commentators: “Report: Nation’s Gentrified Neighborhoods Threatened by Aristocratization” (Report... 2008).

NOTES

1. According to the *Governing* report, “Researchers define gentrification differently. For this report, an initial test determined a tract was eligible to gentrify if its median household income and median home value were both in the bottom 40th percentile of all tracts within a metro area at the beginning of the decade. To assess gentrification, growth rates were computed for eligible tracts’ inflation-adjusted median home values and percentage of adults with bachelors’ [sic] degrees. Gentrified tracts recorded increases in the top third percentile for both measures when compared to all others in a metro area.” It is worth noting that there is no standard quantitative methodology for defining gentrification.
2. According to the British real-estate web site rightmove.co.uk, the average price of a house in Wapping in 2016 is £648,179 (or \$834,855).
3. When Fleetwood wrote, in 1979, one million of the city’s 7.5 million residents were foreign born, or thirteen percent. In 2013, in a city with a million more residents, more than thirty-seven percent were foreign born.
4. The price data come from the streeteasy.com web site, <http://bit.ly/2c0eJpn>, accessed September 4, 2016.
5. Robert Fitch, *The Assassination of New York* (London and New York: Verso, 1993).
6. The French philosopher Michel de Certeau suggested this very thing in his critique of Pierre Bourdieu.

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REVIEW

The Accidental City: Improvising New Orleans by Lawrence N. Powell

LESLIE MARSH

Powell, Lawrence N., *The Accidental City: Improvising New Orleans*. Cambridge, MA: Harvard University Press, 2012, 422 pages. ISBN: 978-0-674-05987-0. Hardcover \$29.95.

New Orleans' layout, at least the Vieux Carré, is a star example of the Enlightenment's "*mania for balance, order, and clarity*". This pathological tendency, so central to Western consciousness, privileges abstraction, perfectionism, and attendant uniformity, and is most preeminently manifest between two conceptions of the state—the non-instrumental versus the instrumental. Lawrence Powell crisply elucidates this historical tension between Cartesian-inspired rationalism (in planning) in contradistinction to localized and "messy" spontaneous social orders—it is thus this aspect that constitutes the focus of our discussion.

Why does New Orleans matter? Well, because it has, throughout its history, been a bellwether for rationalistic excesses—not only in urban planning, but also in the context of the flattening or homogenization of the broader cultural landscape. The palpable sense of cultural vibrancy *and* of place, so essential to New Orleans' identity, makes absolute nonsense of the currently fashionable phrase "cultural appropriation", a conceptually illiterate term of abuse, a newfangled fundamentalism, espoused by the authoritarian "regressive" left. New Orleans, as a culturally emergent phenomenon par excellence, is continental North America's most original contribution to world culture, and for that we should be grateful. One cannot even begin to conceive how impoverished our lives would be without the *emergence* of gospel, blues, and jazz music and the several permutations thereof.

If ever there was a "petri dish" for the study of socio-cultural and geophysical development, and the destruction, scarring and mutilation of some vital aspect of the natural vibrancy of a New World city, it is New Orleans.¹ Powell judiciously ends his history at the dawn of what might be termed the city's modern era: that is, the end of the 19th Century. As a historian Powell seems to have intuitively grasped the philosophical idea that the historical outlook, properly speaking is a *dead* past, whereas the 20th

century still lies within the realm of the *practical* past. If the title of Powell's book sounds familiar, it's because Robert Fulford (a disciple of none other than Jane Jacobs) wrote a journalistic account of the development of 20th Century Toronto, published in 1995, entitled *Accidental City: The Transformation of Toronto*. However contentious the idea of Toronto an "accidental" city, this is definitely not the case with New Orleans.

For the purposes at hand, two names are significant—Jean-Baptiste Le Moyne de Bienville (1680-1767), the Montréal-born four-time governor of French Louisiana, and Martin Navarro (1738-1793), the Treasurer General of the Province of Spanish Louisiana (i.e. the chief financial officer).

It appears that Bienville had a natural aptitude for what Powell terms "decentralized diplomacy", the idea being that Bienville fully understood that the far reaches of empire could not (as was the European way) be effectively ruled by—nor indeed demand claims of allegiance to—any one person, in this case, Louis XV. It seems that Bienville's governance could hardly be less rationalistic (perhaps even recklessly so); even *foreseeable* problems were consigned to post-hoc solutions. Though characteristic of many a frontier community, this "improvisational style" was, Powell emphasizes, raised to an *organizational* principle in New Orleans. And yet, when it came to planning, early New Orleans may well have been one of the most deliberately planned towns in all of colonial North America. As Powell points out: "Its designation came at the acme of enlightened absolutism, when crown and court were experimenting with visionary projects for reorganizing the 'social' problem."

The social problem was that New Orleans had come to epitomize "disorder and debauchery", manifested by the shared proclivities of the French and the Canadians to "drown their regional differences" in ways functionaries

could not comprehend—that is, through drink, gastronomy and other forms of carousing. The hyper-rationalistic and ultimately doomed attempt to do away with this raucousness, totemic of “a wider and deeper illicitness intrinsic to the colony at large”, harked back to efforts by Enlightenment planners to reform the dregs of France and keep the underlying population in its place by “etching a new and better hierarchy into the town’s original grid”. For one thing, racial segregation was to be part and parcel of “enlightened” planning. Bienville was having none of that; moral concerns aside, not only was reverse social engineering impractical, it was counter-productive. Bienville was well aware that the social structure of the New Orleans region, now in its second generation, had by then well and truly established an emergent cultural hybridization; that is, Creolization. This “undesirable” and probably irremediable state of affairs meant that Paris was resigned to the crown’s transfer of Louisiana to Spain, but not before using the schooling system to vainly try to eradicate practices, usages, and customs that had arisen among the local population. Absolutists of all stripes would easily recognize this tactic. A raucous reputation has always attracted the coercive forces of state trying to dampen things down, a case in point being that of Storyville, a district that anticipated relatively recent advances in zoning policy, and enclaves such as De Wallen (Amsterdam) or St. Pauli (Hamburg).

It was New Orleans’ status within a large and unwieldy landscape conducive to smuggling that came to frustrate the prevailing New World mercantilism. A centralized authority that prized balance, order and regularity could not conceptually, nor of course in practice, grasp the decentralized and spontaneous character of a market, albeit an intimate bartering one. Enter Martin Navarro. Navarro had the insight to realize that one couldn’t stamp out illicit trade merely by fiat. Instead, Navarro proposed the “heretical remedy” of decriminalization by designating Louisiana as a free-trade zone, allowing ships under any flag to enter the port of New Orleans, the “sole and only mode of causing this province to flourish, populate, and advance.” As Powell rightly observes, this innovative and perhaps even sacrilegious outlook that Navarro presented to the crown in 1798, could have been drawn from Adam Smith’s *The Wealth of Nations* (1792). A not insignificant footnote within the history of ideas is that many of Smith’s ideas were already cautiously familiar to the Spanish via an expurgated translation of Condorcet’s synopsis of *The Wealth of Nations*, though the original was still officially condemned (Smith 1967). Needless to say, illiberal censoriousness (the Royal

Council of Castile, the Royal Academy of History, and the Inquisition) objected to freedom of religion as well as a naturalistic worldview. This said, under Navarro, Spanish Louisiana was able to enjoy economic stability, good financial management and prosperity—hardly virtues one associates with late 20th Century Louisiana. As the protagonist in the novel *A Confederacy of Dunces* put it New Orleans had long since become “a comfortable metropolis which has a certain apathy and stagnation which I find inoffensive” (Toole 1980).

Though the intimations of Bienville and Navarro still permeate New Orleans, deeply imbued within highly localized traditions, this is only given lip service when it comes to public policy. Post-War New Orleans is a litany of over-scaled and out-of-character development. As recently as 2010, a post-Katrina report/consultation document is blithely replete with rationalistic talk—“master plan”, “blueprint” and so on—side by side with other empty bureaucratic platitudes such as “effective strategies, livability, opportunity, and sustainability”. The elephant in the room is the longstanding notion of *lagniappe*, which one can’t ever see being effectively addressed. Had New Orleans fallen under the gaze of anti-rationalist theorist-activists such as Jane Jacobs (New York and Toronto) or Walter and David Hardwick (Vancouver, B.C.), the worst excesses, such as the elevated Claiborne Avenue/I-10, would possibly have been ameliorated.

Powell’s history is very elegantly written and, though scholarly, is always entertaining. It will have even more resonance for those who have spent time in New Orleans and who are curious about the distinctive cultural DNA of the region. Whatever else has befallen the city (hurricanes, floods, inhospitable and in flux geography, poor governance), having the lineages of three continents (Europe, Africa, Caribbean/South America), innumerable races and ethnicities, crowded together on the slopes of a natural levee, is a thoroughly underappreciated achievement and a contribution to the civil condition. The residents of New Orleans “somehow had to learn to *improvise a coexistence*”. It is therefore an inspired choice of epigram (from Nietzsche’s *The Gay Science*, §283) that Powell uses: “The secret for harvesting from existence the greatest fruitfulness and the greatest enjoyments is—to *live dangerously!* Build your cities on the slopes of Vesuvius!”² This aphorism, centrally concerned with the existential *contingency* of life, seems to be congruous with Mill’s “experiments of living” (*On Liberty*, XVIII: 260). The spontaneous and distributed nature of culture—the *sine qua non* of a vital culture neces-

sarily *downstream* from politics, a temperamental affront to rationalism's inherent attachment to power for power's sake (the "regressive" left's cultural Marxism)—points to the eternal value and significance of New Orleans.

NOTES

- 1 Back in 1954 a Grande École student, the future Mayor of Paris and French President, Jacques Chirac, thought so and made the port of New Orleans the topic of his dissertation.
- 2 Original: Denn, glaubt es mir!—das Geheimniss, um die grösste Fruchtbarkeit und den grössten Genuss vom Dasein einzuernten, heisst: *gefährlich leben!* Baut eure Städte an den Vesuv!

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