From the Planners' Bookshelf...

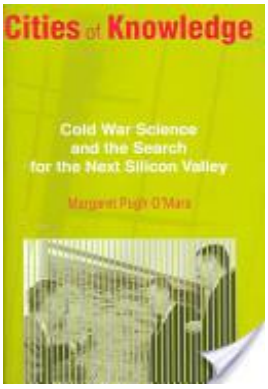
Cities of Knowledge, Cold War Science and the Search for the Next Silicon Valley.

by Margaret Pugh O'Mara [depts.washington.edu/history/people/34]
Princeton University Press, Princeton and Oxford, 2005.

Summary
Implications
YouTube
Amazon Review
Commentary
Related Readings

Summary.

The premise is that the "cities of knowledge", such as Silicon Valley, were not the result of random, market driven forces, but rather a pre-meditated effort by the federal government to have such cities and to properly locate these concentrations of intellectual power. The story is how the federal government committed to research for national defense and commercial purposes; and then selected high-powered universities to create research centers around the United States…Stanford, Penn and Georgia Tech experiences are highlighted. The conditions that created these post-Second World War "cities of knowledge" are products of [p5]:



- Cold War spending patterns, especially from federal defense budgets,
- University-centered economic development policies,
- Local action, and
- The idea that intellectual centers should not be in major cities where a nuclear attack might destroy them.

Implications for the American City.

From the author…"The lessons have bearing not only on discussions of the how and why of high-tech development, but on debates about urban and regional planning as well." [p226]

Intentional results come from strong, purposeful economic development programs.

1. ***"Lesson One: You need a lot of money."***
2. ***"Lesson Two: You need a powerful university."***
3. ***"Lesson Three: You need control over land in the right location."***
4. ***"Lesson Four: You need to make high-tech development the end, not the means."***

In addition, city-builders should:

5. ***Understand federal activities in your city and region.*** Federal policy can produce good results that address big issues; and that sometimes bigger, unseen forces are at work in developing and defending national assets. Federal programs in every city need to be fully understood.
6. ***Undertake case studies of relevant situations.*** The study of "cases", such as the ones used in the book, is a valuable tool in understanding issues and consequences of focused actions that are not tempered by market conditions.

7. ***Replicate the economic development formulas used in comparable cities.*** Using intellectual centers focused on universities in small towns near big cities has become a successful economic development strategy still in practice. The author has two suggestions for those trying to replicate successful high-tech centers:
    - The location must be a desirable place for scientists to live; the suburbs were the answer in the 1950s; other types of locations are attractive today.
    - The research university is the main player; the key ingredient. Witness high technology companies, in conjunction with first tier universities driving local economies in Austin, Seattle and Boston; and the medical research companies and universities in Baltimore, Boston, Chapel Hill/Durham, Birmingham and Houston.
8. ***Have a "story", every town needs to believe in its "story".*** Economic development must have a driver. It can be the forces harnessed in creating the "cities of knowledge" or it can be *Company Towns* [hardygreen.com], but branding, theming or purposing the "story" of the town creates a positive image is useful. Branding is sometimes viewed as superficial, but the essence of a focused vision represented by a theme is very important…see *Branding Cities*, **LINK:** www.CEOsforCities.org.

YouTube: In addition to the Amazon review, check out an interview with Ms. O'Mara posted on Nov. 24, 2010 by Media Space: Episode 3 – Margaret O'Mara. http://www.margaretomara.com/

Published Review.

Amazon Book Description.

Publication Date: **September 14, 2004** | Series: **Politics and Society in Twentieth-Century America**

"What is the magic formula for turning a place into a high-tech capital? How can a city or region become a high-tech powerhouse like Silicon Valley? For over half a century, through boom times and bust, business leaders and politicians have tried to become "the next Silicon Valley," but few have succeeded. This book examines why high-tech development became so economically important late in the twentieth century, and why its magic formula of people, jobs, capital, and institutions has been so difficult to replicate. Margaret O'Mara shows that high-tech regions are not simply accidental market creations but "cities of knowledge"--planned communities of scientific production that were shaped and subsidized by the original venture capitalist, the Cold War defense complex.

"At the heart of the story is the American research university, an institution enriched by Cold War spending and actively engaged in economic development. The story of the city of knowledge broadens our understanding of postwar urban history and of the relationship between civil society and the state in late twentieth-century America. It leads us to further redefine the American suburb as being much more than formless "sprawl," and shows how it is in fact the ultimate post-industrial city. Understanding this history and geography is essential to planning for the future of the high-tech economy, and this book is must reading for anyone interested in building the next Silicon Valley."

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CharacterTowns.org's Commentary.

The climate in America in the early 1950s drove the investment in research-based universities and tandem research parks. The impact of the Cold War cannot be overstated.

"By 1951 the Gallup organization had found that 56 percent of residents of the largest cities (100,000 population or more) did not feel safe living in their communities in event of atomic war." [p38] "...by 1952 another poll found that 53 percent of Americans thought that 'general war' – atomic conflict – was likely." [p37] And then there was Sputnik in 1957.

The 1950 Economic Report of the President is cited [p25] and concludes that the war created a great deal of economic activity and associated wealth; now that the war is over, the only way to replace this loss of wealth and continue the increase in the nation's standard of living is through research and innovation that creates new consumer products. The strategy became to fund research universities using commercial and defense justifications, since commercial reasons alone would not be sufficient to garner the necessary budget allocations.

The three case studies provided are: Stanford University; The University of Pennsylvania and the Georgia Institute of Technology in Atlanta.

- Stanford is concluded to be the best success because. "…, Stanford University and its surrounding area seemed to have stumbled upon the perfect and easy solution: Park-like industrial real estate, located near good housing and quality schools, whose tenants could take advantage of a world-class university." [p128]
- "Penn did not become another Stanford for some obvious reasons." [p180] The area was losing jobs and population to the suburbs and the Sunbelt; the region did not have a significant defense contractor, Penn "…did not embrace entrepreneurial opportunities to the same degree…" as Stanford.
- Georgia Tech did not succeed. The author's conclusion: "State institutions could occupy these positions of power, as the examples of the Research Triangle and Austin demonstrate, but only in cases where state governments took and active and early interest in building up university-centered agglomerations of high-tech industry." [p221]
- The preferred locations were newer areas, not older areas; dispersed, low density areas rather than dense urban locations. [p30] Richard Florida's work on the creative class echoes the thought process for locating these "cities of knowledge" in communities that were attractive to scientists. The theory and experience say - elite people want to live in elite places "…because science became the domain of elites, scientific places came to be elite as well." [p28]