“The chief function of the city is to convert power into form, energy into culture, dead matter into the living symbols of art, biological reproduction into social creativity.”


“The biggest and most cosmopolitan cities, for all their evident disadvantages and obvious problems, have throughout history been the places that ignited the sacred flame of the human intelligence and the human imagination.”

—Peter Hall, Cities in Civilization (1998)

“Robustness,” minimally understood as the ability to adapt and respond to changing circumstances, is a hallmark of any prosperous human collective. One of the most important of human collectives is a city, and cities vary markedly in their ability to sustain economic growth and prosperity, their agility to adapt to exogenous economic, political, and technological changes, and in their capacity to foster economic, organizational, cultural, and scientific innovation.
Some cities—New York, Boston, Barcelona, Amsterdam, Hong Kong, Shanghai, Istanbul, Mexico City, Milano—are able to “come back” after periods of upheaval or decline, while other cities—like Buffalo, Yokohama, Jakarta, Gary, Cleveland, Detroit—are victims of “boom-and-bust” episodes. The Institute’s Program on Robustness in Social Processes has sponsored a working group on “Cities and Organizations” to explore these phenomena.

Why would the study of “robust cities” be a useful addition to the Program’s scope? To begin with, there is the sheer economic importance of cities: in most countries, the greatest portion of economic activity takes place in urban areas. Historians have long acknowledged the role of cities as incubators of innovation, since the very beginnings of civilization. The cramming of individuals, occupations, and industries into close quarters provides an environment in which ideas flow quickly from person to person, what economists have come to refer to as “knowledge spillovers.” Cities also provide a permissive social and cultural environment for the sort of “experimenting” essential for innovation to take place. Given that most of the world’s population lives in an urban environment, it is hard to overstate the sociological, political, and demographic importance of cities. Understanding why some cities are robust—seeing robustness as a key determinant of long-term success or failure—is not only an intellectually engaging exercise, but also one rich in public policy implications.

The research agenda of the working group centers on two related questions: What are the social, political, administrative, cultural, technological, and economic characteristics of a city that facilitate innovative behavior on the part of its constituents (individuals and organizations)? Conversely, what are the attributes of a city’s citizens that make a city innovative and robust? In bi-weekly meetings, and several workshops held since the beginning of the year, the working group has brought together researchers (from within and outside the Santa Fe Institute), as well as practitioners and policy-makers (from within New Mexico and out-of-state) to share theoretical and empirical insights, experiences and intuitions on how organizational and locational characteristics interact to foster and facilitate innovation. The working group has also served to inject some of the insights accumulated by urban historians and urban economists into ongoing discussions at the Institute about market formation and organizational innovation. Indeed, one cannot truly understand technological and economic innovation without considering these as spatial phenomena.