Megaprojects

JAMES M. SMITH Indiana University South Bend, USA

As long as there have been large cities, there have been large-scale urban development projects. Urban planners and scholars have settled on the term "megaprojects" to define such undertakings. The very existence of many modern cities rested upon the ability of local governments and private industry to complete developments aimed at making cities inhabitable. Infrastructure triumphs of the industrial era included boring tunnels for sanitation management or subways, constructing skyscrapers, extending coastlines, or reversing the flow of rivers. These were celebrated as triumphs over nature, and were often necessary if settlements in certain locations were going to continue growing for example, building infrastructure to keep water sources clean. In the contemporary era, megaprojects may be less critical to the literal "survival" of a city and its residents, but megaprojects and political discussions regarding their necessity, or feasibility, are often framed from the perspective of a city's economic growth and competitiveness with other cities. From this perspective, developments fitting into the megaprojects category are often promoted by local boosters who see the planning and execution of large-scale projects as an extension of their city's capability to achieve great things, and as an extension of their relative capacity compared with other cities. In addition to altering the physical landscape of cities, megaprojects affect the mode and character of local governance. While requiring the interaction of several levels of government, they also induce a

politics of expertise that has the potential to push discussions about project feasibility out of the spotlight, which has clear implications for the character of urban democracy and transparency. Thus, megaprojects should be viewed as a central aspect of contemporary urban planning, governance, and economics.

According to a study of large-scale US development, megaprojects are "initiatives that are physical, very expensive, and public. More specifically, mega-projects involve the creation of structures, equipment, prepared development sites, or some combination thereof" (Altshuler and Luberoff 2003, 2). Today's megaprojects might be placed into two broad categories: infrastructure projects and economic development projects (the two are not always mutually exclusive). The first category can include developments focused on transportation, sanitation, or delivery of natural resources (for example, water). The second category encompasses a range of large-scale development projects aimed at enhancing a city's attractiveness for private investment, and attractiveness to new residents and tourists. Such projects might include the construction and financing of professional sports stadiums, convention centers, and entertainment venues - what political scientist Peter Eisinger calls a modern "politics of bread and circuses" (2000). One distinguishing factor between the first category and the second is that infrastructure megaprojects generally produce public goods while the second category produces venues that facilitate private consumption (local, regional, and state governments, however, are often the lead developers and financers of such projects). Megaproject development, and specifically publicly funded megaproject development, then, is often encapsulated

The Wiley Blackwell Encyclopedia of Urban and Regional Studies. Edited by Anthony Orum. © 2019 John Wiley & Sons Ltd. Published 2019 by John Wiley & Sons Ltd. DOI: 10.1002/9781118568446.eurs0195

2 MEGAPROJECTS

under a broader neoliberal critique of urban governance. In this case, the focus is on the fact that private interests are prioritized at the expense of other issues such as education or workforce development.

Altshuler and Luberoff (2003) suggest that any project costing \$250 million or more (in 2003) would qualify as a megaproject. In 2017 US dollars, this equates to around \$340 million. The Altshuler and Luberoff (2003) number is low compared with more recent thresholds, generally \$1 billion (Frick 2016). Considering the increasing complexity of problems facing cities as they age, and the growing expenses required for highly technical solutions, a higher proportion of development undertakings approach the megaproject cost threshold. Many significant urban development undertakings in the contemporary era easily break the \$100 million barrier. This applies to cities from across the globe, and to cities from a range of sizes. For example, a multistage wastewater treatment plan focused on sewerage infrastructure in Toledo, Ohio, a medium-sized city of around 280,000 residents, was estimated to cost \$315 million (Toledo Waterways Initiative 2015). In Chicago, renovations to a central subway and elevated train line, and nine transit stations, amounted to an estimated \$1 billion (Lepeska 2011). The new stadium that the city of New York, state of New York, and the US federal government helped to build for the Yankees of Major League Baseball reached a final cost of \$1.3 billion (Klepal and Tucker 2015). The multipurpose stadium built as part of the 2012 London Olympics was, in 2015, estimated to have a final cost of £701 million, or just over \$1 billion (Gibson 2015). Two central conclusions can be drawn from this. First, the contemporary era is one in which megaprojects, and "megacost," are the rule, not the exception. Second, this is one element of governance that puts a significant fiscal strain on city governments. While the cost

of megaprojects might suggest that cities cannot afford to, and thus should not, pursue certain projects, the ultracompetitive race for global investment and new residents often leads urban policy-makers to the conclusion that they cannot afford to forgo investing in megaproject developments. The commitment to megaproject development can be seen as an extension of Peterson's (1981) politics of development, which he discusses as actions by city government that, in theory, have the potential to economically benefit all residents of a city equally by producing economic opportunity.

Of course, the consensus among policy elites that megaproject investment is mandatory for economic growth and enhanced city image has its costs as well. Bent Flyvbjerg and colleagues have shown that cost overruns are a defining characteristic of megaprojects. So it is not just the projected costs of megaprojects that define them, but their tendency to go beyond these projected costs. Flyvbjerg, Holm, and Buhl (2002) find that, in a sample of 258 transportation projects, "the likelihood of actual costs being larger than estimated costs is 86%" and that final costs were 28 percent higher than projected costs (p. 282). Examples of megaproject cost overrun are not difficult to locate. A recent transit project in the USA, the new eastern span of the Bay Area's Bay Bridge, was initially estimated to cost \$1 billion, whereas the final cost was at least \$6.5 billion (Frick 2016). And London's \$1-billion-dollar Olympic stadium mentioned above was originally estimated to cost just under \$400 million (Gibson 2015). One problematic element of cost overruns is the tendency of project supporters to use the initial cost estimates when justifying construction of the project. Consultants hired to evaluate the costs and benefits of such projects would also use initial cost estimates; such studies are often used to justify public

investment in projects. In the case of convention center construction and expansion in the USA, such consultant studies rarely find that such investments are unwise (Laslo 2003), and this could in part be attributed to the consistent underestimation of megaproject cost. The fact that such consultants are active across cities and countries demonstrates one way in which urban networks for finance and policy diffusion affect individual cities: Though processes of development and implementation vary across cities, the tendency of cities to follow the advice of consultants and mimic megaproject development in other places leads to a high degree of uniformity in urban space in global cities in terms of megaproject development (e.g., convention center construction).

Megaprojects' principal effects on governance are to require intergovernmental action, promote a politics of expertise, and necessitate venue creation. Because of their scale and scope, megaprojects often involve multiple governments, from various levels of government. In the USA, this means a city (or cities) working with a state government, and possibly the federal government. In some cases, the collaboration may be primarily fiscal in nature, but in others decision-making powers may cross jurisdictions. The transit project in Chicago referenced above was supported primarily by Illinois state funding. It is also common for such development projects to prompt the creation of special-purpose authorities to manage a project's implementation (and also to provide access to additional funding). One element of such special-purpose authorities is their relative opaqueness when compared to general-purpose municipal governments. Governing boards are often appointed, and consist of officials who would be considered experts in fields relating to the development project. The politics or decision-making that takes place within these newly created venues,

MEGAPROJECTS 3

then, is often highly specialized, or centered on a politics of expertise. Scholars have also highlighted the fact that fewer megaproject developments in the contemporary era are voted on by public referendum. Altshuler and Luberoff report that "less than a quarter of the 57 [sports] stadiums and arenas built between 1990 and 2001 were approved in referendums" (2003, 35). This is another facet of megaproject politics that may make them less accessible to the public.

Critics have questioned whether or not megaprojects, in addition to being inaccessible, are in the best interest of city residents - specifically those megaprojects that are aimed at building a visitor economy. Susan Fainstein frames this question in terms of "Just City" theory and suggests that megaprojects should face "heightened scrutiny, [and] be required to provide direct benefits to low-income people in the form of employment provisions, public amenities, and a living wage" (2010, 173). Fainstein also suggests that the public should be directly involved in megaproject planning when possible. One challenge here relates back to the technical nature of megaproject development; the voting public probably has little to contribute in the range of expertise on large-scale infrastructure planning. However, Jameson Doig (2001) suggests a compromise: project approval and siting decisions should be evaluated by the public and elected officials while specialized authorities take on the more technical aspects of the development. Fainstein, together with scholars such as Flyvbjerg, challenge the Petersonian (1981) view that development is good for all residents of a city. Fainstein argues that in the case of global cities, and specifically London and New York, megaproject development has been carried out to benefit the elite class of urban residents, and when it has been more populist in nature, it has been part of the

4 MEGAPROJECTS

spectacular city being built to attract more tourists.

Megaprojects, then, present an inherent tension between urban growth and responsible urban management. On the one hand, public officials view megaprojects as necessities for city economies, on the other hand, the way in which they are currently planned, budgeted, and implemented is viewed by many scholars as unaccountable to publics they are meant to be serving.

SEE ALSO: City Builders; Just City; Regional Planning; Special-Purpose Authorities; Tourist City; Urban or Downtown Renaissance; Urban Governance; Urban Megaprojects

REFERENCES

- Altshuler, Alan, and David Luberoff. 2003. Mega-Projects: The Changing Politics of Urban Public Investment. Washington, DC: Brookings Institution.
- Doig, Jameson. 2001. Empire on the Hudson: Entrepreneurial Vision and Political Power at the Port Authority of New York. New York, NY: Columbia University Press.
- Eisinger, Peter. 2000. "The Politics of Bread and Circuses: Building the City for the Visitor Class." *Urban Affairs Review*, 35(3): 316–333.
- Fainstein, Susan S. 2010. *The Just City*. Ithaca, NY: Cornell University Press.
- Flyvbjerg, Bent, Mette Skamris Holm, and Søren Buhl. 2002. "Underestimating Costs in Public Works Projects: Error or Lie?" *Journal of the American Planning Association*, 68(3): 279–295.
- Frick, Karen Trapenberg. 2016. Remaking the San Francisco-Oakland Bay Bridge: A Case of

Shadowboxing with Nature. New York, NY: Routledge.

- Gibson, Owen. 2015. "Olympic Stadium Cost Rises to £701 m from Initial £280 m Estimate." *Guardian*, June 19. Accessed December 15, 2015, at http://www.theguardian.com/sport/ 2015/jun/19/olympic-stadium-cost-rises-westham.
- Klepal, Dan, and Tim Tucker. 2015. "Skyrocketing Stadiums." Atlanta Journal-Constitution. Accessed December 15, 2015, at http:// www.ajc.com/news/news/local-govt-politics/ skyrocketing-stadiums/nkFD7/.
- Laslo, David H. 2003. "Policy Communities and Infrastructure of Urban Tourism." *American Behavioral Scientist*, 46(8): 1070–1083.
- Lepeska, David. 2011. "Why \$1 Billion Doesn't Buy Much Transit Infrastructure." *CityLab*, November 9. Accessed January 15, 2016, at http:// www.citylab.com/commute/2011/11/1-billiondoesnt-buy-much-transit-infrastructureanymore/456/.
- Peterson, Paul. 1981. City Limits. Chicago, IL: University of Chicago Press.
- Toledo Waterways Initiative. 2016. "What Is the TWI?" Accessed January 8, 2016, at http://www. toledowaterwaysinitiative.com/about/what-istwi.

FURTHER READING

- Flyvbjerg, Bent, Nils Bruzelius, and Werner Rothengatter. 2003. *Megaprojects and Risk: An Anatomy of Ambition*. Cambridge: Cambridge University Press.
- Judd, Dennis R., ed. 2003. *The Infrastructure of Play: Building the Tourist City*. Armonk, NY: M. E. Sharpe.