Architecture moves. Architectural ideas, technologies and institutions travel along routes of global and regional circulation, while construction materials create conduits and physical pathways for their movement. These routes, however, are not empty or neutral spaces, as anthropologist Elizabeth Povinelli has recently argued; they are subject to the volatilities of change and disruption. Materials travel through infrastructures ranging from transport vehicles to electronic circuits to cultural forms, encountering social and political friction as they circulate. In this respect, routes are not benign agents of transport, but rather active agents that shape how materials are represented, manufactured and put to use as objects of knowledge and architectural modernity.

In the span of a century, a number of basic construction materials attained near-hegemonic status in the otherwise heterogeneous world of construction technologies and expertise. The proliferation of architectural materials such as cement, steel, and masonry followed a map of cultural space and historical desire, rather more often than not from an origin point in the West. What of notions of space, culture, and difference are embedded in this map of architectural globalization?

In my own observation of the social and technical life of materials in India, I have long drawn my work with the image of historical progress and architectural modernity that this map proposed, both within and outside India. Modern materials have travelled to India and elsewhere, but the postcolonial world remains hopelessly tethered to a powerful centre and origin in the Western metropole. The globalization of materials is used by many critics as a lens to confirm cultural processes of Westernization. Indeed, architectural modernity was brought with a standardized and reproducible repertoire of components and materials of construction that trace their origins to 19th-century Europe and America. Still, differences are tangible to even a casual observer. Mumbai does not look like Houston, nor is it constructed in the same manner, whatever the common material DNA. Rather than accept these differences as culturally determined, we might do well to consider the processes and circuits of material and social exchange through which difference is produced. How might attention to the conditions of material movement reconfigure the spatial and temporal relationships that are drawn between architectural materials and the cultural expression of modernity?

Ganesh Ramasamy and I walked through a small lane in Siddapura, a village that was swallowed up by Bangalore after the planning of new, large-scale suburbs such as Jayanagar (said to be the largest in Asia, in its time) after Independence in 1947. The light was typically intense, setting in contrast even the shallowest relief work and surface blushing of the plastering. We stopped at a series of rows of houses in order to inquire about the diamond shape that was in construction in the day. As we passed, the owner of a carpenter who lived on the lane, S.P. Krishnappa, anticipated that the quotation icons on our head were among the largest circuits of proliferation within Bangalore and abroad, and wanted to know more about their provenance. Plaster shapes, patterns, and surface textures are common to the road side elevation of small-scale buildings in Bangalore and other cities and towns across India. Pattern, especially plaster relief work, exploded into common use on walls, windows, and doors during the 1950s and 60s. Portland cement was in part responsible, allowing for faster turnaround on building sites and encouraging flattened patterns over lower-dying and more sculpturally adapted line work. Cement was also embedded in a wider efficiency of novel materials, joining a number of other globally circulating construction techniques and materials that were introduced to India during the 20th century.

Changes in material technologies coincided with broader transformations in urban life and architecture. In Bangalore, expertise about material manufacturing and construction techniques and materials was transferred to India during the 20th century. Innovations, concrete was primarily touted as an image. It was promoted as a building block, supporting new ways of living and new forms of knowledge.

Industry publications, such as those published by the Cement Marketing Company and the Concrete Association of India, were thought that concrete would create new experts, such as viral contaminants of traditional contexts of material use attributing materials a similar agency to that of everyday domestic technologies.

Baker implies that architectural materials not only represent but also affect the social worlds they interact with, attributing materials a similar agency to that of everyday domestic technologies. Progress was achieved by operating at the level of everyday urban aesthetics, retrofitting infrastructure and creating a new urban fabric through the scale of domestic construction, echoing the aesthetic bias of colonial urban improvement schemes. By the 1950s, concrete was expected to bring infrastructural cohesion to the imagination of a national economy. Advertisements and print media invested in concrete the potential to transform large scale infrastructural networks, such as transport and electricity, to “catch up” with the West. Regionalism, discourses of low-cost construction and vernacular architecture, later turned this narrative on its head, portraying the introduction of concrete as leading to the deindustrialization of local building traditions. Beginning in the 1950s and 60s, architects in India such as Laurie Baker turned to vernacular architecture as a foil against new technologies of construction. Inspired by the Himalayan vernacular of Pithoragarh and Gandhi’s “ideal” houses, Baker describes how the “ideal house” in an “ideal village” is constructed of building materials sourced within a five-mile radius of the building site. In addition to cost effectiveness, Baker also argues that using local materials is a project of cultural mediation, noting that “the delightful dignified housing [of the Himalayan vernacular] demonstrated hundreds of years of building research and experience”.

Baker was keen to point out the cultural consequences of new technologies such as concrete. If concrete was seen by industry and professional design culture to function as an agent of infrastructural cohesion within the space of national culture, Baker understood new infrastructural technologies as viral contaminants of traditional contexts of material use and their cultural milieu. He ruminates about what inhabitants of Pithoragarh think of their own houses, concluding that “improvements” such as:...
Notions of material circulation and cultural difference need to be revisited in our consideration of architecture as a fundamentally transient form. "Tracing the journeys of architectural materials thrives into relief how architectural design and its materialization have always been "hierarchically interconnected" to, rather than "naturally disconnect- ed" from, cultural forms, traversing local and global circuits of industry, media, and people."

In the contemporary world, printed media and orality are joined by a dense and interconnected web of circulatory forms. Circuits of movement require that materials and their representations be configured to fit their constraints. This process of infrastructural mediation has come under an increasing degree of scrutiny in fields such as anthropology.

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While his father would carefully illustrate drawings by his son, suggesting that cement was co-opted alongside media technologies of presentation that they were sometimes asked to function as regimes of circulation and site-based mimesis. In the traffic of materials in late 19th and early 20th-century Japan, argues the respect that clients accorded to architectural expertise. Though printed media such as Indian design magazines were readily available through bookstores and roadside bookstalls, the city remains an important conduit for the circulation of ideas.

The circulation of images also connects the local to the global. Cement industry publications were initially the venue for the dissemination of perspective image plates and elevations of novel building types in mid-century India, and were influential for architects such as R.S. Deshpande’s Modern Ideal Homes for India, which were in wide circulation from 1939 to at least 1952, and were authoritative in early attempts to transform modern home types and ways of living that directly or indirectly invoked European models.

As with home planning books in the 50s, these were very useful, since Western carpentry is not evaluated in this type of publication. This explains the use of materials such as such as wood, paint, cement, or steel. New materials are also suitable for unforeen or heretical uses, as is seen in the use of cement in mid-century Indian architecture. It is in the context of this historical problematic that we discuss the concept of inscription to describe the physical and representational history of materials in late 19th and early 20th-century Japan, argues the respect that clients accorded to architectural expertise. Though printed media such as Indian design magazines were readily available through bookstores and roadside bookstalls, the city remains an important conduit for the circulation of ideas.