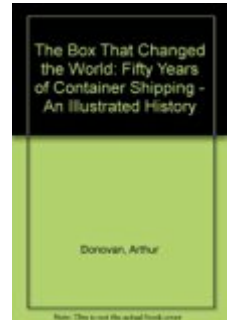


Arthur Donovan, Joseph Bonney. *The Box That Changed the World: Fifty Years of Container Shipping- An Illustrated History.* East Windsor: Commonwealth Business Media, 2006. xxiii + 261 pp. \$59.95, cloth, ISBN 978-1-891131-95-0.



Reviewed by William J. Schmid

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In *The Box That Changed the World: Fifty Years of Container Shipping*, authors Arthur Donovan and Joseph Bonney provide an authoritative look at one of the great innovations in commercial history. An emeritus professor of maritime history at the United States Merchant Marine Academy, Donovan is uniquely situated to write such a volume. A specialist in both American maritime policy (his earlier works include the *The Abandoned Ocean: A History of American Maritime Policy* (2000) which remains the standard treatment of the subject) and in the history of science and technology, he tells a compelling story that touches on both these fields. Bonney, who serves as editor of the *Journal of Commerce*, provides a journalistic flair to the piece, and an in-depth look at the persons--and personalities--that were responsible for the development of containerized shipping and the concomitant rise of intermodal transport. The volume, which is handsomely illustrated with dozens of photos, schematics, and assorted imagery, can be inaccurately dismissed as a coffee-table primer on containerization. But it is much more than that. Together Donovan and Bonney produce a fitting tes-

timony to the power of entrepreneurial genius that, when combined with business acumen and a favorable climate, can change the world.

Published in 2006, *The Box That Changed the World* is one of three volumes released that year in commemoration of the half-century anniversary of container shipping. Together with Brian Cudahy's *Box Boats: How Container Shipping Changed the World* and Marc Levinson's *The Box: How the Shipping Container Made the World Smaller and the World Economy Bigger*, Donovan and Bonney frame the development of container shipping as more than just an offshoot of the Second World War. Indeed, containerization was the catalyst for the development of an integrated global economy, one predicated on intermodalism, a system that linked rail, truck and ship transportation through the use of a common cargo box. For the authors, the real credit lies with trucking magnate Malcolm McLean, who introduced intermodalism and ushered in a new phase of globalization, one that shrank the world and lowered operating costs appreciably.

Containerization began on April 26, 1956, when the *Ideal X* departed from Newark, New Jersey. Loaded with the now ubiquitous shipping containers, this vessel effectively changed the nature of ocean commerce forever. Where regularly scheduled liners and packets had transformed shipping in the nineteenth century, containerization changed the twentieth: the shift from break bulk shipping to containers allowed for an enormous reduction in the costs of shipping and a tremendous increase in the volume and extent of trade. Under the old system of break bulk operations, ships sat alongside the pier as much as they were underway; with the crews shoreside and idle, shipping companies lost both time and money. Worse, gangs of longshoremen, utilizing little more than their brawny muscles, cost shippers money, both in wages and in "associated payments" such as breakage and pilferage. In the traditional view of shipping this was an acceptable and unavoidable fact of life: naval architects designed ships to have good seakeeping characteristics; holds were irregularly shaped and had to be carefully stowed by trained longshoremen, operating in dangerous conditions, to prevent shifting that might have compromised the stability of the vessel. In this system, access to the cargo was limited, and required considerable work to access various commodities at intermediate ports. While many recognized the unsavory aspects of break-bulk shipping, few demonstrated any ability to clear these hurdles.

The challenge of intermodalism—linking trucking, railroads, and shipping—was another barrier to transportation in the postwar world. While there had been successful small-scale experiments by the U.S. military from 1941 to 1945 (using roll-on/roll-off or RORO vessels) it was too limited to be of any real consumer use. Even earlier, Graham Brush's *SeaTrain*, operating regional service that linked Caribbean ports to southern U.S. rail lines, proved the feasibility of such connections, particularly after the introduction of its self-loading and unloading ships and the use of

"piggyback" trailers on freight trains. Still, a formidable web of regulatory restrictions, like the Interstate Commerce Commission and the Federal Transportation Policy, stifled would-be intermodal entrepreneurs. In 1937, however, trucker Malcolm McLean had an epiphany: sitting in his cab at the port of Hoboken, waiting for his payload of cotton to be off-loaded, he wondered why the entire trailer, and not just its contents, could not be put on the ship. As the authors note, the true innovation which created containerization resided not only in the box itself, but in the entrepreneurial flash which understood how it should be used.

The authors are careful not to overstate the impact of McLean; while he was not the first to move containers by sea, he was the first to turn the concept into an enduring industry. Indeed, the authors state clearly that there was not much new technology involved in the idea of moving a truck body off its wheels and onto a cargo vessel. But they are equally careful not to dismiss the impact that this had on global economies, since the innovation increased by four-fold the productivity of the ocean-going freighter and transformed the world's economies by providing a protective, efficient way to transport cargo. As Frank Broeze argued in his *The Globalization of the Oceans* (2002) "Containerization provides a prime example of revolutionary economic and social change caused by the introduction of a new technology. Like a juggernaut carried forward by its own momentum, it moved inexorably through the industry.... Its ultimate creation was the first-ever integrated global logistics system." [1] Without this advancement, and the enormous reduction in the cost of shipping, the tremendous expansion of world trade in the last forty years—the fastest growth in any major economic activity ever recorded—could not possibly have taken place. And the statistics seem to support this claim: today more than 90 percent of the world's non-bulk cargoes move in container ships as more than 5000 containerships

deliver more than 100 million containers across the world's oceans every year.

Donovan and Bonney do more than just speak to McLean's vision and genius: in short, they show how containerization changed the world. From military applications in Korea and Vietnam to the huge impact on American maritime labor, *The Box That Changed the World* is far-reaching in its scope. The authors show just how important containers are to the global economy, and how the innovation had reduced transportation costs to insignificance. Indeed, the costs of ocean shipping have now become incidental to the total price of most consumer products: for example, the cost price difference between a beer brewed domestically and on the other side of the world is roughly 2 percent. At the same time, the authors note the dramatic impact this had on American manufacturing, as "just-in-time" logistics, taking advantage of a globally dispersed manufacturing sector, replaced the American factory.

The Box That Changed the World is an appropriate title for this book. With a rich array of illustrations, one is able to see how containerization created a "Global Village of Goods," and how containerization—which many now take for granted—played a central role in the development of an integrated global economy. Thanks to the work of Donovan and Bonney, we are able to see that the cultural consequences of this revolution in freight transportation are far more pervasive and transforming than most people realize.

Note

[1]. Frank Broeze, *The Globalization of the Oceans: Containerization from the 1950's to the Present* (Newfoundland: International Maritime Economic History Association, 2002), 275.

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