The volume provides an exhaustive analysis of past and contemporary maritime flows and networks featuring evocative graphical representations, as well as supplying an invaluable springboard for undertaking further research into cognate areas.

Maritime Networks is a comprehensive overview and important multidisciplinary outline of past studies of maritime flows and networks in a bid not only to highlight the contributions of economists and econometricians, but also those of geographers, historians and political scientists.

Although the late application of network analytical methods to maritime transport flows has been somewhat counterbalanced by a growing number of empirical studies, this book addresses several unresolved issues: most studies remain static, so that the dynamic properties of change in maritime network organization and spatial distribution remain unclear; the majority of recent works have focused on flow patterns but without explicit reference to any theoretical model, be it spatial or statistical; and the maritime network is not an isolated entity floating in an abstract space or defined only by its costs or benefits, but it is a component of the society we live in, and as such its analysis should consider its local and regional embedding.

The first part of the volume provides an introduction to analysing maritime flows and networks. Not only does it offer a historical framework linking maritime flows and networks to the evolution of city systems over the past seven centuries, but also injects the often overlooked organizational ingredient into the mix through an analysis of a leading shipping company’s changing network over time.

The second part provides a significant input into modelling the dynamic evolution of past maritime networks from the oar and sail that characterized the proto-globalization age through eras of steam, petroleum and containerization strongly linked to distinctive phases in the evolution of the capitalist system.

A third part demonstrates the important progress made in expanding and sharpening the array of tools available for undertaking the spatial analysis of voluminous amounts of data derived from monitoring ship trajectories and maritime traffic. Explorations of daily shipping movements, real time positioning data,

clusters, and scale-free and small-world networks have been variously and sensitively distilled under different scenarios to identify recurring patterns in liner shipping, unique shipping behaviour, port node specialization, network vulnerability, the significance of direct port calls and shifts in the port hierarchy in response to technological change.

The final part brings us full circle to make the link between maritime networks and regional socio-economic development that was deficient in the original graphic model of transport development in undeveloped countries outlined over fifty years ago.

Simulation, econometric methods and gravity models, network analysis and geographical information systems, singly or in combination, have been used to quantitatively assess links between maritime networks, trade and economic development, maritime regionalization within a global context, and the diverging relationship between port and urban systems over time.

The 20 chapters of the present book, written by 40 scholars from 12 countries and 10 academic backgrounds, offer a multidisciplinary perspective about one of the most vital pillars of world society.

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