Three-year ARC study

Climate, natural hazards and change in Southeast Asia

A groundbreaking project is investigating the impacts of climate-related and other natural hazards on the economy, society and history of Southeast Asia since the 10th century.

By the 13th century, the Indian Ocean World (IOW) had developed what economic historians have called the world’s first ‘global economy’—a sophisticated and durable system of long-distance exchange of commodities, ideas, technology and people.

Using history, archaeology and geography, a groundbreaking interdisciplinary research project, led by Professor Gwyn Campbell, anchored at the Indian Ocean World Centre, McGill University, will explore the growth and importance of the IOW trade from its origins to the present day, as well as the interaction between environment, commerce and people.

The IOW is a geopolitical arena of primary importance. It includes an emerging superpower, China; a broad arc of Muslim countries where numerous hotspots—from Somalia (warlords and pirates), the Persian Gulf and Pakistan (conflict zones and nuclear proliferation) to Bali and the Philippines (fundamentalist and separatist militants)—pose threats to democracy and international stability; and eastern Africa, where poverty and corruption constitute challenges to global peace and security.

The geopolitical significance of the region has deep historical roots which continue to inform its major actors today.

A rare interdisciplinary collaboration between historians, archaeologists and geographers, this project will fundamentally alter how the IOW is viewed both in academe and by stakeholders. It involves three main research thrusts: archival, archaeological and paleo-environmental. Geographic information systems will combine the three lines of evidence in a spatial–temporal framework facilitating both the data analysis and dissemination of results to a diverse audience.

Increasingly, historians acknowledge the significance of dynamic human–environment interaction but lack the sophisticated tools and techniques to detect, measure and interpret this relationship. In this unique project, historian team members will trace the emergence of the IOW global economy from historical records; archaeologists will trace the physical evidence of that economy; and geographers will examine and measure fluctuations in human–environmental interaction over time.

Together, team members will assess their results with three aims: to build a new history of the first global economy in the context of human–environment interaction; to evaluate the changing roles of China, Muslim countries and Africa in that economy; and to assess their current relationships in the IOW macro-region in the light of that history.

The project will deliver exciting new historical paradigms for the IOW that will lay the basis for original historical interpretations of other regions. Additionally, it will render historical research directly relevant to stakeholders in the IOW and, through the strategic dissemination of research results, help to better inform the public about the history and current roles in the IOW of China, Muslim societies, and Africa—all issues of vital international importance.

The IOW is a new conceptual framework. Whereas the Atlantic and Pacific worlds are defined by oceans and land masses, the IOW is defined by the monsoons, a complex system of winds... Continued page 8>>
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Unique to this macro-region, the monsoons facilitated the early development of a sophisticated and durable system of long-distance maritime exchange, linking Africa to the Middle East, South Asia, Southeast Asia and the Far East, that constituted the first ‘global’ economy.

From the 19th century, a truly international economy, precursor of today’s world economy, increasingly absorbed global economies—a process that continued through the 20th century. Understanding the structure and development of the IOW global economy is thus vital to an understanding of the current roles in the macro-region of China, IOW Muslim countries, and eastern Africa.

Human–environment interaction is intrinsic to the concept of the IOW global economy. This, in turn, owes much to the theories of Fernand Braudel (foremost French historian of the post-1945 era). He argued that conventional frameworks for historical analysis, notably territorial entities such as nation states, empires, and continents, were inadequate because they largely ignored human–environment interaction.

Braudel’s theories inspired the development of the Annales School of historians in Europe, and more recently a new school of historians of Asia who stress the monsoon system as a facilitator of trans-oceanic, intra-Asian sail and trade.

The monsoons comprise a system of regularly alternating winds and currents unique to the Indian Ocean and the South and East China Sea. From April to September, as the Asian land mass heats up, hot air rises producing a vacuum which sucks in the air from the ocean, creating the southwest monsoon. During the other six ‘winter’ months of the year, the opposite reaction occurs, creating the northeast monsoon.

The conventional view is that these winds enabled vessels to engage in purposeful two-way, trans-oceanic trade that, between about the 10th to 13th centuries, connected the major productive areas of Asia, China, India and Mesopotamia (present-day Iraq) in a system of trade that endured to the mid-19th century.

However, these studies suffer from four major limitations. First, they largely ignore human–environment interaction beyond accommodation of a simplistic monsoon model. Second, conventional histories are imbued with interpretative preconceptions which obscure major developments and sectors of the first global economy. These include the nation state and regional studies approaches which analyse the IOW in terms of component modern states and geographical zones such as the Far East, Southeast Asia, South Asia, and the Middle East.

Yet these derive from Eurocentric and colonial era classifications and serve to imprison Braudelian concepts within conventional frameworks of nation states or ‘territorial’ area studies. They do little justice to the complex trans-frontier, trans-IOW exchange of commodities, monies, technologies, ideas and people that characterised the pre-colonial era.

A third pervasive preconception is that economic modernisation and state formation are closely correlated, economic development, as a rule, being most advanced in centralised hierarchical states and least advanced in decentralised stateless societies.

This approach has resulted in three major assumptions: that China, India and the Middle East constituted the ‘core’ IOW economies, and that regions such as Africa and the Indonesian Archipelago (outside Sumatra and Java) were of marginal significance; that following European intrusion into the region from circa 1500, European agents largely controlled the most valuable aspects of IOW production and trade; and that with the imposition of European colonial rule, indigenous systems of long-distance exchange collapsed. Finally, conventional Braudelian studies are pervaded by an Asiacentrism which reinforces the equation of Africa with primitive economic structures and marginalises...
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This project seeks to redress limitations in existing studies of the IOW global economy arising from embedded biases and to establish new interpretative approaches. Research will focus on six principle questions:

- How and when did the first global economy emerge and develop?
- How do environmental forces impact on IOW economic activity?
- How has human–environmental interaction shaped the first global economy?
- What roles did China, Muslim countries and Africa play in the IOW global economy?
- How did human–environmental interaction impact on China, Islam and Africa?
- To what extent will this research clarify the current roles of China, Islam and Africa in the IOW?

Professor James Warren, of the Asia Research Centre, at Murdoch University, is leading a team of scholars under the auspices of an Australia Research Council Linkage Grant, aligned with the Indian Ocean World Centre’s groundbreaking project that runs over seven years (2010–17), sponsored by the Canadian Government’s Social Science and Humanities Research Council.

The ARC project undertakes the first broad investigation of the impacts of climate-related and other natural hazards on the economy, society and history of Southeast Asia from the 10th century to the present. The project aims to reconstruct spatial, temporal and social patterns in vulnerability to the adverse effects of climate variability and natural hazards. The research will focus on economic, demographic and social trends across Southeast Asia in association with climatic and natural hazard events, and will examine closely the sometimes catastrophic effects on human institutions and cultural values. In particular, the team will collect qualitative and quantitative data from largely untapped and accurate historical records, and integrate these data with climate change and geophysical models to overcome the lack of reliable sustained statistical records before the modern era. The team will combine these diverse data to clarify the complex and uncertain linkages and causality, both historical and current, between Southeast Asian people, their economy and environment.

The project’s scope is uniquely broad and multidisciplinary, comprising collaborations between historians, archaeologists, seismologists, volcanologists and others to analyse the development of Southeast Asia’s vast and sophisticated economic system within the context of human–environment interactions over a scale and time period which has been inadequately investigated.

The project breaks new ground in the location and use of resources, and an interdisciplinary approach to problem and method. It will advance the knowledge base of disciplines, provide a radically new history of the region, and a new basis for understanding complex interactions between human and natural forces.

The ARC Linkage Project represents a crucial Australian step in the global collaboration led by Gwyn Campbell. It will initiate very important research on the Philippines, Indonesia and Vietnam and establish the systems for converging research on critical trade contacts in the Indian Ocean world, such as Madagascar. Crucially, it will create synergies and mutual benefits by bringing to the project as an industry partner a world-renowned source of maritime archaeological expertise and public outreach that is actually located on the edge of the Indian Ocean, the Western Australian Maritime Museum.

For expressions of interest for IOW PhD scholarship, see page 23.