

#83

CISH
SYDNEY 2005



20th International Congress of

Historical Sciences

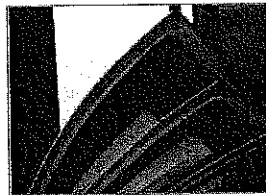
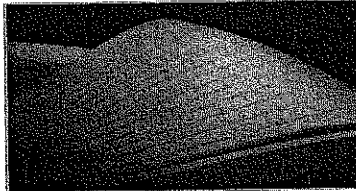
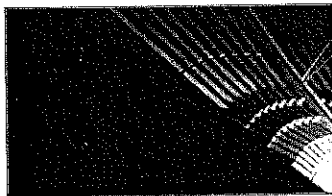
Programme

3 - 9 July 2005

University of New South Wales

Sydney, Australia

www.cishsydney2005.org



COMITÉ INTERNATIONAL
DES SCIENCES HISTORIQUES



INTERNATIONAL COMMITTEE
OF HISTORICAL SCIENCES



The University of Sydney

Major Themes
Thèmes Principaux

MT1. Humankind and Nature in History
Humanité et nature dans l'histoire
Co-ordinator: Verena Winiwarter, Austria

Monday, 4 July 2005, 9:00 – 12:00 and 14:00 – 17:00
Sir John Clancy Auditorium (Clancy)

a. Ecohistory: New Theories and Approaches
Écohistoire: théories et approches nouvelles

✓ Convenor: Ian Tyrrell, Australia
Discussant: Carolyn Merchant, USA

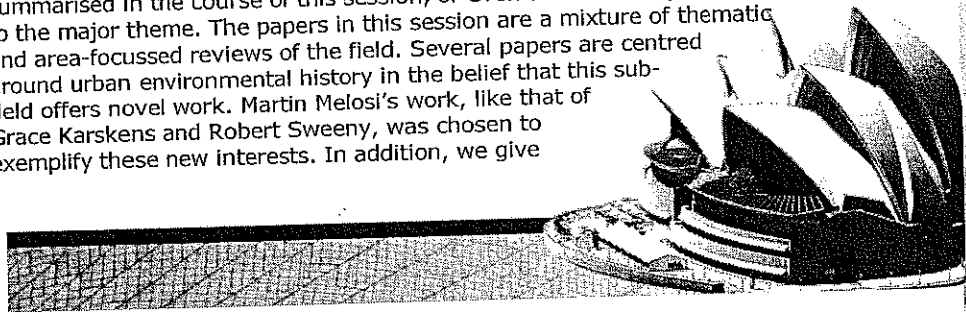
Papers:

- Martin Melosi, USA (Urban Environmental History in Two Continents: Europe and the United States)
- Jane Carruthers, South Africa (Tracking in Game Trails: Looking afresh at the Politics of eco-history in South Africa),
- Robert Sweeny, Canada (Environmental pollution, social segregation and industrialisation in a 19th century town)
- Tom Griffiths, Australia (Environmental History of Antarctica),
- Archana Prasad, India (Marginal Communities and Politics of Modern Development in India 1900-2000AD)
- Grace Karskens, Australia (Water Dreams, Earthen Histories: People, Country and Urban Environmental History at The Penrith Lakes Scheme and Castlereagh, Sydney)

Convenor's Overview

It is commonplace to say that environmental history is a new or emerging field. The Congress has highlighted this perception by elevating environmental history from a specialised session at Oslo in 2000 to a major theme. It is given special prominence here, suggesting perhaps that the field may hold a key to the reinterpretation of history—and that it may provide a means of integrating history as a discipline increasingly fragmented across a bewildering range of specialisations.

New developments in environmental history are many. They cannot possibly all be summarised in the course of this session, or even the entire day's proceedings devoted to the major theme. The papers in this session are a mixture of thematic and area-focussed reviews of the field. Several papers are centred around urban environmental history in the belief that this sub-field offers novel work. Martin Melosi's work, like that of Grace Karskens and Robert Sweeny, was chosen to exemplify these new interests. In addition, we give



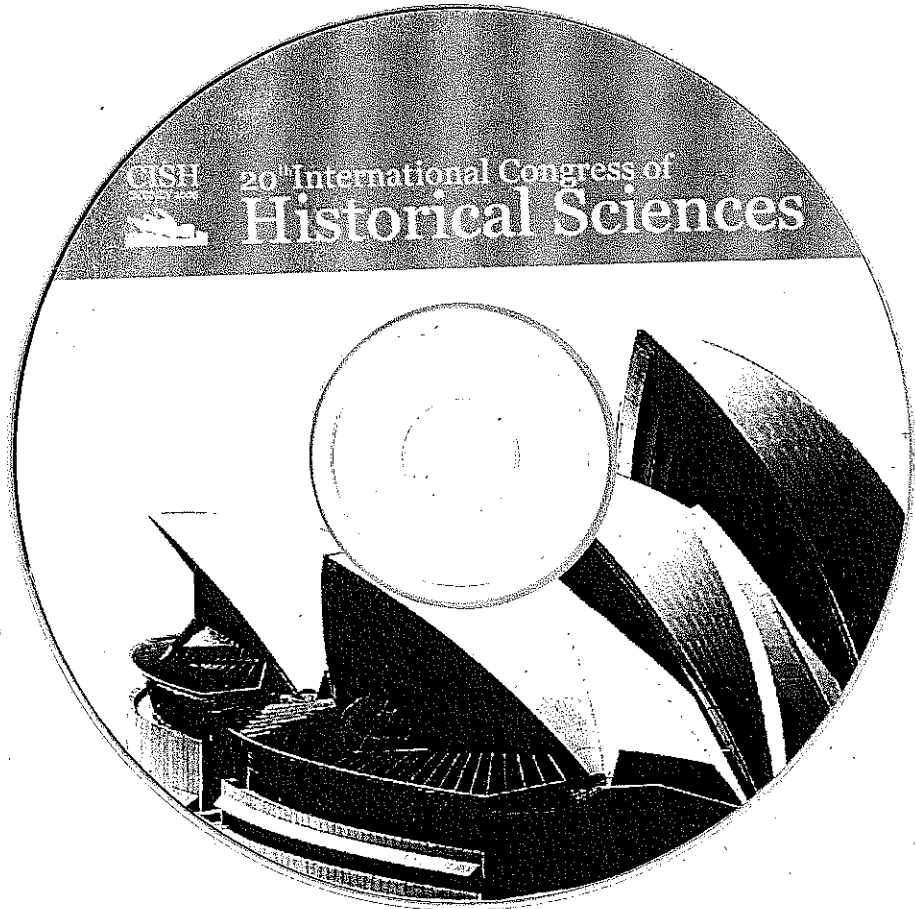
surveys of some
example South
was to highlight
how this work

The papers cover
First, the natural
divide. As part of
environmental
pressures such as
movements, and
of environmental
underlying critical
studies there
chosen for the

The International
ecohistory? Can
any discipline
on the Canary
in a 1988 study
'ecohistory' is
interchangeable
narrower definition
employed, and
the Canary Islands
Biological Experiments

What is ecological
American, Aldo
County Almanac
explained social
people and land
as the character
to Weiskel, local
Ecological history
Plagues and Peoples
the last decade
dissent but at
potential must
contextually from
considerable effort
a more self-conscious
has recently been
associated with
*Guns, Germs and
Armstrong's Civil
of Time* (2004)

#83



Ecohistory: New Theories and Approaches

Comment

By Carolyn Merchant

University of California, Berkeley

Comment published on CD of Papers from the

20th International Congress of Historical Sciences (Congrès International des Sciences
Historique) (Sydney, NSW: Incompass, 2006 CD), pp. 61-66

#83

Ecohistory has traditionally focused on interactions between humanity and the environment, in which nature is an actor in the story, rather than a mere backdrop for human transformation. The field has moved from an initial interest in conservation and preservation history to processes of development, urbanization, environmental and social justice, and most recently to cutting edge issues of globalization. The six papers on new approaches to world environmental history present several exciting ways to advance the field. Tom Griffiths challenges us to consider the history of forbidding environments, such as Antarctica and outer space, which have been absent of permanent human settlement and in which ice, temperature, altitude, severe weather, and life inhibiting conditions are major environmental players. Grace Karskens and Martin Melosi urge us to think about urban history as going beyond a body metabolic model of sources and sinks, consumption and excretion, based on transportation, pollution, and the "nature/built environment" dichotomy, to consider the thought, emotions, and activities of the urban body as cultural, political experience.

Jane Carruthers suggests that environmental history as conservation history must go beyond a description of exogenous pressures to incarcerate or restore pristine wilderness, preserve charismatic animals for ecotourism, or create recreational sites from desecrated areas to include both the history and present needs of local peoples. Archana Prasad challenges the higher moral purpose and political agendas of an environmental history that valorizes indigenous and tribal peoples as "natural" or environmentally benign actors, by adding the complexity of recent scientific, technological, and political interventions (such as green revolution techniques, genetically modified organisms, or political and economic decision making by the communities themselves). Additionally, Robert Sweeny and Tom Griffiths suggest that new sciences and technologies such as Geographic Information Systems (GIS), chaos theories, and computer modeling, as well as archeological digs and climate data bases, can be useful tools in reconstructing and visually displaying past histories. In short, global environmental history must invent its own historical models, rather than merely applying ideas originally generated to interpret the environmental history of the United States.

The papers of Melosi, Karskens, Sweeney, and Prasad deal with rural and urban models and the transitions between them. Yet underlying their urban models are the assumptions of the organic, mechanical, and chaotic worldviews found in the history of ideas and in the history of ecology. Early cities and their surrounding rural environments reflect the metabolic model, conceived, as Karskens puts it, "as a body consuming and excreting." This approach reflects the city as an organic being, a projection of the human body onto its surroundings, much like the organic cosmos of the Renaissance in which the human was a microcosm, comprising body, soul, and spirit projected onto the larger

cosmos, or macrocosm, with its own world body, soul, and spirit. Thus the city as "body writ large" takes food into its digestive system from outlying rural areas. Grain, fruit, and meat from the hinterlands are transported into the city's body via cart, road, rail, and ship. Water is pumped from wells or led from reservoirs via rivers, aqueducts, and pipes to be swallowed by the city and its inhabitants. Trees are cut for fuel to cook the food that entered its digestive system. Similarly, the city has an elimination system. Toilets, sewers, and garbage dumps are extensions of the city's intestines and bowels, leading the waste away and removing it from the immediate environment. Houses and clothing can be seen as extensions of the city's skin, regulating its temperature. Cotton, wool, and lumber are converted into clothing, while heat keeps the inhabitants warm in winter or cool in summer.

With the rise of the industrial city of the late nineteenth century, the metabolic model of the city as a living body becomes the mechanistic model of the city as inorganic machine, having inputs and outputs. Based on the steam engine, as machine par excellence, the city itself is a thermodynamic system. It uses low entropy raw materials, such as sand and rock from quarries, coal from mines, and oil from wells, and transforms them into higher entropy artifacts and consumer products, emitting high entropy wastes. This energy-economic model transforms the city from a person-writ-large to a machine, sucking in raw materials from the hinterlands and belching out wastes into the air and water. The city is constructed of concrete, steel, and asphalt. Living nature vanishes from most people's immediate experience. Energy exchanges are quantified through a calculus of energy inputs and entropic outputs. The metabolic model is subsumed by the thermodynamic model—metabolism becomes one part of the larger set of energy

exchanges within the city's inorganic body. A cost-benefit model is constructed that can be used to predict and control future needs and wastes.

Karskens proposes that the city also has a consciousness and that urban history must include culture and webs of meaning. Elaborating on her idea, we could argue that inputs from radio, television, and movies via electric wires and cables from power plants are extensions of the city's sensory organs—its hearing and sight. Sounds and sights are brought to the city's consciousness by way of the electrical generation from coal, oil, and hydropower. Similarly, books, newspapers, and computers are extensions of the city's brain and nervous system. They create its culture and ideology, infusing it with knowledge and providing it with entertainment and leisure activities. The City Hall "Political Machine" controls its finances, expenditures, and political ideologies.

While the assumptions of the metabolic and thermodynamic models underlie the papers presented in the session, absent from most is the third model—the chaotic view of the city as recipient of unpredictable natural occurrences and disasters. Disease, epidemics, earthquakes, fires, hurricanes, tsunamis, weather, and ice can be seen as triggers that upset equilibrium models of the city. Tom Griffiths' accounts of ice and sudden storms come closest to the chaotic model, but his paper excludes cities, dealing as it does with the barren Antarctic environment. At the opposite end of the spectrum, Robert Sweeny, (whose paper barely includes living nature) incorporates fire into his account of Montreal's growth, but it is not treated as a transformative impact. In Archana Prasad's account of community forestry, the growth and reproduction of forest species in response to human actions could enrich her explanations of historical change. Carruthers includes the role played by large mammals, birds, and vegetation in African history,

setting up the potential for their inclusion as actors in case studies. The chaotic model of nature allows for the full expression of nature as an actor and shaper of history, rather than a passive backdrop to the inorganic machine. Unpredictable natural events and climatic conditions can trigger changes and transitions in local places, the impacts of which may be felt at great distances. While GIS templates taken at temporal intervals and superimposed on each other can delineate changing spatial patterns, the historian must explain and interpret the reasons for pattern transitions. Here nature as unpredictable actor may be seen as cause or explanation of historical consequences.

The papers could be further enriched by more explicit attention to another cutting edge trend in environmental history—race, class, and gender as factors in historical analysis. Race plays a significant role in Prasad's discussion of tribals, Karskens' account of aboriginal lands, and Carruthers' depictions of interpretations of the era of apartheid, while class is fundamental to Sweeney's descriptions of neighborhoods. Yet the papers largely neglect gender. Sweeney argues that gender is fundamental to his analysis, but how and why this is the case should be more fully articulated. In general, the papers deal with lands colonized by the British diaspora—the United States, Canada, India, Australia, and South Africa. They provide new insights into the interactions between settlers, indigenous peoples, and the environments impacted by the colonizers, but few insights into common patterns, causes, and consequences of environmental change. Missing from the session as a whole are exemplars from Latin America, most of Asia, and the former Soviet republics.

In conclusion, then, what are some of the problems facing the new global environmental history? One issue is the generalizability of local or national histories to

create meaningful interpretations applicable to larger scales (such as regions or continents) and to different types of environments where moisture and temperature extremes create particular localized histories. Are there common questions that must be asked and processes that must be considered in order to write a history that goes beyond the merely parochial, however fascinating and unique. What can snapshots of life in different archeological or historical layers tell us about larger processes of development over time? What role can and do such snapshots play in policy decisions about preservation and restoration of past environments? More generally, what is and should be the role of environmental history in understanding and maintaining the sustainability of the enormous diversity of peoples and places on Earth? In tackling such questions, global environmental history faces challenges vital to future of the planet.