

RIHN 6<sup>th</sup> International Symposium

## **Beyond Collapse:**

Transformation of human-environmental relationships,  
past, present and future

**October 26 - 28, 2011**

**Kyoto, Japan**

**Organized by**

The Research Institute for Humanity and Nature (RIHN)

National Institutes for the Humanities (NIHU)

Inter-University Research Institute Corporation

# PREFACE

Is human history one of success or failure? The Holocene has been a period of dramatic environmental change and remarkable human achievement. In the sciences, arts, technologies—and in sheer number—homo sapiens has advanced itself, remaking the world and redefining the human experience.

Yet many individual human societies have remained deceptively fragile despite their successes. Seemingly unaware of critical thresholds in their systems, peoples and civilizations have fallen, one after the other.

Humankind now inhabits a ‘planet under pressure’: will human societies degrade the essential sources of their collective wellbeing, or do immanent technologies and human ingenuity still offer the possibility of transformation? The ‘Anthropocene’ is a period of ever-greater promise and ever-greater precarity.

But are there not other interpretations? As humanity is closely bound together by institutional, material and cultural ties, perhaps human civilization has become ‘too big to fail’. There is concern for climate and social ‘instability’—not collapse—and consequently to the particularities of social and ecological vulnerability and resilience.

Based on the results of four concluding RIHN research projects, this symposium assesses the processes of collapse, continuity and transformation in two historical and two contemporary contexts.

# Session Program

## **Session 1: New ecologies of disease:**

### **Observing and theorizing human-pathogen interactions**

The field of disease ecology examines interactions between pathogen, host and human actions that create or diminish ‘fertile’ disease environments. With specific attention to how human actions cascade through specific environments, this session examines pathogen-host population dynamics in several ecological contexts. How should human societies cope with new environments and disease ecologies?

## **Session 2: Beyond collapse: The case of Indus Civilization**

The Indus Civilization (2600 BC—1900 BC) was one of the four great ancient civilizations—and apparently the most short-lived. Its ‘collapse’ has been described for decades, yet recent research shows that the civilization went through a process of decentralization in the midst of dramatic environmental change, with continuities perhaps more significant than ruptures.

## **Session 3: Transformation of human society and environment in Central Eurasia**

In the 20th century, Central Eurasia experienced drastic transformation in social, political, and economic systems—including rapid modernization under, and collapse of, socialism—with great impact on local lifestyles and use of natural resources. This session describes these transformations in relation to environmental change and continuing human adaptation in the region, seeking structural explanations of environmental problems and new perspectives on sustainability in arid and semi-arid regions.

## **Session 4: Building resilient communities in the semi-arid tropics**

Nearly half of the global population is dependent on primary industry, especially agriculture, and therefore particularly vulnerable to contemporary climate change and variability. What social, economic and ecological dynamics affect resilience of small farmers in semi-arid tropics to current climate anomalies?

# PROGRAM

**Wednesday – 26 October, 2011**

## **Opening Session**

Chair: UYAR, Aysun (*RIHN*)

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|-------------|---|
| 10:30-10:40 | Opening Remarks<br><b>TACHIMOTO Narifumi</b> ( <i>Director-General, RIHN</i> )                            |
| 10:40-10:50 | Objectives of the Symposium<br><b>NILES, Daniel</b> ( <i>RIHN</i> ) / <b>ABE Ken-ichi</b> ( <i>RIHN</i> ) |
| 10:50-12:00 | Keynote Address<br><b>VAN DER LEEUW, Sander</b> ( <i>Arizona State University, USA</i> )                  |
| 12:00-13:30 | Lunch   |

## **Session 1      New ecologies of disease: Observing and theorizing human-pathogen interactions**

Chair: KAWABATA Zen'ichiro (*RIHN*)

13:30-14:10      Beyond Pandemics and Global Instability: Cultivating Peripheral Vision for Transformation  
**WALTNER-TOEWS, David** (*University of Guelph, Canada*)

14:10-14:50      Ecosystem Dynamics, Biological Diversity and Their Impacts on Zoonotic Infectious Diseases  
**GUÉGAN, Jean-François** (*UMR IRD-CNRS-Universities of Montpellier I and II, France*)

14:50-15:00      Coffee break

15:00-15:40      Koi Herpesvirus Disease as a Model of Environmental Disease  
**MINAMOTO Toshifumi** (*RIHN*)

15:40-16:20      The Impact of Anthropogenic Environmental Influences on Freshwater Snails and the Implications for Snail-borne Disease Transmission Risks in Kenya  
**LANGE, Charles N.** (*National Museums of Kenya, Kenya*)

16:20-17:00      Discussion

## **Thursday – 27 October, 2011**

### **Session 2      Beyond collapse: The case of Indus Civilization**

Chair: ONISHI Masayuki (*RIHN*)

9:00-9:40            Paleoclimate During the Last 20,000 Years in Asia-Pacific Region  
**YOKOYAMA Yusuke** (*University of Tokyo, Japan*)

9:40-10:20        Decline of the Indus Civilization and the Role of Agriculture  
**WEBER, Steven** (*Washington State University Vancouver, USA*)

10:20-11:00      Observations about Arrival of the Āryas  
**GOTŌ Toshifumi** (*Tohoku University, Japan*)

11:00-11:40      Collapse or Transformation?: Beyond Environmental Determinism for  
the Indus Civilization  
**OSADA Toshiki** (*RIHN*)

11:40-12:20      Discussion

12:20-13:30      Lunch

### **Session 3      Transformation of human society and environment in Central Eurasia**

Chair: KUBOTA Jumpei (*RIHN*)

13:30-14:10      ‘No One can be Separated from the Other’: The Curse of Relatedness  
and Ethnopolitics in Contemporary China  
**BULAG, Uradyn E.** (*University of Cambridge, UK*)

14:10-14:50      Typology of Agro-Pastoral Complex in Inner-most Eurasia under the  
Light of Geo-History  
**OHJI Toshiaki** (*Kyoto University, Japan*)

14:50-15:00      Coffee break

15:00-15:40      Agricultural Development and Transformation of Nature in Soviet  
Central Asia: Theoretical Background and Reality  
**CHIDA Tetsuro** (*Hokkaido University, Japan*)

15:40-16:20      Socialist Modernization and Transformation of Natural Resource Use in  
Central Eurasia  
**WATANABE Mitsuko** (*RIHN*)

16:20-17:00      Discussion

## **Friday – 28 October, 2011**

### **Session 4      Building resilient communities in the semi-arid tropics**

Chair: LEKPRICHAKUL, Thamana (*RIHN*)

9:00-9:40            Social-Ecological Regime Shifts: Collapse, Traps, and Transformations  
**PETERSON, Garry** (*Stockholm University, Sweden*)

9:40-10:20          Ingredients for Social-Ecological Resilience, Poverty Traps, and  
Adaptive Social Protection in Semi-Arid Africa  
**TSCHAKERT, Petra** (*Pennsylvania State University, USA*)

10:20-11:00        Trajectories of Adaptation: A Retrospectus for Future Dynamics  
**NELSON, Donald** (*University of Georgia, USA*)

11:00-11:40        Dynamics of Social-Ecological Systems: The Case of Farmers' Food  
Security in Semi-Arid Tropics  
**UMETSU Chieko** (*RIHN*)

11:40-12:20        Discussion

12:20-13:30        Lunch



## **Session 5      Synthesis**

Chairs: NILES, Daniel (*RIHN*) & SATO Yo-Ichiro (*Deputy Director-General, RIHN*)

- 13:30-13:45      Synthesis of Session 1  
**KAWABTA Zen'ichiro** (*RIHN*)
- 13:45-14:00      Synthesis of Session 2  
**OSADA Toshiki** (*RIHN*)
- 14:00-14:15      Synthesis of Session 3  
**KUBOTA Jumpei** (*RIHN*)
- 14:15-14:30      Synthesis of Session 4  
**UMETSU Chieko** (*RIHN*)
- 14:30-14:40      Comments  
**VAN DER LEEUW, Sander** (*Arizona State University, USA*)
- 14:40-14:50      Coffee break
- 14:50-15:50      Roundtable Discussion
- 15:50-16:00      Closing Remarks  
**WATANABE Tsugihiro** (*Deputy Director-General, RIHN*)
- 16:00-              Excursion