

Curriculum Vitae
J. STEPHEN LANSING

Professor of Anthropology; Adjunct Professor, Ecology and Evolutionary Biology
221 Haury Bldg., University of Arizona, Tucson AZ 85721-003

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Professor, Santa Fe Institute

1399 Hyde Park Rd., Santa Fe, N. M. 87501

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Senior Research Fellow, Stockholm Resilience Centre

Stockholm University

www.stockholmresilience.su.se

EDUCATION

Ph.D. Anthropology	University of Michigan	1977
Doctoral fellow	The Institute for Advanced Study, Princeton, N.J.	1976
M.A. Anthropology	University of Michigan	1974
B.A. with highest honors	Wesleyan University, Middletown CT	1972

PROFESSIONAL EXPERIENCE

Santa Fe Institute

2009-	External Professor
2002-2007	Professor
1999-2002	External Professor

University of Arizona

2002-	Professor, Ecology & Evolutionary Biology
1998-	Professor, Anthropology

Stockholm University

2008-	Senior Research Fellow, Stockholm Resilience Centre
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University of Michigan

1995-8	Professor, School of Natural Resources and Environment
1995-8	Professor, Anthropology

University of Southern California

1990-6	Professor, Anthropology
1987-92	Chair, Department of Anthropology
1983	Associate Professor, Anthropology
1977	Assistant Professor, Anthropology

FELLOWSHIPS and AWARDS

- 2007 Julian Steward Book Prize for *Perfect Order*
- 2007 Winifred Jean Stubbs Fellow, Institute for Advanced Study, Durham University
- 2000 Fellow, Center for Advanced Study in the Behavioral Sciences, Stanford University
- 1997 University of Michigan Excellence in Research award
- 1995 J.I. Staley Book Prize (\$7500) of the School of American Research
- 1992 Phi Kappa Phi Book Prize
- 1986 Fulbright Senior Regional Research Fellow
- 1979 National Endowment for the Humanities
- 1976 Doctoral fellow, The Institute for Advanced Study, Princeton, N.J.
- 1974 Social Science Research Council Doctoral Fellowship
- 1974 Fulbright dissertation fellowship

PROFESSIONAL SOCIETIES AND EDITORIAL BOARDS

- Editorial Board, Journal of Political Ecology
- Editorial Board, Ecology and Society
- American Anthropology Association
- Koninklijk Instituut voor Taal-, Land- en Volkenkunde
- Science Steering Committee and Robustness Advisory Board, Santa Fe Institute
- Society for Political Ecology

RESEARCH INTERESTS

Sociocultural theory, ecological anthropology, complexity, population genetics, poverty and development, Indonesian ethnography, Austronesian ethnography and prehistory, ethnographic film

RESEARCH GRANTS (PRINCIPAL INVESTIGATOR)

- 2007 National Science Foundation \$1,247,928
“Anthropological models of social structure, genes and language”
- 2007 National Science Foundation \$75,000
“Indonesian Origins: Genes, Languages and Cultures” video programs
- 2004 National Science Foundation \$675,000
“The Austronesian Expansion: Reading Social Structure from the Genome”
- 2002 National Science Foundation \$32,789
“Conference on Robustness in Coupled Natural and Human Systems”
- 2000 National Science Foundation #BCS-0083524 \$1,000,000
“Biocomplexity: Emergence of cooperation from human-environmental interactions”
- 1997 University of Michigan \$68,385
“Genesis: Agent-based modeling of behavioral ecology”
- 1996 United Nations Food and Agriculture Organization
“Computer Assisted Advisory and Planning (COMEXAP) Programme in Indonesia”
- 1995 National Science Foundation #SBR 962990 \$188,671

- “Integrative Modelling of Environmental Change in an Agroecosystem”
 1993 United Nations Food and Agriculture Organization
 “Computer Assisted Advisory and Planning (COMEXAP) Programme in
 Indonesia”
 1993 National Science Foundation #BNS 9222426 \$15,000
 “Emergent Properties of Balinese Water Temples”
 1992 Native American Rights Fund
 “The Loss of a River: Management of Riverine Resources by the Skokomish
 Tribe”
 1992 Advanced Technology Group, Apple Computer \$24,000
 “Microcomputer applications for sustainable development”
 1990 National Science Foundation grant BNS 9005919 \$30,000
 “Comparative Socio-Bio-Physical Analysis of Balinese Irrigation”
 1987 National Science Foundation grant #BNS-8705400 \$96,714
 “Ecosystem Model of Balinese Irrigation”
 1986 National Science Foundation grant # 53-4804-9827 \$20,391
 “Irrigation Management by the Balinese Temple Ulun Danu Batur”
 1983 National Science Foundation grant #53-4804-2751 \$56,774
 “Cultural Ecology of Balinese Water Temples”

NAME LECTURES

- 2004 Taplin Memorial Lecture, Princeton University
 1996 Taft Memorial Lecture, University of Cincinnati
 1996 Susan B. Wilson Lecture, University of Rhode Island Coastal Marine
 Institute

SELECTED PUBLICATIONS

BOOKS

- Perfect Order: Recognizing Complexity in Bali.* Princeton University Press, 2006.
Priests and Programmers: Technologies of Power in the Engineered Landscape of Bali.
 Princeton University Press, 1991. Revised 2nd edition 2007.
The Balinese. New York: Harcourt Brace, 1994
The Three Worlds of Bali. Praeger, 1983
*Evil in the Morning of the World: Phenomenological Approaches to a Balinese
 Community.* Ann Arbor: Michigan Papers on South and Southeast Asia #6, 1974.

ARTICLES AND CHAPTERS

- Lansing, J. Stephen and Murray P. Cox. The Domain of the Replicators: Cultural
 Evolution and the Neutral Theory. *Current Anthropology*, in press.

- Lansing, J. Stephen. Niche construction on Bali: the gods of the countryside. *Phil Trans Royal Soc. B*, in press.
- Tatiana M. Karafet, Brian Hallmark, Murray P. Cox, Herawati Sudoyo, Sean Downey, J. Stephen Lansing and Michael F. Hammer, "Major East-West Division Underlies Y Chromosome Stratification Across Indonesia", *Molecular Biology and Evolution*.
- Murray P. Cox, Tatiana M. Karafet, J. Stephen Lansing, Herawati Sudoyo, and Michael F. Hammer. Autosomal and X-linked SNPs reveal a steep Asian-Melanesian ancestry cline in eastern Indonesia and a sex-bias in admixture rates. *Proceedings of the Royal Society*.
- Lansing, J. Stephen and Sean S. Downey. *Anthropology and Complexity*. In Clifford Hooker, ed., *Philosophy of Complex Systems*, Vol 10 of *Handbook of the Philosophy of Science*. North Holland: Elsevier, in press.
- Lansing, J. Stephen, Sean S. Downey, Marco Janssen, John Schoenfelder. 2009. A Robust Budding Model of Balinese Water Temple Networks. *World Archaeology*, Vol. 41(1): 112–133.
- Lansing, J. Stephen. Complexité et anthropologie. *Nouvelles perspectives en sciences sociales*, Volume 4, numéro 2, avril 2009, p. 47-52.
- Lansing, J. Stephen, Joseph C. Watkins, Brian Hallmark, Murray P. Cox, Tatiana M. Karafet, Herawati Sudoyo, Michael F. Hammer. 2008. Male dominance rarely skews the frequency distribution of Y chromosome haplotypes in human populations. *Proc Natl Acad Sci USA* 105: 11645–11650.
- Sean S. Downey , Brian Hallmark, Murray P. Cox , Peter Norquest, and J. Stephen Lansing. Computational Feature-Sensitive Reconstruction of Language Relationships: Developing the ALINE Distance for Comparative Historical Linguistic Reconstruction. 2008. *Journal of Quantitative Linguistics*; Volume 15; Number 4; pp. 340–369
- Cox, Murray P., Alan J. Redd, Tatiana M. Karafet, Christine A. Ponder, J. Stephen Lansing, Herawati Sudoyo and Michael F. Hammer. 2007. A Polynesian motif on the Y chromosome: population structure in remote Oceania. *Human Biology* 79.5 (Oct 2007): 525(11).
- Lansing, J. Stephen, Murray P. Cox, Sean S. Downey, Brandon M. Gabler, Brian Hallmark, Tatiana M. Karafet, Peter Norquest, John W. Schoenfelder, Herawati Sudoyo, Joseph C. Watkins, and Michael F. Hammer. 2007. Coevolution of languages and genes on the island of Sumba, eastern Indonesia. *Proc Natl Acad Sci USA* 104 (41): 16022-16026.
- Lansing, J. Stephen, Tatiana M. Karafet, John Schoenfelder, and Michael F. Hammer. 2008. A DNA signature for the expansion of irrigation in Bali? In Sanchez-Mazas

- A, Blench R, Ross M, Peiros I, Lin M (eds), Past Human Migrations in East Asia and Taiwan: matching archaeology, linguistics and genetics. London: Routledge, 376-394.
- Lansing, J. Stephen, John Schoenfelder and Vernon Scarborough. Rappaport's Rose: Structure, Agency and Historical Contingency in Ecological Anthropology. In Biersack A. and Greenberg J.B., ed., Reimagining Political Ecology. Durham & London: Duke University Press, 2006: 325-358.
- Karafet, T.M., J. S. Lansing, Alan J. Redd, Joseph Watkins, I. W. Ardika, S. P.K. Surata, Laura Mayer, Michael Bamshad, Lynn Jorde, Michael F. Hammer. A Balinese Y chromosome perspective on the peopling of Indonesia: Genetic contributions from pre-Neolithic hunter-gatherers, Austronesian farmers, and Indian traders. *Human Biology*, Feb. 2005, v. 77 no. 1, pp.93-114.
- Lansing, J. Stephen. 2005. On Irrigation and the Balinese State. *Current Anthropology* 46 (2):305-6.
- Lansing, J. Stephen and John H. Miller. 2005. Cooperation Games and Ecological Feedback: Some Insights from Bali. *Current Anthropology* 46(2): 328-334.
- Lansing, J. Stephen and Robert L. Axtell. *Afterword to Nonlinear Models for Archaeology and Anthropology: Continuing the Revolution*, edited by Christopher S. Beekman and William W. Baden. Ashgate Press, 2005: 139-146.
- Lansing, J.S., A.J. Redd, T.M. Karafet, J. Watkins, I.W. Ardika, S.P.K. Surata, J.W. Schoenfelder, M. Campbell, A.M. Merriwether, and M.F. Hammer. 2006. Reply [to: Indian traders in Ancient Bali: A Reconsideration of the Evidence]. *Antiquity* 80(307): online at <http://www.antiquity.ac.uk/ProjGall/lansing/index.html#response>.
- Marion Guy S., Robert B. Dunbar , David A. Mucciarone ,James N. Kremer, J. Stephen Lansing , Alit Arthawiguna 2005. Coral skeletal $\delta^{15}\text{N}$ reveals isotopic traces of an agricultural revolution. *Marine Pollution Bulletin* 50 (2005) 931–944.
- Lansing, J. Stephen 2004. "Blood is not the only social bond", *The Times Higher Education Supplement*, Dec. 3, 2004.
- Lansing, J.S., A.J. Redd, T.M. Karafet, J. Watkins, I.W. Ardika, S.P.K. Surata, J.W. Schoenfelder, M. Campbell, A.M. Merriwether, and M.F. Hammer. An Indian Trader in Ancient Bali? *Antiquity* 78:300 (2004): 287-293.
- Lansing, J. Stephen. 2003. Comment on "The Precolonial Balinese State Reconsidered: A Critical Evaluation of Theory Construction on the Irrigation, the State, and Ritual" by Brigitta Hauser-Schäublin. *Current Anthropology* Vol 44, No. 2, April 2003
- Lansing, J. Stephen. 2003. "Complex Adaptive Systems", *Annual Review of Anthropology* 32: 183-204.

- Lansing, J. Stephen. 2003. "The Cognitive Machinery of Power: Reflections on Valeri's *Forest of Taboos*", *American Ethnologist*, August 2003
- Lansing, J. Stephen. 2002. "'Artificial Societies' and the Social Sciences", Santa Fe Institute Working Papers and *Artificial Life* 8 (Oct. 2002): 279-292.
- Lansing, J. Stephen. 2002. "Irrigation Societies", *International Encyclopedia of Social and Behavioral Sciences*, Elsevier Science Ltd., Oxford, 7910-7913
- Lansing, J. Stephen, Vanda Gerhart, James N. Kremer , Patricia Kremer, Alit Arthawiguna, Suprpto, Ida Bagus Suryawan, I Gusti Arsana, Vernon L. Scarborough and Kimberly Mikita. 2001. "Volcanic Fertilization of Balinese Rice Paddies", *Ecological Economics* 38 (2001):383-390.
- Scarborough, Vernon L., John W. Schoenfelder, and J. Stephen Lansing Ancient Water Management and Landscape Transformation at Sebatu, Bali. 2000. *Bulletin of the Indo-Pacific Prehistory Association* 20: 79-92.
- Vernon L. Scarborough, John W. Schoenfelder and J. Stephen Lansing. 2000. "Early Statecraft on Bali: The Water Temple Complex and the Decentralization of the Political Economy". *Research in Economic Anthropology*, Vol. 20: 299-330.
- Lansing, J. Stephen. 1999. "Anti-Chaos, Common Property and the Emergence of Cooperation", in *Dynamics in Human and Primate Societies: Agent-Based Modelling of Social and Spatial Processes*, ed. Timothy Kohler and George Gumerman, Santa Fe Institute and Oxford University Press: 207-224.
- Lansing, J. Stephen. 1999. "Foucault and the Water Temples: A reply to Helmreich", *Critique of Anthropology* 20(3):337-46.
- 1999 J. Stephen Lansing and Therese A. deVet, "Head-hunting, chieftainship and alliance in southern Nias", in Structuralism's Transformations: Order and Revisions in Indonesian and Malay Societies, ed. Lorraine Aragon and Susan Russell. Tempe, AZ: Program for Southeast Asian Studies, Arizona State University, pp.69-91.
- 1998 J. Stephen Lansing, James N. Kremer and Barbara B. Smuts, "System-dependent selection, ecological feedback and the emergence of functional structure in ecosystems", Journal of Theoretical Biology **192**, 377-391.
- 1998 J. Stephen Lansing, Philip S. Lansing and Juliet Erazo, "The Value of a River". Journal of Political Ecology (5). <http://dizzy.library.arizona.edu/ej/jpe/vol5~1.htm>
- 1997 "Systems Theory", in Thomas Barfield, ed., The Blackwell Dictionary of Anthropology. Oxford: Blackwell Publishers Ltd., pp 462-63.
- 1997 Bali and Daisyworld: ecological feedback and the emergence of functional structure in ecosystems", Mathematical Social Sciences **33** (1997), 95-6.

- 1997 MacroScope: exploratory analysis of ecosystems for fieldworkers. Rome: United Nations Food and Agriculture Organization.
- 1996 "The Aesthetics of the Sounding of the Text", in Jerome Rothenberg and David Guss, eds., The Book, Spiritual Instrument. New York: Granary Books, 21-45.
- 1996 "Stella in Bali: Systems-ecological simulation modelling of irrigation systems", in Jonathan B. Mabry, ed., Canals and Communities: Small-scale irrigation systems. Tucson: University of Arizona Press.
- 1995 J. Stephen Lansing and James N. Kremer, "A Socio-ecological Analysis of Balinese Water Temples", in Indigenous Knowledge Systems: The Cultural Dimension of Development, ed. D.M. Warren, L. Jan Slikkerveer and David Brokensha. London: Intermediate Technology Publications, 1995; New York: 258-268.
- 1995 James N. Kremer and J. Stephen Lansing, "Modelling water temples and rice irrigation in Bali: a lesson in socio-ecological communication", in Charles A.S. Hall, ed., Maximum Power: The Ideas and Applications of H.T. Odum. Niwot, Colorado: University Press of Colorado: 100-108.
- 1995 J. Stephen Lansing and James N. Kremer, "Engineered Landscape: Balinese water temples and the ecology of rice", Encyclopedia Britannica Yearbook of Science and the Future, 1996, pp. 196-219.
- 1994 Review of Frederick Barth, Balinese Worlds. Journal of Asian Studies, Summer 1994, 618-619.
- 1993 "Emergent Properties of Balinese Water Temples", American Anthropologist 95 (1) [March]:97-114. Also published in Christopher Langton, ed., Artificial Life III: Addison-Wesley and the Santa Fe Institute Studies in the Sciences of Complexity, Vol X: 201-225. Redwood City, CA, 1994
- 1990 "The Decolonization of Ethnographic Film", Society for Visual Anthropology Review, Spring 1990: 13-16.
- 1990 "Humanized Nature and Objective Spirit", Reviews in Anthropology Vol. 19:187-193.
- 1987 Review of Cederroth & Gerdin, eds., Rice Societies: Asian Problems and Prospects. American Anthropologist, Vol. 89:421-2, June 1987:495
- 1987 Review of Danker Schaareman, Tatulingga: Ritual and Social Organization in a Balinese Community. American Anthropologist Vol. 90, No. 2:467-8
- 1986 "Balinese Religion", in M. Eliade, ed., Encyclopedia of Religion. New York: MacMillan

- 1986 "Megalithic Cultures of Southeast Asia", in M. Eliade, ed., Encyclopedia of Religion. New York: MacMillan
- 1985 Review of Ian Mabbett, ed. Patterns of Kingship and Authority in Traditional Asia. Journal of Asian Studies,
- 1983 "The Indianization of Bali", Journal of Southeast Asian Studies, Vol. XIV, No. 2:409-421
- 1982 "The Sounding of the Text", in Rothenberg and Rothenberg, eds., Symposium of the Whole. Berkeley: University of California Press: 241-256.
- 1981 "A Balinese Faust", Parabola: Myth and the Quest for Meaning. Vol. VI, No. 4
- 1981 Review of Anthony Forge, Traditional Balinese Paintings. Journal of Asian Studies, Vol. XI, No. 4: 849-50.
- 1980 "Cycles of Time", Parabola: Myth and the Quest for Meaning. Vol VI, No. 4
- 1979 "In the World of the Sea Urchin: The Application of Husserlian Phenomenology to Cultural symbols", in Becker and Yengoyan, eds., The Imagination of Reality: Essays in Southeast Asian Coherence Systems. Norwood, N.J.: Ablex: 75-84.
- 1979 "The Court-Village Axis in the Balinese Arts", in E. Bruner, ed., Art, Ritual and Society in Indonesia. Ohio University Papers in Southeast Asia Studies.
- 1978 "Economic Growth and the Traditional Society: A Cautionary Tale from Bali", Human Organization, Vol. 37 no. 4:391-394

In review:

"Anthropology and history: topologies of the possible", School for Advanced Research Press.

ETHNOGRAPHIC FILMS & SIMULATION MODELS

- 2009 "Voyagers on the Ring of Fire"
A 47 minute anthropological film about genes, languages and the Austronesian expansion, produced for the National Science Foundation. Directed by J. Stephen Lansing, edited by A. Ashley Stinnett.
- 2003 SAIL (Simulated Agents in Love), An agent-based simulation of rule-based marriage and genetic relatedness
<http://www.ic.arizona.edu/~lansing/home.htm>
- 1999 "The Sacred Balance"

- Anthropologist/presenter for sequences on Balinese ecology in a 4 part science series hosted by David Suzuki and co-funded by the National Science Foundation. See <http://www.sacredbalance.com/web/baliintroduction.html>
The Water Priests Apprentice simulation game:
<http://www.sacredbalance.com/web/baliintroduction.html>
- 1999 “Love in Paradise...?” (anthropologist/presenter)
A 27 minute video on Balinese ideas about love and marriage, produced by Cafe Productions for Geo (German television).
- 1996 “The Way of Science” (anthropologist/presenter)
Program 4 of the PBS Science Series “The Human Quest”, nationally broadcast beginning April 1996
- 1995 “The Tribe’s Plan”
A fourteen minute video for the Skokomish Indian Tribe, produced and directed by J. Stephen Lansing.
Available as streaming video from <http://www.ic.arizona.edu/~lansing/home.htm>
- 1994 “Farmer’s meeting”; “From the Mountains to the Sea”; “Aftermath of the Green Revolution”: three short videos for the Balinese agro-ecology exhibit in “The Great Technology Challenge”, a travelling exhibition on sustainable technology created by the California Museum of Science and Technology: Videos are shown in a Balinese farmer’s meeting pavillion, accompanied by photos and interactive displays based on Priests and Programmers: Technologies of Power in the Engineered Landscape of Bali.
Available as streaming video from <http://www.ic.arizona.edu/~lansing/home.htm>
- 1994 Heal the Watershed!
A 22 minute video for the Skokomish Indian Tribe, produced and directed by J. Stephen Lansing. Finalist, Italian International Festival of Ethnographic Films, Sardinia, Oct. 12-15 1994.
- 1988 The Goddess and the Computer
A one hour ethnographic film, produced and directed by J. Stephen Lansing and Andre Singer. Camera by J. Stephen Lansing and Mike Thomson. Produced by Channel Four London and broadcast over British television November 11, 1988. Acquired for U.S. broadcast on the PBS science series “NOVA”, WGBH Television (Boston). British selection for Italian International Festival of Ethnographic Films, Sardinia, Oct. 1-3 1990. Distributed in the U.S. by Documentary Educational Resources, Boston , MA (tel. 617-926-0492).
- 1988 Bali Model (a systems ecology model of water temples and paddy ecology)
<http://www.ic.arizona.edu/~lansing/home.htm>
- 1983 Chiefs and Kings of Indonesia
A one hour documentary film by J. Stephen Lansing, produced by The Disney Channel for “The Explorers” series. Distributed by The Disney Channel.

1981 The Three Worlds of Bali

A one hour ethnographic film, "written by J. Stephen Lansing and based upon his own research". Broadcast over national public television in the ODYSSEY series on November 17, 1981. Awarded CINE Golden Eagle in 1982. Distributed by Documentary Educational Resources, Boston, MA (tel. 617-926-0492).

TEACHING

At the University of Arizona Lansing created and regularly teaches two graduate courses, *Complexity and Social Theory* and *History of Anthropological Theory*, as well as two undergraduate lecture classes, *Introduction to Cultural Anthropology* and *Ecological Anthropology*. Mean course evaluation scores for the graduate courses for 2000-8 was 4.65 (comparison mean 4.6); for the undergraduate courses 4.65 (comparison mean 4.2). Since 2000 Lansing's grants have provided \$523,930 in direct support for students: \$59,638 for 32 undergraduates; \$335,115 for 24 graduate fellowships, and \$129,177 for two post-docs.