STUART WHITE--Curriculum Vitae

Contact Information
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Education
A.B., Harvard College, in Social Relations (cum laude), 1970
M.S., University of Wisconsin-Madison, in Geography, 1975
Ph.D., University of Wisconsin-Madison, in Geography (minor in Anthropology), 1981

Languages
English: Native tongue
Spanish: Fluent speech, write and read with ease
Quechua (Cusco dialect): Spoken in monolingual Peruvian community, 1977-1980

Development Experience, Research Projects, Consultancies, Employment
1982-present, Cañar, Ecuador. Owner and manager of a private protected area, the Mazar Wildlife Reserve (MWR), covering a total of 1800 hectares, of which 94% is wild. The property ranges 9,200' to 12,100' elevation and is covered by montane forest and paramo grasslands above treeline. The MWR is dedicated to environmental education and the conservation of native habitats. It has hosted numerous student ecology programs, and short field courses sponsored by Ecuadorian rural development organizations.
In conjunction with the Fundación Cordillera Tropical, the MWR currently supports scientific research in hydrology, mountain cats, the Andean bear, amphibians, butterflies, frogs (four new species have been described), páramo soils and stream invertebrates. Outputs by researchers include various MS and PhD theses, plus a large number of peer-reviewed papers. The high-elevation paramo is a venue for a field course given through the Geography department at the University of Vermont (UVM).
The MWR includes an area of pastures at its lower elevations dedicated since 1985 to raising alpacas, with about 400 head. The alpaca operation generates income to fund the conservation activities, and has served since 2013 as the setting for a field course in alpaca husbandry through the Animal Science department at UVM.

2014-present, Cañar, Ecuador. Member, *Corporación Nacional de Bosques y Reservas Privadas del Ecuador* (CNBPRE), an organization dedicated to incorporating wild habitats under private ownership into the national system of protected areas in Ecuador.

2000-present, Cuenca, Ecuador. Founder and General Coordinator (2000-2010), acting Executive Director (2017) and President of the Board (2016-2021) of the Fundación Cordillera Tropical (www.cordilleratropical.org), a conservation NGO dedicated to working with the resident farming population to protect native montane forest and páramo grasslands within and bordering Sangay National Park, and to providing a bridge between these endangered habitats and researchers from Ecuador and abroad.

2000-2001, Ecuador. Personal initiative to import 300 alpacas from renowned breeders in southern Peru. The motivation for this importation was to improve the quality of Ecuador's alpaca fiber production, and to broaden the national herd's genetic base.

1998, Ecuador. Consultancy for the *Corporación Financiera Nacional*, a development bank of the Ecuadorian government, to establish the parameters of a new line of credit for alpaca production, summarized in the document, *Producción Comercial de la Fibra de Alpaca* (Prointec Consultores, Quito, 176 pp.).

1992 (-1991), Colombia (Bogotá and Tolima). Participating consultant on an interdisciplinary team for Earth Satellite Corporation (Washington, D.C.) and the *Instituto Geográfico Agustín Codazzi* (Bogotá, Colombia), executing a GIS project funded by the Interamerican Development Bank.

1990, Ecuador (Chimborazo and Cañar). Consultancy for the *Instituto Nacional Forestal y de Areas Silvestres* (INEFAN) to write a feasibility study for the inclusion of unprotected wildlands into the system of national Protected Areas. The final report, *Soroche: Estudio de Factibilidad para la Incorporación de una Nueva Área al Sistema de Áreas Protegidas del Ecuador* (1990, Cuenca, Ecuador, 275 pp.) describes the natural, social and archaeological resources found in the area surrounding Soroche Mountain, in the eastern cordillera of southern Ecuador, and provides a plan for its management within the country's national park system. Based on this study, in 1992 the government added 245,800 hectares to the contiguous Sangay National Park, doubling its area.

1989, Ecuador. Consultancy for the *Instituto Nacional Forestal y de Areas Silvestres* (INEFAN), and COTESU , the Swiss development agency, on the economic prospects and legal protection of South American camelids in Ecuador.

1985, Ecuador (Cañar). Personal initiative, in coordination with the Cuenca office of the Ministry of Agriculture, to import 90 alpacas from Chile. Alpacas had become extinct in Ecuador by the late 1800s, and this 1985 importation from Lauca National Park (northern Chile) began a restitution of the species in Ecuador, allowing its benefits to accrue to the indigenous populations occupying the higher Andean elevations. With subsequent importations by other actors, and the growth of the national herd, by 2023 Ecuador's alpaca population reached at least 6000. Most of this population is owned and managed by native communities, restoring a valuable pre-Columbian patrimony to Andean subsistence systems.

1982 (summer), Ecuador (Azuay). Research project to study the use of organic matter as nutrient source in microscale vegetable and flower production, with support from the Fulbright Commission and the University of New Mexico, Albuquerque.

1977-1980, Peru (Cusco). Doctoral dissertation fieldwork in the highland village of Vilcabamba. The wild vegetation above the agricultural zone was wet puna grassland, with patches of brush and isolated stands of *Polylepis* forest. This mosaic is usually described as natural, but it became clear during residency in Vilcabamba that the distribution of vegetation types does not correlate with environmental factors but rather with the history of land use practices of the local community. This argument was subsequently published in The *Yearbook of Latin Americanist Geographers*.

1974 & 1973 (summers), Peru (lower Urubamba River). Investigation of cedar and mahogany logging as it is practiced by mestizo entrepreneurs and Machiguenga workers in a remote region of eastern Peru. This study formed the basis for the MS thesis, part of which was published as an article in *The Geographical Review*.

1971-1973, Colombia (Cauca), Peace Corps. Livestock extension agent with the *Instituto Colombiano de Reforma Agraria* in the mountains of Cauca Department. Responsibilities included aiding land reform beneficiaries in routine health and husbandry practices, including vaccination, castration, nutritional supplementation and birthing.

Academic Employment

2014-present, Adjunct Assistant Professor, University of Vermont, Department of Animal and Veterinary Sciences (https://www.uvm.edu/cals/asci/adjunct-faculty#white). Field course taught: *Bootcamp in Alpaca Husbandry* (ASCI 3605).

2012-present, Lecturer, University of Vermont, Department of Geography and Geosciences (https://www.uvm.edu/cas/geography/faculty). Field course taught: *Reading Grass Páramo: The High Andes Underfoot (GEOG 2730).*

1983-2014, Adjunct Assistant Professor, University of New Mexico, Albuquerque, New Mexico, Department of Geography

2011-2012 Lecturer, University of Vermont, Burlington, Department of Geography. Course taught: *World Regional Geography*

2002-2009, Instructor, Round River Conservation Studies (www.roundriver.org), Ecuador Field School (accredited by Utah State University). Course taught most semesters: *Páramo as Hunter-Gatherer Landscape*

2003, Visiting Assistant Professor, University of New Mexico, Albuquerque, Department of Geography. Undergraduate course taught: *World Regional Geography*; upper-level and graduate course: *Environmental Conservation*

1995, Visiting Assistant Professor, University of New Mexico, Albuquerque, New Mexico. Undergraduate course taught: *Resource Use of the Central Andes*

1994, Researcher, Univ. of Azuay, Ecuador, *Facultad de Zootecnia*. Study of comparative productivity of alpacas in four mountain environments, funded by the *Consejo Nacional de Ciencia y Tecnología* (CONACYT), Quito.

1981-1983, Assistant Professor, University of New Mexico, Albuquerque, Department of Geography. Undergraduate courses taught: *Agricultural Systems of the World*, *Man and Nature in North America*, *Regional Geography of South America*, *World Regional Geography*; Graduate Seminars: *Traditional Agriculture*, *Plant Formations of the Andes*.

Publications, Selected Reports, Presentations, and e-Contributions

2015 (with C. Schloegel [first autor], L. Lojano and D. Houkal), *Manual de Implementación para el programa de Acuerdos de Conservación en las subcuencas altas de los ríos Mazar y Dudas* (Guide to the implementation of Conservation Agreements in the upper Mazar and Dudas Watersheds). Fundación Cordillera Tropical: Cuenca, Ecuador, 160 pp.

2013, Grass páramo as hunter-gatherer landscape, *The Holocene,* 23(6): 898-915.

2008, Treves A & S White, *Una revisión a metodologías para la mitigación del conflicto entre el hombre y la vida silvestre y optimizando la planificación para la intervención*. II Simposio Internacional del Oso Andino. Miraflores, Lima.

2009 (with A Treves [first author] and RB Wallace), Participatory planning of interventions to mitigate human-wildlife conflicts, *Conservation Biology*, 23(6): 1577-1587.

2009, *Conservación de hábitats nativos de altura en Ecuador por medio de la cría de alpacas*, Presentation before the V World Camelid Conference (*Congreso Mundial de Camélidos*), Riobamba, Ecuador, 17-21 November.

2009, *Páramo como paisaje de cazadores-recolectores*, Presentation before the II World Páramo Conference (*Congreso Mundial de Páramos*), Loja, Ecuador, 21-25 June.

2006, Sarcocystiosis: A disease endemic to Andean alpacas, pp. 437-444, Chapter 18 in E. Hoffman, *The Complete Alpaca Book, 2nd edition* (Bonny Doon Press, Santa Cruz, CA).

2004, *Alpacas y Llamas como Herramientas de Conservación de Páramo*, contribution to the *III Foro Electrónico sobre Páramos* (Proyecto Páramo Andino/ CONDESAN).

2001, *Perspectivas para la producción de alpacas en el páramo ecuatoriano*, La Agricultura y la Ganadería en los Páramos, Serie Páramo 8, GTP/Abya Yala, Quito, pp. 33-58.

2000, *Introducción al Manejo de Alpacas*, Manejo de Páramos y Zonas de Altura, IEDECA/CAMAREN, Quito, pp. 153-250.

1998, *Parasitismos de alpacas en el Ecuador*, Memorias del Primer Seminario Nacional de Producción de Rumiantes Menores, 16-18 diciembre 1998, Escuela Politécnica del Ejército, Facultad de Ciencias Agropecuarias (IASA), Quito, Ecuador, pp. 10-18.

1998, Sarcocystosis: A disease endemic to Andean alpacas, *The Alpaca Registry Journal*, 3, pp. 51-64.

1997, A Healthy Alpaca Bite--Nature or Nurture? *Alpacas* (Journal of the Alpaca Owners and Breeders Association, USA), summer edition, pp. 22-24.

1995, Apparent acute sarcocystosis outbreak in alpacas, *Memorias, I Convención Internacional de Cabras Lecheras y Camélidos Sudamericanos*, ESPOCH/Universidad de Brigham Young, pp. 87-96, Quito.

1991 (with F Maldonado), The use and conservation of natural resources in the Andes of southern Ecuador, *Mountain Research and Development*, 11(1).

1987, Preliminary site survey of the Punkuyoc range, southern Peru, *Ñawpa Pacha*, 22-23.

1985, Relations of subsistence to the vegetation mosaic of Vilcabamba, southern Peruvian Andes, *Yearbook, Conference of Latin Americanist Geographers*.

1984, Landscape of events, *Journal of Cultural Geography*, 4 (2).

1978, Cedar and mahogany logging in eastern Peru, *The Geographical Review*, 68 (4).

Work in Progress (*provisional titles*)

Preliminary site survey of the Timbuyacu Valley, Ecuador (with historian Deborah Truhan). We describe one of the largest pre-Conquest terraced sites in Ecuador, a high and remote valley first visited by the author in 1990, and which is undescribed in the archaeological literature. The site is pristine, having no current residents and no evidence of having been disturbed since abandonment during the early Colonial period. Observations suggest that the local production systems involved llama pastoralism, tuber production and perhaps mining, and that it included an unusually large nucleated settlement. It provides an excellent opportunity to determine páramo and high montane land use practices during the Cañari and Inca periods.

Dos Guanderas and *Reading Grass Paramo*. These two articles, intended for a specialized readership in paramo paleoecology, seek to affirm the role of anthropic fire as an ecological variable in grass paramo etiology and maintenance. *Dos Guanderas* examines the contradictory palynological and anthracological data generated by different research groups at the Guandera Reserve in northern Ecuador. *Reading Grass Paramo* examines patch forests, the upper forest limit, grass dominance, shrub paramos (among other paramo landscape elements) to suggest that paramo represents an fire-arrested succession, rather than being an expression of a climatically driven plant community.

Specializations and Research Interests

- Páramo and puna biogeography
- Resource management in the pre-Columbian Andes
- Mountain farming systems and land-use
- Private reserves as a critical biodiversity conservation tool in Ecuador
- South American camelids, especially the alpaca