

PITZER COLLEGE COSTA RICA

ENVIRONMENT, PEOPLE AND RESTORATION

Background:

The area surrounding the [Firestone Center](#) (FCRE) is one that has been subject to many human management strategies. FCRE's property was, at one time managed by indigenous people. The theory is that the land was a sacred site; the 52 found petroglyphs and the cemetery found in the property (which shows indication of robbed graves) are part of the evidence. For many decades deforestation was a big problem in the area as people made way for crop production and cattle pastures. Deforestation was such that at one time a large portion of the Firestone Center's property was pasture. In the 70's Costa Rica began promoting ecological sustainability by establishing payments for environmental services, a strategy that paid landowners to put their land under conservation. Also, during this time Costa Rica realized the potential available in ecological tourism and placed much of the land in the Southern Pacific (as well as many areas of Costa Rica) into conservation and tourism. As a result, Southern Costa Rica increased such that today ecological tourism is the biggest source of income to the area. Domatical and its close neighbor Uvita, developed rapidly. Where there had been little infrastructure, in the last 10 years grocery stores, banks, and housing projects have developed. Many foreigners have come to live in the area making it a blend of management strategies as some want to conserve the land, others desire to live off the land, and yet others want to take advantage of the tourism potential of the area.

This course is a combination of lectures, study tours, and activities taught by guest local experts in following two themes of interest:

- Agroecology
- Pre-Columbian indigenous communities

Learning objectives:

In this course, students will develop:

1. An understanding of the basic principles of Agroecology.
2. An understanding of the basic Soil Science.
3. An awareness of the indigenous communities that inhabited the local area.
4. Practical hands-on skills to conduct rock art field work.

Assessment:

1. Field Journal (25 points)

A very important part of fieldwork is keeping a field journal. In the journal you will record the day-to-day details of your work, including places you visit, people you meet, and notes on the lectures and activities in which you participate. The journal can be used to facilitate writing the reflection papers (see below). The journal will be assessed by giving 2.5 points per daily entry for a total of 12 entries.

2. Written Reflections (50 points)

At the end of each theme, students will write a reflection paper. These papers should reflect your thoughts about, and critical appraisal of, the theme in question. What are the major issues, concepts, and processes described? What are the presenter's main conclusions? What weaknesses and shortcomings do you find in the topics presented? What experiences have you had with the theme? How would you incorporate what was presented in the course to your daily life? These reflections can be informal but should be well written. In assessing the reflection I will be looking for 1) interesting

questions presented clearly and precise; 2) well-reasoned conclusions; 3) open minded thinking, recognizing the assumptions, implications, and practical consequences of your perspective; 4) effective communication of your position.

- a. Food System Reflection (25 points)
- b. Petroglyph Reflection (25 points)

3. Participation (25 points)

Students are to be active members of the course. Participation involves being alert in lectures, presentations, and activities; asking questions related to the topic in hand; and actively engaging in all activities of the course.

Grade breakdown

A: 95-100 points	B: 84-86 points	C: 74-76 points	D: 64-66 points
A-: 90-94 point	B: 80-83 points	C-: 70-73 points	D-: 60-63 points
B+: 87-89 points	C+: 77-79 points	D+: 67-69 points	F: <59 points

SCHEDULLE

Topic	Reading
Am: Agroecology Pm: Soils or Harold (BEES)	Thrupp, L.A. 2004, <i><u>The Importance of Biodiversity in Agroecosystems</u></i> , Journal of Crop Improvement, V.12, No.23-24, pp. 315-337 Clememnts, D. R.; A. Shrestha, 2004, <i><u>New Dimensions in Agroecology for Developing a biological Approach to Crop Production</u></i> , Journal of Crop Improvement, Vol. 11 #21/22 pp1-20.
Am: Soils or Harold (BEES) Pm: Harold (BEES) or Soils or Bee movie	<u>Stehouwer, R., 2003, Soil Quality Fundamental, Biocycle Magazine, 2003</u>
Am: San Isidro Farmer's Market PM: Farm visit or Harold (BEES)	
Am: Planting activity Pm: Planting activity (Front of Dorm and Butterfly/Medicinal plants)	Kuar, B. M. and P.K.P. Nair, 2004, .The Enigma of Tropical Gardens, Agroforestry Systems, Vol. 61 pp. 135-155
Am: Petroglyph walk Pm: Garden video / Boruca videos	Duran, Maria et all, 2014, Culturas Ancestrales de Costa Rica, Universidad de Costa Rica, Escuela de Filologia.
Am: Tinamastes Farmer's Market Pm: Garden Activity	
Study Tour: Finca 6 https://diquis.go.cr/en/visite-osa-sitio-museo-finca-6.html	Corrales, F., 2015, Asentamientos Cacicales con Esferas de Piedra del Diquis, Museo Nacional de Costa Rica
Am: Activity Pm: Guest lecture	Rao, M.R., Medicinal and Aromatic Plants in Agroforestry Systems, Agroforestry Systems, 61:107-122
Activity	

EPR Write up #1 Food Systems write up due by 5pm	
Study Tour: Boruca Indigenous Community http://www.boruca.org/en/about-boruca/	
Activity	
Study Tour: Nauyaca Waterfalls	
EPR Write up #2: Indigenous Communities Write up Due by 5pm	

READINGS

Thrupp, L.A., 2204, *The Importance of Biodiversity in Agroecosystems*, Journal of Crop Improvement, Vol.12, No. 23-24, pp. 315-337.

Clements, D.R., A. Shrestha, 2004, *New Dimensions in Agroecology for Developing a Biological Approach to Crop Production*, Journal of Crop Improvement, Vol. 11 No. 21/22, pp. 1-20.

Stehouvwew, R., 2003, *Soil Quality Fundamentals*, Biocycle Magazine, October 2003.

Kumar, B. M. and P.K.P. Nair, 2004, *The Enigma of Tropical Gardens*, Agroforestry Systems, 61:135-152.

Rao, M. R., 2004, *Medicinal and Aromatic Plants in Agroforestry Systems*, Agroforestry Systems, 61:107-122.

Duran, Maria et al, 2014, *Culturas Ancestrales de Costa Rica*, Universidad de Costa Rica, Escuela de Filologia

Corrales, F., 2015, *Asentamientos Cacicales con Esferas de Piedra del Diquis*, Museo Nacional de Costa Rica