

BOT 444/ SUST 445: Ethnoecology and Conservation

Semester focus: From grape to glass: an ethnoecology of wine

(3CR)

Instructor: Dr. Tamara Ticktin

Contact information: ticktin@hawaii.edu

Course prerequisite: Instructor approval

Focus: *I will apply to renew the W focus

I. Course Description

This course explores the linkages between indigenous and local resource management practices and biodiversity conservation. The first seven weeks provide an overview of agroecosystems, wild harvest systems, and landscape-level management globally and in Tuscany; and examine some of ecological bases for, and outcomes of, these systems. The second part of the course grounds these concepts through a hands-on independent research on the ethnoecology of wine in Tuscany.

II. Student Learning Objectives:

Students will be able to:

- 1) Describe the principles and diversities of indigenous and local resource management systems
- 2) Explain some of the ecological outcomes of different indigenous and local resource management practices
- 3) Demonstrate a capacity to analyze agroecological production systems with appreciation for disparate viewpoints
- 4) Perform ethnoecological research methods and analyses
- 5) Communicate appropriately and effectively to a diverse audience through formal and informal class discussion and presentations.

III. Course materials

All course materials will be provided on Lulima.

IV. Schedule of Topics

Week 1 Introduction & overview of class
Week 2 Indigenous and local knowledge systems (ILK)
Week 3 ILK and agroecological systems
Week 4 ILK and wild harvest systems
Week 5 ILK and landscape-level management
Week 6 ILK, conservation, and climate change
Week 7 Ethnoecological methods
Week 8 Research planning: an ethnoecology of wine in Tuscany
Weeks 9-14: Independent research: meet with instructor weekly
Week 15: Group presentation

V. Grading and Assignments

<u>Assignment</u>	<u>Percent of final grade</u>
Reaction papers (7)	35%
Independent research project	55%
<i>Proposal (due week 10)</i>	10%
<i>Paper (draft due week 13; final due week 14)</i>	30%
<i>Oral presentation (due week 15)</i>	15%
Participation	10%

Grading scale: A, B,C,D,F

Reaction papers (35%) [Evaluation of SLOs 1,2, 3]

For the first seven weeks of class, you will write a weekly reaction paper based on the required readings (2-3 paper per week). The paper will take one of two types (to be announced each week):

Type 1: For each reading, write a formal reaction paper that includes: a) a brief summary of the most important points; b) what you found most interesting or surprising; b) how the paper relates to what you have learned/observed in Florence and to your experiences in Hawai'i or wherever home is for you; d) three questions appropriate for class discussion. Reaction papers should be *only* one page for each article.

Types 2: In-class essays: Answer 1-3 essay questions that I provide at the start of class, based on the week's assigned readings.

Independent research project [Evaluation of SLOs 2,4,5]

The first seven weeks of class will have introduced you to the major concepts in ethnoecology and conservation using global and local (Tuscany) examples, as well as to basic ethnoecological research methods. For the second half of the class, you will pair up with another student to apply your knowledge to carry out independent research on the ethnoecology of wine in Tuscany. Your research will involve analysis of the existing literature combined with the hand-on collection of field data, including interviews, surveys of markets, cultural festivals, restaurants, and as possible, farms. Students pairs will focus on one of the following aspects, considering the past, present and future: grape species and cultivar diversity, agroecological practices and production methods; ecological consequences of these practices; and associated cultural traditions. Together, the class research will be able provide insight on questions such as: how many species and cultivars of grape grown and sold in Tuscany and how has this changed over time? What consequences do these changes have (ecological, taste, cultural etc)? What kinds of agroecological productions systems in vineyards are found in the region and how have these changed over time? What are the ecological and cultural impacts of these changes? What methods are used to produce different kinds of wine and what is the future of local wine production under climate change?

You will be required to develop a short proposal (2 pages) with your questions, methods and weekly timeline; a draft of your paper (10 pages) with your findings; a revised draft based on the Instructor's comments; and a group presentation of the class findings. For the latter, you will be required to work with the other groups to integrate and interpret your collective findings. You are required to meet with the Instructor weekly during class period to report on progress and get feedback. The rubrics at the end of the syllabus provides guides to effective writing and oral presentations. Specific instructions will be discussed in class and posted on Lulima.

VI. Assigned Readings and other resources (provided on Lulima)

Week 1 Introduction & overview of class

Standage, T. 2005. *A history of the world in six glasses*. Walker Publishing Co., New York, New York. Chapters 3-4.

Nabhan, GP. 2011. *Where Our Food Comes From: Retracing Nikolay Vavilov's Quest to End Famine* 2nd edition. Ch2: the Po Valley.

Week 2 Indigenous and local knowledge systems (ILK)

Berkes, F. 2017. Chapter 4: Traditional knowledge systems in practice. In *Sacred Ecology: Traditional Ecological Knowledge and Resource Management* (pp. 59-79). Taylor & Francis, Philadelphia, PA

Lauer, M., 2017. Changing understandings of local knowledge in island environments. *Environmental Conservation*, 44(4), pp.336-347.

Mattalia, G. et al. 2021. "We became rich and we lost everything": ethnobotany of remote mountain villages of Abruzzo and Molise, Central Italy. *Human Ecology*, 49(2), pp.217-224.

Week 3 ILK and agroecological systems

Gruber, K., 2017. Agrobiodiversity: The living library. *Nature*, 544(7651), pp.S8-S10.

Heywood, V.H., 2013. Overview of agricultural biodiversity and its contribution to nutrition and health. In *Diversifying food and diets* (pp. 67-99). Routledge.

Pardini, A., 2009. Agroforestry systems in Italy: traditions towards modern management. In *Agroforestry in Europe* (pp. 255-267). Springer, Dordrecht.

Week 4 ILK and wild harvest systems

Turner, N.J., et al. 2011. Edible and tended wild plants, traditional ecological knowledge and agroecology. *Critical Reviews in Plant Sciences*, 30(1-2), pp.198-225.

Baldi, A. et al. 2022. The renaissance of wild food plants: Insights from Tuscany (Italy). *Foods*, 11(3), p.300.

Week 5 ILK and landscape-level management

McMillen, H. L., et al. 2014. Small islands, valuable insights: systems of customary resource management and resilience in the Pacific. *Ecology and Society*. 19 (4): 44. [online]

Piras, F., et al. Forest surface changes and cultural values: The forests of Tuscany (Italy) in the last century. *Forests*, 12(5), p.531.

Week 6 ILK, conservation and restoration

Garibaldi, A. and N. Turner. 2004. Cultural Keystone Species: Implications for Ecological Conservation and Restoration. *Ecology and Society* 9(3) (online).

Berkes, F. 2017. Chapter 8: Climate Change and Indigenous Ways of Knowing, In *Sacred Ecology: Traditional Ecological Knowledge and Resource Management* Taylor & Francis, Philadelphia, PA

Scarascia, M. et al. 2020. The hidden land conservation benefits of olive-based (*Olea europaea* L.) landscapes: An agroforestry investigation in the southern Mediterranean (Calabria region, Italy). *Land Degradation & Development* 31, no. 7: 801-815.

Week 7 Ethnoecological methods

Alexiades, M.N. and Sheldon, J.W., 1996. *Selected guidelines for ethnobotanical research: a field manual*. New York Botanical Garden. Ch2&3.

Week 8 Planning the independent study: approaches and methods

Weeks 9-14: Independent study

A list of resources will be developed with the class, examples are included below:

Traditional grape varieties

D'Agata, I., 2014. *Native wine grapes of Italy*. Univ of California Press.

Traditional uses and preparations of wine

Egea, T. et al. 2015. Spirits and liqueurs in European traditional medicine: Their history and ethnobotany in Tuscany and Bologna (Italy). *Journal of ethnopharmacology*, 175, pp.241-255.

Egea, T. et al. 2016. Traditional alcoholic beverages and their value in the local culture of the Alta Valle del Reno, a mountain borderland between Tuscany and Emilia-Romagna (Italy)." *Journal of ethnobiology and ethnomedicine* 12, no. 1 (2016): 1-20.

Ecological impacts of vineyards

Altieri, M.A. and Nicholls, C.I., 2002. The simplification of traditional vineyard based agroforests in northwestern Portugal: some ecological implications. *Agroforestry Systems*, 56(3), pp.185-191.

Sciubba, L., Mazzon, M., Cavani, L., Baldi, E., Toselli, M., Ciavatta, C. and Marzadori, C., 2021. Soil Response to Agricultural Land Abandonment: A Case Study of a Vineyard in Northern Italy. *Agronomy*, 11(9), p.1841.

Cabodevilla, X., Arroyo, B., Wright, A.D., Salguero, A.J. and Mougeot, F., 2021. Vineyard modernization drives changes in bird and mammal occurrence in vineyard plots in dry farmland. *Agriculture, Ecosystems & Environment*, 315, p.107448.

Future of wine production

Ponti, L., et al 2018. Analysis of grape production in the face of climate change. *Climate*, 6(2), p.20.

Torquati, B., Giacchè, G. and Venanzi, S., 2015. Economic analysis of the traditional cultural vineyard landscapes in Italy. *Journal of rural studies*, 39, pp.122-132.

Lombardi GV, Parrini S, Atzori R, Stefani G, Romano D, Gastaldi M, Liu G. Sustainable agriculture, food security and diet diversity. The case study of Tuscany, Italy. *Ecological Modelling*. 2021 Oct 15;458:109702.

Paris, P. et al. 2019. What is the future for agroforestry in Italy?. *Agroforestry systems*, 93(6), pp.2243-2256.

Definition

Oral communication is a prepared, purposeful presentation designed to increase knowledge, to foster understanding, or to promote change in the listeners' attitudes, values, beliefs, or behaviors.

	Capstone 4	Milestones		Benchmark 1
		3	2	
Organization	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable and is skillful and makes the content of the presentation cohesive.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is clearly and consistently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is intermittently observable within the presentation.	Organizational pattern (specific introduction and conclusion, sequenced material within the body, and transitions) is not observable within the presentation.
Language	Language choices are imaginative, memorable, compelling, and enhance the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are thoughtful and generally support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are mundane and commonplace and partially support the effectiveness of the presentation. Language in presentation is appropriate to audience.	Language choices are unclear and minimally support the effectiveness of the presentation. Language in presentation is not appropriate to audience.
Delivery	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation compelling, and speaker appears polished and confident.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation interesting, and speaker appears comfortable.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) make the presentation understandable, and speaker appears tentative.	Delivery techniques (posture, gesture, eye contact, and vocal expressiveness) detract from the understandability of the presentation, and speaker appears uncomfortable.

<p>Supporting Material</p>	<p>A variety of types of supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that significantly supports the presentation or establishes the presenter's credibility/authority on the topic.</p>	<p>Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that generally supports the presentation or establishes the presenter's credibility/authority on the topic.</p>	<p>Supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make appropriate reference to information or analysis that partially supports the presentation or establishes the presenter's credibility/authority on the topic.</p>	<p>Insufficient supporting materials (explanations, examples, illustrations, statistics, analogies, quotations from relevant authorities) make reference to information or analysis that minimally supports the presentation or establishes the presenter's credibility/authority on the topic.</p>
<p>Central Message</p>	<p>Central message is compelling (precisely stated, appropriately repeated, memorable, and strongly supported).</p>	<p>Central message is clear and consistent with the supporting material.</p>	<p>Central message is basically understandable but is not often repeated and is not memorable.</p>	<p>Central message can be deduced but is not explicitly stated in the presentation.</p>



RUBRICS

WRITTEN COMMUNICATION VALUE RUBRIC



For more information, please contact
value@aacu.org

	Capstone	Milestones		Benchmark
	4	3	2	1
Context of and Purpose for Writing <i>Includes considerations of audience, purpose, and the circumstances surrounding the writing task(s)</i>	Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.	Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s) (e.g., the task aligns with audience, purpose, and context).	Demonstrates awareness of context, audience, purpose, and to the assigned tasks(s) (e.g., begins to show awareness of audience's perceptions and assumptions).	Demonstrates minimal attention to context, audience, purpose, and to the assigned tasks(s) (e.g., expectation of instructor or self as audience).
Content Development	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.	Uses appropriate and relevant content to develop and explore ideas through most of the work.	Uses appropriate and relevant content to develop simple ideas in some parts of the work.
Genre and Disciplinary Conventions <i>Formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields (please see glossary)</i>	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task(s) including organization, content, presentation, formatting, and stylistic choices.	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices.	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation.	Attempts to use a consistent system for basic organization and presentation.
Sources and Evidence	Demonstrates skillful use of high-quality, credible, relevant sources to	Demonstrates consistent use of credible, relevant sources to support ideas that	Demonstrates an attempt to use credible and/or relevant sources to support ideas	Demonstrates an attempt to use sources to support ideas in the writing.

	develop ideas that are appropriate for the discipline and genre of the writing.	are situated within the discipline and genre of the writing.	that are appropriate for the discipline and genre of the writing.	
Control of Syntax and Mechanics	Uses graceful language that skillfully communicates meaning to readers with clarity and fluency and is virtually error-free.	Uses straightforward language that generally conveys meaning to readers. The language in the portfolio has few errors.	Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.	Uses language that sometimes impedes meaning because of errors in usage.