
SOUTHEAST NORTH AMERICAN INDIAN AGROFORESTRY CROPS AND CULTIVATION AS REPORTED BY THE DESOTO EXPEDITION

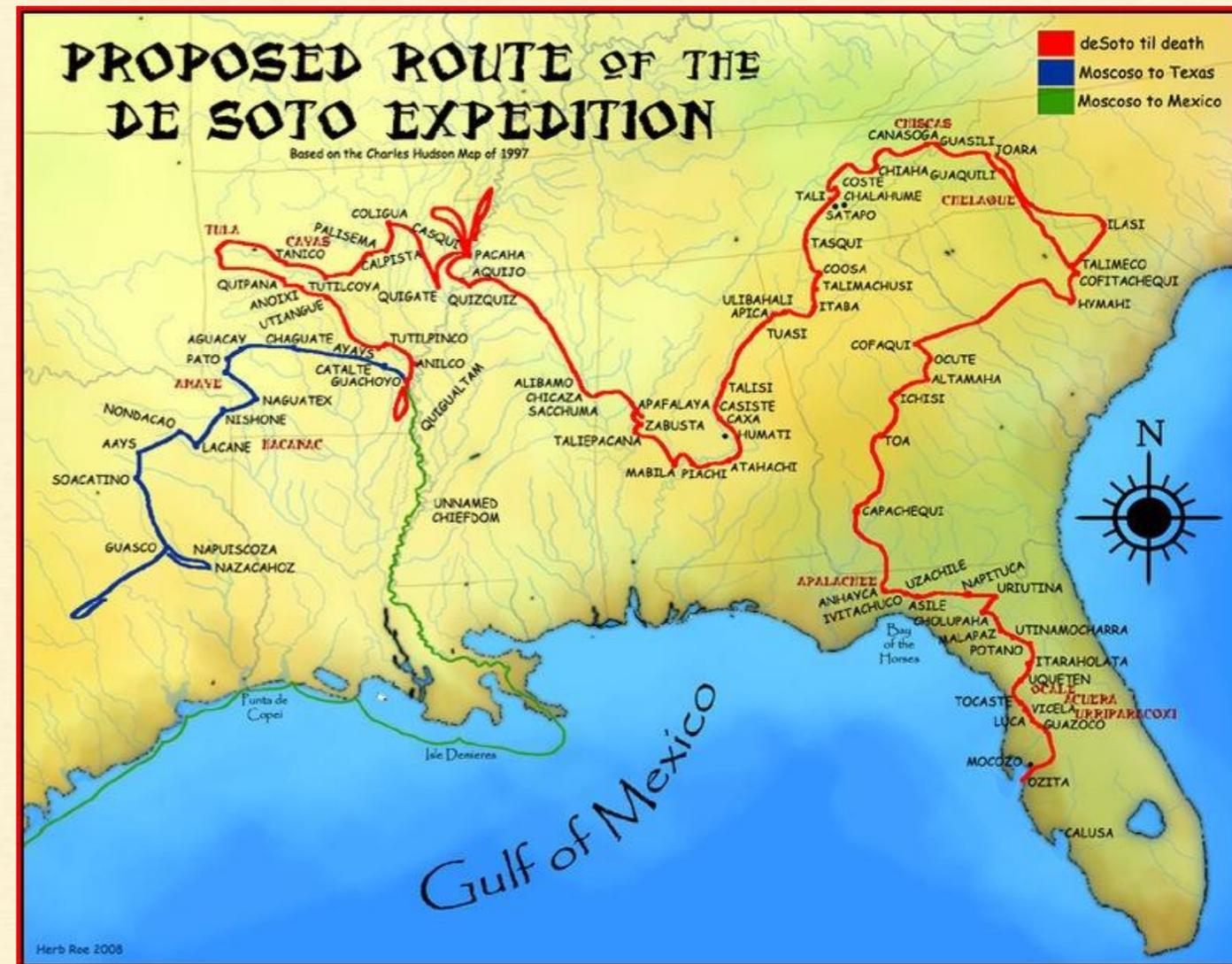
Alex Darr, Jeff Kirwan, Katie Trozzo, John Munsell
Virginia Tech

BACKGROUND: AMERICAN INDIAN AGROFORESTRY

- Very little research currently exists on the topic of American Indian agroforestry practices
 - Though there is little evidence for domestication, the abundant surplus and open forest reported by European Explorers suggests intentional management.
 - There is strong evidence in the East of a dramatic increase of oak, hickory, chestnut and pine after 3000 yr BP corresponding to increased fire and anthropogenic activity (Delcourt et al., 1998)
-

BACKGROUND: DESOTO EXPEDITION 1539-1543

- Following successful campaign in Peru with Pizarro, DeSoto appoint governor of Cuba and 'La Florida'
- Expedition consisted of 600 men, 300 horses, packs of dogs and pigs
- First extensive European expedition into North America's interior and First Europeans to cross the Mississippi
- Three first-hand accounts were published by members of the expedition, as well as one second-hand relation.



ACCOUNTS OF EXPEDITION

- A gentleman from Elvas, Portuguese Military officer
 - Rodrigo Rangel, Hernando de Soto's Private Secretary
 - Luys Hernandez (or Fernandez) de Biedma, the King's Agent with Hernando de Soto, wrote the only account of this expedition which still exists today.
 - Inca Garcilaso de la Vega - Chronicler and writer born in Spanish Peru, "some historians regard Garcilaso's *La Florida* to be more a work of literature than a work of history."
-

METHODS

Document Analysis

Cross referencing narratives of the expedition to account for bias, mistakes, falsehoods, mischaracterizations, etc.

Account for intended audience of document

Cross reference based on location and seasonality to infer identity of plants unknown to Europeans

Search for key plants, locations, and other references.

Cataloged by author, inferred common name of plant, location, date, and context from narrative.

CROPS REFERENCED

Plum

There were in Coça many plums like the early ones of Seville, very good; both they and the trees were like those of Spain

- Ranjel



Persimmon

The plums are of two kinds, red and gray, of the form and size of walnuts. ..They have three or four stones, They are better than all those of Spain and they make much better dried ones of them

- Elvas



CROPS REFERENCED

Mulberry - 'The mulberry trees are quite like those of Spain, just as tall and larger, but the leaf is softer and better for silk, and the mulberries are better eating and larger than those of Spain, and they were very frequently of great advantage to the Spaniards for food. - Ranjel



...And there was no end of mulberries, because there were many trees and it was their season; and this was a great help. - Ranjel

CROPS REFERENCED

Juglandaceae

From the great river westward, the walnuts differ from the others, for they are easier to crush and shaped like acorns. From the great river to the port, they are, for the most part, hard and the trees and walnuts seem similar to those of Spain - de Elvas

Hickory

There we first found a little walnut of the country, which is much better than that here in Spain. and in the houses were found many which the Indians had stored away. The Indians get a large quantity of oil from walnuts - de Biedma



Walnut

They traversed between the two countries a wilderness about twelve leagues long, filled with walnut trees ... arranged in such equal distance that they seemed planted for pleasure, so that they made a very delightful forest. - El Inca



ABUNDANCE

In one word, the country is so fertile, that the troops, during five months of winter there, had food in abundance ; and even to get it, they had never to go farther than a league from the quarters. - El Inca

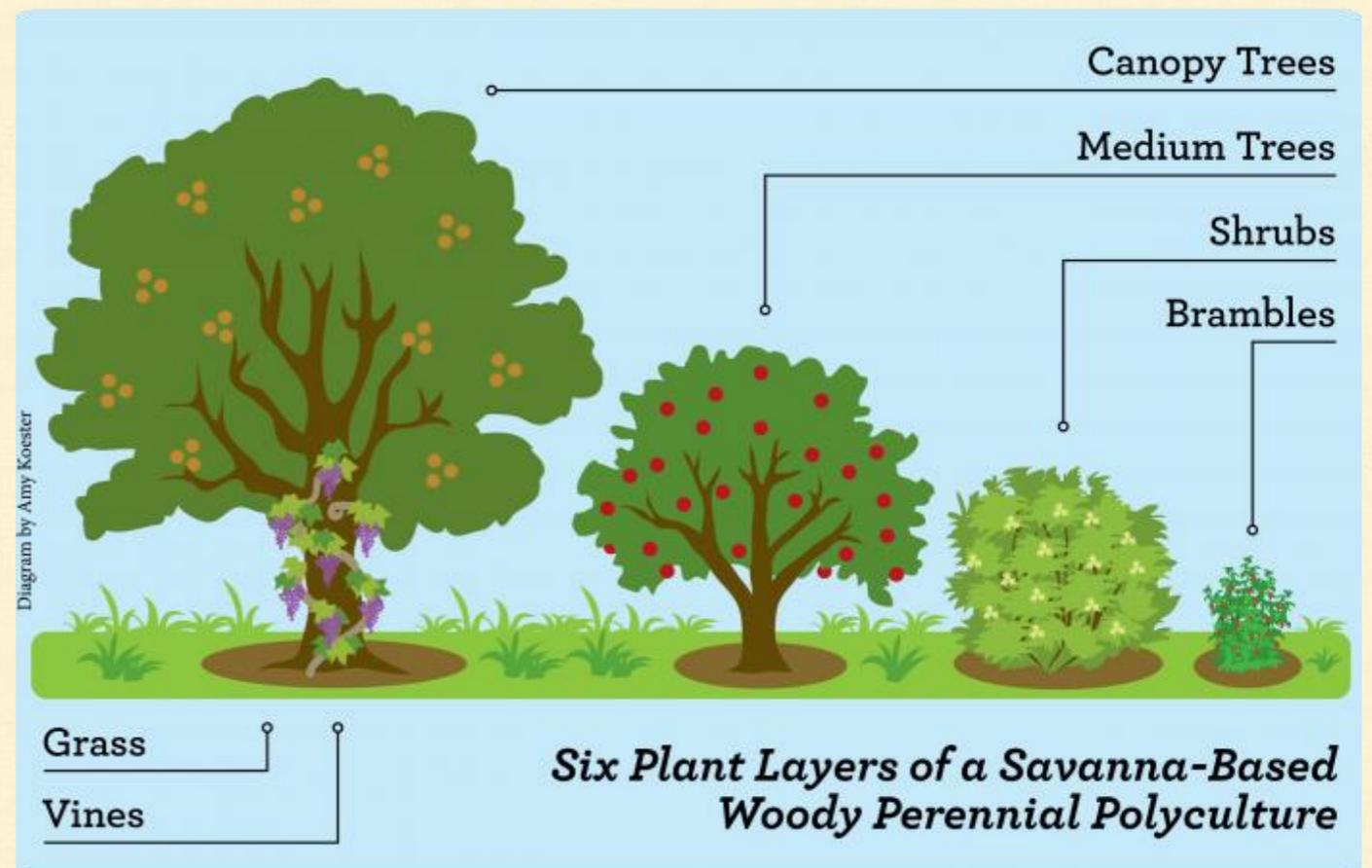


The fruits are common to all, for they grow very abundantly in the open fields, without it being necessary to plant or cultivate them. - Elvas

CULTIVATION?

In the open field were many walnut trees with soft nuts shaped like acorns. ... There were many mulberry trees and plum trees having red plums like those of Spain, and others gray, differing, but much better, ... as verdant all year as if set out in gardens and in a clear grove. For two days the governor marched through the land...and most of the way continually through land of open field, very well peopled with large towns.

- Gentleman from Elvas



CONCLUSION

Abundance & Surplus

Perennial Crops can support large populations

Open Forests

Culture & Processing

Low-input, low-maintenance, self-perpetuating

REFERENCES:

Pictures

Silkworm. Bombyx mori. Mulberry_tree. Morus (plant), Gorkaazk [Creative Commons Attribution 3.0 Unported](#)

Pignuts and shagbark hickory nuts, garnished with Washington hawthorn, janet@ouroneacrefarm.com [Creative Commons Attribution 3.0 Unported](#)

WPP Research Site, perennial polyculture layers, Ann Koester

DeSoto Narratives - Primary Sources

Gentleman From Elvas. A NARRATIVE OF THE EXPEDITION OF HERNANDO DE SOTO INTO FLORIDA. BY A GENTLEMAN OF ELVAS. PUBLISHED AT EVORA. TRANSLATED FROM THE PORTUGUESE BY RICHARD HACKLUYT.. 1557 Project Gutenberg. Web. 05 March 2015

Rodrigo, R. (1545). ACCOUNT OF THE NORTHERN CONQUEST AND DISCOVERY OF HERNANDO DE SOTO. Retrieved March 5, 2015.

De la Vega, G. (1605). Florida of the Inca. Retrieved March 5, 2015.

De Biedma, L. (1545). RELATION OF THE ISLAND OF FLORIDA. Retrieved March 5, 2015.

Secondary Sources

Delcourt, P. A., Delcourt, H. R., & Ison, C. R. (1998). Prehistoric human use of fire, the Eastern Agricultural Complex, and Appalachian oak-chestnut forests: paleoecology of Cliff Palace Pond, Kentucky. *American Antiquity*, 63(2), 263-278.

HAMMETT, JULIA E. 1992. Ethnohistory of aboriginal landscapes and land use in the southeastern United States. *Southern Indian Studies* 41:1-50.

Fritz, G. (2001). ETHNOBOTANY OF KU-NU-CHE: CHEROKEE HICKORY NUT SOUP. *Journal of Ethnobiology*, 21(2), 1-27. Retrieved May 4, 2015, from <http://ethnobiology.org/sites/default/files/pdfs/JoE/21-2/Fritz.pdf>
