

## Piedmont II Workshop:

Revision of the syllabus for ENVS-385, "Booms and Busts: Environmental Resources in the Southeastern US"

Instructors: Lowell Pritchard, Jr. and William B. Size (Dept. of Environmental Studies)

1. The original syllabus (as the course was taught in Fall 2001) concentrated mainly on Georgia's non-renewable resource booms and busts. Examples included the mining of gold, copper, kaolin, barite, marble, and ochre. We began the course using the mining of phosphate on the island of Nauru as an example that integrates the geologic, ecologic, economic, social and political dimensions of resource use. Nauru was a great boom and bust example for the students and the book describing it, "Paradise for Sale", was right to the point. However, in retrospect, an example from the southeast might have been more useful. It would be possible, for example, to compare the southeastern phosphate resource base with that of Nauru (they are geologically different but are mined in similar ways). The course also included five fieldtrips to both active and abandoned mines in Georgia. This was a good way to give the students a sense of scale, waste, pollution, energy, etc. needed to drive an industry. Future fieldtrips may include visits with local officials responsible for regulation and development, to provide a broader picture of the regional role of an industry in providing employment and linkages to other economic sectors.
2. The revised syllabus will shift to add some of the booms and busts of renewable, biologic resources such as forests, cotton, and peanuts. This is of course an integrated and highly linked set of booms and busts, where the allocation of land uses between forests and agriculture is not independent, and where a new boom (housing, sprawl) is interacting with the others at the urban-rural interface. In related way, water might be the most critical boom and bust industry in the southeast. Surface water, groundwater, desalinization, drought and floods can be integrated with the socio-political systems to show how a once renewable resource can quickly change to being essentially nonrenewable compared to the consumption and demand. The analytical tools (conceptual and mathematical models) used to understand non-renewable booms and busts can be extended to analyze other phenomena, in terms of general drivers, triggers, and constraints.
3. One of our continuing priorities is to give the student a sense of scale and magnitude of these industries. How sustainable are they? What is their ecological footprint? How do you describe the systems and cycles necessary to keep them running? What does sustainability mean in the face of such wide historical swings in resource use? How does a historical and empirical approach to resource use provide a more nuanced (or at least more complicated) vision of sustainability than an abstract "limits-to-growth" approach? Understanding the southeast's resource endowment in terms of ecosystems, geology, soils, climate, and political economy provides a way for students to learn about these processes in an integrative way that emphasizes the uniqueness of the southeast and gives a sense of place. These themes will be strongly reflected in the revised syllabus.