

## **The Piedmont Project at Emory University**

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### **Summary**

Many of society's most significant and complex problems can best be addressed and resolved through interdisciplinary inquiry. Universities are ideally equipped to address these problems, but rarely do so effectively. We describe the development and piloting of such innovation at Emory University. We seek a comprehensive approach to address issues in sustainability and the environment that is integrated at the interdisciplinary level and across all domains of the university—undergraduate, graduate and professional students, faculty, staff, and administrators. Our efforts are rooted in four reinforcing activities:

- (1) a structured curriculum development program that fosters new and reshaped courses that address environmental questions across the university;
- (2) a monthly “Faculty Green Lunch Group” that discusses current research, teaching challenges, and interdisciplinary dialogue relevant to the environment;
- (3) faculty and staff development through fieldtrips, walking tours, workshops, and gatherings, building on broad efforts currently underway in curriculum greening;
- (4) a proposed effort to link on-campus student research on environmental issues, data collection, student campus life (co-curriculum), and coordination with Facilities Management personnel through an office of environmental research support.

Each year, new participants are recruited to these activities toward building a critical mass of environmentally literate community leaders. Joining environmental issues around the world with issues from our local environment, we seek to incorporate hands-on, policy-making activities throughout, joining knowledge with praxis.

### **Interdisciplinary Activities at Emory**

While the modern university has the resources to address complex cross-disciplinary issues, its organization into discipline-centered departments has erected barriers that are often difficult to cross (Orr, 1994; 1996). Resources and especially faculty lines are usually allocated to individual academic departments, and professional schools often have little direct engagement with undergraduate education. The very geographical design of campuses serves to strengthen separation of people and ideas; scientific research facilities and classrooms, for example, are often isolated from humanities and social sciences buildings. The result is that intellectual and disciplinary segregation continues despite a general consensus that many of society's most significant and complex problems, such as emerging diseases, racial disharmony, and the state of the environment, can best be addressed and resolved through interdisciplinary inquiry (Clarke, 1991; Collette and Karakashian, 1996; Cortese, 1992; Eagon and Orr, 1992).

South African physicist and humanitarian George Ellis posits that every social problem demands three types of groups of individuals: a core of specific researchers, a group of generalists, and teams of ‘specificists’ and generalists combined (Ellis, 1994). Such teams require balance and mutual respect. Teaching young people to become part of teams of problem solvers requires more than the knowledge of disciplinary databases; it requires that they understand the limits and constraints of disciplinary methods and the modes of evidence employed, and most of all that they become knowledge generators.

Emory University, in recent years, has taken up the challenge of Ellis’ ideal. With financial resources at several different university levels, faculty have been encouraged to engage in interdisciplinary dialogue and research through semester-long faculty seminars, speaker series, graduate student and post-doctoral fellowships, special faculty appointments, and cross-disciplinary graduate degree programs. These emerge from such programs as African-American Studies, Neuroscience and Behavioral Biology, the Center for Health Culture and Society, and the Program in Science and Society.

### **Atlanta’s Environmental Dilemmas and the Ad Hoc Committee**

A small environmental program for undergraduates, combined with growing public awareness of a rapid deterioration in Atlanta’s environmental indicators, laid the groundwork for broader interest on campus. One of the early interdisciplinary efforts at Emory was the Human and Natural Ecology Program, a five-course undergraduate “co-major” (a minor concentration with the addition of an internship experience and a senior research paper) that pulled together faculty from social science and natural science departments. It was during a period of transition in leadership in this program that Atlanta’s environmental dilemmas became front page news. Municipal and regional failures to comply with the Clean Water Act and the Clean Air Act led to various federal penalties, drawing substantial attention for the first time to some negative aspects of Atlanta’s much-celebrated economic growth. A study conducted not long after revealed the Atlanta metropolitan area to be one of the fastest-growing regions in the world (Leinberger, 2001). Urban sprawl and rising population lengthened commute time to one of the longest in the nation, further increasing the number of days of summer smog. Droughts highlighted urban water use, and disputes with neighboring states revealed that increasing population growth might soon outstrip water supplies. Though known as a city of trees, Atlanta lost half its tree cover in less than twenty years, and scientists documented an urban heat island effect.

At first, few faculty expressed active concern about environmental issues. When a regional conference on Sustainability in Higher Education was held in May, 1997, only three faculty from Emory attended. Several faculty taught environmentally-focused courses in Law, Public Health, and the undergraduate College of Arts and Sciences, but there was little interaction among them. A hard-working University Senate Committee on the Environment was largely invisible to the rest of the university and absorbed the time and talents of key, knowledgeable faculty. A controversial decision to build a new road through a treasured, forested part of the Emory campus galvanized attention in the summer of 1999, and a group of faculty, staff, administrators, and students came together in the Fall to create the Ad Hoc Committee for Environmental Stewardship. This group

began to study campus environmental impact, to learn about efforts underway to ameliorate the university's environmental footprint, to promote awareness of the challenges facing the region, and to initiate action on several levels. During the first year, the group celebrated the existence of several strong academic programs and courses on environmental issues, but focused more on preservation and restoration of campus natural areas, efforts to use alternative transportation, woods walks to learn about campus natural systems, and ultimately, building support for the successful adoption of a university-wide Environmental Mission Statement ([www.environment.emory.edu](http://www.environment.emory.edu)).

### **Faculty Green Lunch Group**

Over the course of the first year of the Ad Hoc Committee's existence, it became clear that faculty fell into two groups: some wanted to engage in the on-campus challenges of "walking the talk," improving Emory's environmental performance as an institution (Creighton, 1998; Keniry, 1995), while others were more interested in research and teaching. To address the needs of the second group, three faculty—from Anthropology, Public Health, and the newly-created Environmental Studies Program—formed a steering group and started a lively monthly Faculty Green Lunch Group of faculty and staff from across the university. Each meeting highlighted an environmentally-related research effort underway, with an emphasis on discussion and interdisciplinary exchange afterwards.

Efforts were made to create a warm and supportive community, despite sharp differences among us. Participants were men and women, some at the beginnings of their careers and others senior faculty with prestigious endowed chairs. Some faculty were on the tenure-track and others were non-tenure-track lecturers. Faculty came from Schools of Law, Theology, and Public Health as well as the liberal arts departments such as English, Religion, Anthropology, Biology, Chemistry, and Environmental Studies. Efforts were made to showcase research by a diverse group of faculty; a chemist's presentation was followed by talks from public health, religion, law, and biology. In addition, a tradition emerged in which each meeting begins with a thought-provoking or humorous query that allows faculty to say a few words about themselves during introductions. ("What was something you feel grateful for today?" *Getting my lawn mowed after three weeks!* "What did you do with your Spring Break?" *Played with my little boy.* "What was something interesting you learned recently?" *That 17% of undergraduates think "a lot" is one word.*) The introductions signal that all voices are welcome in the group, that hierarchical posturings can safely be left aside, and that the whole person (in family context, outdoor experiences, travails, and successes) can be shared. The lunches soon developed a floating group of 50-75 interested faculty, of whom 20-25 came to any one lunch. Sandwiches were provided by the Provost, and administrative support, from Environmental Studies (and later, Science and Society). The group found that research presentations built knowledge and awareness of different perspectives, but that the largest attendance came in the one lunch each semester when teaching dilemmas were discussed.

## **The Piedmont Project for Curriculum Development**

The Faculty Green Lunch Group was the seedbed for the Piedmont Project. Through national meetings of Sustainability in Higher Education, members of the steering group learned about the Tufts Environmental Literacy Institute (Creighton, 1998) and the Ponderosa Project of Northern Arizona University, a five-year faculty development effort focused on supporting the integration of environmental issues into the curriculum. Peggy Barlett attended the NAU workshop in May of 2000 and returned to campus with enthusiasm for adapting it to Emory. She and Arri Eisen, together with an advisory group of eight faculty (volunteers from the Green Lunch Group), sought internal university funding for a pilot curriculum development project for the summer of 2001.

“Environmental Issues Across the Curriculum,” as the grant was named, sought ways to incorporate environmental literacy into a wide range of university courses (Executive Office of the President, 1996; Wilke, 1995). The project joined with the interdisciplinary Program in Science & Society, led by Arri Eisen, and received important logistical and intellectual support from the director and the administrative assistant. One of Emory’s structures to foster interdisciplinary work, Science and Society does not grant a degree or have its own faculty. Rather, it concentrates on fostering curricular activities like the Piedmont Project, as well as student internships, management of a cross-disciplinary endowed chair, and sponsorship of faculty development seminars, a student-run magazine, a radio show, and educational events for the public.

The proposal received funding from Emory’s competitive, in-house University Teaching Fund, and the curriculum development project was modeled after the Northern Arizona University experience. Much like NAU, our approach to changing the university culture and to building a critical mass of environmentally literate and aware faculty, administrators, and students, was through faculty development using specific course-based projects as catalysts. Our goal is to integrate issues of sustainability and the environment across all disciplines and levels of the university curriculum. The grant allowed us to develop a “synthesis” website to serve as a clearinghouse for course and faculty resources and campus events related to environmental issues (<http://www.emory.edu/COLLEGE/scienceandsociety/EATC/index.htm>).

Email announcements sent through Deans to all faculty solicited applications for the first summer program. Applications consisted of a brief description of the new course or course modules to be developed as part of the project. It was important to attract busy faculty and to ensure that they actually developed and taught the courses they planned in the workshop. Toward this end, in addition to funds for honoraria and travel support for the NAU leaders and other presenters, administrative assistance, and food, the grant provided stipends for each participant and a small ‘innovation fund’ for their courses. To receive the stipend, faculty were required to agree to spend at least three weeks over the summer in course development and to share a completed syllabus with the group. A rich mixture of faculty in Chemistry, English, Anthropology, German, Philosophy, Chemistry, Environmental Studies, Biology, and several of our professional schools, including Theology, Law, Business, and Public Health made up the first Piedmont Project cohort. We scheduled the workshop the same week as University Commencement in May and

provided food throughout. Volunteers from the initial group are leading a similar workshop the following year, and in addition to a second cohort of faculty, we hope to include some administrators in our program, as well.

The Innovation Fund was created for two reasons. First, our goal was to expand the circle of engaged faculty as widely as possible. Once faculty finished the two-day workshop, we hoped they might see needs for expertise they could gain by working with other faculty, particularly people in Environmental Studies or in related fields. These “resource persons” might not wish to be a part of the summer stipend program since their teaching was already strongly engaged with environmental issues. However, faculty could submit additional brief proposals for up to \$200 from the innovation fund, thereby reaching out for collaboration/consultation. These innovation funds provided some small thanks to those whose expertise was freely shared, a second goal of the fund.

### **The Workshop**

Our kick-off workshop followed the Northern Arizona University model, which, in turn, built on experiences in other universities (Leal, 2000:18) and was led by two experienced facilitators from that institution, Paul Rowland, Chair of Environmental Studies, and Geoffrey Chase, Dean of Liberal Arts. At a dinner on Wednesday night, faculty got acquainted and shared briefly the nature of their course projects. On Thursday, presenters offered an introduction to the concept of sustainability<sup>1</sup> followed by a series of three presentations by local experts. To strengthen participants’ awareness of the Atlanta and Emory natural environment and regional challenges, one speaker, an ecologist, described the Piedmont ecosystem in which Atlanta is located, followed by a walk in the surrounding woods. Work by Thomashow (1996) and Collette and Karakashian (1996) suggest that such time in nature helps ground intellectual learning in personal experience. A second presentation by an Environmental Studies faculty member highlighted university efforts to preserve a forest during road construction, an effort that led to new, environmentally-sensitive policies for buildings and construction on campus. The third presenter described the challenge of solid waste in Atlanta and linked it to economic concerns, city politics, and environmental justice issues. Her title, “Everybody wants it picked up, but nobody wants it put down” stimulated reflections on the disposable cups and plates used at meals during the workshop. Both of these two speakers helped link pedagogical issues to university practices and personal choices, stimulating participants to see the full range of dimensions of sustainability (Calder and Clugston, 1999; Keniry, 1995; Wackernagel and Rees, 1996).

Throughout the two days, leaders alternated between focused small-group discussions and larger sessions of the whole group. Faculty engaged the specifics of pedagogical strategies, methods of assessing effectiveness, as well as a larger discussion of identification of the overall goals for the education of our students. The second day, as well, involved an after-lunch exercise period, this time an introduction to a nearby stream and forest restoration that illustrated water quality issues. Faculty also brought their favorite books for a book table, resulting in a combined bibliography posted on the new website.

A final brainstorming at the end of the workshop led to ideas for future meetings, including a half-day off-campus check-in at the end of the summer. This meeting was successfully held at Emory's sister institution, Oxford College, where a conference center on the edge of a pond gave the group yet another ecological experience—this time in the collection and study of water organisms from the pond ecosystem. Plans to enrich the Green Lunch Group were formed, and the group adopted the label “Piedmont Project” for the broad, interdisciplinary efforts underway.

### **Workshop Feedback**

In written evaluations after the workshop ended, faculty expressed strong satisfaction with the workshop itself, its facilitation and presenters, its educational impact, and—most strongly—the opportunity to meet new colleagues.

The workshop opened my eyes to how much there is available ‘out there’ and in terms of research that would enrich the kind of course I want to teach.

The list of sources provided by participants was superb.

Although the workshop itself was valuable, the incentive it provided got me past my procrastination about working up a new course featuring environmental themes. Moreover, it will lead me to being more involved with some of the campus initiatives, since I now have met some of the persons involved.

Faculty were particularly happy to interact with colleagues from other parts of the university. When asked what they liked best, they said:

. . .our inspiring conversations about environmental education (and teaching in general) across disciplines and departments.

What I liked best was the chance to learn from a wonderful group of Emory colleagues.

Meeting in focused, purposeful discussion with these colleagues was inspiring, informative, and joyful. I also appreciated the presentations from our outside and inside resource people...they challenged us to think about pedagogy, the environment, and ecological issues in broad ways.... This program is a blessing. It provides inspiration, financial support for pedagogical experiments, a dialogical framework, and set-aside reflection time. I am very grateful to be a part.

This was the best faculty development activity I've participated in at Emory.

### **Samples of Curricular Innovation**

Perhaps the most significant evidence of the success of the workshop is the quality and diversity of the curricular innovations that grew from it. Following are five examples of the eleven new or newly-shaped courses.

**“Public Lands & Natural Resources”** (Prof. Marc Miller, Emory School of Law)

This new course connects a set of disparate laws, policies, battles, and histories that relate to public lands, waters (and the organisms and objects on them) and natural resources. His syllabus outlines the range of ways in which the study of law intersects with larger environmental issues:

But even a first effort simply to define the scope of this course runs into barriers. Which resources are considered “natural” depends on a person’s conception of nature. The notion of what is a “resource” is also subjective and contextual. Do we mean only physical objects (animals, minerals, water), or only those objects for which there is market? And if so, must it be a “real” or functioning market? Or do we include as resources qualities of land (silence, isolation, vastness, lack of human presence or control, wildness) or qualities of life forms (native over invasive; genetically varied over genetically uniform; genetically evolved over genetically engineered)?

The volume of materials, issues and laws leads to a very important point about the entire course: it is critical to see the forest and not get caught in the trees (perhaps this saying applies more literally here than for most classes). There are a handful of core themes throughout the course....

The first major theme explores basic questions of value and allocation of resources. What is the best or wisest use of the public lands and natural resources? Whose resources are they – who is the “public” in public lands? How do the answers to these questions change over time and space? Are these questions mainly concerned with identifying the costs and benefits of various uses of lands and natural resources, and if so, have we properly included the full range in both columns? Or are there other choices and responsibilities regarding public lands and resources that fit poorly or not at all within any kind of utilitarian calculus? Complex “answers” that lurk in the materials include the ideas of “multiple use” and “ecosystem management.” One particular “hot” answer to this set of questions is that public lands and natural resources should be used “sustainably,” or, in the most widely used formulation, for “sustainable development.”

We will spend significant time trying to give these ideas meaning with help from a number of texts, including Timothy Flannery’s *The Future Eaters: an Ecological History of the Australian Lands and People*, McDaniel and Gowdy’s *Paradise for Sale: a Parable of Nature*, the Bruntland Report, *Our Common Future: The World Commission on the Environment and Development*, *Restoring and Inventing Landscapes*, and Harrison’s *Constructing Sustainable Development*.

**“The Bible and the Care of the Earth.”** (Dr. Carol Newsom, Candler School of Theology)

Dr. Newsom also developed a new course that examines in systematic fashion those portions of the Hebrew Bible (e.g., Genesis 1, Genesis 2-3) that address the way in which traditional Jewish/Christian religious values support or are in tension with environmental values and ethics. Students explore creation traditions (as well as the language of prayer and praise, the legal codes, and the way in which nature/animals are brought into focus), the prophetic tradition (and its occasional suggestions of the interrelation between socio-economic and environmental conditions), the very different assessment of "wilderness" in ancient conceptions, and the ambiguous heritage of apocalyptic visions.

"The Bible and the Care of the Earth" asks students to prepare a teaching/liturgy plan in which they (1) inform a religious community about an environmental issue (2) prepare study materials dealing with that environmental issue (for this task, resources external to the course are provided by workshops), (3) prepare study materials that link the images and stories of the religious tradition to the shaping of environmental values (e.g., biblical studies, sermons, liturgies).

In developing her course, Dr. Newsom found that

Although the course has integrity and will work well as a stand-alone course, I am also anxious to develop a team-taught course with someone in another part of the School of Theology. My course is designed to be a fairly thorough investigation of the relevant texts and hermeneutical issues involved in reading the Hebrew Bible in light of modern interests in the environment. Another, team-taught version could engage some of the more integrative literature on religious values and the environment, perhaps with someone in theology or education, in which the biblical textual material becomes only one component. So, there may be more than one ultimate embodiment of this new material.

**General Chemistry** (Drs. Nancy Thornton, Preetha Ram, and Barry Ryan, Department of Chemistry in the College of Arts and Sciences)

Drs. Thornton and Ram have devoted themselves, with the strong support of the rest of their Chemistry Department at Emory, to reshaping the entire introductory chemistry sequence. Part of this restructuring involves incorporating environmental awareness into the traditional general chemistry curriculum. Although this connection between chemistry and the environment may seem obvious, traditional introductory chemistry courses often sacrifice environmental (or any other) everyday context in the effort to cover vast quantities of basic science, leaving application to the students' imagination.

Dr. Thornton's efforts have been focused on the large, introductory lecture course and laboratory sessions of General Chemistry, where she has added environmental examples throughout the course. For example, in the chapter on Atoms, Molecules, and



Ions, she added a discussion of radon gas, its radioactivity, and its effects on human health. In addition, the use of oxygen isotopes from ice core data to determine temperature and air composition over history is examined, laying the groundwork for a later discussion on global warming.

In the chapter on Thermodynamics and Energy, fossil fuels and global warming are discussed. Students work out calculations of energy output and carbon dioxide production of different fossil fuels and relate this to energy efficiency and global warming effects. Air composition and pollution are also brought into the course in the section on mixtures and compounds.

Dr. Thornton remarks, "I have greatly enjoyed researching and incorporating material related to this topic into my course. I think students enjoyed learning more about sustainability and how it relates to chemistry. I hope to be able to improve how we present the topic and how we involve the students." The biggest challenge is how to integrate this new material, without sacrificing the other material that forms basic (and critical) building blocks for later courses. One approach that has been piloted by Dr. Barry Ryan, of Public Health and Chemistry, is to offer a separate General Chemistry section that has an environmental focus.

**General Chemistry/Freshman Seminar Version** (Dr. Preetha Ram, Department of Chemistry)

Another approach to integrating environmental issues into a general, introductory course is to treat one topic—Global Warming—extensively over a period of time. Dr. Ram's course covers the same general chemistry in a small, seminar format, as part of the Emory requirement that every first year student enroll in at least one seminar class, in which enrollment is limited to 16. The topic is broached in assigned readings and is followed with discussion of the issues raised in the articles. Out of the initial discussion came the question, "Why are some gases "greenhouse gases" and some not?" This led to a discussion of three dimensional molecular structure. In a similar manner, the students raised questions such as "How and why are greenhouse gas concentrations changing?" which leads to the introduction of curricular material in order to answer those questions. As a part of this course, students conduct a study of awareness of global climate change among Emory students and learn to interpret the data.

This semester-long approach has the class revisiting the topic of global warming several times from diverse perspectives. Dr. Ram finds that the seminar format gives the teacher the flexibility to try out new ideas that then can be exported to a larger class. The experience of teaching the course has generated pedagogical reflections:

I have had to take a very critical look at our students' learning experience and a very close look at our curriculum. I have concluded that it is as important to give students the tools of learning—critical thinking, analysis of problems, collaborative work, as it is to give them content. When thinking about the global warming issue, discussing it in class, hearing other opinions, looking for information and presenting it, students learn as much as when the class focuses in the abstract on

gas laws. In fact, their enthusiasm and involvement in a real issue motivates them to learn more.

Thanks to our Green Lunch discussions and the readings I have had to do for the course, my understandings of these issues have deepened, and I am eager to learn more. I am also eager to bring up these issues with students.

### **Nature Poetry** (Dr. John Sitter, Department of English)

A new undergraduate course, this addition to the offerings of the English Department examines nature poetry and poets' relationships with nature over several centuries and two continents. The course focuses mostly on familiar writers, but allowed Dr. Sitter to explore more deeply the work of several, less well known poets. In the field of English literature, ecocriticism is emerging as a new and vibrant analytical approach. Less a school of thought than an array of critical approaches that take the relation of literature to the natural world as their starting point, ecocriticism engages prose as well as poetry.

Dr. Sitter concludes, "Reading for this course has, in fact, impressed upon me the importance of introducing ecocriticism into the training of our graduate students, the literature teachers of the next generation. Therefore, I have been planning a graduate seminar for next year: "The Nature of 'Nature' Poetry and Ecocriticism." The seminar will combine the study of selected poets from the last three centuries with attention to some of the major contemporary interpretive and theoretical work.

Together with another English Department colleague who has participated in the Piedmont Project, Dr. Sitter reports the formation of an informal reading group for faculty and graduate students in ecocriticism. "The workshops on sustainability, sharing the knowledge and commitment of thoughtful colleagues, have encouraged and enlightened me greatly. Sustainability, thought through on many levels, seems to me increasingly to be what teaching means."

### **Outcomes and Reflections**

In a number of cases, the summer's work yielded more than the original work proposed. Echoing what we saw in several of the cases just presented, one professional school faculty member had proposed to develop modules for two courses, but found inspiration for a third, as well. Professionally published products have also begun to emerge from last summer's work. One participant has presented his Piedmont Project case study at a professional meeting, where it was well received. Another presented a paper at a professional meeting and plans to work that paper into an article in the following summer. A third faculty member commented that she was surprised to find that though there are some good articles for her syllabus, "the books that have been written are not in any way comprehensive or complete.... It's on my mind to consider writing a textbook, if I am able to teach this course on a regular basis."

Professor Marc Miller of the Emory Law School may have summarized the connection between the workshop and the emergent courses best when he says:

Without the workshop, I would not have had the time to develop these materials. More importantly, I would not have had the conceptual categories and critical questions that informed my reading, selection, and drafting (on the syllabus and on related projects) over the summer. I realized immediately that the workshop provided a stimulating exchange across disciplines, and I attributed this to the quality and flexibility of Emory minds, the challenges inherent in the sticky conceptual tarpit of sustainability (its easy to get trapped; hard to get out), and the useful structure and pacing of the workshop. In retrospect, after reading and organizing materials, the virtues of the workshop have seemed to me deeper and more subtle. The process turns out to be as much the point as the putative purpose.

Faculty reported a range of experiences from the summer. One chemist celebrated the opportunity to read widely outside of chemistry. An English professor noted that the values of poetry, “patience, care, thrift, slowness,” are also environmental values.

Said Steve Walton of the Goizueta Business School:

Each of us came into the work with deeply held beliefs (often so ingrained as to be unconscious) that informed our positions and discussions. As a person trained in the methods and philosophies of business, my perspective tended to be more economically focused than many of my colleagues. This meant more effort to explain my perspective and, occasionally, a bit of disbelief from some participants from other parts of the university. This tension is personally unnerving, but professionally, it is exactly what a university is about: respectful discussion, even disagreement, about an issue that matters to everyone.

## **Conclusion**

Success of the Piedmont Project is attributable to many things, but we would like to highlight two key points. First, the workshop and its faculty development emphasis was refined over five years at Northern Arizona University and built on experiences in other universities over the last fifteen years, and Emory benefited from the wisdom of those experiences. Second, curriculum development efforts took place within a context of simultaneous ferment on campus, including:

- The adoption of a visionary University-wide Environmental Mission Statement.
- Formation of the Friends of Emory Forest, a volunteer effort to protect and restore several forest habitats on campus.
- The rapid expansion of a new Environmental Studies Department, with a highly visible lecture series.
- The creation of a new, part-time position as Consultant within the Campus Planning and Construction division. This position brings the ecological expertise of one Environmental Studies faculty member centrally into the planning and building processes at Emory. Over the last two years, Emory has begun construction on three new buildings that will seek LEED certification.

- University awards from national organizations for efforts in recycling, in the use of electric vehicles, and for promoting alternative transportation methods and a pedestrian central campus.
- A campus-wide workshop (“Nurturing a Green University”) that brought students, faculty, and staff together for a day and a half, to learn together and make concrete plans for future actions.
- The creation of an Office of University-Community Partnerships that supports scholarly activities of service to partners in the Atlanta community. This office has embraced environmental issues as one of its foci.
- Continuing efforts of the Ad Hoc Committee on Environmental Stewardship to build awareness on campus through Information and Discussion Forums on such issues as Emory’s new “green buildings” and improved public transit to the Emory area.
- Development of a self-guided walking tour brochure, supported by the Office of the President, that highlights ten sites for reflection on the human impact on the environment.
- A high-level Taskforce to study alternative environmental management systems for the university, in order to implement the university’s new Environmental Mission Statement.
- An expanded Faculty Green Lunch Group.
- A student-hosted National Undergraduate Bioethics Conference (2001) in which sessions were held on topics that bioethics has often ignored such as urban sprawl, sustainability, and related issues.
- Continuing conversations to explore a faculty environmental research group, an environmentally-focused residential college group for undergraduates, graduates, and a faculty member, and an office to support on-campus student research on environmental issues.

Finally, volunteers from the first Piedmont Project group wrote a proposal for a second summer program, and a major indicator of the continuing success of the Piedmont Project was the recent news that the proposal was successful. In 2002, however, Emory faculty will themselves organize and lead the workshop, entitled “Green Curriculum, Green Campus, Green City,” and participants will include not only other Emory faculty but also administrators. The Piedmont Project plans to seek external funds to continue the workshop annually. We are excited about the emergence of these next steps in the Piedmont Project and in our continuing efforts to establish an environmentally literate culture and community.

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<sup>i</sup> Dimensions of sustainability that contributed to this presentation included the Brundtland Report (WCED, 1987) and related publications (AtKisson, 1999; Bor, *et al.*, 1999; Harris, *et al.*, 2001; Leal, 2000; Leal, *et al.*, 1996; UNESCO, 1995)