

**An Environmental Science and Policy Major
At Smith College**

By Marie-Laure Couët
May 10th, 2006
EVS 300

Smith College, a prestigious, liberal arts institution with a reputation of activism and progressiveness does not have an Environmental Science and Policy major. Other academic institutions in the United States of comparable size and reputation have ES&P departments with respectable majors and requirements. Why does Smith lack this ever more common major? I have investigated the reasoning behind the status quo from the perspective of Smith faculty and administration and I have attempted to find solutions and alternatives with the goal of having an ES&P major. With a growing understanding of the human impact on the planet, environmental science and policy is a growing field and is no less important than other subjects being taught at Smith College.

Reasons for major

Environmental Science & Policy Today

Today's environmental issues are unprecedented. The United States was at the forefront of environmental policy and awareness in the 1970s with the passing of the Clean Air Act and the Clean Water Act. Suddenly people were aware of the importance of maintaining the environment. The importance has not dwindled and yet the public does seem to pay attention to current environmental issues. Most have become complacent, taking cleanliness for granted, believing recycling is enough. Yet as we see, for instance, in this report on National Public Radio, "the environment" should not be on the back burner.

On Saturday, April 23rd, 2006, NPR reported that Somalia struggles to cope with drought. "A two-year-long drought in East Africa had affected 14 million people, killing crops and livestock... The day [NPR] arrived in Wagid, a man was executed on the side of town. His crime: killing a man over water at a distribution site. Things are that desperate."¹ This story is not about murder in Africa, this story is about what will happen all over the world if individuals and nations do not dedicate at least some of their resources to sustaining the environment of the planet. Moreover, this story not only touches upon the importance of rectifying environmental problems, it illustrates the interdisciplinary nature of "the environment" and the need to understand the environment from the perspectives

¹ www.npr.org

of policy and government, sociology and anthropology, water management, global climate, and agriculture.

Smith: one college among many

Smith prides itself on being at the forefront of academic excellence, not only in liberal arts, but also as a women's college, emphasizing its sciences while maintaining strength in its humanities. Can Smith College really claim a cutting-edge image while distinctively lagging in the environmental sciences? Does Smith wish to insinuate that the environmental sciences are not as important as the other sciences?

By not having an ES&P major, the College is likely losing qualified candidates. A student interested in studying this field will decide not to enroll at Smith because other similar colleges have this major. It is possible to minor in ES&P while majoring in Biology or Government, for instance, but in doing so, a student is also studying topics in these majors that do not relate (at least directly) to environmental issues. While it is important to know the ancient political thinkers, it is also important to know organic chemistry. Where does the education stop? When is it limited? High school is designed to give students a taste of each subject so that they are able to decide on a focus in college.

Just this semester, Hampshire student, Marley Bauce, spoke to his academic advisor about his desire to take Smith's Environmental Science and Policy capstone seminar. The advisor suggested a similar Hampshire course as well as a similar Mount Holyoke course taught the same fall semester, 2006. Marley insisted on taking the Smith course and asked, instead, why the advisor did not approve of the idea. She told him that she wondered about the quality of the teaching seeing as Smith College did not even have an Environmental Science and Policy major. This anecdote cannot be the only one playing against our institution.

Students

Upon speaking with students at Smith College, I found that the very large majority of those involved in environmental initiatives and/or completing the ES&P minor wanted Smith to have a major and would have been majors given the option. I informally asked a group of students at a meeting about campus sustainability at Smith what they thought of the idea of having an ES&P major. A number of them said they would make it their major and no one believed it was a bad idea or unnecessary. My audience was biased, obviously, considering the purpose of the meeting and the type of student that would attend, but these are the students that a major will cater to and these are the students that will grant the greatest support for this cause. This project did not allow me to perform the necessary polling of the student body, but this is essential to getting a better sense of student support. I suggest consulting Howard Gold of the government department whose expertise is polling and creating a poll to be administered to entering and current Smith students to get a more concrete sense of how many students really want an ES&P major.

Process to create a major

At Smith College, the creation of academic programs originates from the faculty. President Carol T. Christ informed me of the process that takes place to create programs and majors. (1) Faculty members discuss and develop an idea for a new academic program. The core group of faculty members involved in the consultations writes a proposal for this new program. (2) This proposal is sent to the administration's Committee on Academic Priorities for review. The Committee either accepts the proposal or sends it back to the core faculty for revision. (3) Once the Committee accepts the proposal, it is put to the full body of Smith College faculty for a vote. Thus, for the successful birth of an Environmental Science and Policy major, it is essential that the faculty have consensus from the very beginning.

Unfortunately, the faculty is not in consensus on the idea of an ES&P major. There are a number of hesitations and out right disagreements the faculty faces, especially among those most closely tied to the current ES&P program. I spoke with nine members of the

steering committee, one faculty member from eight of the departments represented in the ES&P program.

Donald Baumer	Government
Allen Curran	Geology and Original Program Director
Elliot Fratkin	Anthropology
Andrew Guswa	Engineering
Shizuka Hsieh	Chemistry
Leslie King	Joint sociology and ES&P appointment
David Newbury	History
Amy Rhodes	Geology
Stephen Tilley	Biology

The total steering committee includes those listed above, as well as:

John Burk	Biology
Jon Caris	Geographic Information Systems
Virginia Hayssen	Biology
Joanne McMullin	ES&P Program Coordinator
Robert Newton	Geology
Paulette Peckol	Biology
Jeffry Ramsey	Philosophy
Donna Riley	Engineering
David Smith	Biology and current Program Director

According to 50% of the faculty on the ES&P steering committee, there are six main obstacles currently facing the creation of a major.

1. Logistical problems
2. A major would be too broad

3. Standard studies are best
4. Discipline study is more useful
5. Faculty will lack cohesiveness
6. Do not know what a major would look like

Obstacles to creating a major

Logistical problems

The first and most common hesitation pronounced by faculty members was what will be called, logistical. There appears to be confusion about the presence of a hiring freeze. Most believe the College is not hiring new faculty due to budget cuts and constraints. When speaking with the President of Smith College, Carol Christ, she denied the presence of a hiring freeze. Rather, she explained the process needed to create a new academic program and emphasized that if the faculty wants an ES&P major, the resources needed will be found and provided. Moreover, President Christ revealed that she likes the idea of an ES&P major and would be supportive of its creation when the faculty proposes it.

Despite these positive statements from the College administration, it has also been revealed to me, by a professor, that the College is trying to cut down its faculty. Though there is no hiring freeze, this disclosure may make an ES&P major a difficult sell. Instead of a hiring freeze, Smith is not rehiring faculty positions if the department can sustain a major without them. For instance, the Landscape Studies program has just recently hired a new professor because its program is so small, it would not be able to provide for a major without a new professor. On the other hand, John Burk, a retiring botany professor in the biology department, will not be replaced because the biology department has enough professors and enough classes for students to choose from in order to fulfill a biology major. What this means, however, is that the biology department will not be offering any botany classes – he was the only professor with this specialization.

While it is encouraging to know the President of Smith College says she would support an Environmental Science and Policy major, it is important to remember a college must always deal with resource constraints. If the college is holding back on hiring faculty that, arguably, are essential to a major that is currently in place, how willing will it be to hire the right kind and the proper amount of faculty to create a new and extensive ES&P major?

For the particular problem of the botany professor, the creation of an ES&P major may be the solution. Since the College, starting next year, will no longer have a botany professor, the major proposal could include in it the hiring of a botany professor. This way, both the Biology department as well as the ES&P program will gain a faculty member.

Breadth versus Depth

The second most common problem faculty foresaw in an Environmental Science and Policy major is the risk of creating a major that is too broad and lacking in depth. ES&P is a subject that is, by nature, interdisciplinary and interdepartmental. The subject covers, as illustrated earlier, everything from agriculture to policy to geology. The risk of creating a major that covers many subjects superficially without delving into any one subject due to time and resource constraints is real. The faculty must design the major with an effort to solve this problem.

However, when one looks at other subjects being taught at Smith as well as other colleges around the world, one must reconsider how much weight must be assigned to the hesitation behind breadth versus depth. All academic departments are too shallow. Just because a student had taken ten to twelve classes that fall under one category of study does not mean she really knows the material nor does it mean she is able to go out into the world and understand how to function in any job position. True, the basic methods of thought, unique to each discipline are learned, but when a person is hired, they are often hired because of past experience and their demonstrated ability to think critically. A person must be trained on the job, shown how tasks are performed in this particular

company or organization, and is then expected that with their past education they will be able to follow instruction and be creative and/or diligent. An education teaches a person how to think, how to seek answers, and as the Archbishop of York said, “the true purpose of education is to produce citizens.”

Standard is best & most useful

A third and fourth argument against an Environmental Science and Policy major is the belief that standard discipline training is best and most useful once out of college. In other words, there are some professors that think it is more important to study the ‘standard’ disciplines such as Biology, Geology, Political Science, History or Mathematics rather than a subject that is interdisciplinary because it is important to gain an in-depth understanding of one discipline, its methodology, to be able to engage in advanced levels of debate in this subject and apply the thought process successfully.

To counter this argument, one can ask, what is a ‘standard discipline’? Women’s Studies, American Studies, Medieval Studies, Landscape Studies, and many more current majors are not, what one may call, ‘standard.’ One professor speculates, perhaps these subjects should not have been created. Furthermore, what is considered today as ‘standard discipline’ was merely created at the turn of the 20th century. If we want standard discipline, should we, instead, look back to ancient Greek and Roman civilization? In this case students should be taught Latin, Greek and literature and women should be taught housework. I am sure this is not what was intended by ‘standard discipline training,’ but the word ‘standard’ should have no place in a world that is constantly changing. Academic training should fit the needs of the world and today the planet is in dire need of citizens educated in environmental science and policy.

There are those students that will study only environmental science and there are those that will study only environmental policy and both categories of students will successfully find employment after graduation. More often than not, however, the two worlds of science and policy will collide and an exchange of information will follow. An ES&P major will be exceedingly useful because of its interdisciplinary nature. Too often

non-scientists need to interpret science text and test results while non-politicians need to understand policy and law. Without a class of interpreters, communication and development between science and policy is severely if not completely halted. Training students to analyze environmental problems by looking at the big picture should be the foundation of environmental education. It is one thing to advocate for the shut down of all coal fired power plants due to the horrendous pollution they eject into the atmosphere, but it is another to believe this pollution should be eliminated while understanding the economic and sociological implications of doing so.

Faculty will lack cohesiveness

A fifth hesitation in regards to the creation of an ES&P major is the risk taken by creating a program encompassing professors in so many disciplines. One professor expressed concern over the lack of cohesiveness that might result because with a large department, communication is more disjointed. To remedy this problem, the current ES&P program has hired a program coordinator to serve as the liaison between all ES&P students as well as faculty. Her office is right across from the ES&P resources room where a student is able to access information on environmentally related summer internships, study abroad programs and graduate schools. Her position is essential in connecting the program and should be taken into consideration when thinking of future cohesiveness.

What is an ES&P major?

The final obstacle to the consensus for an ES&P major is the question of major requirements. A few of the faculty members interviewed expressed interest in what the major requirements would be and how it would be possible to incorporate all disciplines into this interdisciplinary study. To answer this question, all those working towards the creation of a major will need to look at other colleges that have environmental science and policy majors. Smith student Lois Stratton has dedicated her EVS 300 project to looking at other colleges' programs and her paper should be referenced when designing the ES&P major. Smith College also has a number of interdepartmental majors that should be referenced to give the designers a sense of what has been done at home.

The American Studies program, for instance, uses borrowed faculty. There are only two permanent professors that have been hired under the name of American Studies, Daniel Horowitz, also the director of the program, and Helen Horowitz. The six others are lecturers and assistant professors that teach at Smith College on a less permanent basis. Besides the two in American Studies, there are seventeen other faculty members that can serve as advisors and who originate from the departments of English, Education and Child Study, Art, History, Government, Film Studies, Anthropology, Sociology, Music, and Afro-American Studies.

The American Studies Program Student Handbook indicates under its requirements for the major, “In order to structure their studies of American society and culture, majors will select a focus—such as an era or a topical concentration—which they will explore in at least four courses. It is expected that several courses in the major will explore issues outside the theme.” The Handbook goes on to explain the details: 12 semester courses totaling 48 credits, of which (1) AMS 201 and 202 (intro and methods), (2) “eight courses in the American field. At least four must be related in a coherent manner. At least two courses must be in the Humanities and two in the Social Sciences. At least two must be devoted primarily to the years before the twentieth century. At least one must be a seminar, ideally in the theme selected,” (3) “one course that will enable the student to make explicit comparisons between the United States and another society, culture, or religion,” (4) AMS 340 (symposium).

American Studies is a very broad, very interdisciplinary subject that resolves its breadth versus depth problem by requiring students to take many different classes while maintaining a focus. This task can and must be applied to an Environmental Science and Policy major. The major could look like this:

- Introduction to Environmental Science and Policy
- 1 mathematics course (includes calculus, statistics, economics)
- 2 policy courses (government, sociology, anthropology)
- 2 science courses (chemistry, geology, biology)

- 3 courses in one of the six (gov, soc, anth, chem, geo, bio) divisions
- 2 elective courses
- ES&P seminar
- An environmentally related summer internship is highly recommended
- Many courses offered have mandatory fieldwork labs

The ES&P major outlined above is simply a proposal and will need to be better constructed when the time comes to flesh out the major. The recommendations I can make now are to simply look at the American Studies major, as well as the other interdisciplinary majors, and to look at the ES&P majors at other colleges. These examples of what has been done and what works should provide enough support and evidence that an ES&P major at Smith will work.

Recommendations

Currently, the most daunting task facing the creation of an Environmental Science and Policy major is the lack of consensus on the ES&P steering committee. To achieve this, faculty already enthused by the idea must talk with other faculty members, must show enthusiasm and the ability to successfully create an ES&P major. Since the faculty is the source of academic progress, it is the faculty most of all that must generate the passion for its creation. Furthermore, those in charge of pushing ahead must survey the student body, which may involve seeking help from the Admissions Office. And finally, it may be possible to seek support from alumnae. In terms of logistical problems, the issues foreseen have been addressed at other colleges as well as in other Smith programs and should not be the sole factor affecting the creation of a major. As Lois Stratton explains in her paper, there are ways to solve these problems.

If “the true purpose of education is to produce citizens,” then the purpose of interdisciplinary education is to produce citizens capable of a more **holistic** understanding of the world. It is a fact that humanity is immersed in ‘the environment.’ And ‘The environment’ is therefore an entity present in all areas of human study and

work - it is **interdisciplinary**. Humanity has recently become aware of its negative anthropogenic effects on the environment, yet humanity needs a **sustainable** environment. Thus, the human need for a sustainable environment warrants the interdisciplinary education of citizens to rectify the negative anthropogenic effects on the environment. The Smith College Environmental Science and Policy major will fulfill the need for this education.

Bibliography

Smith College Catalogue 2005-06 Bulletin

American Studies Program Student Handbook 2005-2006

Interviews with:

Donald Baumer	Government
Carol T. Christ	Smith College President
Allen Curran	Geology and Original Program Director
Elliot Fratkin	Anthropology
Andrew Guswa	Engineering
Shizuka Hsieh	Chemistry
Daniel Horowitz	American Studies
Leslie King	Joint sociology and ES&P appointment
David Newbury	History
Amy Rhodes	Geology
Stephen Tilley	Biology