The growth of cultural resources management over the last 30 years has raised questions regarding what should be included in the graduate training of an archaeologist. Currently, graduate training in archaeology at some California universities emphasizes academic contexts of the discipline, and training at other universities emphasizes cultural resource management. While this division is serving reasonably well the needs of both academic and cultural resource management employment, improvements could be implemented.

With the growth of cultural resources management (CRM) over the last 30 years, a dilemma has become apparent in the graduate training of archaeologists. On the one hand, we all recognize that we must obtain a broad background in archaeological theory and method in order to have the intellectual tools to make sense of the archaeological record and to make contributions to knowledge. On the other, there is much to know about techniques and about the structure and practice of CRM, as McGimsey and Davis (2000) so poignantly pointed out in their recent article. The dilemma is especially evident in training archaeologists for entry into cultural resources management, but it would be a mistake to assume that training academic archaeologists is not part of the dilemma simply because they do not need training in CRM. For a variety of reasons, they do need at least some. The ultimate source of the dilemma, of course, is the cost of education, both to the state and to the graduate student, which limits the time available for graduate education, a point made recently by Lipe (2000). Generally speaking, a student must complete the M.A. in two to three years or the PhD in no more than seven years.

In our state there is somewhat of a dichotomy among universities in graduate training. Those in the California State University (CSU) system typically provide training in archaeology at the M.A. level, often with an emphasis on cultural resources management, while those in the University of California (UC) system and private universities provide graduate training at the PhD level with an emphasis on academic careers. Many of the CSU universities have their own CRM consulting offices in which their students work, and, to the limits of their faculty resources, they provide courses specifically devoted to aspects of cultural resources management. I am also aware that many graduate-level training programs at CSU campuses offer internships at on-campus and off-campus CRM entities. Within the last couple decades, the vast majority of California archaeologists working in private-sector and public-sector CRM have been trained at CSU universities.

While CSU campuses are supplying the state with specialists in cultural resources management, the UC campuses are training most of the faculty that teach California archaeology at CSU campuses, as well as at California universities and colleges without graduate programs. Consequently, one reason why it is important for archaeologists taking an academic track in their graduate education to receive training in CRM is that they often will end up teaching courses about the nature and practice of cultural resources management. UC campuses, as well as some of the private universities in California, also are training archaeologists who go on to careers in CRM. At my university, I supervise a separate, M.A.-only track within the department’s graduate program specifically for students tied residually to the local area or having ongoing relationships with local CRM programs within such organizations as Los Padres National Forest and the California Department of Transportation. These students are exposed to the different aspects of cultural resources management through their relationship with these offices and through a tutorial that I teach. The rest of their training is the same as that of students in the department’s PhD program. Of course, we should recognize that UC campuses also are training PhD-level archaeologists who take positions in CRM, although the numbers are relatively small.
Are the California universities doing a good job in training archaeologists for academic and CRM employment? I would say that, within the constraints of resources and time, they are. The fact that excellent archaeology and management of cultural resources occurs in California is testimony to the job we are doing. Nonetheless, strains on the current system of graduate training are evident. Given the projected population growth in California over the next decade, more students with an interest in archaeology will be going to college, and colleges and universities will have to grow substantially to meet the educational demand. Will there be enough archaeologists with training at the Ph.D. level to fill the new faculty positions that will be created over the next decade? I'm not entirely sure. Furthermore, with population growth there will be more land development and more pressure on cultural resources on public lands, and consequently more archaeologists will be needed in cultural resources management. I am already hearing from my colleagues in CRM firms that they are having difficulty finding new employees who have the training to direct projects or carry out specialized analyses of artifact collections.

My recommendations for improving and expanding graduate education in California are simple and almost self-evident, and they are largely consistent with suggestions made recently in Bender and Smith's edited volume, *Teaching Archaeology in the Twenty-First Century* (2000). While I do not see that we are experiencing any sort of crisis as we face the future, I do think we have to be aware of the changes that are occurring, and we always must be evaluating our current graduate educational system to determine how it might be improved. I emphasize, however, that we must think in terms of priorities: what are the most important aspects of a graduate education, given the different career tracks into which archaeologists with graduate degrees enter? In other words, given the constraints of resources and time, what should we be teaching and what aspects of knowledge may not need to be part of a graduate curriculum? Here are my answers to these questions:

First, I argue that the bottom line in graduate education is that any archaeologist, whether professor or CRM project director, must gain a clear idea of the goals of archaeology as a discipline. The fundamental goal of archaeology is to contribute to knowledge about the nature of past culture and society and how and why it changed through time. This knowledge is used for a variety of purposes: for the goals of social science generally, to provide information relevant to other sciences such as biology and geology, and to satisfy public interests in heritage. To generate this knowledge, archaeologists must come out of a graduate program well grounded in archaeological method and theory. We cannot cut back on this aspect of training in light of all the other competing topics that ideally also should be included in graduate education.

Second, graduate education aimed at training archaeologists for academic positions should include some formal training in the nature and structure of cultural resources management. I believe there is room in graduate programs on UC campuses to include at least one such course. Teaching such a course, or set of courses, recently has become a good deal easier as a result of publication in just the last four years of a spate of books concerned with different aspects of the philosophy and practice of cultural resources management (Craib 2000; Drennan and Mora 2001; Hardesty and Little 2000; King 1998, 2000; Neumann and Sanford 2001). Unfortunately, one problem in implementing this recommendation is the reluctance of archaeology faculty whose research does not take place in California to recognize the fact that many, indeed most, of their students eventually will be involved in CRM in one way or another.

Third, greater attention should be given to introducing students to the ethics and research standards that are characteristic of our discipline. The Register of Professional Archaeologists promulgates a code of ethics and standards of research performance that can serve as an excellent basis for this aspect of graduate education.

Fourth, we should recognize that formal education does not necessarily end with a graduate degree. Opportunities for continuing education should be expanded. The workshops offered in connection with SCA Annual Meetings and at the Annual Meeting of the Society for American Archaeology are examples. Typically, these workshops focus on technical training, but I
propose that continuing education also should include training in new developments in theory and method.

Fifth, the technical specializations in archaeology should be given more recognition in training for careers in both academia and CRM. Specialists responsible for different aspects of fieldwork, collections analysis, and data analysis are a fact of life in both academic and CRM archaeology, and academic archaeologists need to be more aware of the different kinds of specialties that are becoming necessary aspects of larger archaeological projects so that they can provide venues for specialist education.

Finally, we all must be aware of trends occurring in California that are affecting or will affect graduate training in archaeology. I have mentioned that population growth is one of these trends, but another is the changing ethnic makeup of California's population. We can expect that perspectives toward heritage will change, which will affect the kinds of courses we teach and may also affect the kind of attention we give to cultural resources.

In conclusion, we cannot rest on our laurels but must assess our graduate programs as they are now and determine how they can be improved and adapted to meet future needs.

REFERENCES CITED


