February 2004 was a memorable month for me. I recall nervously entering the office of Ken Wilbur, then president of the Graduate Student Arts and Sciences Council, as a second year Engineering Physics student, keenly aware of the absence of Engineering representation on what I had then assumed was an all-embracing graduate student council. I remember Ken’s surprise to hear that graduate students in Engineering performed a fair amount of research, and then shared with him my vision to create a technical research journal specifically for the UVA graduate student community. Ken warned me there and then that this was a project that had been started before, with no success, but at the same time, he generously and enthusiastically granted me no small measure of moral and financial support. Ken introduced me to Andre Nance, a Ph.D. candidate in the Classics department, and we began to map out the challenges that would await Amalgam in the months ahead. It is only now that I have realized just how accurate his forecast was, and yet I can take pride in knowing that they have been met, and will continue to be met, thanks to the tremendous amount of support I have received from the graduate student community.

Graduate students are a specialized bunch. We slave away at our research, reading and writing, measuring and analyzing, zoning in on problems a mile deep yet only an inch or two wide. With this in mind, many people have objected to the idea of a multi-disciplinary journal - who would read it? they ask. But I have found, at Amalgam information evenings, wine and cheese receptions, and in casual conversations with students all throughout campus that, although specialized, UVA graduate students also seek to be well-versed in the many other research activities going on around them. Departmental divisions, however, and the absence of a
common medium for dialogue make this challenging, even frustrating, so much so that interdisciplinary discussions can leave the partakers feeling unintelligible and uninformed.

*Amalgam* seeks to change this. By drawing together a multi-disciplinary editorial team, we hope to clear the rubble of technical jargon and austerity from the pathways that could otherwise connect us to other worlds of academic study. Graduate students, forging new frontiers of understanding at the cutting edge of their fields, have been invited to submit accounts of their research that are readily intelligible to the average graduate reader, or can easily be made so. By opening up these doorways between disciplines we hope to spark new avenues of interdisciplinary thought, collaboration and appreciation throughout the campus of the University of Virginia.

I am very grateful to all the graduate students who have contributed to this first issue. As all of us know, it takes time and work to produce that finished manuscript. I also express my gratitude to the *Amalgam* editorial team, whose names are given on the inside cover. Without you this publication would not exist. *Amalgam* also owes a debt of gratitude to our financial sponsors: the offices of the Vice President for Research, the Dean of Arts and Sciences, the Parent’s Program and the Graduate Student Arts and Sciences Council.

It is my hope that *Amalgam* will become the new home for graduate student research here at the University of Virginia, and that together we can continue to foster a vital graduate student community, one that is excited about the exchange of ideas both within and across disciplines. The very name *Amalgam*, conceived by Hridesh Rajan, a graduate student in Computer Science, alludes to the drawing together of different elements to form one cohesive compound. Such is our vision.

Stay alert for email announcements regarding our informational evenings and occasional events. I look forward to seeing you there.

Christopher Taylor

*March 31st 2005*