College and Graduate School of Arts & Sciences University of Virginia Third Century Campaign Planning Faculty Subcommittee Meetings on the Five World Challenges October 2016

Our Planet

# • Research Hubs: Environmental Futures

Confronting the greatest global challenge of our time will require collaboration across the sciences, social sciences, humanities, law, commerce, and other fields of inquiry. The College has the opportunity to bring together existing research in energy, catalysis, resiliency, coastal and forest ecology, and other sciences with emerging strengths in environmental humanities, law, and policy to form distinctive research hubs around the theme of Environmental Futures. Such a transdisciplinary commitment to addressing environmental crisis and change will drive new research agendas and student programs (perhaps a major expansion of the Environmental Thought and Practice major) with direct and tangible benefit to the Commonwealth and the common good.

## • Institute for Science, Ethics, and the Public Good

A cross-paradigm initiative with the purpose of translating the findings of transformative basic science into public language, programming, and outreach. Might include an interdisciplinary major or minor, collaborative research and programming, and new media initiatives in addition to a dedicated communications platform and regular events. The NSF and other federal funding bodies are emphasizing more and more the importance of communication and educational outreach (especially for large collaborative grants), meaning this initiative could have real leveraging effects across the sciences.

#### • UVA Science Competes

To address some of the world's most urgent challenges, the science departments call for major targeted investments in personnel, equipment, and infrastructure—investments that will also make UVA's scientific disciplines newly competitive on the world stage. A central focus of the Cornerstone Plan and the Provost's Office is to strengthen UVA's research capacity with emphasis on providing hands-on experiences for students while bolstering the University's reputation for excellence in the experimental sciences through targeted but meaningful investments. A key component of this initiative will be the acquisition of sophisticated equipment and instrumentation that allows for new types of measurements to be made and new types of questions to be raised and answered. UVA Science Competes will be a mark of the University's and the College's strong conmitment to international distinction in the sciences.

# Our Living Systems

#### • Synthetic Biology

Application of **STEM** to modify and accelerate design of genomes to solve global problems for human benefit. There are enormous ethical, legal, and humanistic implications, which could make this a pan-University strength of UVA.

#### Immunoanalysis and Engineering

A pan-University institute enabling cutting-edge analysis, manipulation, and engineering of the immune system. Immunity is essential to rising public health threats (i.e. Alzheimer's Disease, heart disease, cancer, allergy/autoimmunity). A unifying institute could catalyze major interdisciplinary breakthroughs that lead to treatments and cures. Like synthetic biology, this research area could forge innovative ties with law, ethics, policy, and other disciplines.

# • Neuroscience/Personalized Medicine

The University has the opportunity for a national leadership role in the future of neuroscience research, bringing a UVA Brain Institute together with the life science-related departments in A&S, Engineering, and Medicine. This theme could forge connections across several other campaign proposals in the sciences including Functional Neuromics, the Flourishing Child, and Youth at Risk. It could be expanded to include all human diseases and systems through the kinds of Big Data approaches imagined in the Futures challenges (see below).

#### • UVA Science Competes

(See Our Planet above. This idea was reinforced by the Living Systems group)

# • Our Cultures & Societies

#### • Jefferson Research Incubators

"Architecture is my delight," Jefferson wrote, "and putting up and pulling down, one of my favorite amusements." In this spirit, we propose to create a permanently reconfigurable infrastructure (bricks-and-mortar, administrative, and intellectual) for sponsoring faculty working groups successively pursuing various themes. Among the topics proposed that would be suitable for such an initiative: New Enlightenment/Enlightenment and Modernity, Jeffersonian Ethics, Democracy in the 21<sup>st</sup> Century, Memory Studies, and the Global South. More specific subjects have arisen as well. "Appalachia: Culture, Health, Resilience," for example, would broaden the idea of Virginia After Coal to include public health, resilience (food, fuel and forests) and more. It could connect to UVA-Wise (and Virginia Tech) and include any number of departments and schools. While funding for such initiatives is available through the Clay Endowment, Page-Barbour, and other sources, these incubators would make such purposefully temporary initiatives part of the sustainable research infrastructure of the College. They would fund visiting scholars, conferences, course development, book subventions, basic research support, and public outreach for intensive but time-limited periods and be "pulled down" at the end.

#### Digital Humanities/Digital Learning Center

Innovate teaching and scholarship in Digital History and Humanities by building out a broader, more active, and more inclusive pan-University center for Digital Humanities. As a former leader in this field with one of the founding figures as its new University Librarian, UVa can reclaim international leadership with a visionary commitment to the future of Digital Humanities. (Note that DH@UVA conference takes place this week, with an eye on the future.)

## Global Law Institute

A pan-University initiative that would build on the strengths of the national reputation of UVA as a center of excellence for the teaching and study of legal history, genocide and human rights, citizenship and migration studies, comparative constitutional law, and global trade and finance, among other fields. The formation of a Global Law Institute would position the University as an international leader in the study and teaching of law through humanistic and social scientific inquiry and pedagogy.

#### Center for Translation/Global Scholarship in Languages and Literatures

"Spanish. Bestow great attention on this and endeavor to acquire an accurate knowledge of it," Jefferson wrote in 1787. "Our future connection with Spain and Spanish America will render that language a valuable acquisition." Global Studies has helped to break down barriers between continents, regions, and nations. The push towards the global, however, has often sacrificed depth of cultural and linguistic competence. UVA has an opportunity to lead the field of Global Studies by endowing an Initiative for Global Scholarship in Languages and Literatures. While also serving the demand for practical applications of translation in the public and private sectors, the Center would build on the strength of UVA in Global Studies and the Digital Humanities by bringing together research and teaching in traditionally isolated languages and cultures. Funds could support faculty research and publications in languages other than English; the creation of digital resources for creating and aggregating scholarly work in languages other than English; faculty fora for translingual areas of inquiry; a Global Studies track requiring enhanced language competency; and subventions and events for translations of important creative and scholarly works. This initiative could be housed in the current Center for Global Inquiry and Innovation but funded independently from it.

## Center for Global Religion

A Center for Global Religion would draw together scholars from across the university for the study of religion both throughout the globe and on a global scale. The Center would address urgent contemporary problems on topics such as Religion and Global Democracies, Religions and Environmental Health, and others. The Center for Global Religion has buy-in from a large number of faculty from numerous disciplines and obvious real-world implications, suggesting that the initiative could achieve prominence and fundraising success in the near term.

## • Our Creative Expressions

#### • Music, Media, and Film

Innovative spaces in Arts Grounds or Emmett/Ivy housing the Department of Music and the Department of Media Studies (the latter perhaps tied to the Alderman renovation). Such an initiative would confront the longstanding difficulty of raising funds for a discrete Music Building. Will need considerable discussion with both departments but the connections seemed clear and compelling to the subgroup.

# • Mapping the Soundscape: A UVA Sound Lab-Studio

The field of sound studies has emerged as a crucial arena of multidisciplinary inquiry. Bringing together musicologists, engineers, historians, lawyers, psychologists, anthropologists, and others, sound studies combines the conventional analysis of music with the sociology of listening; the visual analysis of sound with its cognitive modeling; and the historical interplay between sound, memory and emotion. A unified Sound Lab-Recording Studio would create a diverse set of physical spaces to bring together teaching classrooms, research facilities, performance venues, and meeting areas. A UVA Sound Lab-Studio would seek to map the place of sound in the human past, measure its presence and import, and chart its possible futures.

#### City Grounds/Urban Grounds

A visionary and outward-facing extension of the College to weave UVA teaching, learning, arts, student life, and public service into the diverse fabric of the City of Charlottesville. Could combine upper-class residences and programming, classrooms, gallery, performance, and lecture spaces, Open Grounds/Creativity Center, a home for the Virginia Film Festival, administrative offices, and other university functions into a single downtown campus. Suggested sites include the Ix complex, the East Main St. corridor, and even the Landmark Hotel site on the Downtown Mall, currently under consideration by the city for an eminent domain claim.

#### Our Future

# • Computational Modeling

Creating an umbrella structure for the number of ways quantification, computation, and data analysis can be strengthened across A&S. This will be a Literacy area in the new undergraduate curriculum, but a larger focus on how to evaluate, organize, visualize, and present data is needed. "Information & Interpretation" and "Data, Modeling, Visualization and Statistics" were discussed as possible labels for this kind of initiative.

# Digital Learning and Information (See Our Cultures & Societies above. This Digital Humanities-based idea was reinforced by the Our Future group)

• UVA and the New Enlightenment (See Our Cultures & Societies above. This idea was reinforced by the Our Future group)

# • Other Considerations

- Capital Building Projects
  - Sciences Building (with Engineering and Medicine). Possibly tie with the ideas of Instrumentation/Equipment as well as commons and classroom space.
  - City Grounds (see Our Creative Expressions above)
  - Building(s) for Music and Media Studies
  - UVA Conference Center (pan-University). The University is desperate for space to bring the world to Charlottesville to showcase our faculty, students, and contributions to the world.

# • International Thomas Jefferson Prize

Prize given for achievement in a variety of disciplines (spanning the entire University, potentially). Prize is linked to a commitment to spend time at UVA interacting with faculty and students-several weeks or even a semester.

# • Role of the Public University

This might be tied to the democracy-related ideas, to Our Futures, or possibly at the "brand level" of the Third Century Campaign. UVA, with its distinct history tied to the founding of the nation, could stake a claim as "America's Public University" and study the future of the university from a variety of perspectives.