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FROM THE KEYBOARD OF

brian e.c. schottlaender

As many of you know, the Libraries, due to recent and anticipated budget cuts, have been working to consolidate the collections and services of two UC San Diego library facilities—the International Relations & Pacific Studies (IR/PS) Library and the Center for Library Instruction & Computing Services, CLICS)—into our two large library buildings, the Geisel and Biomedical Libraries. Toward that end, the Libraries recently completed the first phase of a 3-year effort to consolidate all of our general print collections. While consolidating our materials on campus is needed to accommodate our smaller physical footprint, we are also trying to respond proactively to the preference of our students and other library users for digital formats and their expressed wish for more dynamic and flexible study and computing spaces.

Our consolidation efforts to date have focused on those materials—mostly older journals and monographs—that have not been used over the last ten years. Only those materials that were low use, available digitally, or held in other UC libraries or a regional library storage facility were considered for withdrawal from our collections.

This summer, our consolidation efforts focused primarily on reducing the number

of materials in our offsite annex and freeing up space in Geisel Library in order to accommodate materials from the IR/PS Library. The IR/PS materials, which include approximately 140,000 volumes, are now located on the 8th floor of Geisel, and will soon be consolidated into the existing Social Sciences & Humanities collections in Geisel. In 2012, we plan to install compact shelving in Geisel Library, which will require the temporary relocation of some materials from Geisel to the annex. These materials will remain accessible as faculty and other users will be able to request items for prompt delivery back to a campus library. For journals that are not available online, the Libraries will provide a new scanning service that will deliver articles to the requester's desktop.

In an effort to both respond to the needs of our users and meet the increased need for study space on campus, we are also working to add new study and computing spaces—both individual and group—in Geisel. 126 workstations have been added at Geisel for the fall quarter, and we are planning to add more than 260 new study seats over the next year. In addition, the East Wing of Geisel Library (currently the Science & Engineering Library) will be open 24/7 during 10th and Finals weeks to accommodate the increased demand



for study space during this time.

While we realize that faculty may experience some inconvenience, including longer waits for some materials, I assure you that we remain committed to retaining onsite those materials most needed to support active teaching and research. We also remain committed to ensuring timely access to both physical and digital materials for faculty, students, and other users. We greatly appreciate your patience and support over the next year, as we implement changes and enhancements to the Libraries' spaces and services.

For additional information about the Libraries' consolidation efforts: <http://libraries.ucsd.edu/budgetcutsFAQ/index.html> If you have comments or concerns about these activities, please feel free to contact me directly at: becs@ucsd.edu

With best regards,
Brian E. C. Schottlaender
The Audrey Geisel University Librarian

Researchers to Participate in Research Cyberinfrastructure Pilot Projects

Dr. Jacopo Annese, The Brain Observatory



Last spring, the UC San Diego Research Cyberinfrastructure (RCI) Implementation Team

invited researchers and research teams to participate in the Research Curation and Data Management Pilot Program. Twenty applications were received and after due deliberation, the RCI Oversight Committee selected eight pilot projects, five that are curation-intensive and three that are storage-intensive. The pilot participants will receive assistance with: the creation of metadata to make data discoverable and available for future re-use; ingest of data into the San Diego Supercomputer Center's (SDSC) new Cloud Storage system, which is accessible via high-speed networks; and movement of data into Chronopolis, a geographically-dispersed preservation system.

Data curation plays an essential role in the university's research cyberinfrastructure initiative, which is critical for supporting and advancing academic

Libraries Receive \$1.1 Million Bequest From Alumna Alice Marquis

The UC San Diego Libraries have received a generous bequest from the estate of Alice Goldfarb Marquis, Ph.D., an accomplished writer and historian who earned her doctorate in History from the university. The \$1.1 million gift from the Alice G. Marquis Living Trust represents the largest bequest ever to the Libraries. The bequest will help to maintain and enhance collections and services of the UC San Diego Libraries, with a portion of the gift specifically designated to augment the existing H. Stuart Hughes UCSD Libraries Endowment for Modern European History. The Libraries will also direct some of the proceeds from the bequest to help fund a new 24/5 study area within the Geisel Library.

"Alice Marquis, a stalwart supporter of the UC San Diego Libraries, was an avid user of Geisel Library and its diverse resources when she was working on her doctorate here in History," said Brian E. C. Schottlaender, The Audrey Geisel University Librarian. "Alice understood the importance of library collections to research and teaching, which is demonstrated by her wish that a portion of these funds—approximately \$300,000—be used to build and maintain those collections that support History faculty, students, and scholars. We are extremely grateful to Alice for her generosity. It is especially helpful at a time when we are experiencing such severe budgetary challenges."



"This generous gift comes at a critical moment when the library budget has been slashed dramatically," said Pamela Radcliff, chair of the UC San Diego History Department and a historian of modern Spain. **"What many people don't realize is that in fields like history, access to physical books and manuscripts remains crucial to our scholarship and teaching, so that library collections are essential to maintaining our status as an elite research university. We have a strong cohort of Europeanists in the History Department, with more than two dozen graduate students, all of whom will benefit tremendously from this donation."**

According to Schottlaender, a portion of these funds will be used to support the opening of a new 24/5 study facility that will enable students to spend more time in the library. With the recent closures and consolidations of library facilities, study space for students on campus is a top priority.

"Having a library space on campus that is open 24 hours a day has long been at the top of students' wish lists," said Schottlaender. Currently, the Libraries keep study space within Geisel Library open 24 hours during 10th week and finals. The new study area within Geisel is expected to be open to students in fall 2012, and will help to compensate for study space that was lost with recent library consolidations.

"This is very exciting news for all students," said Anish Bhayani, undergraduate student representative on the university's Academic Senate Library Committee. "Since the time I arrived at UCSD, I have seen the Libraries reduce their hours and then, most recently, close the CLICS and IR/PS library facilities. Undergraduate students have been begging for a 24-hour location on campus to study so it is gratifying that the Libraries have heard our pleas and that this will finally become a reality next fall."

A skilled journalist as well as a historian, Marquis earned her doctorate degree in Modern European History from UC San Diego in 1978, com-

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research in the digital age. In addition to the university's own need to manage research data, federal funding agencies are requiring that the data generated by publicly-funded research be easily discoverable and accessible. The National Institutes of Health (NIH) have been requiring researchers to share their data since 2003, and other funding agencies have begun to require similar action. In January of 2011, the National Science Foundation (NSF) began requiring that research proposals include a "data management plan" to ensure that all NSF-funded research is adequately disseminated and shared with the public. In selecting the pilot projects, the RCI Oversight Committee considered data type, data quantity, and the willingness of researchers to assign a member of their research group to work with the RCI team, comprising staff from SDSC and the UC San Diego Libraries.

The five data curation pilot projects include:

■ **The Brain Observatory**, created and directed by Dr. Jacopo Annese in the Department of Radiology. The project will create the infrastructure to preserve and curate the digital version of the brain of patient HM, the most studied neuropsychological patient in modern medicine. HM became amnesic after undergoing experimental surgery in 1953 for the relief of epileptic seizures. During more than five decades of ensuing studies, his case generated more than 2,000 scientific publications and elucidated most of the concepts on human memory function. The project goal is to preserve the anatomy relative to this case and to make the data available to the largest possible number of researchers worldwide. <http://thebrainobservatory.ucsd.edu/>

■ **The National Science Foundation (NSF) OpenTopography Facility**, managed by Dr. Chaitan Baru of SDSC's Advanced Cyberinfrastructure Development Group. This production-level data facility supports the NSF earth science community and facilitates community access to high-resolution, earth science-oriented, lidar topography data, and related tools and resources. In this pilot project, OpenTopography will explore ways to leverage the UCSD RCI Research Data Management and Curation Program to provide fully curated, DOI-referenced, long-term hosting for the OpenTopography data archive. <http://www.opentopography.org/index.php/about/>

■ **The UCSD Levantine Archaeology Laboratory**, a joint program of the Division of Social Sciences and the Center of Interdisciplinary Science for Art, Architecture and Archaeology (CISA3), directed by Anthropology Professor Tom Levy. The increas-

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Sandra Brown



Sandra Brown, a professor of psychology and psychiatry, was appointed vice chancellor for research in December 2010. As the director of the Office of Research Affairs, Brown both provides leadership for the university's research enterprise and oversees the university's organized research units, contracts and grants, technology transfer, animal care and welfare, research ethics, and postdoctoral scholars, as well as other units. During her more than 20 years on the UC San Diego faculty, Brown managed academic appointments in the departments of psychology and psychiatry, and also directed clinical, education, and research activities as the chief of psychology at the Veterans Affairs Health System. In the following interview, Brown talks about UC San Diego's goals and challenges as a research institution and the university's research cyberinfrastructure efforts.

Q&A

UC San Diego Vice Chancellor for Research

Q You were just appointed last December to your post as vice chancellor for research. What do you see as your short- and long-term goals in facilitating research at UC San Diego?

A In the time I've held this post, I've been impressed by the amount of work that the Office of Research Affairs does, largely unseen, to enable, advance, and improve our billion-dollar research enterprise. From administering the enormously complex contracts-and-grants process and managing conflicts of interest to developing standardized online tools for principal investigators and research teams, we do a lot of absolutely vital work behind the scenes supporting research efforts large and small. Beyond making sure that we have the resources we need to enhance our key support functions, my short-term aim is to improve the research process for the faculty—to make it as easy and transparent as possible. In the long term, we want to build our working relationships with American industry and the international research community.

Q Recently, your office announced that UC San Diego researchers had succeeded in obtaining \$960 million in funding last year—impressive by any standard. How does an institution like UC San Diego maintain this level of research funding at a time when we are faced with such economic challenges?

A Very briefly, our success is our faculty. As I said in the news announcement, our success in attracting that impressive level of funding is attributable to the hard work of research teams across campus, and it's also true that the kinds of research we undertake here at UC San Diego have the potential for the benefits that funding agencies are pursuing. From new medicines and alternative fuels to pioneering computer technologies, much of our campus research is focused on discoveries that can improve people's lives sooner rather than later—and the possibility of those discoveries attracts investment. We may not always be able to maintain record or near-record levels of funding. But we certainly have the faculty, the postdoctoral scholars, the students, the staff—and the institutional boldness and creativity—to compete strongly for the funds that are available.

Q Now that NIH, NSF and other funding agencies are requiring that researchers include in their research proposals data management plans that describe how the data will be preserved, disseminated, and shared, research universities like UC San Diego are having to develop new research cyberinfrastructure services to assist our researchers in meeting this new requirement. What role do you see the Libraries playing in this process?

A It's widely known throughout the UC system—and nationwide—that the UC San Diego Libraries have taken a strong leadership role in using technology for collecting, preserving, and sharing scholarly and scientific data. We certainly appreciate that the Libraries collaborated with the San Diego Supercomputer Center to put information about the required data-management plans and research-data curation on university Web pages very quickly, for example. We also appreciate that the Libraries cannot face the gargantuan task of digital-data stewardship alone, given the numerous institutions and disciplines involved, so the partnerships you've established with SDSC and the UC Curation Center should keep us at the forefront of "cyber-services."

Q In December 2010, Chancellor Fox and Executive Vice Chancellor Suresh Subramani appointed a Research Cyberinfrastructure (RCI) Oversight Committee, reporting to you, with the charge to guide the development of RCI at UC San Diego. Are you pleased with the progress that has been made in this area thus far, and what will you look to this committee for in the future?

A Research cyberinfrastructure is critical to the future of advances in science. As Mike Norman, director of our Supercomputer Center, has said, cyberinfrastructure is enabling a new kind of science, what he calls "cyberscience." The RCI Oversight Committee should help the campus create a cost-efficient and coordinated research cyberinfrastructure that will allow us to be leaders in the new landscape of multidisciplinary, translational research—an ambition we could not fulfill without the contributions of the Libraries, I should emphasize. One early milestone, the Web site devoted to research cyberinfrastructure, is an indication that the committee is making good progress.

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Libraries Launch San Diego Technology Archive

The UC San Diego Libraries have launched the San Diego Technology Archive, an online archive that documents the history, formation, and growth of San Diego's dynamic technology sector. The Archive includes interviews with business leaders, entrepreneurs, academics, and others who were essential to the founding, funding, and managing of the early businesses of the various clusters. With a start date of 1965, the Archive initially focuses on three technology clusters: life sciences, telecommunications, and software/information technologies.

"Over the last 20 years, San Diego has emerged as one of the preeminent technology hubs in the nation," said The Audrey Geisel University Librarian Brian E. C. Schottlaender. "Today, the region is widely recognized for having some of the richest and most dense biotechnology, telecommunications, and information technology clusters in the West and beyond. It's hard to overestimate the role that the university and other scientific institutions on the Torrey Pines Mesa played in this achievement."

According to Schottlaender, the Libraries hope to increase scholarly and public understanding of San Diego's technology trajectory and the mechanisms that underlie its success. The Archive will benefit academic researchers, historians, company employees, investment entities, and other individuals with an interest in

San Diego's unique business environment for technology and innovation.

The San Diego Technology Archive houses the recollections, perspectives, and observations of the region's visionary and entrepreneurial advocates who were directly involved in the creation and development of San Diego's technology community—including company founders and employees, entrepreneurs, venture capitalists, service providers, and academics. The Archive features a dynamic graphic representation of the "genealogy" of the companies that constitute the various technology clusters, and the cross-linkages among companies (and staff) within those clusters. In the future, newer San Diego technology clusters—such as cleantech—will be added to the Archive.

The oral histories included in the Archive follow established protocols. All interviews are and will be transcribed, cataloged, and made available online, providing scholars and the public with convenient access to the perspectives of individuals intimately involved in the creation of these technology business clusters. While the Archive is in the early stages, to date, almost 100 hours of interviews with more than 60 individuals have been completed and are being processed for inclusion in the Archive.

For more information about SDTA:

<http://libraries.ucsd.edu/sdta>

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binning her passion for art, history, and writing. She utilized the UC San Diego Libraries extensively in her doctoral studies, including her doctoral dissertation on artist Marcel Duchamp, which became her debut book. She went on to author a total of eight acclaimed books on modern art and popular culture, including *Art Czar: The Rise and Fall of Clement Greenberg*, *The Pop Revolution*, *Alfred H. Barr, Jr.: Missionary for the Modern*, and *The Art Biz: The Covert World of Collectors, Dealers, Auction Houses, Museums, and Critics*. Marquis passed away in 2009 at the age of 79. Her initial endowment was made in honor of UC San Diego historian Stuart Hughes, who was Marquis' advisor when she was working on her doctorate.

Known for her zest for life, inquisitive nature, and love of libraries, Marquis was a founding member of the San Diego Independent Scholars and was also actively involved with the Athenaeum Music and Arts Library in La Jolla. Marquis was born in Munich, Germany. Her family escaped the Nazi regime and immigrated to New York City in 1938. Marquis wrote: "As a person saved from the Holocaust by lucky flukes ... I find myself anxious to repay the world—and especially this country—for being spared from extinction."

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Q Given the increasingly interdisciplinary nature of research at UC San Diego along with continuing developments in the area of digital content and its management, what challenges and opportunities do you see the university facing as it seeks to expand research opportunities?

A If we can demonstrate the same visionary approach to cyberscience as the Libraries have demonstrated in digital-data stewardship, we should remain among the world's leaders in discoveries and innovations. As I often tell students, there's a rising hierarchy: from data to information to knowledge to wisdom. I like to think that the Libraries and the Office of Research Affairs—and all parts of the university—are working to turn data into wisdom every day.

Digital Library By the Numbers*

E-books licensed: 1,573,059**

E-periodicals licensed/purchased: 55,632***

Article downloads: 5,762,049

Digitized collections: 188 (with 1,049,563 views)

Digital Media Resources (streaming film): 28,815

Electronic Reserves: 665,136

* All figures are annual (2010) with the exception of digitized collections.

** Includes books licensed via California Digital Library and UCSD Library e-books; also includes sections and title requests.

*** Includes California Digital Library titles and titles accessed through databases.

Pilot Projects from page 3

ing availability and relatively low cost of digital data collection technologies have created a data avalanche for archaeologists, who are collaborating with computer scientists to develop new visualization and analysis tools. This pilot project will develop the infrastructure needed to curate cultural heritage data that, spurred by the increasing use of these tools, grows exponentially each year. <http://cisa3.calit2.net/>

■ **Scripps Institution of Oceanography Geological Collections**, managed by geologist Richard Norris. The geological collections hold physical specimens in the form of ~7000 deep ocean cores, 4000 dredges from the deep sea, and ~40,000 slides of marine microfossils that are associated with digital data sets, photographs, and metadata. This is one of the largest collections of marine geology samples in the United States, used by an international community of marine geologists, biologists, and oceanographers. Goals for the project include the creation of a searchable, graphical interface Web presence; the means to automatically transfer digital holdings; and the creation of a more user-friendly Web form system. <http://www.ngdc.noaa.gov/mgg/curator/sio.html>

■ **The Laboratory for Computational Astrophysics**, a joint program of SDSC, the Center for Astrophysics and Space Sciences, and the Department of Physics, created and directed by Professor Michael Norman and managed by Rick Wagner. The work of this lab encompasses large-scale simulations of astrophysical phenomenon in cosmology, star formation and turbulence. Its emphasis is on high-resolution grid methods modeling complex physics including radiation transport and magnetohydrodynamics. For the pilot project, this group is interested in using data management and curation to improve its collaborations with other UCSD researchers, and to support publishing its simulations. <http://lca.ucsd.edu/>



Professor Tom Levy, UCSD Levantine Archaeology Laboratory

The three storage pilot projects selected by the RCI Oversight Committee are:

■ **The CineGrid Exchange**, led by director of visualization and senior research scientist Dr. Tom DeFanti, Calit2, Center for Networked Systems (CNS). The CineGrid Exchange is a distributed digital media repository designed to support user-driven testbeds for digital media asset management, distribution, and preservation. The CineGrid Exchange node at Calit2 is currently about 30TB, but is expected to grow three to ten times once it is proven (one of the international sites, in Amsterdam, currently has 100TB). <http://www.cinegrid.org>

■ **The Center for Research in Biological Systems (CRBS)** and its National Center for Microscopy and Imaging Research, led by Neurosciences and Bioengineering Professor Mark H. Ellisman. Building on early successes with the integrative development of the next generation of probes for correlated light and electron microscopy, the CRBS research team is now fielding one of the world's largest and most distinctive collections of data-generating platforms of its kind—most notably the nation's only serial block-face scanning electron microscopy (3View) installations for biomedical research. The data being produced are not only unprecedented in description and value to the

biological community, but also unprecedented in scale and complexity. <http://crbs.ucsd.edu/about.shtm>

■ **The Center for Research in Computing and the Arts**, led by Theatre Professor Shahrokh Yadegari, whose research is focused on an audio/video synthesis system that is used both as a theoretical research tool in the study of the perceptual boundary between sound and music, and as a production tool in artistic presentations. The generated data are composed of high-resolution, multi-channel audio and video files, as well as analysis files. Yadegari's interests include experimenting with the availability issues (i.e., constant network bandwidth) for using curated data within a production and/or presentation context where large amounts of data are re-mixed in real-time in multiple remote locations in synchrony with each other. <http://crca.ucsd.edu/>

For more information about the university's research cyberinfrastructure initiatives visit the RCI web site at: <http://rci.ucsd.edu/>. For more information about the Libraries' contributions to UCSD's RCI: <http://libraries.ucsd.edu/services/data-curation/index.html>.

Your feedback on **facultyfile** is welcome
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