From Visual Resources to Digital Media: Not Just for Art Anymore!

By Beth Kellogg, Arts Resources Specialist, University Libraries

Digital images and diagrams, video clips and podcasts – it seems most everyone is using digital media these days. Our culture has turned digital, for better or worse! As a new staff member at Carnegie Mellon managing the Visual Resources Collection in Hunt Library, I find instructors on campus are in need of such resources. One may want animation, another art reproductions, and yet others a graphical representation of a topic that may be difficult to convey in class. The University Libraries has created a survey to assess faculty use of digital media (images and beyond) in teaching and learning (it is alright to say you Google images or use YouTube!), and to discern what faculty want and require in order to teach effectively. Please access the survey on the University Libraries homepage: http://www.library.cmu.edu. It includes 13 questions and will take less than 10 minutes (if you are reading FOCUS online, click here for a direct link).

Survey results will be used to examine the need for tools to support teaching and learning with digital media on campus. Your input is invaluable as we take the next steps to improve access to digital media.

We are very interested in hearing from all disciplines, so please do not hesitate to fill out the survey. The terms “slide collection” and “visual resources” have traditionally been used in conjunction with Art and Art History and Architecture departments. Sciences, History, Modern Languages and other disciplines may also have a need for images and other digital media to support different types of learning. For instance, graphically representing a timeline or theory may create context, and help students understand material better. We hope to provide a service that supports teaching and learning across disciplines.

The purpose of this conversation with faculty (we hope to integrate student ideas as the project moves forward) is to hear your needs and try to address them. Again, your input is critical. Stay tuned for future updates on this exciting project. If you would like more information please contact Elizabeth (Beth) Kellogg at (412) 268-3511 or ekellogg@andrew.cmu.edu.

Beth Kellogg holds an MA in Art History from the University of Denver. She helped to implement the successful digital object repository “DU VAGA,” which provides cross-discipline online access to digital objects, including video.

Who is Oswald? And where?

By Dick Block, Teaching Professor & Associate Head, School of Drama; Tina Shackelford, Lecturer in Stage Management, School of Drama and Joe Pino, Assistant Professor of Sound Design, School of Drama

This is a report on a new class in CFA’s School of Drama called ‘Oswald’. Why ‘Oswald’? First, It carries absolutely no preconceived notions with it as to the content of the course. Second, it’s a funny name for a class – who wouldn’t want to go to a class called ‘Oswald’ everyday? The mystery of why exactly the word “Oswald” was chosen will likely go to the grave with its creator. Many have guessed but none correctly. Yet.

One of the never-ending struggles in education is finding ways in which we can teach our students not just to think but to do so in innovative and imaginative ways. Especially in a field like theatre, where there is an assumption of creativity, the expectations that we have of our students are quite high. Our classes encourage students to experiment, to take risks in their work and to explore the depth of their ideas and to investigate the ways in which they present them. In looking more carefully at what we had been doing however, we discovered that there was no time in which the students truly felt even remotely safe in doing so. In order to address this issue, the School of Drama undertook a very lengthy (four-years long) process of revising our curriculum.
Carnegie Mellon’s staff council elections will arrive in April as they do every year, but this year’s structure will look significantly different from elections of the past. Representatives for the 2008-2010 term will be elected by members of their own staff, a recommendation accepted by staff council in 2006 to be instated this year.

Currently, the council uses a general member election process, so representation is at-large and unit representation varies. While council representatives are elected because they are in touch with the needs of staff campus-wide, there are differences. For example: it is unlikely that a member of the Enrollment unit, who primarily works downtown, will know the detailed needs of the staff in the Advancement unit, who primarily work downtown. Sheer geography is just one of many factors that highlight the differences between our campus’s units. Each Carnegie Mellon staff unit has unique needs and the existing elections process cannot adequately provide for such distinct needs and interests evenly. This year’s unit-focused elections process seeks to mend that representation gap.

In a letter to all unit leaders, Jennifer Cox, vice chair for staff council, explained the process. Two representatives will be elected from each of the university’s 16 units, with units defined by the university’s organizational chart in the 2008 Staff Directory. These unit representatives will be elected by their individual unit to represent that unit. Such unit-focused elections will take place every two years, with the off-years reserved for general elections to elect the sort of general representatives staff council currently has. The goal is to eventually have a number of unit representatives equal to the number of general representatives. The council is hopeful that this two-pronged approach to elections will guarantee more consistent and fair representation of all staff. Under the current model, all representatives were general representatives elected for two years, so it will take until the 2009 elections to balance the number of each type of representative.

The philosophy behind a dual representative system likely stems from the differences inherent to unique units. Some units have fewer staff than other units, so the unit representative elections will ensure that all areas are covered. For similar reasons, the general elections ensure that areas with a larger number of staff are able, through both number of potential representatives and their voting members, to have greater representation within the council.

Because staffing changes sometimes include divisional changes, a unit representative who leaves the unit they were elected to represent will serve the remainder of their term as a general representative. If there was an alternate elected from that unit, they will be promoted to a unit representative, otherwise a special mid-term election will be held for that particular unit. Members of the elections committee will be meeting with each unit leader or their assistants to discuss the new process further and to answer any questions.

Election dates for 2008-2010 staff council unit representatives were announced at the January staff council meeting as follows: Nominations – March 31-April 11 Nominations accepted and bios submitted – April 12-17 Online Elections – April 21-May 2

Jennifer Cox
As a reminder, all full- and part-time staff members not represented by the faculty organization or a bargaining unit are eligible to serve on staff council. When nominating and accepting nominations, please consider that a representative’s term lasts for two fiscal years.

Look for more information in the coming months, but in the meantime please contact Jennifer Cox at jcox@andrew.cmu.edu with any questions or concerns.

Thomas Witholt is staff council secretary and a member of staff council’s communications committee. He is also a member of the aforementioned Enrollment unit.

Our focus on teaching continues with a slightly different emphasis this year. Instead of publishing teaching tricks and tips we hope to offer some descriptions of educational innovations that might otherwise go unnoticed. In this issue we offer insights into Oswald, a new class in CFA’s School of Drama, a class that, amongst other things, hopes to further stimulate creative thinking by diminishing anxieties over performance.

Given the current, huge thinking project that the redesigning of our strategic plan represents, we have an article about ways in which intelligent buildings can make a significant contribution to energy conversation efforts. Part of the article, by Volker Hartkopf, argues that intelligent building design deserves to be a feature of our future strategic research planning.

Recent articles in The New York Times have drawn considerable attention to the globalization efforts of universities, including Carnegie Mellon. Carnegie Mellon is in preliminary negotiations with KAUST, the proposed King Abdullah University of Science and Technology, to be established in Saudi Arabia. The project has apparently been funded initially with $10B, to set up a campus in the western part of Saudi Arabia. President Cohon reported to an Open Forum on Feb 11 that Carnegie Mellon has put forward a proposal to participate in this effort, by establishing a research center in Computer Science to be located on our campus here in Pittsburgh. If funded the center would be funded for up to $5M for each of five years. Once a decision has been reached by the Saudis on our proposal, a final decision on participation would be taken on campus. As part of the discussion President Cohon introduced a reasoned objection presented by Professor Clark Glymour. A full text of Prof. Glymour’s comments is printed on page 3. President Cohon (with Peter Lee) offers considerations for participating in KAUST, also beginning on page 3. We trust that you will have views on this issue and invite you to send letters or extended comments to FOCUS.

SideBar

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Part of our hope in the School of Drama is to create students who will not just go into the workforce but those who will actively change it, begin trends, and become the innovators of this century. “Leaders of the future”. Hence we wanted to avoid clichés like “thinking outside the box”, “pushing the envelope” and “comfort zone”.

The goal for the course was to provide more freedom to fail, have fewer parameters for projects and foster different ways to develop ideas. Working collaboratively, or “crowd thinking” as we called it, was also important. Students needed to be encouraged, indeed required, to work outside of what they felt were predetermined roles. Teaching a

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The New York Times
Considerations for Participation in KAUST

by President Jared Cohon with Peter Lee, Head, Computer Science Department

This is a slight elaboration of a question I posed (in advance) to President Cohon at the Open Forum on Monday, February 11, who presented the issue thoughtfully and fairly but did not give an answer. It is really a question for everyone on campus, and those with views on the matter should let the President know of them.

Under Apartheid, South Africa denied equal civil and economic rights to a majority of its population, and suppressed any internal, organized criticism of its policies, even on occasion kidnapped children of critics and held them hostage. Universities around the United States divested from companies doing business in South Africa, and prominent people in many walks of life, including academia, refused to speak or work there. After the collective American conscience was raised, no American university would have seriously considered joining a research initiative in, or funded by, South Africa under the Apartheid regime. Today, thanks in part to such boycotts, Apartheid is gone, but even if the boycott had not been effective, it would have been an appropriate moral stand.

Today there is another regime, ruled by a large, corrupt family, that treats half of its population as legally and practically subservient, denies them civil and economic rights, is viciously anti-Semitic, punishes homosexuality by beheading, and is murderously intolerant of any internal criticism of its religious and social policies. Black Africans could at least recognize their oppressors and resist them; in this nation, women are reared from infancy to accept and endorse their oppression. This regime funds schools around the world devoted to indoctrinating children in religious fanaticism; its nations made up 15 of those who attached the United States on 9/11. Poverty in much of the third world over many decades has been furthered by this regime’s exploitation of its oil supplies, to the principal benefit of one family and its individual and corporate cronies. The nation is Saudi Arabia. It is the enemy of everything I, and I hope you, value—except money.

In an obvious attempt to spread an image of legitimacy, Saudi Arabia proposes a fabulously funded new research university, (with the ironic half-word acronym “KAUST”) to be staffed largely by foreign nationals and physically and socially insulated from the Saudi population. Carnegie Mellon proposes to be a geographically remote part of that initiative and doubletless to exchange personnel with the KAUST campus. To appearance, this is a sacrifice of fundamental moral principles for money. There is no intellectual basis for collaboration with Saudi Arabia, and the insularity of the KAUST project guarantees that foreign participation will have at most a trivial influence on Saudi political and social practices. This is not another Qatar, where students are taught, faculty are free to roam about the country, and the functioning of the interaction is designed to be not only technical, but also to present liberal and egalitarian perspectives.

Issues of intellectual freedom can be separated from acceptability of funding sources, as they were with South Africa and are today in some universities—for example about funding from Tobacco companies and their proxies. Any argument that we cannot refuse Saudi funding because CMU bundles funding freedom with intellectual freedom would be at best a bureaucratic excuse—one, I hasten to add, that President Cohon did not offer. A refusal of Saudi funding will not inaugurate an economic boycott, as in South Africa, but it will make a moral point, and, if publicized, as it probably would be, might discourage other academic institutions from cooperating with the Saudi government.

One can ask, rhetorically, if Saudi money is not accepted where do we draw the line? For example, some of our colleagues would prefer the university not accept funding from the Defense Department. There are two answers. First, Saudi money is gratuitous. The university will function just fine without it. Second, we do not have to draw a line, or have a general policy for all cases, but however it would be drawn, whether or not they would ever offer grants and contracts, some entities would be on the wrong side of the line: Neo-Nazi groups, North Korea, Myanmar, al Qaeda, Sudan...and Saudi Arabia.

So my question to all of us: Will you allow, or endorse, CMU participation in KAUST, and, if so, what moral justification do you have that would not also have justified such arrangements with Apartheid South Africa?

```continued on page 5```
variety of ways of thinking differently was critical. If we could broad-
en their perspective, provide them with the wherewithal and, frankly, the
“permission”, to do something that was different in this course, we had a
chance to enliven their creative lives. Although at first we toyed with the
idea of production theatre in a traditional structure with students taking a variety of
assigned tasks within it, we soon realized that this was far too restrictive for what we
wanted to do. We removed the format expec-
tations completely; the process of evo-
tuon and discussion also challenged us as
faculty to think in new and different
ways and was a motivating in-
troductory process for us as well.

Early on we made the decision to team-
teach this course. Five of us were quite vo-
cal in our excitement about the venture we
were starting and it so happened that, while
we were on the same page philosophically,
our particular disciplines and approaches to our work was quite varied.
Conflicting schedules and course loads led to a team of three. The variety
of personality and the range of thinking that was represented by the three
of us was a positive way to characterize what the course was promoting.
One aspect of the team-teaching that proved to be useful was the message
that was sent to the students: this course is important enough to require the direct
attent of three faculty members. Additionally, in a setting where stu-
dents were exploring different ways to define themselves, the three faculty
also had the opportunity to teach broadly and without regard for our own
disciplines.

Placement in the curriculum for a course like this was critical. The Fresh-
man year was too early. There is enough adjustment to college without
challenging the status quo. We feared that would cause confusion and
frustration and we wanted the grounding of the first year coming to
students the tools they would use in this class. And, given the way our cur-
riculum was falling out, the fourth semester was too late as it is the begin-
ing of coursework specific to each student’s chosen field within design,
production or management. This left us with the first semester of sopho-
mores. The timing seemed ideal as it is so often during that year that
students begin to feel somewhat displaced—no longer getting the attention
as Freshmen, but not yet ready to tackle the really difficult tasks. This was
our chance to capture their attention in a way that might help guide their
thinking for the rest of their creative lives. Incidentally, we happened to
have a particularly active and positive group of students heading into their
sophomore year that we hoped would be willing to experiment with us.

We determined early on that this course would work best if we met the
class frequently for an intense period of time. We ultimately decided
that meeting five days a week for half the semester would most likely
get us the best results. This plan was to begin with a series of short-term
tasks such as logic and visual puzzles, games and simple problems lead-
ing to bigger and more complex challenges that involved story-telling.

Since most of our students arrive on campus with learned strategies that have
proven successful, we looked for ways of breaking those down, forcing new
solutions or at least new approaches. The Eberly Center for Teaching was of
immense help with this. We began by looking at everyday tasks and how they
might change under varying circumstances. Initially these dealt with the
loss of one of the senses: using only one hand to perform tasks such as tying
a tie, for example, and performing a task without the usual tools: providing
directions from A to B without using any directional words. Throughout
the course we discussed after each exercise what strategies had been used.

Peppered throughout the course were short exercises that challenged the
students as a group. More than a few times we gathered everyone close to-
gether, asked them to join hands and then try to untangle themselves. We
tried the same thing blindfolded and mute. The ways they coped and solved
the problem were in many cases quite remarkable. In one class meeting,
we lined the 17 students along one wall, blindfolded them and then asked them
to rearrange themselves on the other side of the room in order of height.
They were not told which side should be the shortest nor were they allowed
to speak. Within 5 minutes, they were lined up with only three people out of
the correct order. Blind and mute, one student took charge of the final line-up.

We knew that we had to show examples of the kind of work we were
describing. Anything that was unusual, creative in surprising ways and
inspiring became fodder for the class. Because theatre is the business
of story-telling, we based much of our thinking on how people tell sto-
ries, verbally, visually andaurally. As examples of unique methods
of telling a story we used the videos of Michel Gondry, which employ
mind-bending structural gymnastics to reinvent the clichés of rock vid-
eois (i.e. boy meets girl/boy gets girl or girl dreams of being a star). On
the internet we found a treasure trove of movie trailers that had been
re-worked to completely change the story: West Side Story as a zom-
bie movie, Sleepless in Seattle as a suspense movie, The Shining as
a love story. We also referenced things like Neil Gaiman’s “Snow Glass
Apples” as a sly revisionist version of Sleeping Beauty and the current
Broadway hit Wicked, a similar revisionist telling of the Wizard of Oz.
One class was spent looking at the classic Jay War Studios “Fractured
Fairty Tales”. Ironically, this last proved the least successful as some stu-
dents felt we were trying to dictate correct approaches to them; several
expressed in their journals a frustration that, for the first time, we were
trying to show what we wanted from them instead of letting them explore.

It was vital that the first day of class indicate that this course was going to
be different. We created a type of “scavenger hunt” in which the class as a
group has to find pieces of a puzzle that would lead them to us in a class.
This began with a directive delivered to the class that each student had to
speak to the Head of the School, Elizabeth Bradley. They were asked to
line up outside her office. Each student was individually admitted into the
office of Ms. Bradley’s assistant, who demanded a password before grant-
ing entry. The password was placed right in front of them but of course not
everyone noticed it. We assumed that once the first student figured out the
password, they would tell the rest of the group. No, to keep mum. With only the hint of “Look carefully” to one another, each
person had to figure it out. The eventual audience with Ms. Bradley led
to a series of clues that enabled them to find puzzle pieces hidden across
campus. Assembling these pieces provided the final clue as to where the
instructors were waiting. The second day of class was spent discussing the
strategies they used for finding and solving the clues and the puzzle pieces.

After two weeks of short-term puzzle-solving, we moved into story-tell-
ging. Groups were asked to “re-tell various types of stories in unique ways
or with a very different point of view.” No specific parameters beyond that
directive were provided as we did not want to suggest any particular idea
or approach. Our hope was that the students would go beyond the idea of
trying to please their professors. The assignment of groups was at some
points random and at other times intentional, to mix personality types and
to make sure each student had a chance to take an active leadership role.

Part of what we tried to do was keep them guessing and force them to
deal with whatever circumstances were presented on each day. This
had them confused for a while. On
the first class meeting, they asked if we
had them confused for a while. On
their minds. No particular points were
made, no particular objectives set. We
continued on page 7
The Food and Wine Column: What’s Eating Us?

We blush to have to admit that both of our wars were undermined by the ready availability of tempting food. We did, however, succeed with New Years. Not that we are part of any organized effort to start a war on New Years, nor are we even aware of a war, declared or undeclared, against New Years. It is objectionable to be sure, loads of sentimentality, rubber chicken, cheap bubbly, Auld Lang Syne, etc. What we mean, even qualities, then, as a police action, without even thinking twice we came up with the perfect avoidance strategy: we went to Myrtle Beach and found an oceanfront suite for next to nothing. We chose a New Year’s Day dinner at a downtown, out-of-the-way D’Arcy’s Irish Pub in North Myrtle Beach, where we had the Whiskey Wings appetizer followed by the Dublin Fish and Chips. Not too bad at all. And since we were there at about 6:00 p.m., the place wasn’t crowded. The waiter confirmed our wisdom by saying that it would be a zoo around midnight with up to 400 people crowding in, so we left in good time. All in all, a neat job of avoidance. New Year’s Day dinner had no pork or sauerkraut in it, and was instead made up of fresh oysters which we found in Berry’s Sea Food Express, also in North Myrtle Beach, a wonderful place; $3.50 a dozen. We got three dozen, steamed half, baked half. Baked were better, all were delicious. The next day we found a remarkable Seafood Food Restaurant, 9 miles north of North Myrtle Beach, in Long S.C. on highway 9. Next New Year’s, we’re just going to move in there. Best sea food ever. Fried oysters, shrimp, and a fillet of flounder over a pound in itself, all for $7.50. We visited one of our other favourite haunts near Charleston as well, The See-Wee restaurant, which we love. But the Sea Man is now in first place.

All of which may just by the way, and the issue of a war on Christmas may hold some political advantages and all but least that’s what we thought until we stumbled over a piece in the December issue of Harper’s by Luke Mitchell, “A Christmas Proposal”. Mitchell draws on a 1906 essay by the psychologist William James (brother of the novelist Henry), ‘The Moral Equivalent of War’. Mitchell declares a ‘war on war’, recognizing that while all we might object to war, it is very likely that our positive evaluation of the warlike virtues—intrepidity, contempt of softness, surrender of private interest, obedience to command—will not go away, and so we need to use those warlike qualities in an equivalent of war, which in James’ instance is a war on what he calls ‘nature’. Nature in this case is the simple fact that life is hard, and that a form of national service to share the burden of hard tasks (from ‘dishwashing, clothes washing, and window washing, to road-building and tunnel-making, to foundries and stoke-holes, and to the frames of skyscrapers’) could well, he believes, keep alive the warlike spirit while substituting a good goal for a bad one.

Mitchell points out that many attempts to find a moral equivalent to war in our times have failed: the war on poverty, on Vietnam, the war on drugs and the more recent war on terror: “And the War on Terror seems too much like a real war to be considered an “equivalent,” moral or otherwise. So Mitchell proposes that Congress reclaim its traditional right to declare war: “Why not take it a step further and declare a war on war, and declare a battle on the side of Santa and Wal-Mart? Would this not simplify the kind of visionary bipartisanship our pundits have so long desired?”

So we’ll keep open the possibility of renewing symbolic hostilities next jolly season—we’ll just have to keep out of lines where turkeys are being sold.

Kaufst/Cohen....cont’d from page 3

Help it gain access to world-class research. Others may find it unbe- lievable that a great university would entertain the appearance of establishing a partnership “only for the money.” It is because of these considerations that we have taken the extraordinary step of having this open discussion among the university administration, the Board of Trustees, and the students. We have tried to conduct this as publicly as possible. (As one example, see the October 12, 2007 article and public comments on Peter’s weblog at http://csdiary.com/2007/10/12/kaust/.) Each member of the proposal-writing team has had to do his or her own soul-searching on this matter. To a person, we have remained committed not only to the proposal but also to the idea that we can help KAUST develop into both a credible research university and, possibly, an agent for change in Saudi Arabia. We are not blinded by mon- ey – the personal stakes are too high for that. Nor are we naive – we real- ize that the time required for things to unfold if it happens at all, may take a genera- tion or more. The guiding prin- ciples stated in KAUST’s founding charter are consistent with ours, and the stated research mission of this new university is, in our judgment, well-conceived and thus deserv- ing of our consideration. In a nut- shell, on intellectual grounds alone KAUST deserves our attention.

The Saudi government has allo- lowed fundamentalist religious fervor that in turn has fed terrorism, while simultaneously it has battled al-Qaeda. Some have argued that KAUST, with its remote location on the shores of the Red Sea, will be an isolated enclave that will not be able to effect social change in the country. This overlooks the high visibility being given to the university in Saudi Arabia and throughout the Gulf region, and the

continued on page 8
Increasingly, during the past 10 years, much of the world has come to realize that our everyday practices and habits profoundly affect global energy demand and the environment, and thus have to be fundamentally changed to assure our common future. The most important sector of most economies in this regard is the built environment. In the US 70% of electricity is consumed to heat, light, ventilate, cool and support the plug loads in buildings. If you add in the manufacturing and transportation of materials, components and systems, more than 50% of the nation’s primary energy is consumed by the building sector. Yet best practices in building retrofits and new construction can save up to 90% of this energy in conditioning existing buildings. Consequently, building energy conservation is our most affordable, most environmentally benign new energy opportunity.

At the same time, through distributed cogeneration of electric energy and reject heat utilization, the building sector can address and eliminate the 70% of the energy waste lost in thermal electric power plants in generating electricity from coal, gas, nuclear, and oil. Cogeneration systems, generating electricity and utilizing the reject heat, cut primary energy consumption by a factor of two, cutting losses to 30% or less.

A lesser known fact is that emissions from cooling towers evaporate 40% of our Nation’s water, the same amount used in agriculture. Furthermore, power generation produces over 40% of the US contribution to greenhouse gases such as CO2, SOX and NOX. In pursuit of rapid development, China surpassed the United States as the primary global emitter of greenhouse gas in 2007, 5 years earlier than predicted. Consequently, buildings such as the ‘building as power plant’ project developed at CMU’s Center for Building Performance and Diagnostics (CBPD) represent our second most affordable, most environmentally benign energy opportunity.

Addressing these challenges for decades, the CBPD just celebrated the 10 year anniversary of the opening of the Robert L. Preger Intelligent Workplace (IW) and 20 year anniversary of ABSSIC, the Advanced Building Systems Integration Consortium, the first university-industry-government partnership for research and demonstration in the building industry. The CBPD’s experience with the Intelligent Workplace (which uses one fifth of the energy compared to average commercial buildings) and its design/engineering support for numerous projects around the world, including two cutting edge buildings in China (one of which is the first LEED Gold certified building in that country), demonstrate the economic and technical feasibility, as well as social and environmental desirability of best environmental and energy practices.

Building on his experiences as Dean of the Yale School of Forestry and Environmental Sciences, his research and scholarly work in wise quality, President Cohon led a strategic planning effort at Carnegie Mellon University (CMU) over ten years ago, identifying the key importance of energy and environment to CMU’s future. While a visionary move at the time, and fully based on CMU’s strengths in this strategic direction, the movement was even more critical to our future now. Consequently, I am pleased by our renewed effort in strategic planning headed by Rick McColough, Vice Provost for Research.

However, I am concerned about possibly losing our competitive advantage due to timing and the increased global awareness. While competing universities recently began focusing on education, research, development, and applications addressing energy and environmental challenges strategically, they already receive substantial funding from public and private sources in this regard. In contrast, CMU has a track record that extends well beyond twenty years. Work on energy conservation, renewable resources, distributed power generation and energy cascades, brownfield redevelopment, air quality, water quality, climate change, carbon sequestration, energy economics, and energy policy has lead to the creation of Centers and leading world experts at CMU.

I would like to argue that these strengths should not only be the centerpiece of our next Strategic Plan, but of our capital campaign as well, especially, because we are collectively most prepared to address the challenges from the front end, rather than focusing on either more energy exploration or end of pipe solutions. One component of this strategic plan must be our own physical campus and its related energy systems. As thousands of navals and a year to the IW will tell you, there is no stronger proof of accomplishment than places you can see and touch. Carnegie Mellon University should be the world’s global, environmental, research and demonstration facility—a laboratory promoting a carbon-neutral built environment. The potentially ‘green’ building materials industries already within our region, such as Alcoa and PPG, as well as others that our Commonwealth is attracting into Pennylvania, such as Conergy and Broad, can help us realize this opportunity of being the global leader in developing sustainable built environments.

Specific projects on campus would enable us to demonstrate the potential of moving towards zero carbon. Buildings would first be updated to use as little energy to be conditioned as possible. Landmark projects, such as the Building as Power Plant (BAPP) designed and engineered for the Margaret Morrison Extension, would showcase the ability to generate more energy on-site than is brought to them in the form of non-renewable resources. This is feasible by the application of distributed generation, geothermal and solar-thermal energies, as well as effective building design, engineering, and operations, as already demonstrated in the IW and current IWESS (Intelligent Workplace Energy Supply Systems) and ITTEST (Information Technology Enabled Sustainability Test-bed) projects. The new 60,000 square foot wing for Margaret Morrison would then house a “Santa’s Workshop” of hands-on environments where engineers, designers and scientists work with faculty and staff of our College of Fine Arts to create inventions that will enhance the quality of life for a global populace in a sustainable manner.

At this time, CMU and its neighbors must address the out-of-compliance Bellefield Steam Generating Plant. Instead of simply improving the operations to meet the Environmental Protection Agency (EPA) Air Quality Standards, the plant should become a national demonstration project of the benefits of district cogeneration. Instead of generating steam with coal and gas with significant associated pollution, the Bellefield Plant should be re-engineered to generate electricity combined with cooling and heating from otherwise wasted energies (cascades). Innovative strategies for carbon sequestration could be demonstrated, such as using CO2 as food for a large series of greenhouses, stretching from Bellefield through the Panther Hollow Valley. These greenhouses could support food production for the region, eliminating the environmental costs of transporting these products into the U.S. from Mexico, Holland and even more distant places.

Given the world’s need for breakthrough practices, and the importance of the built environment to reducing energy consumption and carbon emissions, Carnegie Mellon University has an unprecedented opportunity to be a global destination of best practices. Recognition would bring to us leading industries and federal agencies, students and researchers, as well as policy-makers and practice change-agents from all over the world, with commensurate resources to create models of sustainable built environments.

I firmly believe that CMU has a strategic advantage over competing institutions in the U.S. and abroad. However, we cannot afford to wait to announce such a courageous plan, as major competitors of ours are making moves in similar directions. As our own history repeatedly demonstrates, we must be the first and committed visionary leader to attract the resources and reputation to fulfill our dreams.
There may be life on Mars. Is there life in committees?
A report on the EFC.

by Alan Kennedy, Professor of English, and Associate Editor of FOCUS.

A couple of years back FOCUS published an article on the EFC, the Educational Facilities Committee. This is the committee that gets to spend about $300K per year on classrooms, and has been in existence for about 30 years. Its budget has not increased over that time, but has been steady at $300K—which of course means that its funding has shrunk radically in real dollar terms. This year, as well, the budget has been cut back to $250K, apparently because the money was needed elsewhere.

I served on this committee for a couple of years until I went on leave, and this year I’m temporally replacing the rep from HSS who is on leave. I was actually very excited to be back on this committee when I was first asked. After all, the committee gets to make real decisions about real expenditures of money, a rare experience for most us when it comes to the university budget. My experience this time has given me cause for concern, and renewed hope.

For example, when we looked at the requests we had for changes in classrooms we found that the cost to do all that was asked for would be about $650,000, $400,000 beyond our resources. So we entered into the discussion of what should be funded and what left unfulfilled. In the midst of that task I was suddenly struck by the thought that we would all be better off if the committee were simply dissolved. We have 7 voting faculty members and 8 non-voting reps from the various facilities areas on campus, the people who actually do the work. Fifteen people, then, meeting for about 6 hours each fall, and that’s a lot of time dedicated to deciding which rooms ought to be painted or have the ‘window treatments’ (blinds etc.) replaced. A key example is Doherty 1210 which needs the seats replaced, and a few other things, at a cost of about $150K. Apparently many of the seats are broken, lying about on the floor.

Several people wondered if that kind of thing shouldn’t just be fixed as a matter of course, and the Facilities Maintenance folks in the room seemed to think that was the case. It was surprising, therefore, to learn that there is apparently no budget allocation anywhere for replacing worn out seats in classrooms. Should they be fixed? Well, yes. Should the EFC pay the shot? No, not. Let parents of students come mobbing in to complain that our facilities are below standard, and the chairs would probably get fixed fast.

The EFC used to do its job differently. It took as its mandate the bringing up to teaching speed some classrooms that were just not good enough. Now, we have many classrooms that are pretty good, but in need of regular maintenance; and the point seemed clear: you don’t need a committee to do regular maintenance; you just need good FMS people, which we have.

So should the EFC be disbanded? Maybe not. The committee itself, in fact, moved well beyond the limited position it had backed itself into, and re-asserted its commitment to leave regular repair and replacement tasks to others, and to focus on projects that would enhance classrooms. Note that this still leaves the replacement of furniture and chairs in classrooms in limbo since, as noted above, there is no budget allocation anywhere (yet) for this kind of thing—or so I was told.

So the EFC will still in future solicit from faculty complaints about problems of any kind with rooms: rooms that need blinds repaired, or replaced, or example, and it will pass that information on to our FMS colleagues. But the committee itself has decided to take a more energetic approach and get into some strategic forward planning—to concentrate its thinking and its money on enhancements.

This year, for example, the committee approved the expenditure of about $100,000 for a major project in Doherty Hall that will bring in fresh air where it has not been breathed before and supply quality HVAC that will make some rooms places that it will be pleasant to teach in again. Similarly, the committee approved about $10,000 to supplement funds needed to put a rigid frame around the dust extractor on the ground floor of Porter Hall (126, 226), which will lead to a major reduction of noise outside PH rooms along Frew Street (potentially a reduction of 45 decibels).

In addition it approved a planning and design cost of $30,000.00 for further planning to bring proper HVAC to those PH rooms. Chair of the committee, John Papinchak, noted that the rooms in Doherty and those in PH always are at the head of the list of rooms that faculty complain about.

Sometime it is impossible to hear the noisy dust extractor outside the PH 126 and 226 rooms because the noise inside caused by window-mounted air conditioners is extreme. I have had to shout to students 10 feet to my left, and then shout a repetition of what they had said to the students 10 feet to my right. The full project of doing the PH rooms up properly could cost up to $300,000 next year—the full budget that has been available to the EFC in years past. The EFC is now considering making the Porter Hall classrooms a central project for next year, and could potentially expend its full year’s funds on that single project. As I depart from my temporary fill-in role on the committee I can say that the committee members all deserve a round of applause for pulling themselves back to a creative and constructive role in making our teaching conditions better.

What about the future? The committee will need energetic and imaginative reps from across campuses who are willing to engage in thinking big. If the Doherty and Porter Hall projects do get done, what comes next? The committee will have to do some hard thinking about what the classroom of today and tomorrow might look like—some of this, of course, is already underway as part of the strategic planning exercises. But, there seems room for teaching faculty to do some ongoing work to make classrooms that we have now much better—better meaning not just giving them a coat of paint and new blinds, or even adequate HVAC, but better by becoming more appropriate for our teaching needs. There must be plenty of options out there, but for example we might ask about the best ambience for teaching. Should classrooms look more like our homes, than they do hospital wards? Should they have more of the comforts teachers have when they work at home, or in their offices? I don’t know of any classrooms, for example, that have paintings on the walls, or sculptures in corners, or sofas and comfortable chairs to relax in while conducting (or participating in) a seminar. I do, however, know of a lot of meeting rooms where committees (like the EFC) meet, and faculty and administrative offices that do have all kinds of comforts, and paintings or framed photos on the walls. Should administrative meeting rooms be places we want to go into, while some of our classrooms make us (and our students) want to get out a.s.a.p.? So if you have bright ideas about what an ideal classroom ought to look like, send them along to a member of the committee, your particular College’s representative, or directly to the Committee’s able Chair, John Papinchak.

play. We assumed they would know the story. If they did not, which was sometimes the case, it was up to them to get a synopsis. We asked to hear the entire story of the play but in a different way. What we got was Macbeth done as a cooking show and Romeo and Juliet as a professional wrestling match, just to mention two. While being hilarious in both cases, they did indeed tell the whole story and this opened them up to all kinds of new possibilities of getting information across to an audience.

This was followed by a variety of other projects in storytelling, each having a different set of parameters and requiring different strategies to complete. The last class meeting was a discussion of the course: what they liked, didn’t like and what they thought they learned. There were quite a few skeptics at the beginning of the course. Most, although not all, eventually came around and even those who were resistant to the end acknowledged the purpose and usefulness of the course beyond this half-semester. The sense that they needed to be prepared for anything became obvious to most of them and they took real ownership of the course. Having been a participant almost became a badge of honor. Certainly it helped that this was a group of students who knew each other well. By their own testimony, they felt very comfortable with each other which made much of this easier for them.

What’s next? While we felt that this course was very successful this year, only time will allow us to make any serious judgments. Our hope, of course, is that this will affect the work of these students over the rest of their lives, if only to allow them to explore ideas that are not obvious. We plan to query this group again at the end of the year to see how they might have implemented the lessons from this course. Ideally, we will do the same near the end of the senior year. It is only then that we might get some idea of the long-term results of this course.

Oswald, cont’d from page 4
EDWARD DONOVAN: NATURALIST ARTIST, AUTHOR AND COLLECTOR

27 March to 29 June 2008

Pittsburgh, PA—The Hunt Institute will exhibit selections from its large collection of botanical watercolors by the early 19th-century British naturalist Edward Donovan. Created in the period 1823–1830, they depict exotic plants introduced to the British Isles. Along with these watercolors, we will display a selection of Donovan’s books lent by the Carnegie Museum of Natural History Library.

Edward Donovan (1768–1837), as were many cultured gentlemen of his day, was a collector of natural history specimens—from personal excursions in the British Isles as well as purchases from notable natural history auctions that included items from voyages of exploration. With the connections he made as a Fellow of the Linnean Society and the Wernerian Natural History Society, he also was able to access the best collections. Donovan referenced all of these sources for his books about the insects, shells, fishes and quadrupeds of England and the insects of China, India and New Holland between 1789 and 1827. He not only wrote and illustrated these books but also prepared the copper plates. It was not uncommon for private collectors to open small public museums of exotica, and in 1807 Donovan founded the London Museum and Institute of Natural History that included several hundred cases of birds, botanical specimens and other subjects.

Donovan’s voracious appetite for collecting, his unfortunate experiences with unscrupulous book publishers, and the economic decline in England after the Napoleonic Wars most likely forced the closure of the museum in 1817 and the auction of his collection the following year. He continued to publish, but his finances worsened, and in 1833 he published a plea for funds from his supporters to bring suit against the publishers. This was to no avail, and he died penniless in 1837 leaving a large family destitute.

Exotic plants were featured in Donovan’s early and short-lived series Botanical Review, or the Beauties of Flora (London, 1789–90) and occasionally accompanied the natural history subjects in his later publications. The botanical watercolors in our collection were created much later (1823–1830) and leave a trail of mysteries. We only know that the 709 watercolors that were tipped into 5 albums with spines stamped “Edward Donovan/Flower Paintings” were part of Rachel Hunt’s original collection, but we have no date or source of acquisition. Many names appear on the artworks, some associated with plant collectors, botanical gardens or private collections. Geographic localities are noted indicating the origin and date of introduction from places such as Chile, Mauritius, Mexico, New Zealand, Nepal, Siberia and the eastern United States. Also included in this collection of watercolors is a small selection by anonymous artists (many with only a monogram, except for E. Duncombe). Even after Donovan’s collections were auctioned, he would have had access to exotic plants grown in the greenhouses and gardens of private plant collectors and public botanical gardens. Perhaps he was preparing a new subscription series on exotic plants. Despite the many questions that persist about the history of this collection, these beautiful paintings are significant for their documentation of newly introduced plants in the early 19th century.

In conjunction with Edward Donovan: Naturalist Artist, Author and Collector, the Hunt Institute will hold its annual Open House on 22–23 June 2008. We will offer talks about the context in which Donovan worked, a guided gallery tour of the exhibition by our assistant curator of art, tours of our departments and reading room, and opportunities to meet one-on-one with our staff to ask questions and see items in the collections. We encourage everyone to consider visiting us during this Open House. It will be a good time to see the new exhibition and an opportunity to have an inside look at our collections and our work. A schedule of events will be available soon on our Web site. We are looking forward to your visit.

The exhibition will be on display on the fifth floor of the Hunt Library building at Carnegie Mellon University. Hours: Monday–Friday, 9 a.m.–noon and 1–5 p.m.; Sunday, 1–4 p.m. (except 18 and 25–26 May). The exhibition is open to the public free of charge. For further information, contact the Hunt Institute at 412-268-2434.

The Hunt Institute for Botanical Documentation, a research division of Carnegie Mellon University, specializes in the history of botany and all aspects of plant science and serves the international scientific community through research and documentation. To end, the Institute acquires and maintains authoritative collections of books, plant images, manuscripts, portraits and data files, and provides publications and other modes of information service. The Institute meets the reference needs of botanists, biologists, historians, conservationists, librarians, bibliographers and the public at large, especially those concerned with any aspect of the North American flora.

Hunt Institute was dedicated in 1961 as the Rachel McMasters Miller Hunt Botanical Library, an international center for bibliographical research and service in the interests of botany and horticulture, as well as a center for the study of all aspects of the history of the plant sciences. By 1971 the Library’s activities had so diversified that the name was changed to Hunt Institute for Botanical Documentation. Growth in collections and research projects led to the establishment of four programmatic departments: Archives, Art, Bibliography, and the Library. The current collections include approximately 29,000 books; 30,000 portraits and 5,000 watercolors, drawings and prints; and 2,000 autograph letters and manuscripts. Including artwork dating from the Renaissance, the Art Department’s collection now focuses on contemporary botanical art and illustration, where the coverage is unmatched. The Art Department organizes and stages exhibitions, including the triennial International Exhibition of Botanical Art & Illustration.

Kaust/Cohon....cont’d from page 5

fact that thousands of graduate students will pass through KAUST and form part of the future leadership of the country. A comparison to the apartheid regime in South Africa has been made, but this situation is different— if popular elections were to be held in Saudi Arabia, it is unlikely that the tendency towards fundamentalism would change. Still, there is the suggestion of a boycott. As a practical matter, such a boycott would have little effect, as research institutions with already-existing KAUST agreements, such as MIT, Stanford, Woods Hole Oceanographic Institute, and Imperial College in London, are unlikely to sever their ties.

Of course, when it comes to morality, one cannot focus on such practical considerations. We must do what is right, and what is right is what would do the most good for the world. We must ask, is it better to engage in the KAUST initiative or not? We would argue that, as long as KAUST adheres to its own stated principles, more good for the world will come from engagement than from disengagement. We have, of course, consulted with others. For example, in a visit to the State Department, we were offered official encouragement to engage with KAUST, as we (and other US universities) represent a moderating force in Saudi Arabia. General Abizaid, during his recent visit, reinforced this by telling us that such engagements were “better for the national defense than putting thousands of soldiers on the ground there.” Indeed, of the options currently before us, embarking on a boycott and then failing would be the worst outcome, as it would leave us with little or no ability to influence positive change.

And so what we have before us is an opportunity to obtain funding for strategically important research in computer science. The funding would not be gratuitous; this is perhaps the most important research challenge facing us today, and we see no other similar funding opportunity. We will not be “just fine” without this funding. Furthermore, the stated principles of KAUST represent hope for change in a part of the world that is in desperate need of world-class education and research with a moderate voice. We should be neither blind nor naïve when entering into a relationship with KAUST, but we should also avoid making a snap decision to disengage.

We have an opportunity to strengthen our research and make Carnegie Mellon’s commitment to internationalization matter in a most important way.