FOCUS

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New Athletic Facility Studied

To address what President Cyert calls "a definite need for improved athletic facilities," a university committee has been formed to examine the feasibility of constructing a new building.

According to Athletic Director Jim Banner, committee chairman, the goals of the committee are to recommend an architect and a site, as well as suggest what exactly should be included in the facility.

The two primary sites being considered at this point are the current stadium area, and another area encompassing the Margaret Morrison parking lots and a portion of the IM fields.

According to Cyert, if the parking lots are used, underground lots could be installed in the same area. If the current stadium area is used, the new facility would either be erected over the stadium, or located under the stadium with the football field in essence forming the roof.

Approximately six or seven architects are being interviewed by the committee, three of whom "have been recommended by the Architecture Department for their expertise with these facilities," says Banner.

The committee is also faced with the question of what exactly the facility should consist of, including such considerations as how many racquetball courts should be included, and how the basketball courts, indoor track, swimming pool, offices and locker rooms should be designed.

"Racquetball is a big sport now, but in another ten years it may be something else," says Donal Pierucci, university architect and committee member, who agrees with Banner that this will be a "recreational facility" and not simply a fieldhouse. "What we want is an athletic facility for CMU students, faculty, and staff," Pierucci says. "The question we are faced with is what does that mean? We don't need a huge sporting complex like Ohio State; we're not that kind of school."

The ten-member committee, made up of administrators, faculty, staff, and a student representative, will report their recommendations to Cyert on October 15.

Cyert states that the only constraint he has placed on the committee is to plan "a facility which can also be used as an auditorium, where we can hold commencement or meetings of the entire college community."

He likes the idea of having it close to Skibo, and mentions the possibility of having it actually connected to Skibo — another feasibility which would have to be explored.

President Cyert adds that "the current gym could be turned into a first-rate theater," and says he would like to renovate the whole facility for Fine Arts use, freeing space in Margaret Morrison and Doherty.

All these proposals are still far off in the future. "It will be some time before we break ground," Cyert says, pointing out that there are as yet no definite plans as to how funding will be provided, though some possibilities are outside gifts, an increased student activities fee, or the issuing of bonds.

Members of the committee are: Jim Banner, Linda Binstock, Pat Crecine, Earl J. Birdy, Bill Elliott, Jim and Peggy Hoburg, Donal Pierucci, Ed Schatz, and Luanna Sherwood.

— *Valerie Brandt*

Ryan Award to Bob Kraemer

Six faculty were honored for their outstanding teaching at the annual faculty meeting on September 16.

Chosen from the winners of awards in the individual colleges, the university-wide Ryan Teaching Award of $1,000 was presented to Dr. Robert W. Kraemer, Professor of Physics, for his distinguished record of teaching in the Mellon College of Science, his research and his publishing. Kraemer, who received his Ph.D. from Johns Hopkins, has published over 160 journal articles since he came to Carnegie-Mellon in 1961. Citing Kraemer's exceptional A Phi O student ratings of "4.0 and often 4.5," Cyert said, "Kraemer is an outstanding example of the old CMU argument that one can be an excellent teacher and researcher." Kraemer, who also works with CMU's athletic department in recruiting, teaches both undergradudate and graduate physics.

Paul Christiano, Professor of Civil Engineering and Associate Dean of the Carnegie Institute of Technology, received the Benjamin Teare Award from the University's engineering college. In addition to his teaching and research, Christiano has served on numerous committees at the college and university levels and as chairman of the Graduate Admissions Committee in the Department of Civil Engineering. The author or co-author of more than 30 technical papers, he has served as a reviewer for several scholarly journals and government funding agencies.

The College of Humanities and Social Sciences honored Michael P. Weber, Associate Professor of Urban History, with the Elliot Dunlap Smith Award for Distinguished Teaching and Educational Service. A member of the faculty since 1972, Weber has received two Sarah Mellon Scaife Fellowships for Research in the Humanities.

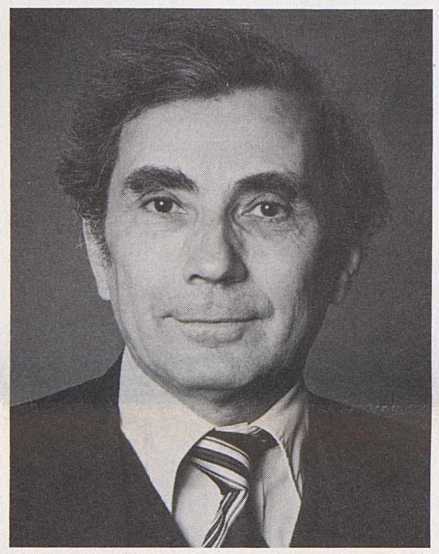
Kenneth Dunn received the Graduate School of Industrial Administration Teaching Award. An Assistant Professor of Industrial Administration, Dunn has taught both undergraduate and masters

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Walter Noll —
The Language of Mathematics

Italy, Germany: "Natural Philosophers"

Demarest: I went to your lecture the other day — I have to admit I didn't understand lots of it. One of the things that struck me was the question you raised — whether math is a different language. I often felt I understood your basic premises, and then as they gradually translated themselves into notation, I'd feel I was looking at another language . . . What was the title of the talk?



Noll: "On The Role of Mathematics in Physics."

D: You were talking about — I guess my translation would be — the role of conceptualization?

N: Yes, how one can use mathematics to get better conceptualizations in physics.

D: You started by speaking in general terms about the history of modern math. You mentioned a couple of movements, or figures, in the late 19th century . . .

N: I'm not all that familiar with the history of mathematics, but it is clear that in the late 19th century there was a new investigation into the foundations of mathematics. People did try to go back and look at the axioms of Euclid. Non-Euclidean geometry dates from the beginning of the 19th century. People were trying to develop a clear idea of what a system of axioms is, what it does. The Peano Axioms, which I mentioned in my talk, originated at the end of the 19th century. People were trying to pin down the basic concepts of mathematics by means of axioms.

D: The Peano instance was the one you cited where someone else had been the real originator?

N: Peano himself mentioned that Dedekind first defined the conditions. Guiseppe Peano was Italian, Richard Dedekind German. It's very hard to say who the originator was. It's like inventors — who invented the light bulb? There are always people beforehand who contribute things, and then perhaps someone comes along who makes the idea popular, generally available. I think that's true in mathematics too. Sometimes it's a matter of chance, luck, whether someone gets his name attached to an idea. A few years later, Hilbert, who was perhaps the greatest mathematician in the first part of the century (he died in 1943, I believe), went back to the foundations of geometry and reexamined Euclid's axioms. His analysis was much more thorough than the ones known from the Greeks.

D: Is Hilbert the figure associated with the University of Göttingen?

N: Yes, he was central there; he was the main attraction at Göttingen. People from all over the world went there and became his students. Until about 1933, Göttingen was probably the center of the world for mathematics.

D: That was also where a number of physicists studied?

N: A number of good physicists were there too, but I'm not sure how much they interacted with the mathematicians. The interaction between mathematicians and physicists is not always as good as it might be. By the middle of the 19th century they were already becoming clearly separate professions. In Newton's time there was no difference: Newton was a mathematician and physicist. Back then, they called themselves "natural philosophers," as you know. Specialization was a phenomenon of the late 19th century: chemists, physicists, mathematicians. Before you just had natural philosophers.

Physicists, Mathematicians: "First-Rate Carpenters"

D: So at Göttingen in the 1920s there would have been some divide between mathematicians and physicists?

N: I think the divide probably opened up around 1900 — you can't make the date exact. Up into the 19th century, the best physicists knew all there was to know about mathematics, and vice versa. This, of course is no longer true simply because there's too much to know. Probably the greatest American scientist of the 19th century was Willard Gibbs, and he is claimed by the mathematicians as a mathematician, by the physicists as a physicist, and by the chemists as a chemist. He knew everything that went on, and that was true to some extent of everyone else. But it just got to be too much; it became impossible to know everything. By the beginning of the 20th century, there were some physicists who even seemed to scorn mathematics — "We can do without mathematics!" That's probably been to some extent the fault of mathematicians, because some mathematicians do have a tendency to be overly pedantic, to worry about things that aren't really important for the physicist.

D: Is there an academic pecking order in which mathematicians are — or imagine themselves to be — philosopher kings?

N: Maybe they wish they were . . .

D: I know there's always that mythology around that physicists see themselves as an elite class of scholars studying "basic truth." I wondered if mathematicians, dealing in a rarified world of pure ideas, assign themselves an even higher perch?

N: Some may, I don't. I think it's better to be a first rate carpenter than a second rate mathematician.

D: You also mentioned in your lecture a pre-World War Two French school that

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Noll . . .

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you feel had a great impact in bringing math into the second half of the 20th century . . .

N: Yes, it's an interesting story that started in the late '30s at the Ecole Normale Superieure in Paris. There were some young people there who were very discontented with what they were taught. They were much influenced by the German school of thought, especially by a book called *Modern Algebra* published around 1930. They read that book, which confined itself to algebra but made clear a lot of things that weren't clear before, and they wanted to change the presentation of all of mathematics in the same way. They formed almost a secret society, where they'd get together and pursue this project of redoing all mathematics — as only the French can do it: the encyclopedic mind that wants to systematize everything. So they started doing it, and they've had a great influence. The concept of "structure" that I mentioned in the lecture they made clear in their first publication, in 1939. They continued publishing through the war, and they're still publishing, that is, the younger successors — although I must say they don't have the same spark their predecessors had. They've tried to systematize the building blocks of the mathematics that everyone uses.

D: You don't mention — except for Gibbs — any American or British mathematicians in your summary of mid-19th to mid-20th century mathematicians. Is that a significant omission?

N: Well, I'm only talking about selected aspects of mathematics. But of course the United States was not as big a factor before the Second World War as it is now. There were far fewer mathematicians in the United States then than there are now, or than there were in Europe at that time. Until the mid-1930s, the United States would only have compared in mathematics to a single country in Europe. There are two reasons why the United States then became a major factor in mathematics: one was all the refugees that came here; the other was that during and after the war the federal government pumped a lot of money into it and attracted people. I'm an example, and there were many people like me. In Europe, you couldn't get a job — it was burned out; it was easier to operate here. Now there are many talented mathematicians in the United States.

Cows And Sheep Vs. Abstract Language

D: Let me try another kind of question on you. — Can you describe for me, as sort of the archetypal man on the street, some general sense of what you mean by an updating of math since the middle of the 19th century? Some sense of the concepts revealed or discovered or stated that enable you to do your work?

N: As I mentioned in my lecture, I don't really consider mathematics to be another language. Sometimes it can't be translated. Someone says, "Why don't you put this in common terms?" Well, it often can't be done. Mathematics is an extension of the natural language; there are some things the natural language can't catch. When mathematicians apply words to new concepts, the words don't necessarily mean what they usually do, and you have to understand the vocabulary to understand the concept. I was just talking to Juan Schaffer about this. He objected to my saying that language has become more complex; he pointed out that it actually has become simpler. In a sense, the number of words has decreased, because you might, for example, have once had two words for "two" — depending, say, on whether you were counting sheep or chickens; now you have have only one word "two." The language has become, in a certain sense, more abstract, but also more efficient in describing things. It has become easier to communicate things because you understand that whether you have two sheep or two cows, there is something in common — "two." That's the kind of thing that's happened in mathematics. Certain people developed a theory, people someplace else developed another one — perhaps both were motivated by problems in physics, or even in economics. Then someone recognized that there was a structure in common. Mathematics is a means of discovering what is common between conceptual frameworks. In mathematics, it often happens that people in different branches develop theories and later on somebody discovers that these theories are really the same; they just use a different terminology and notation.

Sets, Groups, Logical Structures

D: Maybe drawing again on that lecture, can you give me an example or two of ideas that you regard as key building blocks in modern mathematics?

N: Well, I mentioned the idea of what mathematicians call a *relation,* which is described by a sentence fragment such as "is a part of." Another example would be "is a parent of" — it becomes a conventional sentence if you put the names of people before and after it. It turns out that these relations have properties that they may share in common. For example, the relation "is a parent of" is not a transitive relation: If A is a parent of B, and B is a parent of C, then A will be a grandparent of C and normally not a parent — in that sense, the relation is not transitive. But take the relation "is a part of": if A is a part of B and B is a part of C, then A is also a part of C — that's transitive, it's just common sense. The study of these sorts of conceptual properties is part of mathematics nowadays. Another example would be the precedence relation: A precedes B and B precedes C, so A precedes C — again that's a transitive relation. Now if somebody is just interested in the "is a part of" relation, he has a different language from someone who uses "precedes," but the mathematician recognizes that there is an underlying common structure. The study of that structure would be called the study of "ordered sets," and there's a rather large theory which applies to any particular case or situation in which you have relations that have the same underlying logical structure, even though they may be different from the point of view of meaning.

D: So the concept of the "ordered set" would be an inclusive category?

N: Yes. It's what would come out of the analysis of different areas, what they have in common, relations they share: "precedes" would be one, "is a part of" another, "is less than or equal to" is a third. All of these are orders. Each situation has an immediate meaning, but by abstracting what a range of instances have in common, you get a mathematical theory: the theory of ordered sets. "Ordered set" is like a common noun describing a class, like "human being" — a species of structure. What mathematicians study is the species, not particular individuals. Just the way you'd study humans: not one human being but all of them.

D: And this you're arguing is an example of one of — I don't know the right language — the insights, the fundamental concepts for organizing abstractions in modern math?

N: Organizing thought, it's really a matter of organizing thought. "Is a parent of," for example, is part of the ordinary language. Mathematics is really organized thought.

D: And the ordered set is an example of a model, so to speak, that has come into play in the last 75 years as an important way of talking in mathematics?

N: Yes. If you become aware of a structure then suddenly you see that it occurs everywhere. Another example is the structure of a "group" — which has nothing to do with the English word group; it's a technical term. "Group" theory was first developed in examples at the beginning of the 19th century; the abstract theory was developed perhaps at the beginning of the 20th century. At first it appeared to be a rather esoteric branch of mathematics that only pure mathematicians were interested in, and then people came to realize that it was fundamental in physics. Elementary particle physics talks all the time about "groups." — And speaking of mathematicians being conceited, there's a story about one mathematician who said, "Oh, the physicists are playing group theory now? I won't touch it anymore."

Quark, Charm: Humpty Dumpty

D: Can you put the idea of group theory into English?

N: It's hard. A basic idea in mathematics is symmetry; the idea of a "group" came about as a means of discovering and describing symmetry. That's why it's so important in both mathematics and physics. Group theory can describe the symmetry in very complex situations — in elementary particle physics, or in materials, in distinguishing solids from fluids, for example.

D: You say the word "group" here doesn't have much to do with its normal sense?

N: That's right. There's an interesting linguistic difficulty that occurs all the time in mathematics. You have a concept that you generalize and you want a word to describe the generalization, so you use a prefix maybe — like "pseudo" or "semi." But sometimes you get into real linguistic monstrosities; you say, "A group is also a pseudo-group." Linguistically that's nonsense, right? But mathematicians bend the rules of natural language. I don't like that. One should devise terminology in such a way that it isn't too offensive to people who have some respect for the language.

D: You were quoting the Humpty Dumpty principle.

N: Lewis Carroll was very much aware, of course, of what he had Humpty Dumpty say: "When I use a word, it means exactly what ***I*** want it to mean, neither more nor less." That's exactly what you do in mathematics. There's no other way of operating; you cannot do mathematics unless you do this. What you should do though — and what isn't always done in mathematics — you should at least use words in such a way that they're not completely contrary to their dictionary meaning. Physicists sometimes deal with the problem by using a very colorful language; they talk about elementary particles having "color" and "charm." Those are just made-up terms that have nothing to do with ordinary meaning; they could use nonsense words.

D: "Quark" is a kind of nonsense term.

N: Yes. As you know it comes from *Finnegan's Wake.* There's a word "quark" in German — I don't know whether Joyce knew it. In German "quark" has two meanings: one is "nonsense," or "rubbish"; the other is something like "cottage cheese."

"Avoiding Calculation"

D: Let me try a couple of other type questions. Are these concepts — say, the ordered set —situations you as a mathematician look at in response to certain physical phenomena, or are you responding to a mathematical tradition, to problems you feel have been only partially solved by other mathematicians?

N: I would say both. Again in the example of ordered sets, once you are aware of the concept you see it everywhere, both in pure mathematics and in physical applications.

D: If the ordered set became significant in, say, the last 100 years, why? Why would it become important in this era?

N: It's part of a trend toward abstraction. Instead of dealing with some single fixed system — such as a fixed system of numbers — you deal with all kinds of systems which are less rich but which you can analyze piece by piece. That's what's happened in the last 100 years in mathematics. People have looked at many, many situations specifically, either in mathematics itself or in relation to needs in physics. They've abstracted the common features, formalized them by introducing an appropriate kind of mathematical structure, then studied the structure with results that apply to each of the cases in which it occurs.

D: So does this imply that modern math — as opposed to "classical" math — is pluralistic?

N: I would say so. One hundred years ago, a mathematician might have said, "I study numbers, I study geometry." But that's no longer true; there are a lot of mathematicians who hate numbers.

D: You included?

N: I don't hate them, but I'm very bad at remembering numbers, I'm very bad at arithmetic. Most of what I do has very little to do with numbers, per se. I deal with structures that may or may not involve numbers, and if they do only very lightly. I tell my students: "Mathematics is the art of avoiding unnecessary calculation."

Extending Natural Language

D: So how would you say in English what you do? You are concerned with structuring entities, the relationship between them, the predictability of those relationships?

N: Yes, what we said before: I am concerned with conceptualization. Mathematics is really a methodical conceptualization.

D: You're hypothesizing the consistency, the predictability of a certain set of descriptions, which ultimately you'll try to fit to things out in the physical world?

N: Yes. Understanding things is, after all, a process of conceptualization. Mathematics just does it a little more systematically perhaps than if you use ordinary language. Another thing this kind of mathematics does that I think is quite valuable for science is to force into the open tacit assumptions, assumptions that you're perhaps not even aware of. And once they're out in the open, you can work with them, you can alter and combine them, which you cannot do if they're buried in your unconscious. The great example is the concept of time. Our ideas of time are very unconscious — we have a commonsense notion of time that we find very hard to alter. That's the reason why people find relativity so mysterious; it requires that you alter your concept of time. Once you understand enough mathematics, it's rather easy to do. But without the mathematics, relativistic time is almost impossible to explain, because in explaining you have to use words of the natural language that have implicit in them assumptions which are not appropriate.

I believe that was one of the great achievements of Einstein: He realized that we had to alter our notion of what time is about. I once read a letter in which he said facetiously that one of the reasons why he was able to do it was because he was retarded as a boy and didn't think about time until he was older and could think about it more deeply.

D: Since I use *words,* I can't ask the questions?

N: That's right. Mathematics does not make natural language obsolete, but it extends language to things that you can't state in everyday terms. A concept of time is embedded in natural language. You have a past tense, present tense, future tense. If you ask about some event, "When did it happen?" — just asking the question implies that *when* something happens is a meaningful question. In relativistic time, it's no longer a meaningful question. There is no *when* — you don't have instants anymore, you can't say "at that time." That's extremely hard to accept for someone who doesn't understand the mathematics of relativistic time. You can't explain it in words, because the words themselves contain the classical concept of time.

D: Which you have to admit is also a useful concept?

N: Yes. For ordinary commonsense purposes relativistic time is totally irrelevant, it's useless. It comes up only if you want to probe deeper into reality.

Ryan Award . . .

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level courses and Executive Development Seminars for Mellon Bank, Westinghouse Electronic Corporation and D'applonia Consulting Engineers, Inc.

Delorese Ambrose, the new Assistant Dean of Carnegie-Mellon's School of Urban and Public Affairs, is winner of the Emil Limbach Teaching Award. Joining the CMU faculty in 1980, Ambrose has developed courses in management communications, public speaking and interview techniques at SUPA. She has also conducted communication training workshops and courses for public and private administrators, teaching assistants, union representatives, and New York State employees.

Harry Holland, Associate Professor of Painting and Photography, is the winner of the Henry Hornbostel CFA Teaching Award. Holland joined the CMU faculty in 1963 after earning a MFA degree here. Holland, who has exhibited widely, has had one man shows at the Carnegie Institute, Museum of Art, the Pittsburgh Plan for the Art and the School of the Art Institute of Chicago, among other places.

The university-wide Ryan Award won by Robert W. Kraemer was established in 1961 by a gift from William H. and Francis S. Ryan of Sacramento, California. Ryan was a member of the class of 1925 at CMU. The earlier winner were: Barbara Anderson, Drama; A. Fred Sochatoff, English; Bordon P. Hoover, Mathematics; Samuel Rosenberg, Painting and Design; Edwin Fenton, History; Hugh D. Young, Physics; Robert R. Rothfus, Chemical Engineering; Oleta A. Benn, Music; Beekman W. Cottrell, English; Richard A. Moore, Mathematics; James H. Korn, Psychology; Robert W. Dunlap, Metallurgy and Materials Science; Gladys Schmitt, English; Herbert T. Olds, Painting & Sculpture; Edward L. Cussler, Chemical Engineering; Charles H. Van Dyne, Chemistry; David T. Tuma, Electrical Engineering; Irving H. Bartlett, History; Helen Gossard, Music; Robert Eisenstein, Physics; James F. Hoburg, Electrical Engineering; Granville F. (Pete) Jones, English.

— *Molly Silver*

Skibo's Video Games: Fun and Profit?

Q: What beeps, flashes, plays music, blows up spaceships — and makes thousands of dollars per year for CMU? A: The video games in Skibo, a rapidly-growing arcade where students dispose of extra time and money.

Two pinball machines and 14 video games are located near the Tartan Grill, on the patio level of Skibo. The machines are densely packed and students crowd around them to watch the action. The pinball machines, Space Invaders and Eight Ball Deluxe, in a far corner, are almost always used by the same group of math and engineering majors. Next come four video games — Tutakham, Turbo, Moon Patrol, and Asteroids Deluxe. Facing them: Tron, Rally-X, and the ever-essential change machine. Then farther along: Jungle King, Armor Attack, Space Fury, Zaxxon, Ms. Pacman, Tempest, Defender, and Dig-Dug.

Almost all the games have a futuristic setting, and many — Asteroids, Space Fury, Defender, and Tempest — require the player to control a space ship and kill "the enemy." Others feature "search and destroy" — as one student explains, "where you dig around and try to kill things and get treasures, like Dig-Dug and Tutanhham." Turbo and Rally-X are games in which the player controls a vehicle in a race-track setting.

"The machines don't stop from the time the Grill opens for breakfast to the time they close at night," says Anne Witchner, director of student activities. Most of the players appear to be science and engineering students. Few H&SS and almost no CFA students are regulars.

Many players freely admit that they spend large amounts of time with the games. An operator in the Computation Center (and an ex-student) says, "I spend as much time here as I can. Sometimes I'm here for eight hours at a stretch." An undergraduate brags, "I'm always here." Ray Macso, a math major, admits, "Sometimes some friends and I were down here all evening playing Pharoah." Pharoah has since been removed.



Why do they do it? Says one player who chooses anonymity, "It's cheap entertainment. On some games I can play for 15 minutes on a quarter, and on Battlezone I can play for an hour and a half without putting in more money. You go to a porno movie for a quarter and it lasts for two minutes."

"Sometimes it's even profitable," adds Macso, smiling. "Sometimes we run up free games on Space Invaders and then sell them ten for a dollar when we get tired of playing. We also like to find new ways to beat the machine, like having a different person play each flipper. It's like gambling, testing your skill against the machine."

Not everyone is good enough to profit, however. Often there are machines laden with quarters as students attempt to learn a game. "I want to be good at Tempest," says one, "and I don't mind spending money to do it because it's fun." He adds, "Tempest is especially good at quarter munching, because you can continue a game where you left off by giving the machine more money. It's a time pressure thing. You only have 30 seconds to give it more money or you'll have to start over, so most of the time you just put it in without thinking."

Are these games harmful, expensive, and a waste of time, as some people believe? Or do they have a positive effect?

"There are two schools of thought," says Judy Grumet, director of the Counseling and Student Development Center. "One is that the games teach eye-hand coordination and strategic thinking, and the other is that they're bad, involve no thought, and waste money." Grumet adds that the violence in the games "may be better than watching TV, because the violence on television is more passive. You don't tend to think about the TV violence; you just accept it. With video games you have to think because you're participating."

Adds a player, "You have to get out your frustrations on something, and what better way to do it than to 'kill' evil things from outer space?"

Whatever their appeal, the games are definite money-makers. "I would say they gross around $70,000 a year," Witchner says, "which is a conservative estimate — exact figures are not available. The companies that own the games get a large share, and the two students who maintain them get some. The university might get about a third of the profit."

— *Monica J. Cellio*

SSAYS OF BIAS: Satire Is What Closes On Tuesday Nights, or My God, The Star Of "Bedtime For Bonzo" Is The President Of The United States!

Your campus-wide National Disaster Committee has just issued a new set of guidelines to follow in case of a total nuclear holocaust on or near the CMU campus. Please cut these out, paste them inside your Faculty Handbook (they supersede all previous guidelines) and be ready to refer to them very quickly, if necessary.

To begin with, the Disaster Emergency plan has now been bifurcated (you should pardon the expression) into two separate but equal parts. The first posits a three-day warning of a pre-emptive strike by the Russkies (which, of course, is a bit chancy, since they are not known — are they? — for playing by the Marquess of Queensbury rules). This is what we call our Major Evacuation Plan B. Please remember that the catchment area for CMU (except for CFA, GSIA, and small elements of SUPA) is the small rural village of Slicksville, in nether Armstrong County. Since it has been pointed out (by some Nervous Nellies of the Bleeding-Heart Left) that Slicksville has only one four-cabin motel ("Ma and Pa Perkins' Bide-A-Wee Tourist Courts"), facilities for receiving and housing refugees *are* limited, so it might be wise to get packed and leave early. Bear in mind, in packing for the trip, that among the vital necessities you should include in what we laughingly call your Survival Kit are: several cans of non-perishable foodstuffs; one flashlight, complete with extra batteries; a small hatchet; a length of rope; several extra rolls of toilet tissue (better safe than sorry); a small compass; a more or less recent road map of Western Pennsylvania; and a card bearing the name of a person to be called in case of misadventure.

Also, please keep in mind that the McArdle Roadway, the Bloomfield Bridge, the Fort Pitt Bridge, the Forbes Avenue Bridge, the Parkway East, the Parkway West, and certain sections of Frew and Margaret Morrison Streets are currently under intense repair and therefore unusable; also, don't forget that you cannot go downtown via Forbes Avenue, or travel from downtown out on Fifth (unless you are a bus) — and all of this, of course, changes at Bellefield. On second thought, it might be much more feasible to evacuate the city in a helicopter, provided you happen to have one. For those travelling by foot, Slicksville is about fifty or sixty miles kitty-northeast.

Alternative Disaster Response Plan D envisions that the Russkies, in line with their track record, will play dirty pool and not give us the three days' warning most sporting nations observe. In that case, the first indication you may have that you are Ground Zero for the Big One will possibly be a very, very bright flash and a kind of concussive sensation in your ears. DO NOT PANIC. REMAIN CALM (GODDAM IT, I SAID "REMAIN CALM"!) and proceed immediately to your nearest bomb-shelter.

Nearly all the buildings on campus have perfectly dandy basements which can be quickly and easily converted into swell bomb-shelters. Some brown paper or cardboard over the windowns and some rags to stuff up the cracks will work wonders. It might be well to take a Harlequin Romance or a book of crossword puzzles with you, since waiting in a bomb-shelter *can* become tedious; but remember that it will not be necessary to bring along food or drink, since nearly all of the basement areas on campus are equipped with well-functioning coin-operated machines which dispense such necessities as Nachos, candy bars, Cheez-Its, and a sort of brownish liquid which can be obtained by depositing a coin in the slot marked "Tab," "Pepsi-Cola," "Coffee," or "Tea" — it really makes no difference, since it is the same under all headings.

While waiting, you may hear some rather heavy concussive sounds from up above. DO NOT PANIC. You will be perfectly safe as long as you remain quietly in your shelter area and do not run screaming out onto the Cut. The organization of games or group singing is a good idea, incidentally, for helping people to remain relaxed, alert, and cheery. Above all: REMAIN CALM and DO NOT PANIC.

After the all-clear has sounded, it will probably be okay to proceed immediately up to ground level to assess the damage. We say "probably" because there is a lot of loose talk around about radiation and stuff, but remember that the so-called "radiation theory" is just that — a theory, like evolution — and has never been proven, since no scientist propounding it has really lived through a nuclear blast.

Now, you may notice a lot of broken glass lying around and some structural damage to buildings (indeed, some may have disappeared, lending a pleasing and novel aspect to the landscape); the ground may appear black, may be hot to the touch, and may be smoking. DO NOT WORRY. THIS IS PERFECTLY NORMAL. It will probably clear up in a few days.

We anticipate that things should be back to normal in a very short space of time, and we are now scheduling the resumption of classes on a regular schedule for the first Tuesday following the holocaust (when, of course, classes will meet on a Monday schedule; Tuesday of that week, like some of the buildings, will disappear). There will be no excused absences from classes except on the presentation of a valid medical excuse: radiation, headache, severe nervousness, or disorientation. This will not be a time for malingering.

Again, above all: DO NOT PANIC. EVERYTHING IS UNDER CONTROL. WE HAVE A PLAN IN PLACE.

Thank you.

— *Jim Rosenberg*

Photo Exhibits Feature Pittsburgh

"To portray a city is beyond ending; to begin such an effort itself is a grave conceit. For though the portrayal may achieve its own measure of truth, it will still be no more than a rumor of the city . . . "

EUGENE SMITH
Photography Annual 1959



Margaret Bourke-White: "Aerial View of Pittsburgh," c. 1956

Two major photography exhibits that capture the spirit of Pittsburgh are on display in Oakland: at the Carnegie Museum (until January 2), work by photojournalist W. Eugene Smith; at the Frick Gallery (until October 27), various historical and contemporary photographs of Pittsburgh bound together in an exhibit entitled "CITYSCAPES." Involved with the organization of both exhibits is Charlee Brodsky of CMU's Design Department.

"The exhibits show different views of Pittsburgh through the camera lens," says Brodsky. "The Smith exhibit is in the tradition of the photo-essay, while at the Frick Gallery, we see a wide range of styles by various artists."

Brodsky, who helped handpick the Eugene Smith photographs from the Carnegie Institute archives, feels that Smith has created an image of the city that has captured the "guts of the steel mills as well as upper crust society. He beautifully interweaves all the extremes of the city, the opposites in life. The sum total becomes what he called his 'poem' to Pittsburgh."

Smith's images were the result of a two-year study undertaken by the photographer between 1955 and 1957, initially as an assignment for Stefan Lorant's book, "PITTSBURGH, The Story of An American City." After seeing his "Spanish Village" photographic essay for LIFE Magazine, Lorant was convinced that Smith was the one to capture the essence of Pittsburgh through the eye of the camera.

Smith became deeply involved in the Lorant project, and continued to photograph Pittsburgh even after his contract ran dry. Lorant described Smith's involvement with the city as an "act of love."

"Smith was a socially concerned man," says Brodsky. "He felt the camera was a powerful tool to expose social problems. His last essay before his death showed the effects of mercury poisoning in a Japanese fishing village. These were very powerful photographs that showed the human condition. In Smith's own words, 'To cause awareness is our only strength, . . . photography is a small voice . . . I believe in it.'"

Brodsky is also involved with the "CITYSCAPES" exhibit at the H.C. Frick Fine Arts Building across the street from the museum. Sponsored by the Silver Eye Photographic Workshop of Pittsburgh, the show is divided into three parts. The first part features work done in Pittsburgh during the spring and summer of this year by the well-known photographer, Duane Michals, a native of McKeesport. The second part features the winning entries of the "CITYSCAPES" photo competition, juried by Michals.

A third section of the show is a group of historical photographs of Pittsburgh, dating from 1874 to the 1950s. Selected by Brodsky from the Carnegie Institute archives and the University of Pittsburgh's Archive of an Industrial Society, the images range from "unromantic, pictorial views of the steel mills to hard-edged documents of the city." H.C. Torrance, a little remembered professional photographer active in the 1920s, is displayed alongside such masters as Margaret Bourke-White, Harold Corsini, Eliott Erwitt, Clyde Hare, Luke Swank, and Todd Webb.

"The purpose of the historical section," says Brodsky, "is to portray Pittsburgh during different periods of time through different styles — from snapshots to fine art."

— Julia Lee

The Bureau of Mines Buildings: Almost CMU's?

After 25 years of trying to acquire the Bureau of Mines Buildings, CMU may be within weeks of signing a contract of purchase.

Congressman William Coyne has been actively working in CMU's interest to obtain the buildings. He lobbied Congressman Yates of Illinois, the chairman of the House Appropriations Subcommittee on Interior and Related Agencies, to clarify a statement in the original bill passed last session on 12/17/80 authorizing the sale of BOM to CMU. That bill stated in effect that at time of conveyance of title, CMU would pay the fair market value or $5.4 million, whichever was higher.

According to Fred Rogers, Vice President for Business Affairs for CMU, "The price issue was further confused by the fact that a definite date could not be set for the closing and conveyance because of the need to build a new building for the BOM at Bruceton, PA."

On August 18, 1982, Coyne got Congressman Yates to confirm on the floor of the House an agreement ". . . to establish a fixed price for the property based on its fair market value as of September 1, 1982 so that a contract of sale with Carnegie-Mellon University can be entered into without delay."

This clarification accompanied the budget appropriation for the new facility, which was contained in the recent $14.1 billion appropriations supplemental bill when Congress overrode the presidential veto.

The Bureau of Mines is a complex comprised of six major buildings. The largest, A, is on Forbes Avenue with buildings B through F in the back. Presently, buildings A and B house several offices of BOM, such as the Eastern Field Operation Center, Equal Employment Opportunity, and Administration. In buildings A, D and F the Mine Safety and Health Administration of the U.S. Dept. of Labor has offices for Coal Mine Safety Health, Metal and Non-metal Mine Safety and Health, and the Pittsburgh Health Technology Center.

Meanwhile, Fred Rogers sums up: "The problems have been overcome: the Federal Government fully recognizes and has agreed upon the clarifications of price and title conveyance stipulations, and Congress has overridden the President's veto and appropriated funds to provide new facilities at an approved site."

According to Rogers, "The issue at this point is to have all involved parties agree to the contract of sale which has been drawn up for a year. We expect to take possession of the buildings by 1985 at a price between $5.4 and $6.0 million."

The uses for the buildings have not been determined as yet.

Louise Crocoll

Faculty Senate: Membership & Council Rosters

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Harold Corsini: *Photographic Expertise*

Harold Corsini remembers his first experience with Pittsburgh: "In 1949, Roy Stryker and I traveled from New York to give lectures in documentary photography at the University of Missouri. On the way, we passed through Pittsburgh, and we decided to look around.

"When we were done, we agreed: we hated it, and under no circumstances would either one of us want to come to Pittsburgh again. At that time, the city was in gasping poor condition — it was filthy, and you couldn't see anything from the hills.

"Two weeks later, we had to come back through Pittsburgh. The city was sparkling. We could see for miles. What had happened was that a steel strike had shut down the mills.

"We both thought that this could be one of the most beautiful cities in America. And we wanted to come back."

Corsini and Stryker returned two years later to take documentary photographs of Pittsburgh, much as Stryker, the "father of documentary photography" had assembled the photos for the Farm Security Administration in the 1930s.

Stryker and Corsini had been asked by the Allegheny Conference on Community Development to make a photographic record of Pittsburgh's Renaissance. Working out of the University of Pittsburgh, Stryker and Corsini began to assemble photos that showed Pittsburgh beginning to address the problems that had given it such a terrible reputation around the country. Stryker had the services of photographers such as Russell Lee, Arnold Eagle, Esther Bubbley, Richard Saunders, Elliott Erwit, and Clyde Hare.

Since Stryker was not a photographer, he always hired a photographic expert to aid him. In the Pittsburgh project, Corsini was his expert. It was Corsini's job to hire the best photographers, to assign them to various jobs and locations, to supervise all the developing work, and to answer any questions that the photographers had.

Corsini also took many pictures himself. His subjects included expansion by Pittsburgh industry, cultural events, new parks under construction — "anything that made Pittsburgh look like a big-time city."

Corsini was well-prepared for this assignment. He had been one of Stryker's many writer/photographers when Stryker had worked for Standard Oil of New Jersey. Corsini traveled around the world, "wherever there was oil," reporting on Standard's activities for the stockholders' publication, "The Lamp."

Corsini had begun, after graduating from New York's Peter Stuyvesent High School, working as a freelance photographer for magazines such as LOOK and LIFE. "All through high school I'd wanted to be an architect, but when I got out I decided to work at photography. Why? Because I was awfully good at it."

He is not boasting. By the time he graduated, he had already had his photos in shows at places like New York's Metropolitan Museum.

The career as a freelancer ended when World War II began. Corsini spent the war as a correspondent in the Pacific. After the war he met Roy Stryker, worked his way up to become Stryker's top photographer at Standard, and in 1951 accompanied Stryker to Pittsburgh.

Stryker left in 1952, and Corsini remained in the project until 1954, when he quit to set up Pittsburgh's largest photo illustrations studio, Corsini Studios, Inc.

After 20 years, he decided to give up the studio. "When I was 55, I counted up my money, and found out I didn't have to work anymore." Tired of the traveling photographer's life, Corsini decided "to enter the hallowed halls of Academe."

And so in 1975 he came to CMU as an Adjunct Professor of Photography in the Design Department. He instituted several courses in the photography program, courses that had not been taught here previously, such as Animation, Slide Photography, and Advanced Color Photography.

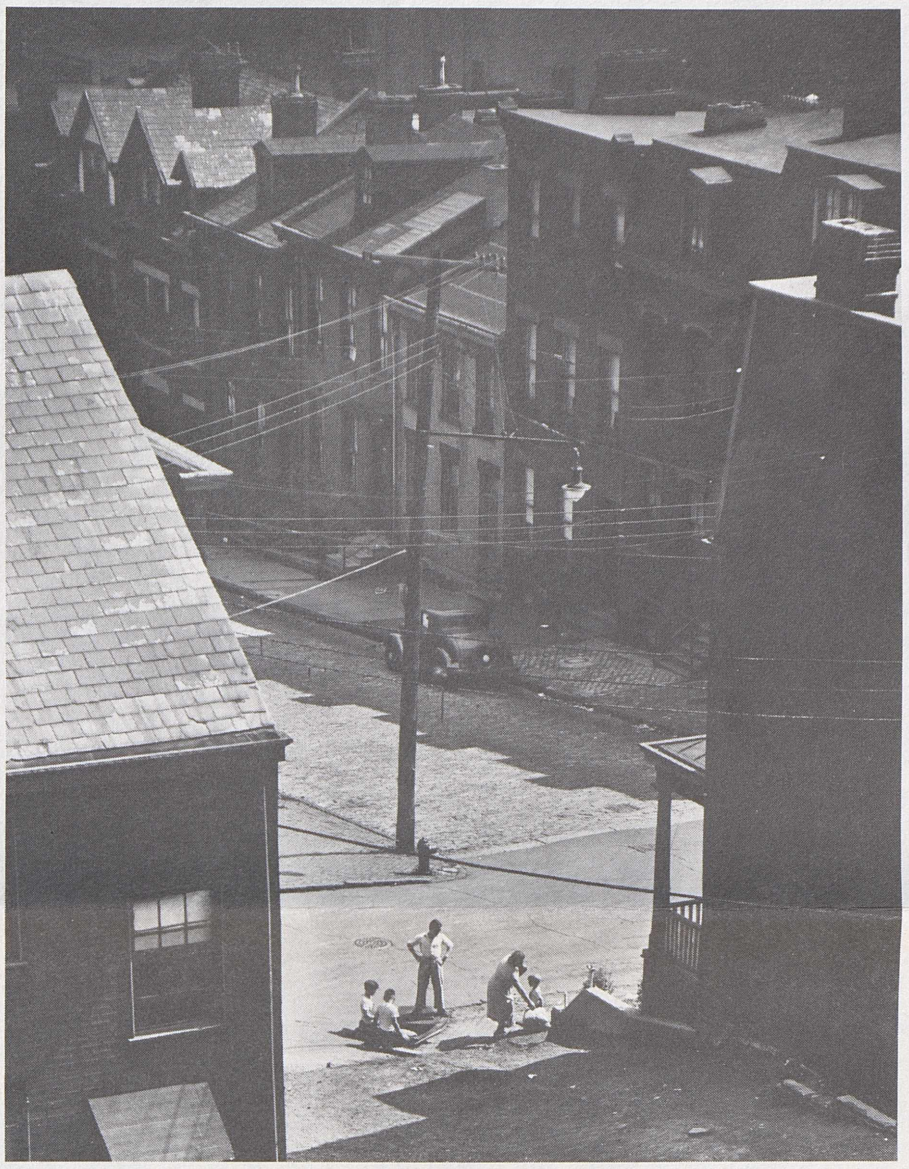
CMU was not what he'd expected. "When I'd worked with Stryker, we'd operated out of Pitt, so we'd always thought of CMU as a country-club school. When I got here I found out that it really has a cross-section of blue-collar and white-collar people. The school's done a good job of integrating itself into society. The only thing that characterizes it is superior students."

Now Corsini only teaches two courses — "the two I like best" — Animation and Darkroom Photography.

He also has an exhibit in the Hewlett Gallery until October 22, showing photos of the Carnegie-Mellon campus in all four seasons.

After 30 years, Corsini still thinks highly of Pittsburgh. "For a photographer, the hills make this one of the most beautiful cities in the country. The view from Mt. Washington is rivalled only by San Francisco — maybe."

— John Cantine



Harold Corsini: "On Fineview Hill," c. 1960

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LETTER: ON AMS

To the Editor of FOCUS:

The September 1982 issue of *Focus* contained the "Report of the Commission to Evaluate the President." This report included a discussion of the undergraduate program in Administration and Management Science that is critical, emotional, and highly inaccurate.

The primary innuendo of the Commission about AMS is that ". . . most of the courses [in the program] are taught by graduate students from GSIA." In fact for the Fall 1982 semester only 5 of the total 23 teaching faculty in AMS courses are graduate students from GSIA. To provide some further facts on the program, listed below are summary statistics on student evaluation of last year's AMS courses.

	Median Evaluation (Number of instructors)		*Average Evaluation*
	Faculty	*Graduate Students*	*for all*
Fall 1981	3.72 (13)	3.65 (6)	3.78
Spring 1982	3.96 (16)	3.88 (6)	3.83

These data are hardly compelling evidence for lack of faculty resources devoted to the program, or that the graduate students selected to teach AMS courses perform poorly. Further, most of the graduate students who are chosen to teach AMS courses are within one year of a full time teaching appointment at a major school of business, and usually a graduate school of business.

It is obvious that the overall satisfaction with AMS teaching is quite high; the evidence is not consistent with the Commission's inaccurate and outdated charge of "inadequate teaching." There are many departments on campus where classroom performance is well below that currently being achieved in the AMS program.

Additionally, the Commission failed to notice the strengthening of the administrative structure of the AMS program where, for the past two years, a tenured full professor at GSIA has served as department head. Also, we are proud that in 1982 the AMS program was granted accreditation from the American Assembly of Collegiate Schools of Business (GSIA's Masters Program has been accredited since 1957). Receiving AACSB accreditation requires that a program satisfy demanding standards on curriculum content, faculty involvement, and financial and administrative support. It is unlikely that the AMS program could have been accredited prior to its recent strengthening.

We are not claiming that the criticisms of the Commission were never valid. But in the last five years, with the active encouragement and support of President Cyert, the curriculum has been improved and faculty and administrative support for AMS has greatly increased to produce a high quality program. It is unfortunate that the Commission failed to observe and notice these changes, and preferred instead to rely on stereotypical, outdated characterizations. For example, neither the Dean of GSIA nor the AMS Department Head, nor the Associate or Assistant Department Head was interviewed by the Commission to discuss the recent changes in the AMS program.

No program is beyond criticism and we continue to search for ways to improve the AMS education, and the counseling and support of AMS students. But to single out the AMS program for criticism after all the improvements implemented during the past five years does a disservice to the program, the GSIA faculty and administrators who have devoted so much effort to improving AMS, and, especially, to President Cyert who has been constant in his commitment to expand significantly the resources devoted to the AMS program.

Robert S. Kaplan, Dean, GSIA and Professor of Industrial Administration

Charles H. Kriebel, Professor of Industrial Administration and Department Head, AMS

Mary Ann O'Nan, Associate Department Head, AMS

Carol Janik: Protocoling Prose

"The Carnegie-Mellon Communications Design Center," explains Carol Janik, "provides a range of communication consulting services to dejargonize and simplify the language we use. We try to rid documents of indecipherable text and provide readable forms and manuals."

Sitting in an office strewn with computer printouts, overflowing ashtrays and half filled coffee cups, Janik describes some of the CDC's current projects: a manual to the Tops 20 computer system written in clear language; a brochure "Guide to [CMU's] Department of Publications and Campus Printing"; a tutorial to help CMU student designers use the CADAM computer design program; a series of workshops, run by rhethoric grad students Ken Dye and Jim Stratman, aimed at professional writers in the general Pittsburgh community.

Janik, who received a degree in creative writing from the University of Pittsburgh, answered an ad in 1980 for a writer/receptionist at CMU's CDC and got the job. Now as a candidate for a masters degree in professional writing, she has undertaken the responsibility of major writer of "An Introduction to the CMU-Tops 20 Computer Manual." Just released, the volume is a series of self-paced tutorials to introduce people to the computer and show them how to use EMACS. Volume 2, to be released this month, instructs people on other particular programs available at CMU.

"For each program covered in the tutorials," says Janik, "We give basic procedures so that even a person who has never used a computer should have no trouble. The CDC has also prepared a



set of plastic summary cards for quick reference." Both the manual and the summary cards are available in the CMU bookstore.

In writing the manual, Janik and the other writers used an editing system called Protocol Aided Revision (PAR) developed in the CDC, which provides the editor with feedback about the text.

"To obtain a reading protocol," explains Janik,"We asked readers to think aloud while they read the text. When they experienced difficulty in comprehending, they told us, and we knew where the problem in the text was. We recorded sessions on audio or video tapes for later analysis. Because we collect them while they are reading, these protocols provide very explicit information."

"Protocol revision proceeds in several drafts," she continues. "First we produce a draft. Then several reading protocols are collected. We rewrite the text to try to clarify any difficult sections revealed in the protocols. This continues through three or four cycles, until the protocols reveal no more difficulties in the text."

Another study undertaken by the CDC found that there was considerable room for improvement in the consent forms being used in the major hospitals in Pittsburgh. "In many cases," says Janik, "people signing consent forms are not in a clear state of mind, and often do not read the fine print. One form said that the hospital did not guarantee the purity of the blood to be given."

The CDC's revision of the forms focused on meeting the needs of the people who use the forms. The revision was shown to a group of lawyers who specialize in hospital law who assured the CDC that it was legally sound. Janik has just learned that a few hospitals in Pittsburgh have adopted the CDC revised consent forms.

Did Janik learn anything new about revision while working on her projects? "Well, yes," she says. "I learned that revising a document involves more than just changing words and breaking up long sentences. You learn that you have to make decisions not only about what information should be included, but also about how that information should be presented."

Other members of the CDC are: Dick Hayes, Director, Sandy Bond, Joyce Hannah Swaney, Pat Sullivan, Ken Dye and Jim Stratman.

— Molly Silver

Not for Staff Only

CMU'S "UMBODHSMADHR"

Do you have a problem with your job and don't know what to do? Perhaps you've tried looking under "Personnel Services" in the CMU directory and were disheartened when you didn't find a sub-listing for "Problems." Don't dismay. Help may be near. Simply move up four lines on the page and find the listing for the "Ombudsman."

The Ombudsman at CMU is Richard Barnhart, Assistant to the President, who was appointed to the post by President Cyert in June of 1976. Part One of the new Staff Handbook explains that the role of the Ombudsman is "to hear employee complaints, to help clarify issues, and to suggest possible solutions to work related problems."

Barnhart considers his role as Ombudsman the "court of last resort." This means that, before you call him for an appointment, you should first try to find a solution to your problem through the available channels. For example, if the problem concerns someone you work with, you should first talk to your supervisor. If the problem happens to be with your supervisor, then you should talk to someone else in the department with authority to handle the problem. You might also want to contact Personnel Advisory Services for help with work-related problems. If you still haven't been able to solve the problem to your satisfaction, then consider the Ombudsman.

Since his appointment, Barnhart has handled, on the average, one case per month. He attributes his success as Ombudsman to three essential qualities: his confidentiality, his accessibility to the President, and his neutrality.

Conversations with the Ombudsman are kept strictly confidential. In order to reach a solution, however, it is often necessary to discuss the problem with the other people involved in the situation. Barnhart emphasizes that he does so only with the employee's permission. Barnhart also feels that his position as Assistant to the President helps him to function effectively as Ombudsman because — with the employee's permission — he discusses each case with President Cyert.

What's In A Name?

According to the dictionary, an ombudsman — from the Old Norse word "umbodhsmadhr" meaning "administration-man" or "king's representative" — is "a government official, especially in Scandinavian countries, who investigates citizens' complaints against the government or its functionaries." In this country, ombudsmen are typically neutral parties appointed by businesses to solve problems between labor and management. The dictionary does not say anything about neutrality, but you might wonder exactly how a citizen's complaint against the government can be solved equitably by someone who works for the government. Likewise, you might wonder how a staff member's complaint can be solved equitably by a member of the administration.

Ombudsman Barnhart assured us that he maintains complete neutrality in the cases he hears. When asked about a potential conflict of interests, Barnhart stated that his past experience in a number of positions — including staff and faculty — and his current position as an administrator has given him the ability to appreciate different points of view. His decisions and recommendations are made on an individual basis.

The question of neutrality is infinitely debatable. But the Ombudsman is a service provided for you; it's certainly worth a try.

— Carol Janik

AWARD TO FIENBERG

A committee of presidents of American and Canadian statistical societies has awarded its top prize to Carnegie-Mellon University Professor Stephen E. Fienberg.

The Biannual President's Award was given to Fienberg during the Annual Joint Statistical Meetings in Cincinnati, Ohio. He was honored for his methodological work on the analysis of categorical data and for his contributions to the applications of statistics to such diverse areas as medicine and public health, ecology, neurophysiology, sociology, accounting, criminal justice, law, public policy and federal statistics.

The societies represented were the American Statistical Association, the Institute of Mathematical Statistics, and two sections of the North American Biometric Society, and the Statistical Association of Canada.

Prior to joining the CMU faculty in 1980, Fienberg taught at the University of Chicago and the University of Minnesota where he was the founding chairman of the department of applied statistics.

He is chairman of the Committee on National Statistics of the National Academy of Sciences, a member of the board of directors of the Social Science Research Council and a former editor of the Journal of the American Statistical Association.

FACULTY SENATE NOTES

Faculty Senate Meetings dates are as follows:

Oct. 20*	Feb. 24
Nov. 18	April 7
Jan. 27	May 5

*Note this is a Wednesday, not the regular Thursday meeting day.

All meetings of the Faculty Senate take place in the Fifth Floor Board Room, Warner Hall at 3:30 p.m.

VETERANS: MISSING ON CAMPUS?

Despite publicity designed to flush out the veterans from the ranks of CMUers, only eleven people showed up at a veterans' meeting September 29.

Linda Binstock from Federal Compliance and Lorrie Rabin from the Student Counseling and Development Center, the two organizers, did not seem disappointed at the turnout.

"It's up to the vets to decide if they want to have a group," Rabin explained, "and then what that group will do. We wanted to provide an opportunity for the vets to get together and decide what kind of group could meet their needs."

"We really don't know how many veterans there are on campus," Rabin said during the meeting, which led to a discussion on how to get in touch with veterans who may want to get together. Further discussions went on into *why* any veterans should get together . . .

The speakers, Arto Woods from the Pittsburgh Vet Center and Mary McCloskey from the State Office of Vocational Rehabilitation, explained their offices' services for veterans. The Vet Center is mainly concerned with the specific problems of Vietnam era vets such as "delayed stress syndrome," and the Vocational Rehabilitation Office concerns itself most with veteran benefits.

From their remarks, however, the question of why veterans should get together was answered: the group could be an information source for on-campus veterans. Did CMU vets have special concerns that could be addressed?

"Getting together to drink beer and play softball," suggested Vet Tom Eagan from Research Contracts. "That's the most beneficial thing. Just getting more involved works pretty good." Should the group be merely a social thing?

"We could get together for a function," CMU Vet Jim Broshears from Payroll said, "or bring in a speaker and maybe learn something." One of the visitors, Captain Shulty from CMU's ROTC program, indicated an interest in having vets speak with his Cadets. He went on to mention a function that he was tentatively planning for Veterans' Day:

"I'm thinking about having a symposium or a film of sorts to make people more aware of the military on campus. Maybe this would be a good event to bring the vets together," he said.

Summing the main points of the discussion up, Binstock said, "Three things came out of the meeting. One, Captain Shulty's symposium may be a good way to find the vets. Two, we need to find the faculty and staff who are vets, perhaps through Personnel. Three, we need to find the students who are vets, perhaps through the Registrar's office."

After the thank-you's and well-wishing, everyone retreated to the back lines for coffee and brownies.

— Alex Czajkowski

Focus — in nine issues a year — is a publication of the faculty and staff of Carnegie-Mellon University. Many of the articles in FOCUS express the opinions of individual members of the CMU community; unless so indicated, they should not be construed as reflecting university policy.

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A. Alfonsi, V. Brandt, J. Cantine, M. Cellio, L. Crocoll, D. Gizzi, R. Golba, J. Lee, G. Osborn, M. Silver, A. Stewart, L. Weinberg
Production:
Tim Basinski, Judy Bokulich, Jim Dunkerley, Donna Walters
Advisory Committee:
Dave Demarest, Gene Levy, Ron Bennett, Keith Moore, Dan Klein

Anne Witchner: *"Resource Person"*

Coordinating student activities requires more time and effort than a 40 hour work week. Just stop behind the Skibo Information Desk and ask Anne Witchner, Director of the Student Activities Center. "This job requires a lot of extra hours, but working with the students keeps me young."

Witchner sees herself as "a resource person. Students come to me to find out how to do particular things." And because the job is such a diverse one, she is usually able to provide the answers. Besides being responsible for the A.B. movies, the pre-college summer program, and Spring Carnival, Witchner is also the financial advisor for the campus clubs. "And sometimes I'm the liaison between the student affairs office in Warner Hall and student activities here at Skibo.

"I'm also responsible for the non-food areas in Skibo. I schedule room reservations, and generally make sure that the rooms are kept clean and orderly, that the lights work . . ."



A CMU graduate in English, Witchner has been coordinating activities at CMU for five years, and she has nothing but praise for the students. "We have a wealth of talent here at CMU" — she points to a wall displaying framed posters of previous campus movies and coffeehouses. "Seven of these posters won awards from the National Association of Campus Activities for their graphic design. All were done by CMU students."

Witchner feels that many students become involved in campus activities because they are looking for more than book knowledge. "The energy level and enthusiasm I have seen in the students is simply wonderful. The students here are bright and more mature than on a lot of campuses."

To Witchner, CMU is "a playground. There are lots of things here to take advantage of — the drama productions, athletics . . ." Witchner herself can be seen taking advantage of the tennis courts during free time.

As director, Witchner has created many new programs, but she would like to see the office of Student Activities grow even larger. "It's important that we educate the campus, and if we had a bigger staff, we could get even more students involved.

"In this field," Witchner adds, "you're never finished. There's always something to plan, something new that can be done. And you must have faith in yourself that it will get done."

— Dotti Gizzi

During the fall semester FOCUS copy is due the last day of each month.

A New Policy for Intellectual Properties?

Last May CMU's Intellectual Properties Committee circulated a draft of a proposed new copyright/patent policy to CMU's deans. According to the proposal, copyrights applied for by a member of the faculty, staff, or student body would be owned by the university if the work done involved university resources, or the work was related to the staff member's general subject area. In addition, 50% of the royalties from the given software, book, or creative composition of the author/artist would go to CMU.

Within 10 days, the draft was withdrawn. "The faculty as a whole did not have a very positive reaction to it," says Eugene Levy, associate head of the History and Philosophy Department. "Traditionally, faculty writings are the property of the faculty."

After what Provost Dan Berg calls that "minor explosion" last spring, the committee was deactivated. Looking back, Berg feels that the draft was "inadequate" and one of the problems with the committee was that it lacked faculty representation.

Berg is currently organizing a new committee with the help of the Faculty Affairs Council of the Faculty Senate. "But this time around," says Berg, "faculty representation and leadership will be insured. The Graduate Student Organization has suggested that students be represented on the new committee also."

According to Assistant Provost Karen Kennedy, "One of the main reasons for considering revision in the current policy is the development of software. Software is covered not by patents but by copyrights," says Kennedy, "and the rights and responsibilities on everybody's part are not clear in CMU's current policy."

Both Berg and Kennedy agree that the development of the Scribe computer program was one of the major causes for the administration's wish to restructure the copyright/patent policy. Scribe was written by Brian Reid while he was a graduate student at CMU.

"I owned Scribe free and clear," says Reid, "and I turned its copyright over to Unilogic, a company that was being started by professor Mike Shamos."

But Reid says his name was somehow removed from the work, and CMU's Director of the Computer Center was led to believe that it belonged to CMU.

"Before long CMU and Unilogic were both trying to sell Scribe to Digital Equipment Corporation," says Reid. "Digital informed CMU administrators who, thinking that CMU owned Scribe, filed a suit against Unilogic for stealing university property."

"Everybody sued everybody," Reid sums up. "But the outcome of CMU vs. Unilogic favored Unilogic."

Says Berg about Scribe: "Here was a nominally valuable program developed under the auspices of the computer science department, and the university was retaining no property rights, even though it was going to be marketed outside the university. When you get into the development of software," argues Berg, "you're using a lot of university equipment, and the work is often done as part of a project that is sponsored. The work is akin to the patent situation."

Reid counters, "The computer science department encourages you to do exciting work on their equipment — without charge. The computer is a resource like the library is a resource."

At Stanford, where Reid is teaching electrical engineering, he is subject to one of the copyright/patent policies which was looked at by the now defunct CMU Intellectual Properties Committee. According to the Stanford policy, the university owns works created as "institutional" rather than "personal" efforts, as well as works which significantly use university facilities, including "software developed using university computers."

The Stanford policy is extremely unpopular with the Stanford professors and staff according to Reid, who adds that revisions of the policy are being proposed to make it more lenient.

"The oppressiveness of the policy here seriously impacts my research," says Reid. "If I wanted to do creative and interesting work, I would do it outside of the university." According to Reid, it is common for Stanford professors to have their own companies on the side to avoid the university's interference.

Ned Vanderven chairman of Faculty Senate comments, "The university could institute a policy such as Stanford's, but if it is so inhibiting that it drives away faculty, keeps the university from hiring the faculty they want, or drives current faculty into forming their own companies, then the policy won't be beneficial to the university at all."

Deciding what new policy will benefit the CMU community will be the task of the new Intellectual Properties Committee which is now being organized. According to Mark Kamlet, chairman of the Faculty Affairs Council, "Berg will speak to the Council concerning their role in the development of a new copyright/patent policy." Says Kamlet, "There is a possibility that the Council will help select members to serve on the Committee."

Vanderven says the job of the Faculty Affairs Council includes "insuring that the thinking of this Committee is communicated to the Faculty Senate."

— Alice Alfonsi

President Cyert: Address To Faculty, September 16

The following paragraphs are excerpts.

This is the start of the eleventh year of my administration. As I indicated in earlier talks, I would not go beyond ten years unless I had reason to believe there was some desire on the part of the faculty to have me do so. The commission to evaluate the president was a necessary condition that I specified before I would agree to go on past ten years. That commission, chaired by Dick Teare and Al Blumstein and containing faculty leaders from all our colleges, worked hard and produced an excellent report. It was encouraging, complimentary, and constructive. The report has a great deal of meat in it, and I intend to go over it in detail with the faculty advisory committee, as well as the provosts, vice presidents, and deans. I believe that we can further improve the university as a result of the report.

We have made fantastic progress as a university over the last five years. That progress is a tribute to everyone associated with Carnegie-Mellon. Developing a great university, as we have been doing, is something that is not the exclusive property of the administration, of the faculty, nor of any other group. Developing greatness requires teamwork. It requires an outstanding administration, great deans and department heads, an excellent faculty, a bright student body, and a good staff. We are blessed with outstanding people in this university — the faculty, the provosts, the department heads, the deans, and the vice presidents. In every area of our activity — public relations, development, personnel, admissions, financial aid, auxiliary services, physical plant, financial affairs — we have made tremendous progress because we have strong people.

* * *

Our financial health depends to a large extent on our ability to increase revenue. We need to look closely at our ability to do so in the future.

Our tuition has been increasing at a steady rate. I suspect, however, that we will not be able to maintain the same rate of increase in tuition that we have in the past. An additional cause for concern comes into the financial picture from the research side. We have, over the last ten years, experienced a significant increase in research revenues and, consequently, in the reimbursements for overhead expense. This year, for the first time, total research has been relatively flat.

Our expectation is that annual gains in research revenue will be less than those we experienced in the past. Fortunately, some areas, such as robotics, will be increasing, and we are hoping to get greater increases from private sources. The federal sources, however, will not increase significantly. The Department of Defense is the largest single source for research dollars for the university, and that budget will likely increase. However, a large amount of that money goes to computer science, and it is not clear how much additional research computer science can absorb.

I remain optimistic. I believe that we are in a position to reduce expenses. I have already taken some initial steps to do so in the administration. I have asked our deans and department heads in the academic area to do the same. We have become relatively careless about the amount of travel and telephoning that we do. We have probably become somewhat lax in other areas of departmental expenses also. I believe that we can tighten our belts and save money without significantly reducing the important aspects of our operation.

We also are increasing our efforts in the development division. I believe that Al Brannick and his team are doing an exceptional job and that we have one of the most aggressive fundraising operations in the country. I am continuing to devote four to six days a month to fundraising.

* * *

There also is discussion going on to revise our patent policy. Contrary to what you may have heard, there is no interest in rushing through a policy in which we do not have a consensus. I want a new policy, because it is important to clarify the issues revolving around the creation of new software, in particular. We must have a policy that provides adequate incentives and also rewards the university when the university has provided funds and equipment for the activity. I do not anticipate any real difficulty in arriving at a fair policy. Provost Berg, who has responsibility for this area, will form a committee that includes faculty members to write a draft policy. The draft will then be taken to the faculty senate for discussion. In addition, if there is a desire on the part of some faculty, I would certainly be prepared to hold some special meetings, as we did in the case of personal computing, to allow those people who do not follow the Faculty Senate proceedings to have some input.

— Richard Cyert

David Miller: Computing the Irish

"When Irish eyes are smiling" may be a typical Irish song, but smiling eyes are hardly typical of the Irish peasants that history professor David Miller is currently studying. Miller is using the computer to complete a database of "contentious gatherings" in Ireland between October 1832 and September 1833. Approximately 1500 to 2000 such gatherings occurred in that year.

For purposes of Miller's study a "contentious gathering" can mean anything from an organized parade demonstration, to a political meeting, to a spontaneous mob of violent peasants. "It is a group of ten or more people outside the government who gather and make a visible claim, which, if realized, would affect the interests of those beyond their own number."

Miller's study was prompted by work of Charles Tilly at the University of Michigan. Says Miller, "Tilly is doing a study of contentious gatherings in Great Britain between the years 1828 and 1834. I chose to study Ireland, a country that I have been interested in since 1963."

Although Miller's work is modeled on the Great Britain Study (GBS), he does not follow all of its procedures. For example, GBS only uses events from printed sources, whereas Miller's study looks at both printed sources (*Freeman's Journal, Belfast News Letter,* and the *London Times*), and handwritten police reports.

Miller will be looking at causes for peasant unrest. Traditionally, there are two distinct interpretations of pre-famine agarian unrest in Ireland, according to Miller: the "moral economy versus landlordism" and "laborers versus farmers." The latter, the simpler of the theories, argues that pre-famine agrarian unrest "represented genuine conflict between tenant farmers and the landless class." The former interpretation suggests that although landlord-tenant relationshps were the root of the trouble, many of the conflicts pitted peasant against peasant. "This could happen," explains Miller, "when agrarian protest groups tried to punish other peasants who made unpopular contracts with landlords. A sense of community justice came into play — hence the term 'moral economy.'"

Miller adds, "In testing these interpretations offered by Irish historians, I will also be testing major theories about peasant unrest in general. Different social scientists have different theories about peasant revolution. Jeffrey Paige argues that 'propertyless laborers or sharecroppers' are most prone to revolution, while Eric Wolf and James Scott accord that distinction to 'village dwellers who possess landed property.'"

A second goal of the project is to develop software to code records in a database and make this accessible to other scholars. According to Miller, the advantages that the computer offers the historian are significant. "With the computer, historians can build a database that has easy access. In the past I had to record my data on folded sheets of paper, and it was extremely time-consuming to retrieve information. For amassing vast amounts of information, the computer is invaluable. Computers can also be useful for discerning patterns in data."

"Unfortunately," says Miller, "historians are not generally aware of all the things that the computer can do. I spend a lot of time teaching myself how to make the computer do new things."



Since 1977 Miller has taught several history courses that require the students to use the computer, including Computer Applications in the Humanities, in the spring semster of 1982. Using a language called SNOBOL, the students wrote a computer program to enter data about the classification of old buildings in Pennsylvania. In July, Miller and John Stuckey, the Director of Computing for H&SS, demonstrated the data-entry package before staff of the the Pennsylvania Historical and Museum Commission in Harrisburg.

In October Miller hopes to receive a grant which will allow him to take a leave of absence from CMU for the 1983 academic year in order to complete his research on peasant unrest in Ireland.

— Gina Osborn

CITY OF CHAMPIONS

For Joe Greene, Retiring: Or, Who the Hell Is?

Four Super Bowls, Steel Curtain, Mean Joe Greene:
Two men were on him and he beat the play,
Cut through so fast he took the ball away.
Noll said he set the standard. Russell said
"Man, you're too much."

Remember the Joe Greene Down? They'd work each call,
He'd wait, they'd move, and he'd take back the ball.
He likes remembering Oakland, '74,
Holding the rush to twenty-nine. The score?
Man, you're too much.

Sometimes he lost his temper. That looked bad
In anyone so big. But it was rare.
And he's the one they trusted. Duncanville?
Near Dallas? Does he want to go down there?
Man, you're too much.

No one to tell him that he'd lost his touch,
Set for the snap, set in that angled crouch,
While we looked back at what we used to be.
Noll stands and watches: it's a wake, no tears,
But did we do it? Damn, did we do good?
I thought we'd make it five, I thought we would.

Villanelle for Willie Stargell

Yours is a progress, no uncertain state:
To welcome you, acclaim you, say goodbye
We have come out, been counted through the gate.

Our chant, insisting, brings you to the plate:
We will shout down the rockets from the sky,
Yours is a progress, no uncertain state.

We've joined the game ourselves, reversing fate,
Weeping with love and joy to see you cry,
We have come out, been counted through the gate.

We've seen you young, seen you becoming great,
And aged with you to see Clemente die:
Yours is a progress, no uncertain state.

You hold the records to corroborate
The way we feel: but how shall we say why
We have come out, been counted through the gate?

Young Will, to share the dream you celebrate,
The game you've played, and years that will go by,
Yours is a progress, no uncertain state,
We have come out, been counted through the gate.

— Ann Hayes

BRAD WALTER: "THE EMERGENCE OF A FRESHMAN CLASS"

"This year's freshman orientation program was designed to familiarize the new students with campus resources, including the faculty and staff," says Braden Walter, Acting Dean of Student Affairs. "We want to build new traditions at CMU."

In the past, orientation consisted primarily of Freshman Weekend. For a fee, interested freshmen could spend two days and nights at Camp Lutherlyn, about 40 miles north of Pittsburgh. Freshman Weekend was intended to give new students a chance to get acquainted. In the past five years, about 30-40% of the freshman class participated in the program.

This year freshman camp was held from Wednesday to Friday. Only 225 freshmen attended. But almost all of the 1195 members of the freshman class participated in a wide range of on-campus activities scheduled Friday through Sunday. Eighty volunteer students, headed by co-chairs Gina Osborn and Mark Marsella, acted as counselors for the program. The chairpersons were appointed last February by the Dean of Student Affairs, Earle Swank. They were responsible for planning and orchestrating the events.

In addition to social activities such as a party, movies, and games, freshmen attended information sessions. met with representatives from the Counseling and Student Development Center, Campus Police, Health Services, and the Career Placement Services. Tours of the gym, libraries, and computation center were held. "It was intentionally overprogrammed," says Walter. "Since it was our first year we had to try out a lot of different things."

Freshmen were given the opportunity to meet faculty members at a Special Interest Dinner. "The faculty response was very favorable. About 130 professors attended the dinner," says Walter. "We plan to make some changes next year to make it more convenient for the faculty to participate."

The orientation activities came to a close with a university convocation and a formal reception with university administrators, deans, and department heads. "We wanted students to see faculty members as people rather than figureheads," Walter explains.

This year's on-campus orientation program cost each student $40. An additional $55 was required from those who went to Camp Lutherlyn. The fees were spent on food, entertainment, t-shirts, and prizes. Freshmen were identified by wearing white hospital bracelets during orientation in order to prevent upperclassmen from participating in activities for which the freshmen had paid.

Freshmen were organized by means of personalized, computerized schedules that indicated where and when the student was to report for each activity. Paul Crumley was responsible for the computerization.

"The biggest problem in the computerized schedule was in scheduling free time," Walter admits. "We would have liked to schedule blocks of free time for the students but that wasn't always possible. Next year we'd like to leave Sunday afternoon unscheduled to give the freshmen more time for themselves."

Walter feels that the orientation program was successful in helping freshmen "to cope with the pressure, excitement, and anxiety of coming to college." Plans for post-orientation lectures and debates featuring prominent members of the community are underway. "We're trying for a question and answer format which will encourage student input."

Walter hopes the outcome of all these activities will be "the emergence of a Freshman Class and a more unified campus community."

— Aurlie Jaye Stewart