From Bach to beer jingles, students use computers to compose

Joy to the World! the Lord is come; Let earth receive her king.

Don't stop singing, but the next verse to this traditional Christmas carol has been composed by a computer. With a little help, of course, from a student in Physics 161, "The Musical Computer." Designed and taught by John Scandrett, WU professor of physics, the course has spawned not only computer-generated variations on carols but commercial beer jingles, Bach and Mozart simulations and automatic harmonization for melodies.

Surprisingly, Scandrett describes himself as an old-fashioned musician. A cellist who performed for many years in the St. Louis Philharmonic, he now enjoys playing classical string quartets with friends. He posed the natural question himself: 'What's a nice guy like me doing messing around with computer music?'

One reason he gives is that his course is a popular way to attract students from other disciplines (music, art, mathematics, engineering) to the physics department. But another motive is simply curiosity. Where is the dividing line between genius and formula, between art and science?

"One way to study an art form is to temporarily ignore the human element and study only the formal or structural content," Scandrett explained. "Conjecture: When you subtract the structure, what's left is genius."

If Thomas Edison was tight in proclaiming genius to be largely perspiration, then technology, in all its rapidly advancing forms, may well become the handmaiden of the artist. A computerized palette of colors and sound, Scandrett believes, may permit new dimensions of creative expression previously impossible.

One person who pondered this very relationship between genius and structure was the late Paul Hindemith, a German composer who later taught at Yale University. Forty-two years ago, he devised a set of mathematical rules for writing a simple melody. In the mid-1970s, a WU music student, Michael Hunt, translated Hindemith's rules into a computer program that created artificial melodies.

That work is the starting point for Scandrett's students who do original research on creating and analyzing music with computers.

Their lab equipment includes a computer, a keyboard and a synthesizer. Musical notes played on the keyboard enter the computer as numerical input data. After processing, the results from the data are changed into sound by a digital synthesizer and amplifier-speaker system. A computer program which merely transmits the unaltered input data to the output synthesizer constitutes an expensive electronic organ. With more complicated programs, musical transformations can be created.

The programs can be as simple as a random-number approach where musical notes are selected and played without any organization. Predictably, this 'kitten-on-the-keys' approach produces musical chaos — what Scandrett terms "audible junk." Recognizable melodies could go either way, depending upon the genius of a computer programmer.

The WU Record will not be published during semester break. Publication will resume on Jan. 21, 1982.
Art students make whirlwind tour of Windy City design, ad firms

Compositor Stephen Spender, peti-
patrician man of letters who has wandered
far from his London birthplace, once re-
marked of Chicago that: "If there were
any justice in this world, it would be the
capital of the United States." The 27
students from WU's School of Fine Arts
who recently toured the city's famous
Loop Area and strayed in the exurban
along its North Shore came away with
the same sense of wonder that inspired
Spender's hyperbole.

Guided by three faculty — Robert
C. Smith, acting chairman of the design
area, Gene Hoefel, who once piloted his
trade there, and newcomer Bert Vanderbilt
Mark, the covey of students — graphic
communications and illustration majors
— spent three days visiting the windy ci-
ty's equivalent to Madison Avenue and
came away exhilarated by what they saw.
Following an itinerary carefully plotted
by their mentors, these art school stu-
dents visited some of the country's fore-
most advertising and public relations
agencies as well as some dazzling design
studios and, along the way, met alumni who
are prospering there.

Huddled in Smith's command post in
a corner of Bisby Hall, a handful of those
who made the trip recalled some of the
highlights of their expedition.
Paul Sumichrast of Chicago, Nisha Agkulian, Racine, Wis.; David Baker,
Burlington, Iowa; and Mary Enger of so-
next door Madison, made this start-eyed
after exploring life behind the scenes of
one of the vibrant communications cen-
ters of the nation.

The students all but exhausted their
vocabulary of superlatives as they collec-
tively agreed that their Chicago safari
was "fantastic," and "a real eye-opener."
After an early morning stop at Edin
Chicago Inc., whose staff processes mil-
ions of dollars worth of commercials
each year using computerized skills, the
WU group moved on to Cunningham &
Walth, where they chatted with alumni

Computers — continued from p. 3

begin to emerge as restrictions are im-
plored on the random process.

One student likened this idea to the
example of a monkey at a typewriter.
How long would the monkey poke at the
keys before Hamlet emerged? Similarly,
how long would a computer play ran-
dom notes before The Art of the Fugue
emerged? The odds (he figured them at 10
years) are astronomical. But they
could be lessened by following certain
guidelines or probabilities. In the En-
lish language, the "e" is more common
than "q", in music, quarter notes are
more common than whole notes.

Simple musical patterns can be easi-
ably achieved. Simulating a great com-
poser, of course, is more difficult. The
idea is to produce characteristics of a
work, not exact replicas.

With the exception of teaching

2 Physics 161, Scandrett contends he is

director Lisa Lynn Kleban (BFA '81). She
walked into this huge agency with a
BFA and a portfolio less than a year ago
and was hired on the spot. Her progress
there has been what personnel manag-
ers are wont to describe as "impressive."

Other alumni whom the WU group
met included Bruce Mark Glickman,
(BFA '79), an art director at Nerdham,
Harper & Steers, Inc., and Bobbie
Cochran (BFA '73), now a popular Chi-
cago illustrator. Cochran was one of the
original members of Create I, a design
studio at the School of Fine Arts now
celebrating its 10th anniversary.
At a firm called Group Chicago Inc.,
which specializes in design work, the
WU contingent met Kirk W. Meniske,
(Ex-'70). The WU art school students
also stopped to talk with art director
Martha M. Lute (BFA '78) of Burson-
Masteller, a public relations
firm, but unfortunately missed seeing
her. They did meet with Dexter Fedor,
(BFA, BSBA '79), art director at Leo
Brentner Co., Inc., an advertising agency
with offices all over the world, including
Kuala Lumpur, Malaysia.

For the illustrator, perhaps the
most exciting encounter was a detour to
Kearl, Ill., where they met with
Jozef Sumichrast, who made the January-
February 1980 cover of Calligraphy Art
magazine. Sumichrast, as a reporter for
that periodical noted, "is probably best
known for his ingenious alphabet play-
fully distorting objects, animals and peo-
ple into letterforms." He attended the
American Academy of Art in Chicago off
and on for several years.

The illustrators rejoined their
graphic communications colleagues for
the last stop on the tour, The Art Ins-
titute of Chicago, where they viewed
the work of Edward Hopper, an Ameri-
can painter who, appropriately enough,

is best-known for his realistic portrayal
of cityscapes and scenes.

of undergraduate studies, University
of Judaism, which will speak on Jan. 27.
The Religious Studies Program will
sponsor a talk by Carl Cohen, professor,
Residential College, University of Michi-
igan, on March 3.

Donald Johnson, an anthropolo-
 gist, will deliver the Phi Beta Kappa lec-
ture on March 31. Quentin Skinner, pro-
fessor of early modern English history,
Christ's College, Cambridge, will speak
on April 14.

Other speakers will be scholar of
Chinese law Jerome Cohen, founder of
the Harvard Law School East Asian
Studies Center, Jan. 28; Sidney Lens,
editor of The Progressive, on Feb. 3;
Judge Irving Kaufman, U.S. Circuit
Court of Appeals, Second District, on
March 24, and Rudolph Arnhem, pro-
fessor of art history at the University of
Michigan, April 12.

IRAs now open to employees on WU annuity plan

Participants in the University's re-
tirement annuity plan will be eligible to
start an Individual Retirement Account
(IRAs), beginning the first of the year.
Before the passage of the Economic Re-
covv- Tax Act of 1981, workers with an-
nuity plans through their employers were
not eligible to take part in this tax-def-
erted annuity.

Annual contributions to an IRA can
be deducted each year from regular taxa-
table income. The program is set up for
benefits to be withdrawn when a con-
tributor reaches 59 years and six months
of age or becomes disabled. Benefits will
be taxed as income at that time, but
presumably, at lower rates because of re-
duced incomes. Withdrawal of benefits
before then can result in a tax penalty.

The maximum contribution to an IRA
is $2,000. A working indi-

and a non-working spouse may

contribute up to $2,250. Spouses each
earning more than $2,000 a year may
both make up to the maximum individ-
ual contribution. If one spouse earns less
than $2,000 a year, the couple may make contributions up to $2,000 plus
100 percent of that lesser salary.

An IRA may be established and
contributions made to the account
through a bank, savings institution,
brokerage firm, mutual fund or insur-
ance company, WU does not deduct contributions from paycheck contributions.

The updated tax law also allows
divorced taxpayers to deduct contribu-
tions to IRAs established with a former
spouse and ends deductions for the value
of items such as antiques, art, gems,

spends and coins.

Those interested in starting an IRA
should consult a personal tax advisor.
Campus Notes


Finkel has selected two quotations, one from Remy de Gourmont's *The Natural Philosophy of Love* and the other from Franz Kafka's *A Report to an Academy* as mottoes for his book. De Gourmont's quotation says: "If there are no abysses between man and animals, the two domains are separated by a tiny trivial thing such as the edge of an ice sheet." The Kafka passage reads: "Everyone on earth feels a tickling at the heels; the small chimpanzee and the great Achilles alike."

Finkel also introduces some of his poems with quotations. An observation from Alfredo Blaumann — "Man can make a decision in an instant. The thought of the plant might take 100 years" — prefaces a poem called "The Morning the Orchid Decided to be a Butterfly."

Robert E. Hegel, associate professor of Chinese language and literature, presented a paper entitled "Mao Zedong's Legacy in Literature and Art," at the annual meeting of the Midwest Conference on Asian Affairs. The conference was held in early October at the University of Missouri at Columbia. His book, *The Novel in Seventeenth-Century China*, was published by Columbia University Press in March, and his "Making the Past Serve the Present in Fiction and Drama," will be in a forthcoming issue of *Modern China*. Hegel has also been invited to give a paper on women in Ming and Ch'ing fiction at the international conference on women in Chinese literature to be held in Berlin next July.

Two WU law school alumni, Joanne E. Martin (JD '81) and Mitchell Kider (LLB '81) were recipients of the Milton F. Naperi Trial Award in recognition of academic and practical excellence in WU's trial practice course.

Martin and Kider were chosen by the faculty of the School of Law and received commingorative plaques and a small stipend at a recent meeting of the Lawyers' Association of St. Louis.

The award, named after a St. Louis trial lawyer, is usually awarded to one individual from WU and one from St. Louis University. This year, however, the faculty from WU decided to select two students to share the WU portion of the prize.

John H. Morris, professor of English, has won the Frederick Bock Prize awarded by Poetry magazine for a group of his poems which appeared in the April issue of this periodical. In 1979, Morris was honored by the American Association of Teachers of Arts and Letters for his creative work.

James S. Rice and Ronald L. Macken, seniors in civil engineering, were awarded $1000 in the annual student engineering competition of the James F. Lincoln Art Welding Foundation of Cleveland, Ohio.

The two students designed an orthotrophic deck bridge. Orthotrophic in this sense means a certain type of steel construction.

The awards, totaling $19,000 to 143 graduate and undergraduate students and to 32 colleges, recognized student achievement in the design, engineering or fabrication of welded manufactured products, welded structures or related research.

A charcoal drawing by Barry Schatzman, professor of art, is represented in a juried competition now on view at the Speed Art Gallery, Rutgers University-Camden, N.J. campus. Schatzman's work, "Dance of Death: Unfolding," one of 144 individual items selected for display in the prestigious exhibition, "Rangers National 81 Works on Paper," that went on view Nov. 25 and will run through Jan. 16, 1982. This show is the fourth national biennial competition organized at Rutgers University.

Thomas Schiff, assistant professor of oral diagnosis and radiology at the WU School of Dental Medicine, was presented with the Conspicuous Service Medal by the Air National Guard. Schiff is a lieutenant-colonel with the 131st Tactical Hospital. He received the medal for his prompt action, including CPR, which resulted in saving the life of an emergency patient during the summer encampment of the 131st Tactical Fighter Wing at Gulfport, Miss., in August 1980.

Schiff recently was elected chairman of the advisory committee of the American Dental Association's Food and Nutrition Program. During his one-year term, he will aid and promote the large-scale research effort in this field by academia and industry.

Works by new fine arts faculty included in annual show

Some 35 WU faculty members will exhibit works of art at the annual Faculty Show, which will open in the WU Gallery of Art, Steinberg Hall, on Sunday, Dec. 20, with a reception from 3 to 5 p.m. The exhibition, sponsored by the University's School of Fine Arts, will run through Jan. 7, 1982.

Three artists who joined the art school faculty last fall will be among the exhibitors. They are: James McGarrell, a well-known painter and professor of art; Barbara Takenaga, lecturer on art and printmaker; and Bert Vander Mark, assistant professor and a specialist in graphic communications.

Before joining the WU faculty here, McGarrell was in residence at the University of Indiana for more than 20 years, where he served as director of graduate painting and as professor of fine arts. His paintings are included in over 20 public collections in this country and abroad. Prestigious museums, including the Centre Georges Pompidou, Beaufour, Paris, and the Museum of Modern Art, New York, have purchased his work.

Takenaga was one of ten Western printmakers invited to show their work at the Western States Arts Foundation 1979 Fellowship Awards Exhibition. A recipient of numerous honors, she received the Purchase Award in 1978 at the National Print and Drawing Competition, University of Wisconsin, Waukesha campus.

Vander Mark, a native of The Netherlands, taught previously at Southwest Missouri State University and the Cornell Institute of Allied Arts, Seattle, before coming to WU. An expert on publications, he is also a talented illustrator. Last year, Vander Mark prepared a videotaped lecture on "Graphics for Television," which he presented to the International Television Association, Springfield, Mo.

At the opening, Van McElwee, who has taught in the WU Performing Arts Area, will show four video tapes in color with original sound which he has produced. These include: "Drop Out Window," "Split Flow," "Double Flame," and "Random Clock." McElwee, an expert on film-making and video production, will serve as a lecturer in art in the School of Fine Arts during the spring semester.

In addition to members of the School of Fine Arts teaching staff, exhibitors will include faculty from the Department of Art and Archaeology and the School of Architecture.

Viewing hours at the WU Gallery of Art, Steinberg Hall, are: Monday through Friday, 10 a.m.-5 p.m.; and weekends, 1-5 p.m.

Study offers treatment for binge eaters

A treatment program for binge eaters will soon be offered as part of a research project by the Department of Psychology. Treatment will consist of eight weekly one-and-one-half hour group sessions in which participants will be taught methods to prevent and interrupt binge episodes. Women at least 18 years old with a physician's consent may participate.

Group members will be asked to make a $24 deposit, $3 of which will be refunded at each session attended.

Group meetings will be scheduled to best accommodate interested individuals.

For more information, call 889-6553 during business hours.
**Lectures**

**Thursday, December 17**


4 p.m. Department of Chemistry Seminar, “Metal Clusters and Catalysts,” Victor Day, dept. of chemistry, U. of Neb. 311 McLennan Lab. (Coffee hour 3:30 p.m.).


**Sunday, December 20**

3 p.m. Opening Reception for “The Faculty Show,” WU Gallery of Art, Steinberg Hall.

**Friday, January 8**

6 and 8:30 p.m. The WU Association Documentaries Film Program, “Tunisia Holiday,” with former radio and television announcer, newscaster and editor show host, Krauss Lawrentz. Graham Chapel. For ticket information, call 889-5122.

**Sunday, January 10**

3 p.m. Opening Reception for “Belle Cramer: A Retrospective Exhibition.” Bishy Hall Gallery.

**Wednesday, January 13**


**Monday, January 18**

Monday classes, spring semester.

**Wednesday, January 20**


**Historic St. Louis show opens Jan. 20**

A few days after the new semester begins, an unusual exhibition, “The Architectural Heritage of St. Louis 1803-1891: From the Louisiana Purchase to the Wainwright Building” will open at the WU Gallery of Art, Steinberg Hall. Lawrence Lowie, WU assistant professor of art and archaeology and guest curator, has written a fully illustrated 123-page catalogue on this unique assemblage.

The exhibition comprises more than 175 maps, published views of the city, paintings and photographs which depict the architectural history of 19th-century St. Louis. Much of the material on view has never been exhibited before and should be of great interest to all those who are curious about St. Louis and its origins. Please see the Jan. 21 issue of the WU Record for complete details on this exhibition, which will be on display through March 14.

6 p.m. Opening reception for “The Architectural Heritage of St. Louis 1803-1891: From the Louisiana Purchase to the Wainwright Building.” Upper Gallery, WU Gallery of Art, Steinberg Hall.

**Friday, January 22**

4 p.m. Faculty of Arts and Sciences Faculty Meeting. 201 Crow.

**Performing Arts**

**Tuesday, December 22**

8 p.m. WU and Open Arts of St. Louis Productions, H.R.S. Pinkley, Gilbert & Sullivan’s delightful nautical operetta. Edison Theatre. Tickets are $16 and $12. Children 12 and under half-price at each of these performances. Tickets available at Edison Theatre box office, 889-6545. (Also 8 p.m., Wed., Dec. 23; Sat., Dec. 26; Wed., Dec. 30; Thurs., Dec. 31 and Sat., Jan. 2. 2 p.m. on Sat., Dec. 26; Sun., Dec. 27; Fri., Jan. 1 and Sat., Jan. 2.)

**Thursday, January 7**

8 p.m. Theatre Project Company, Coming Attractions, the St. Louis premiere of this musical lan- poon about a hurdle gonk islow which is discovered by a theatrical agent. Written by Ted Tally, directed by Wayne Salomon. For ticket information, call 531-1390. (Also 8 p.m., Jan. 6-10; 14-16; and 2 p.m. Jan. 10.)

**Friday, January 22**

8 p.m. Edison Theatre Series, Bella Davishesovich, pianist. Edison Theatre. Tickets are $5 general admission; $4.50 for area students. WU faculty and staff, $2 for WU students. Tickets available at Edison Theatre box office, 889-6545.

**Exhibitions**

“Refractions: Color, Literature and the Arts from the Governors' Goudel Collection.” Special Collections, Olin Library, 1st floor. 8:30 a.m.-5:30 p.m. weekdays. Through Dec. 29.

“The Architectural Heritage of St. Louis 1803-1891: From the Louisiana Purchase to the Wainwright Building,” a unique assemblage of more than 175 maps, published views of the city, paintings and photographs. Funded by the National Endowment for the Arts, the Missouri Arts Council, and WU’s School of Architecture. Department of Art and Architecture and Galerie of Architecture. Opening reception at 20-March 14.

“Forget the Clutter: Master of Fine Arts Show: Judy Thompson,” Bixby Hall Gallery, with a reception from 3 to 5 p.m., on Sunday, Jan. 10. The show will run through Jan. 20. Thompson, whose work was exhibited often at major galleries here and abroad, studied with the late Paul Berlin.


**Frogs of the World exhibition**

Dec. 23; Sat., Dec. 26; Wed., Dec. 30; Thurs., Dec. 31 and Sat., Jan. 2. 2 p.m. on Sat., Dec. 26; Sun., Dec. 27; Fri., Jan. 1 and Sat., Jan. 2.)

**BC-BS coverage to end for some dependents**

Blue Cross-Blue Shield coverage ends December 31, 1982 for dependent children of WU employees who have reached age 23 during 1981. For coverage to continue, these dependent children must be enrolled in a sponsored program.

For additional information, contact the Blue Cross-Blue Shield Marketing Division at 4444 Forepark Blvd., St. Louis, Mo. 63108, or call 658-4700.

**Films**

**Friday, December 18**

7:30 and 9:45 p.m. WU Filmboard Series, “The Paper Chase.” Brown Hall Aud. $2. (Also Sat., Dec. 19, same times, Brown.)

**Wednesday, January 20**

7:30 and 9:45 p.m. WU Filmboard Series, “Les Petits Fugues.” Brown Hall Aud. $2. (Also, Thurs., Jan. 21, same times, Brown.)

**Friday, January 22**

7:30 and 9:45 p.m. WU Filmboard Series, “Star Trek.” Brown Hall Aud. $2. (Also Sat., Jan. 23, same times, Brown.)

**Midnight:** WU Filmboard Series, “Flash Gordon.” Brown Hall Aud. (Also Sat., Jan. 23, midnight, Brown.)

**Calendar Deadline**

The deadline to submit items for the calendar period of Jan. 21-31, 1982 is Jan. 7. Items must be typed and not more than one page, nature of event, sponsor and admission cost. Incomplete items will not be printed. If available, include speaker name and identification. Upper Gallery, WU Library of Art, Steinberg Hall. 10 a.m.-5 p.m. weekdays; 1-5 p.m. weekends. Dec. 20-Jan. 7.

**Sports**

**Saturday, January 23**

1:30 p.m. Men’s and Women’s Swimming. WU vs. Northeast Missouri State. Wilson Pool.

7:30 p.m. Men’s Varsity Basketball. WU vs. Logan College. Francis Field House. Tickets are $5 general admission. WU students free.

**Clinic offers weight loss program**

A weight loss program designed to get rid of those holiday pounds will be- gin in mid-January, sponsored by WU’s behavior Therapy Clinic. An organiza- tion meeting will be held at 6 p.m. Thursday, Jan. 7, on campus. Twelve one-and-a-half hour treatment meetings will be held January through March.

Treatment will include nutritional education, behavioral techniques on controlling overeating, and a special package dealing with emotional and binge eat- ing. The program uses no drugs, fasting, or fad diet techniques. Instead, steady, moderate weight losses of about one to three pounds per week will be encour- aged.

Participants must be at least 15 years of age and have a physician’s per- mission to take part. Although this pro- gram is offered on a non-profit basis, a $120 fee will be charged to cover operat- ing expenses of the clinic.

For more information on the pro- gram, call 889-6527.