C2.

Ceremonies to mix pomp and play for public

The formal dedication of poels, track and fields lags a lap behind the summer feetivals in timing but not in ceremony. And this time, the festivities include public fun

and games.
IU President John C. Ryan IU President John C. Ryan will preside next Monday at 11 a.m. at the Track and Field Stadium. The stadium, the School of Physical Educa-tion/Natatorium Building and the Athletic Fields will be dedicated by a gathering of state, local and university

Governor Robert D. Orr, Mayor William H. Hudnut III, Physical Education Dean P. Nicholas Kellum and PE student Damon Broadhacker will join Ryan for the win join Ryan for the ceremony. If health permits, IU Vice President Glenn W, Irwin, Jr., also will attend.

Following the dedication ceremonies, the IUPUI com-

munity can join in an afternoon of activities.

All facilities will be open for df-directed tours from 11:45 a.m. to 1 p.m. while sausage, ice cream, cookies and other foods will be sold at the east end of the stadium until 2

The track will be the course for a one-mile predictor race, in which entrants predict their

which entrants predict their finishing time to run, walk or jog four laps. Winners receive warm-up suits. Square dancers can allemande to a professional caller in the auxiliary gym at the PE/Natatorium Building from 1 to 1:30 p.m., followed by symnastics from 1:45 to. by gymnastics from 1:45 to

Several activities are on tap Several activities are on tap from noon to 4 p.m., including basketball, racqueball, volleyball and weightlifting. Both the competition and in-etructional pools will be open for swimming, although novices should know that the big pool's minimum depth is nine feet. **Continued on page 29

IUPUI broadcasts to local high schools

by Todd DeGreff
A joint venture in video education by IUPUI and the Indianapolis Public Schools offers high school seniors college courses that otherwise would not be available to them The pilot project provides a two-way television link betwee professors broadcasting from IUPUI and students in eight IPS high schools.
Assistant Superintendent Alexander Moore and Supervisor of Extended School Services Charles Loughlin of IPS approached IUPUI with the perception there was a shortage of students for advanced programs in the IPS system.

system.

There weren't enough in any single school to justify establishing individual courses but too many students in the

entire system to ignore. Mo and Loughlin were determin and Loughlin were dete not to let a shortage of

opportunities.
The program, in operation since the beginning of the fall semester, offers composition and advanced chemistry courses for either high achool or college credit to about 70 students.

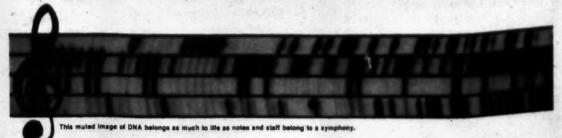
The 60 composition student sit in classrooms in Arlington Manual, Marshall, Northwest and Washington high school. Professor Dr. Edwin Casebee chairman of the IUPUI Englidepartment, broadcasts from studio/secture hall in the Nursing Building.

Professor Dave Malik's 10 advanced chemistry students are spread between Broad Ripple, Arsenal Tech, Manual

schools.

In the composition course,
Caseber addresses his lectures
to shout 15 students at the
pupils of broadcast, as well as
the pupils in the five area high
schools. The teacher can ask
questions of specific students,
and the students can "talk
heak" to the teacher through
the two-way hook-up.
Caseber points out that this
is a "aafer, less threatening
way for some students to see
the inside of a college
classroom and hopes it might
result in positive initial
experiences to the college
environment.
"Wo-"s trying to address two
"Wo-"s trying to address two In the co

"We're trying to address two problems with this program. First, Indians is 47th in the na-tion in the number of high (continued on page 41).



Dr. Larsen's lifework is learning how life works

by Laymon P. McGauhey III
A bicycle-exercising professor
at IUPUI starts every morning by pedaling heartily onto campus - and then splits his

The professor is Steven The professor is Steven.
Larsen, and the genes he splits are those belonging to the bacterial family. Yet, though they come a dime-a-dozen (or a dime-a-quarter-million, actually), their intricate design puts a pair of Calvin Kleins to

Larsen researches gene and chromosome characteristics as a molecular biologist in the Department of Microbiology and Immunology in the School of Medicine.

He splits, or cleaves, single He spits, or cleaves, single genes from chromosomes and recombines them into other chromosomes. By studying the recombined chromosomes for

divergent characteristics, he may be able to determine the

original purpose of the recombined gens.
Why pursue this research?
What does it mean and what good can come from it?
"Simple," Larsen replied.
"Take a set of human

chromosomes which are com-posed of deoxyribonucleic acid [DNA], the basic ingredient of all life. Call it a sound tape.

"Now, if it were the size of a normal cassette, the tape would be about 10,000 miles long. Not only that, to represent the individual chemical bases along its length, something like six billion notes in four musical pitches would be needed.
"These four musical pitches [bases] blend to form chords [groups of bases, or codons]. When a chord is played harmoniously, a pretty sound

iamino acidi is produced. And when a series of active chords playing harmonious sounds are inked together, a melody iprotein is constructed.

"A gene is segment of DNA that todes for a protein, one of the basic building blocks of life." If a gene were a segment of musical tape, it could be called a song.

To give an idea how many songs, or gene functions, occur

ongs, or gene functions, occur



Deferment fees due

for

The Office of the Bursar wishes to remind all students who obtained a per sonal deferment during fall registration that the due date in Oct. 4.

Failure to make payment per contractural agreement will result in the cancellation of the student's enrollment. Cancellation of enrollment does not negate the obligation of paying the amount due on account.

Payment must be received in the bursar's office by the close of the business day. For those students unable to reach the office during the regular office hours (8:30 a.m.-4:30 p.m.), there is a drop box located in the lobby of the Student Union Building across from the cafeteria entrance. All payments removed at 8 a.m., Oct. 5, will be considered on time.

Dedication (continued from page 1)

The athletic fields will be the scene for soccer from 2 to 2:45 and softball from 3 to 3:45 p.m.

Locker room space, lockers and towels will be provided by the Department of Intramurals and Recreation on a first-come basis, but users must provide their own locks.

Physical Education alumni

Under Grads

Grad Students

kick off the ceremonies by honoring the school at a recep-tion this Friday and a banquest the next day. Highlight of the Saturday gathering will be the presentation of a plaque com-memorating the school's 116-year history. A family brat-wurst fry is scheduled for Sunday.

Shuttle can be changed



Several students have com-mented to us that they'd like to see the shuttle bus schedule expanded into even-ing hours. It can be done,

Robert Tirmenstein, director of transportation services, invites letters stating the hours students would like to see added, signed by any students who would take advantage of a broader schedule. He promises to reply if you'll write him at Transportation Services, 402 Agnes Street 46202.

Shorts

Conference on the US presidency

Any student interested in participating in the Annual Loudership Confer the Center for the fittedy of the Presidency about contact the political sci-department as soon as possible. The conference will take place Nov. 5-7 in Minnespolis. Application deadline in Oct. 10.

Business honors

The School of Business Houses Fragram will hold an information meeting Oct.
23 from 11 a.m. to turn in Business/SFEA 4007. All interested undergraduates with at least 36 b rors and a 3.4 GPA may attend. The houses program enables undergraduates to begin graduate conversely towards the MEIA degree.

Qualified individuals are invited to attend to hear the details about this program.

Transcendental meditation

The Student's International Meditation Society has formed on IUPUI chapter and seeks membership from students and faculty practicing TM and TM-Sidhi techniques. SIMS, located at the Indianapolio City Capital of the Age of Enlightenment, 3434 North Washington Boulevard, wishes to provide courses of techniques, creative intelligence and natural law. For information, contact Paul techniques, creative intellige Wilson at 923-2973.

Christian fellowship

Inter-Varsity Christian Fellowship and Nurses Christian Fellowship will have no meeting this Friday due to their fall conference. If you have questions, call Alan at 636-1215 or Dave, 296-8845.

Delta Psi Kappa

The monthly meeting of Duha Pai Kappa, a physical education fraternity, will be held Friday, Oct. 1 at 9 a.m. in the small conference room, faculty offices, Physical Education Building. Members unable to stiend should contact Karen Tesguarden at 184-5764.

Biology Club
The IUPUI Biology Club guest speaker will be Bruce Lindwall from the Purdue
veterimeries school, Monday, Oct. 4, from 4 to 0:45 p.m. in Krannert 357.
Refreshments will be served following the presentation.

Bachelors of Social Work

The BSW Student Association meeting will be Oct. 7 at 11:30 a.m. in the ES uilding, 4th floor, south-wast conference room. Dave Pizzini will speak on

Park Lafayette Apts IUPUI Affordable Housing IUPUI Students 1 & 2 Bedroom Apartments Heat Furnished from \$172.00 to \$204.00 (total electric) **TOWNHOUSES** 2-3-4 Bedrooms from \$162.00 to \$228.00 FLIGIBILITY: 9 credit hours or more 5 credit hours or more 3621 Lawnview Lane - 3600 West and 2300 North on Tibbs Avenue 5 minutes from Downtown Campus Serene Environment MANAGED BY IUPUI REAL ESTATE DEPARTMENT 635-7923



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Vol. 11, No. 26

ng Editor

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rhose name appears in the byline. Publication of advertisements or thorts announcements does not constitute Segamore endorsement of products, advertisers or offers.

The Sagamore welcomes notices of university events for its Shorts section. Provide your typewritten, concise notice by Friday at 5 p.m. for publication the following Wednesday. We reserve the right to delete or edit notices if we are limited on space. All notices should include a phone number for further

We recognize our responsibility to provide a forum for comments from the IUPUI community. Letters should be to the point and signed. We will withhold publishing your name if requested. We reserve the right to edit or reject objectionable letters. All ers should be typed.

Mailing address is: The IUPUI Sagamore, 425 Agnes Street, Room 001G, Indianapolis, Indiana 46202. Editorial phone: 264-4008. Advertising phone: 264-3456

Observations

You can help

The bands and booths and food on the mall this week between Cavanaugh and E/T are due in part to the efforts of the IUPUI Student Assembly (SA). Planning and putting together a festival like this requires months of effort from the handful of people who make up the SA.

Several members of the SA are voted into their positions during yearly elections. The others are appointed by the president of the SA. Rather than being one more spectator, you can be a part of the planning. There are several assembly seats open and the interest the corner of Bright and Michigan Streets, leaving a you have in getting involved with student government may be satisfied by an assembly position.

The SA needs more people now. An art fair and a jazz festival are in the talk stages along with the usual list of activities for the year. New ideas may not go past the talk stage unless more senators are added to the assembly.

Express your interest in becoming a senator: call the SA office at 264-3907 and ask about upcoming projects and programs. You may be just the person they need. Talk to Stuart Keefer, president, or the vicepresident, George Graves, or any of the senators.

Money has its price

Another neighborhood house has quietly disappeared.

Last week, a bulldozer leveled a small gray house at large gray cinder plot.

The house may well have been decayed but we also believe it was the most recent victim of a years-old city and university policy to ignore a neighborhood to death.

Indianapolis and IUPUl reach toward each other in a partnership of mutual monied interests - and the neighborhood known as Midtown, bounded by West and Washington Streets, White River and Fall Creek, has crumbled.

This area's low income population dwindled from 13.189 in 1960, to 7.632 in 1970, to 1.023 in 1980. Private residences declined from 4,015 to 2,805 to 40 in the same period. The Indiana Avenue commercial section has faded as its consumer market has been forced to move elsewhere.

The same local power elite which has funded massive construction at IUPUI refused to invest in a neighborhood which, with help, might have been able to rebuild itself. It's biggest mistake was getting caught between town and gown.

The university's growth has been a major factor in

Midtown's deterioration. Here, redevelopment translates into education, entertainment and sports facilities for the same affluent class which fled the inner city years ago.

Displacement is one of the dirty words of the 80s and it fits IUPUI. In the midst of our pride, we think it's important to remember that our growth has a human cost.

Mallbag

Parking games confusing

To the editor:

There's nothing like a brisk, daily game of "Battle for the Spaces." A new video game?

No. it's a game played by IUPUI commuters consisting of a half-dozen drivers and one to four students at a time.

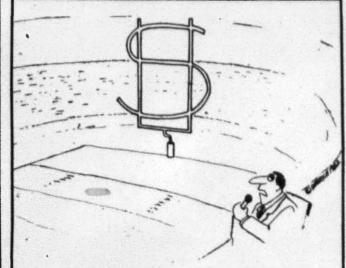
The object of the game is for the drivers to stalk the leaving student to his/her car and then decide who is going to get the space. In this game, (played in the small car lots)car makes

range from pintos, gremlins and a variety of small foreign cars to vans, family stationwagons and full-size pickups.

Now wait a minute, I'm thoroughly confused. I thought small cars were 15 feet and under. Since when are pickups. vans and stationwagons classified as small cars?!

Would someone please clarify who is small and who isn't or is it now a lot of 'anything

Confused and squeezed out



'Hello, sports fans. I'm here in this empty shell of a stadium, and as you can tell, changes are already being made . . . this despite the fact that an agreement has not yet been reached in the tenuous negotiations.

4 a.m.

Congrats go to two new acting deans in Liberal Arts: Miriam Z. Langsam, professor of history, director of the Honors Program and adjunct professor of women's studies, and Sue K. Hammersmith, associate professor of sociology.

And lotse lauds to Cynthia Gatto, who has been named chairwoman of the Student **Program Advisory Committee** for 1982-83.

The need for blood is desperate folks, and the Bloodmobile will be on campus Thursday, Sept. 30 from 11 a.m. to 2:30 p.m. near the Business/SPEA Building. Please share your life.

Who'd we see a smoothin' in the parking lot next to the ES Building at 2 a.m. Tuesday? C'mon, fess up ...



They were lovely, your eyes, but you didn't know where to look. - Giorgios Sefiriades

Kellum's problem is too many women

by Matt Shrum

Nick Kellum has a problem every coach dreams of.

He lost just two players from last year's state champion women's softball team while returning seven starters and adding five recruits.

With Teresa Allen and recruits Kim Satterly and Shelly Hawkins in the category of "have to play" due to their hitting or fielding, Coach Kellum must fit 10 players into

eight positions. IUPUI's women's softball team currently is going through fall workouts to give Kellum an opportunity to "learn about the new players and how they fit in.'

He hopes that autumn practice will strengthen the team when it begins season play during spring training in Florida. IUPUI dropped two of last year's four losses early in

The team's only weakness last year was the lack of a pitcher besides Trudy Bernath, who finished the season 28-4. Since three pitchers have joined the roster, Kellum's problem this year will be trying to keep Bernath's bat in the lineup.

That also is "a nice problem to have," admits Kellum, who

plans to use a designated hitter more often this year.

Rae Ann Eicheldinger may be the leading candidate as the number-two pitcher. A transfer from Erie Community College in New York, Eicheldinger was undefeated in two years at that school as it won the Junior. College National Championship two years ago.

Coach Kellum's other pitching prospects are Maureen Bowen and Cindy Abel.

"None of the new pitchers are overpowering," Kellum said, "but they don't have to be. All they have to do is get people out.

The Metro's defense appears strong with returning starters Sue Bass at first, Chris Nichols at second, Cathy McCoy at short, Amy Hamblen at third and Marty Kalb at catcher. Kellum said Allen could become the starting first baseman with Baas moving to another position.

Hawkins and McCoy also both come from Erie's championship team, McCoy as an All American.

Judy Commings in left and Tracy Taylor in right are returning starters in the outfield. Cummings was an All



Rae Ann Eicheldinger fires a pitch at Trudy Bernath as Tracy Taylor anchors home plate. (Photo by Matt Shrum)

American last year as a sophmore. Satterly is the favorite to gain the starting nod in center. Others battling for playing time include Susie Smith, Idella Williams, Lisa Ellis and Tracy Troggins.
With the added depth, this

year's squad seems stronge than last year's but, as Kellum points out, "It's tough to improve on 31-4." He added the Metros dramatically improved their schedule with three NCAA division I schools

The softball team has one fall doublehender scheduled Wednesday, Oct. 6, on the varsity softball diamond next to the track stadium.

Shorts

Job share workshop

A workshop for those who want to learn more about an IUPUI job-share pilot program will be held from 1:30 to 4 p.m., Thursday, Sept. 30 in the Lilly Room, Mezzanine, Union Building, The workshop will describe how to structure a fulltime job into a shared job successfully and realize benefits for both employer

and employee.

The workshop is free and there is no obligation to participate in the program.

Please call Continuing Education Center for Women, 264-4784, to register.

Kings Island

Discount coupons for Kings Island's Indiana College Days, Oct. 2 and 3, are available from Student-Activities. With the tickets, students, faculty or staff may enter the park for 39.25/adults and 55.75/children (4-6 years of agel. Coupons may be obtained free in Cavanaugh 322, Student Union front deak, Krannert 153 and Herron in the Deans office.

Christian athletes

The Fellowship of Christian Athletes will hold its initial organizational meeting Monday, Oct. 11, 8:15 p.m., in the Lilly Room of the Union Building. The meeting will be for students interested in a student Christian activity. For more information, contact Dr. Victor Mercer at 264-3547 or 633-8428.

Geography Club

The IUPUI Geography Club will present a slide show Oct. 6 at 4 p.m. in Cavanaugh 207 (the cartography lab). The meeting will feature slides from the geography/anthropology field trip in Mexico last summer.

Child abuse

The Child Abuse Listening Line (CALL) will take applications until Nov. 1 for phone line volunteers. Created by the Family Support Center, CALL will go into operation Nov. 22. For information, call 634-5050.

Volunteer directory

The 1982-83 Volunteer Opportunities Directory, in connection with the Volunteer Action Center of the United Way, are now available. The directory lists more than 150 agencies seeking volunteers and may be picked up at libraries and the VAC office. To receive a copy by mail, send 37 cents in postage stamps with your name and address to the Volunteer Action Center of United Way, 1828 North Meridian Street 46202.

Chemistry seminars

"Exclusion Chromatography of Biopolymers" will be the seminar topic Sept. 29 at 4 p.m. in Krannert 231. Professor F.E. Ragnier, Department of Biochemistry at Purdue University, will speak. Refreshments will be served in KB 249 at 3:30. Next week's lecturer will be Professor Dee Brooks, Purdue Department of

Model UN meetings

The political science department invites students to apply for participation in two forthcoming model United Nations meetings. A model Security Council will be held at Butler University, Nov. 11-13; another will be in Pittsburgh, sponsore by Duquesne University, Oct. 28-31. Additional information is in the political science office, Cavanaugh 506. Deadline is Oct. 8.



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Catholic Student Center

Mass Schedule:

days and Holydays at 5:30 P.M. Iday, Wednesday, and Friday at 12:10 P.M.

Activities and Opportunities:

Midweek Menu Dinner Wednesday Starting Sept. 16 4:30-6:00 p.m. **Camping Trip to Brown County** Oct. 1, 2 & 3

Other Educational & Social Activities To Be Announced

Chaptain available for counseling and Sacrament of Reconciliation at the Center

Rev. Jeff Godecker, Chaplain

264-4987

I'm the kind of guy who always wants to know what happened. "Wha' happen'd?" I'm always asking. Sometimes I never find out.

For example, how is it that when I'm sleeping, I always wake to find my sheets torn and in disarray? Pmean, I'm sleeping, I'm relaxed and there ain't nobody else around.

I'll wake up in the moring to find the fitted sheets are no longer embracing my mattress (The Lump), and instead are wrapped around my slumbrous, reclining form, enshrouding my arms and legs and sometimes my head in a cloth cocoon. Loose threads have wormed their way through my hair, interlaced with my eyebrows and mustache and webbed through my toes.

Sometimes the sheets are shredded and my head is sticking through. Now, I ain't always complaining, because thus attired I can arise to find a ready-made, full-length, total-body-perimeter breakfast bib that effectively shields my



epidermis from toast crumbs, chin-dripped egg yolk and the like. But wha' happen'd, I wonder?

Now, don't get me wrong. I'm an experienced sleeper. I've been unceremoniously dumped/draped over tree stumps with nary a protest. I've bunked under staircases with today's news as my sole shield from streetlamp light, only to find yesterday's news printed backwards upon my facial contours, decipherable only by gazing at my reflection in a gas station restroom mirror. I've burrowed under piles of leaves in the dead of winter and slept soundly. So I've been around.

One time, though, I woke up on the floor, hardwood-floor-

splintered, and was surprised to find my bed in total disarray. And so I've been led to deduce that someone or something other than myself was at work here. I've decided to call it The Percale Rectangle. Go ahead and doubt me, but that's my theory.

I live alone and I believe this situation makes me a prime candidate for this nocturnal inexplicability. No witnesses means no one will believe me. I can cry wolf from here to the linen closet, but I get the same story. "Oh sure," they say.

I need a witness. I've tried time and time again to coax young ladies (they're the best) to spend the night with me, my only intention being to obtain an objective witness, and I've never succeeded. If someone out there wants to help, send me your vital statistics, a snapshot, marital status, tell me whether you snore or eat crackers, and drop the note in the mail along with a stamped and self-addressed envelope. I'll let you know.

Shorts

Graduating seniors

The Recorder's Office in the School of Liberal Arts reminds graduating seniors that they must apply for their degrees. Applications must be on file by Sept. 30, 1982 for January, May and August 1983 candidates. Pick up applications in Room 401, Cavanaugh Hall or phone 264-3976 for additional information.

Girl's Tennis

The Girls' Tennis Club will be holding an organizational meeting soon. Anyone interested should contact Many Beth Meyer at 784-3507 so that meeting times and practice sessions can be set.

Engineers

The American Society of Mechanical Engineers' Student Section will host a dinner for students interested in joining the ASME. Link-Belt Corporation, Bearing Division, will sponsor the dinner, to be followed by a presentation by Mr. Gene Pfaffenberger of Link-Belt on the various areas of engineering open to graduates.

The meeting will start at 7:30 p.m., Thursday, Sept. 30, in the faculty lounge of the Krannert Building. Admission if free for all engineering and engineering technology students.

Men's basketball

The first meeting for men's varsity basketball tryouts will be held Sept. 27 at 6 p.m. in the main gymnasium in the Physical Education/Natatorium building. Tryouts will run through Sept. 30. For more information, contact Mel Garland, 264-2725, in PE 261.

Psi Chi at IUPUI

Psi Chi, the national honor society in psychology, was installed at IUPUI this year and is accepting applications for membership. The chapter will seek to nourish and stimulate professional growth through programs designed to augment and enhance the regular curriculum and to provide practical experience and fellowship.

Qualifications for membership include the completion of 12 hours of psychology or nine hours and registration for at least three more; registration for major or minor standing in psychology; and an overall GPA of 3.0 and 3.5 in psychology coursework. Psi Chi is open for undergraduate or graduate students. For information or membership application, contact Dr. Roger Ware, faculty advisor, at the psychology department in the Krannert Building or Judy Kendrick at 255-9045.

Marble Hill

The American Society of Mechanical Engineers is hosting a field trip to Marble Hill Nuclear Power Plant, Friday, Oct. 8. For details, contact Dr. Ecer at. 923-1321, ext. 428. This trip is open to all IUPUI students.







assistant, Jo Ann Hoskins, a graduate microbiology student, (Photo by Mike Streib)



Lifeguard At The Natatorium

Lifeguards needed for morning, afternoon, and weekend hours.

Minimum Requirements:

- **Current Advanced Lifesaving**
- CPR or First Aid
- Bring cards to testing Lifeguard Test Date:
- Sunday, October 10, 1:00 p.m., in competition pool. If unable to attend testing call Natatorium, 264-3517

Dec. 4 SA

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along a small segment of DNA. a number two would have to be followed by eighteen zeros, or two quintillion.

Larsen, who earned his PhD at the University of Wisconsin, explained, "Some of the groups of songs [genes] would transpose into simple tunes or lullables [base biochemicals]. Others might group to form very complex orchestral masterpieces leyes, skin and organs] and finally, large segments of perfectlyconducted songs would mix harmoniously to form unparalleled symphonies [cerebral cortex, brain

Minute research

To understand these complex interrelationships, patient researchers separate and catalogue microscopic parte as if by magic.

No, not magic. But, by using tools that do the work for us, it's the next best thing," replied Larsen.
"Take the cassette tape

analogy, for instance. Reduce the tape width to the thickness of DNA, shorten it propor-tionately, and fold it up as it exists inside the cell.

"You will find that it occupies the volume of a pin point: about one one-hundredth of a millimeter. That's the tiny thing we have to work with.

Mechanical means of gen splicing are ineffectual. If Larsen attempted to cleave a single gene from a chromosome with a scapel, the sharpest part of the blade would crush the

Biochemical methods have been devised and used with varying success during the past few years. However, those methods of splicing were not exact enough. According to Larsen, a recently-marketed "revolutionary" technique is most effective.

Enzyme action

Larsen uses a group of proteins called restriction enzymes. These microscopic enzymes "look" for a particular arrangement of bases along the chromosome and cleave it at that exact point. Larsen selects the base combination, or gene, he wants and uses a restriction enzyme which cleaves at that point. Any desired gene on a chromosome can be selectively removed by this method.

A second enzyme again per forms near-magic and inserts the gene into another seome, again in the exact

What happens last is the recombined gene, after being placed into a bacterial chromosome, given "birth" to vast numbers of identical replicas of itself.

This could be like splicing als and Crofts "Diamond Girl" onto a segment of a Rolling Stones cassette tape. And, after leaving the room for a while, returning to find stereo, turntable, mixer, speakers and furniture buried under 20,000 self-replicating copies of the recombined tape!

Larsen then studies the characteristics of the newlycloned chromosomes. He knows the properties of the bacterial chromosome prior to splicing the new gene. If he observes divergent characteristics in the chromosomes after splicing, he may be able to attribute these properties to the recombined - and reach conclusions about its original purpose.

Often, the existence of an additional protein is the only difference discernable.

Transporting genes

Using restriction enzymes to cut and splice genes from chromosome to chromosome is more precise and faster than any past method, according to Larsen.

Transporting the gene between chromosomes also uses a new procedure. Larsen employs an unconventional vehicle, one not measured in

'(It is) measured in angetroms. An angetrom is one three-billionth of an inch," he explained.

Working with Steve Rodgers, a former professor in microbiology and immunology, Larsen made something called a plasmid vector - vector

meaning vehicle.
"A plasmid vector is a tiny circle of DNA usually found in bacteria," said Larsen. By using restriction enzymes, he remade one to his specifications. His plasmid vector attaches to the gene he wants to work with and transports it to the bacterial host.

By combining other genes, he built into his plasmid vector a characteristic which protects the newly-attached gene from attack by antibiotics.

Research benefits Scientists would like to cure all diseases and genetic disorders, of course. The ability to manipulate the basic building blocks of life may be the answer.

Researchers like Larsen can take traits such as disease immunity, protein synthesis and biochemical production out of healthy human chromoson and recombine those traits in fast-growing bacteria. Because of this. Larsen says, the possibilities for drug treatment are greatly enhanced over any time in history.

According to Larsen, the most prolific applied technology today is in making vaccines. Recombined bacterial chromosomes now produce human insulin. It is perfectly compatible with human diabetics and less expensive than insulin made from pigs. Researchers have introduced a new recombinant product which prevents hoof-and-mouth disease and a recombinant hepatitis vaccine will be introduced soon.

"Unfortunately, there is no cancer 'vaccine' to be made because, in cancer, the gene mutates in its replication. That is beyond a vaccine's ability to

re," said Larsen.
'But recombined DNA offers a high potential for truly grasping the basis for cancer. From this, we hope to find a design to cure it.

Recombinant research also may help to cure hereditary

"In a given hereditary disease, say, sickle-cell anemia, a single part of one gene, a base, has been changed," said Larsen. "We don't know why."

Therein rests the publism. Any technique which allows scientists to better grasp the structure and consequence of DNA will be beneficial. In finding a solution to hereditary diseases, we'll need more research, very precise research."

Asked for his ultimate goal in recombinant DNA research, Larsen paced about his small office and tried to reduce his many research activities to a single thought. "To understand how

organisms develop, and to control development of individual cells . . . [to understand] how the growth rate of individual cells is normally controlled [so we can] prevent cancer . . . [and to understand how disease states can be prevented or

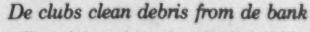
"We've made gigantic strides in the past few years but there are still more of such steps to take. We're working to gain the knowledge needed for the next several such steps."

Circle City Circuit/First of Fall-





Autumn festivities on the Library Mall brought together booglers, boppers and burger-flippers. Activities continue this week through Saturday on the Michigan Street campus. (Photos by Mike Streib)



a rusty bed spring.

the "dedicated super citizens of the School of Science," says Assistant Dean Patricia Boas. For two hours last Saturday. they cleaned debris from the CCC cance race site on White

Chemistry Club members Donna Wetsel, Bill Bruder,

"You won't rip your jeans on rusty bed spring."

And thanks for that go to members Mike Casper, Dave is "dedicated super citizens of the School of Science," saye joined Dean Boas and Jo Brown from the science office in the cleanup project.

By the way - does anyone need six bags of trash, two bucket seats, a cat's skull, two feet of intestines and a dummy's head?



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Students earn scholarships

For the 12th year, IUPUI students will receive scholarships from the Statler Foundations of New York.

The \$500 awards will go to 22 students in the Department of Restaurant, Hotel and Institutional Management of the School of Engineering and Technology. Hotelman Ellsworth M. Statler endowed the scholarship fund which has given more than \$130,000 to IUPUI students since 1970.

According to Department Chairman Raymond A. Dault, Statler introduced more changes into the hotel and motel business than any other

Recipients of the scholarships include: Cynthia Barnett, Heather Bowen, Janet Ernest, Paulette Hill, Donna Jean Lovisa, Janet Lucas, Jonathan Massey, Craig Stanley, Beverly West and Shaun Alan Wright, all of Indianapolis; Ahmed Ibrahim from Egypt; Gerard Anthony from Malacca, Malaysia; Ralph Bobert from Brownsburg; Mark Grabert and Nina Rose Treon Perry, both of Carmel; Cathy Henson from Crawfordsville; Shanta Mishra from Bihar, India; Sandara Reed from Plainfield; Marge Riggs from Brookville; Belinda Peck Lian Wee from Singapopre; Curtis Zook from Monticello; and Jeffrey Edwards from West Newton.





OPENS IN SEPTEMBER AT SPECIALLY SELECTED THEATRES.
Check newspapers for theatres.

Second writing teachers' conference successful

by Laura Burris

Teachers from around the state met at the Atkinson Hotel this weekend for workshops and lectures comprising the second annual Indiana Teachers of Writing (ITW) Conference.

In answer to the advertisement of the past which asked "Why can't Johnny read?," the conference posters proclaimed "Johnny and Jane can write." The opening address followed

suit, explaining that "Johnny and Jane and write if .

Workshops during the twoday conference, which presented methods of teaching school-age Johnny and Jane to write, included "From Creative Writing to Critical Thinking," "Peer Tutoring," "Teaching the Gifted," "The Young Child as Writer: Redefining Functional Literacy," and "Teaching Kids to Write Poetry.'

The sessions directed discussions or exploration of these and dozens of other areas of both the process and product of

Jean Shepherd, author of "A Fistful of Fig Newtons,

"Night of Golden Memories and Other Disasters," and winner of numerous national film and humor awards, spoke at the Friday night dinner.

President of the ITW and director of the writing program at IUPUI, Ronald Strahl noted an increased turnout this year.

"Last year, the conference was a novelty, but this year with tighter restrictions on teachers taking days off, and the economy in general, I thought attendance would be lower - but we were pleased that about 60 more people, totalling about 570, attended this year.

Also attesting to the success of the ITW's first conference.

educators in Wisconsin and Massachusetts have contacted Strahl for information about forming similar organizations for their own states.

"We believe we can turn anvone into an adequate writer," says Strahl. And drawing from current research and practice, he and members of the ITW have found that "Writing is very teachable."

BLOOM COUNTY

by Berke Breathed













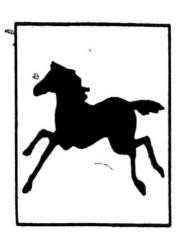






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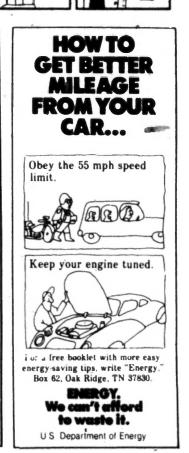


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Herron professor joins exhibit

hy Mark S. Simons

Mark Richardson, professor
of ceramics at Herron School of Art, and fellow artists Paul Krainak and Frances Whitehead, have tear group exhibit in the Churchman-Fehrenfeld Gallery at the Indianapolis Art League. The show offers a mixture of ceramics, drawing and multimedia sculptural works.

Richardson's ceramic p include large thrown platters. with the open surface being used as a "canvas" by the artist. Surface manipulation of these platter forms includes the application of photo decals, air brushing, hand building and underglaze painting.

Of the imagery, Richardson states that through the inclusion of several levels of bits and pieces of information, an open-ended narrative is formed.

"The viewer may read the piece with relaxed intuition, drawing upon personal fantasy or life experience," he says. Richardson adds that, in this

way, the viewer may experience the same excitement the artist feels in the creation of an

object.
The eight drawings in the exhibit are by Paul Krainak, a Chicago-based artist and former interim director of the

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Herron Gallery. All of his works are divided in half ver-tically: on the left hand, a diagrammatic image exploring a representational motif, and on the right, a formal surface

Of the divided picture plane. Krainak states, "I believe a single unified image to be untrustworthy ... too dependent upon history for meaning and too inert to be self-sustaining

By juxtaposing two graphic styles, the artist seeks to prompt the viewer into an in-terpretive and comparative

mode of seeing.

The third artist in the exhibition. Frances Yeatte-

professor of art at IU-Bloomington. Her nine sculptural works in this exhibit evolve from a long-standing interest in diagrammatic form and the relationship between drawn or written language and the object described. The pieces often draw from the arrow form, appearing utilitarian, and to a disturbing degree, the possible function of an item remains obscure.

The Krainak, Richardson and Whitehead exhibition will remain on view at the Art League, 820 East 67th Street. through Oct. 3.

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Video teaching (continued from page 1),

school students who go on to college. Second, as recently as a few years ago, two out of every three students who entered IUPUI needed some sort of remedial writing instruction.

Today we've gotten that number down to one out of two, but we're still looking for ways to make college less mysterious and to develop the skills the students will need in college." Casebeer contends.

Casebeer terms the project a "primitive pioneering effort"

in regard to the technical possibilities used. Now, the acher can split the screen and place himself on one part and a display object on the other. In the future, the teacher will be able to divide the acreen at his end into quadrants or even octants and watch several

students at the same time.
"This isn't an attempt to replace teachers or institute 'mass' education. With this program we still deal with program we still deal with students roughly in groups of 25. We utilize one 'grader' for every 15 students, so there is still personal contact with the

upil.
"Actually, in many ways. this program can be more intimate, and more closely approximate a tutorial situation than a regular classroom. We're trying to make a cool medium hotter," Casebeer says.

The counterparts of IPS's Moore and Loughlin at IUPUI were Executive Dean Edward Moor and Associate for Learning Resources Marvin Ebbert. Moore and Ebbert helped IUPUI and IPS obtain the 863,000 grant from Lilly

Endowment that has under-

written the project.
Ebbert calls the cooperative nk between the university and IPS "appropriate and

reductive."
He says, "We're constantly He says, "We're communicate to looking for ways to relate to the public schools and the control public schools and the control public schools." me putter schools and the com-mity and to provide needed services. This project fulfills a need on both sides. The program is successful as far as t's gune, but we've only scratched the surface.

The experimental project, referred to by the cumberson

me "IPS/IUPUI Televisio Course Project for College Credit," in actually produc by the IU School of Nursis under the segis of their NICER (Nursing Instructional Com-munications and Educational ouroni program

Ranouronsi program.
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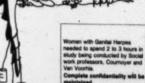
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S. E. Regnier, Dept. of Biochemistry Purdue University
Wednesday, Sept. 29; 3:30 p.m.; Krannert Building 231

Circle City Circuit

Activities Continuing:

Golf Outing, Eagle Creek Municipal Golf Course-Friday, Oct. 1; 12:30 p.m.

Volleyball and Softball, 1000 W. New York St. fields Saturday, Oct. 2; 9:00 a.m.

Canoe Races, W. New York St. under the White River Bridge Saturday, Oct. 2; 9:30 a.m.

All Campus Ptcnic, New York St. & White River Saturday, Oct. 2; 11:30 a.m., Dixleland Band at 11:15 a.m. October 3, Rain Date

All applications for all events may be obtained in the Student Activities Office, CA 322; Student Services Office, LY 002; Student Union Building, front deak; School of Science, Krannert Building 153; and Physical Education 062, or call 264-3931.

Chairperson of the activity should turn in information to CA 322 two weeks prior to the event.

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