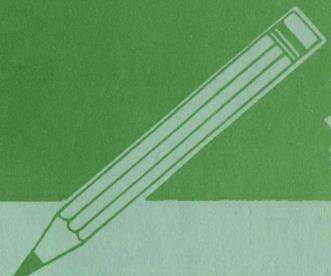


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INDIANA UNIVERSITY-PURDUE UNIVERSITY AT INDIANAPOLIS



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IUPUI PROFESSOR REPORTS EVIDENCE OF METEOR SMASH IN ANTARCTIC 700,000 YEARS AGO

Evidence of an enormous Antarctic crater, the result of the largest meteorite now known to have struck the earth, was reported today (Aug. 22) by an Indiana scientist at the 25th International Geological Congress in Sydney, Australia.

Dr. John G. Weihaupt, associate dean of science at IUPUI, told the Congress that data gathered from field expeditions indicates that a meteorite crater half a mile deep and 150 miles wide lies beneath the Victoria Land icefields in Antarctica.

This would be an impact crater four times larger than any other meteorite crater so far found on earth and a crater which would rank with the largest meteorite craters on the moon. And it would be a crater large enough to fill the space between Chicago and Indianapolis.

Dr. Weihaupt's calculations suggest a crater of this size would have been formed by a meteorite 2.5 to 3.75 miles in diameter, weighing 13 billion tons, with a velocity of 44,000 miles per hour at the instant of impact.

Despite the magnitude of this impact, which evidence indicates occurred 600,000 to 700,000 years ago, the meteorite did not strike with sufficient energy and mass to change the earth's axis or rotation, said Dr. Weihaupt.

Much of Dr. Weihaupt's evidence is indirect -- a mile of ice covers the site -- but the evidence and all its interpretations do support the Antarctic meteorite hypothesis. The evidence was gathered by Dr. Weihaupt during a United States expedition to Victoria Land in 1959-60 to examine ice sheets, glaciers, and topographical features in the Trans-Antarctic Mountains.

During this expedition, Dr. Weihaupt discovered a broad, shallow depression in the ice sheet. Much of the ice in this depression was disturbed, cracked and broken with wide, deep crevasses. Nothing in the visible geography of the area explained this phenomenon.

The field party crossed the area with seismographs and gravity meters. Both sets of instruments indicated that a massive depression lay in the rock beneath the ice sheet. These readings were consistent with those reported by a French team which crossed a part of the depression along a different route in 1958-59.

But the French did not realize the possible significance of their data -- and, for several more years, neither did the Americans.

Then, in 1975, Dr. Weihaupt was delivering a lecture on meteorite craters on the moon and on Mars when the significance of the seismograph and gravity meter readings suddenly struck him. They profiled something that looked like the massive lunar and Martian craters.

Dr. Weihaupt then re-examined the evidence -- things other than meteorites depress ice fields and cause craters in rock.

One possibility was that a river of ice was flowing in the depth of the Victoria Land icefield, grinding a valley in the rock. This phenomenon had been observed in other icefields, but the ice rivers typically left valleys no more than six or seven miles wide and this ice river valley would be an improbable 150 miles wide.

Furthermore, the instrument readings indicated that the Victoria Land depression was surrounded with a rock rim, much like the lunar and Martian craters, and the nature of the rim was inconsistent with the ice river possibility.

Another possibility was that the depression in the rock might have been formed by tectonic activity -- by volcanoes or by movements in the earth's crust.

But Antarctica has been geologically stable for millions of years. The rock rims surrounding the depression, buried under a mile of ice, would not have survived until the French and Americans discovered them.

And, finally, the meteorite hypothesis is supported by other physical evidence, some thousands of glassy bits found three and four thousand miles away in Australia.

Meteorites are typically stone or iron -- stone like volcanic rock, iron like a very rich mass of iron ore -- and they strike the earth with awful impact. The meteorites literally explode and most of their mass vanishes as gas and dust.

But some of the mass and some of the material blasted out of the crater survives as a sort of shrapnel. As it flies through the air, initially at supersonic speeds, the heat of the air friction melts the rocky material and turns it to a sort of molten glass.

Splashes of this material -- sometimes they look like buttons or teardrops or apothecaries' pestles -- have been found in association with most of the other known meteorite craters on the earth.

Southern Australia is littered with these meteorite remnants, called tektites, but until now there has been no known meteorite to explain them. The hypothesized characteristics of the meteorite which would have made the Antarctic crater would account for the Australian tektites -- and the age established for the tektites, 600,000 to 700,000 years -- accounts for the estimated age of the Antarctic crater, said Dr. Weihaupt.

Although the explosive impact had no lasting effect on the earth except in the vicinity of the crater -- no change in the axis or rotational speed -- it must still have been an incredible event. The noise would have been fantastic and probably audible for several thousand miles. The volcanic explosion of Krakatoa near Java in 1833 was heard as far away as 2,500 miles.

The conversion of several cubic miles of meteorite and Antarctic bedrock into dust might have had substantial effects on the world's climate. Dr. Weihaupt speculates that the dust of the explosion might have shaded out enough solar heat and light to have changed the climate, on at least a temporary basis, throughout the world. The dust from Krakatoa produced spectacular sunsets everywhere in the world for several months after the explosion.

Finally, the impact might have been enough to set off earthquakes and volcanoes in geologically unstable areas, such as the Pacific "Rim of Fire," a belt of earthquake and volcano zones running through the Pacific coasts of North and South America, through Japan and China, and into Indonesia.

FACULTY APPOINTMENTS & CHANGES APPROVED BY BOARD

Patricia E. Cunnea, formerly dean of academic affairs and professor of political science at Hood College in Frederick, Maryland, has been named associate dean and professor in the School of Public and Environmental Affairs.

Dr. Cunnea, who also has held teaching posts at Washington State University and Mills College in Oakland, California, received her bachelor's, master's and doctoral degrees from the University of Chicago.

She is a member of the American Political Science Association, American Association for Higher Education and has held executive posts in the American Conference of Academic Deans and the Maryland Association of Higher Education. In 1972, she was the first woman elected vice-president and president-elect of the Pacific Northwest Political Science Association.

In other action, the board approved the appointment of Theodore R. Comstock as assistant dean and associate professor of mechanical engineering in the School of Engineering and Technology, and the appointment of Richard E. Slocum as acting assistant dean of the School of Science.

Other initial, full-time academic appointments include:

School of Business:

Jeffrey D. Ford -- Assistant professor of administrative and behavioral studies

School of Dentistry:

Larry Dale Ryan -- Assistant professor of dental auxiliary education and assistant director of TEAM

Jeanne Frances Dray, Patricia K. Leitsch -- Assistant professors of dental auxiliary education/dental hygiene

School of Education: Herbert J. Rieth -- Associate professor

School of Medicine:

Eugene G. Roach -- Associate professor of psychiatry and medical genetics

Stephen J. Jay -- Associate professor of medicine

Scott C. Bruins, Richard B. Kohler -- Assistant professors of medicine

Raoul S. Rosenthal -- Assistant professor of microbiology

Phillip J. Bendick -- Assistant professor of surgery

School of Nursing: Veronica S. Cabrera -- Assistant professor

School of Public and Environmental Affairs (SPEA):

Dennis James Palumbo -- Professor

Stephen L. Hayford -- Assistant professor

School of Science:

Robert M. Davis -- Associate professor of psychology

Kenneth B. Lipkowitz -- Assistant professor of chemistry

Arthur G. Duncan -- Assistant professor of mathematical science

Soren Svanum, Oliver C. S. Tzeng -- Assistant professors of psychology

The board also named Edward G. Buck to the directorship of the Aerospace Research Applications Center and adjunct assistant professor of business. The trustees also approved the appointment of Sylvia E. Bowman as special assistant to the president for the External Degree Program at the School of Continuing Studies.

Other status changes and additions include:

School of Business:

Franklin Acito -- To assistant professor of marketing
Jane O. Burns -- To assistant professor of accounting

School of Dentistry:

Larry L. Graham -- To associate professor of oral surgery and director of
Wishard Memorial Hospital and Regenstrief Center Oral
Surgery Program
David R. Avery -- To associate professor and chairman of the Department of
Pedodontics, succeeding Paul E. Starkey

School of Engineering and Technology:

Reginald Eggleton -- Additional appointment as
adjunct associate professor
of electrical engineering

School of Liberal Arts:

James F. Smurl -- To associate professor and chairman of the Department of
Religious Studies
John M. Riteris -- Acting chairman of the Department of Philosophy
Nancy A. Newton -- Acting chairman of the Department of Spanish

School of Medicine:

Fred L. Ficklin -- To assistant dean of student affairs and assistant professor of
health administration
Ward W. Moore -- Additional appointment as director of the Medical Sciences Program
Arthur L. Norins -- To professor and chairman of dermatology and professor of pathology

School of Nursing:

Virginia E. Richardson, Donna M. Zouvelos -- To assistant professors

SPEA: E. Philip Morgan -- To associate professor

The board also approved a correction in title for Herman W. Stoelk from associate professor emeritus to professor emeritus of mechanical engineering technology, School of Engineering and Technology, as approved by Purdue University trustees, effective May, 1976.

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NEWS 'N' NOTES FROM HERE 'N' THERE

Deadline -- New faculty and staff parking decals must be on vehicles by Friday. They are available at the University Police Department, 428 North Lansing Street.

Hours -- Effective Monday (Aug. 23) the schedule for the School of Medicine Library will be 8 a.m. to 11:45 p.m. Monday through Friday, 8 a.m. to 9 p.m. Saturday, and 1 p.m. to 11:45 p.m. Sunday.

Help! -- Have any sturdy, safe, used toys, books or records around the house? The IUPUI Child Care Center would appreciate your donating them. They can be dropped off at the Student Activities Office in Room 322 of Cavanaugh Hall.

Attention Keglers -- An IUPUI Faculty Bowling League is being organized that would probably meet at the new Woodland Bowl on Keystone Avenue on Fridays at 6 p.m. Spouses of faculty members are also welcome. If you are interested in joining the handicap league, call Mike Gemignani at 923-1321, Ext. 210, or Carol Gemignani at 545-8372.

Preschool -- The Children's House School, 2401 West 39th Street, has places for preschool and elementary-level children. Morning sessions are available up to five days a week for youngsters from two to five years old. For information, call Dr. Bockrath at Ext. 7997 or Molly Donikian, 251-4771.

CALENDAR CHECK-OFF

Textbook Cases -- The Alpha Phi Omega service fraternity is once again offering its book exchange -- starting tomorrow (August 23) and running till September '3 -- so students can turn in used textbooks, set their own selling price, and buy any books they need. All this will take place in the Hideaway cafeteria in the Blake Street Library.

The First Hurrahs -- How the candidates are likely to handle the coming presidential campaign will be discussed by associate professors Brian S. Vargus, sociology, and Patrick J. McGeever, political science, on the IUPUI Magazine. Tune in at 3:30 p.m. Monday (Aug. 23) on WIAN, 90.1 on your FM dial.

Exhibits -- Pharmacy displays this week in University Hospital will be Eli Lilly & Co. on Wednesday and Lederle Laboratories on Friday. Riley Hospital displays will be Mead-Johnson Laboratories on Wednesday and Flint Laboratories on Friday. Hours are 8:30 a.m. to 3:30 p.m.

Homage -- A large exhibit of photographs depicting the life and works of Thomas Mann will open Wednesday in the lobby area of the Blake Street Library. Sponsored by the Department of German, the display (which runs till September 15) will honor the German novelist and critic, who won the Nobel Prize for Literature in 1929.

Info Session -- Persons interested in the High School Diploma Program and the High School Equivalency Certificate can have their questions answered Thursday during an hour-long session starting at 3:45 p.m. in the Clinical Building auditorium. The program will be conducted by representatives from the Office of Hospital Education and the Indianapolis Public Schools. Call Mrs. Jenkins at Ext. 8119 or Ext. 8110 for more information.

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INDIANAPOLIS RESPONSIBILITIES CLARIFIED

Continued development of the relationship between I.U. and Purdue on the Indianapolis campus was reported to the I.U. trustees in Bloomington.

✓ *Sohn W.*
President Ryan reported an agreement with Purdue President Arthur G. Hansen under which Purdue will assume academic responsibility for programs in the biological sciences, chemistry, and psychology--except those already included in the I.U. School of Medicine. A similar report will be given by Dr. Hansen to the Purdue trustees next month.

President Ryan said the realignment shows precisely and emphatically that Purdue, as well as I.U., is committed to the continued development of first-rate, first-rank programs of education, research, and public service in the sciences at the Indianapolis campus. The new alignment also clarifies responsibilities for setting academic requirements for students and clarifies authority for the awarding of degrees.

The initial steps in the IUPUI merger left students in several departments eligible for degrees from either I.U. or Purdue. This complicated the development of requirements for science degrees and caused some confusion with accrediting agencies.

Although the alignment will not affect students currently enrolled in the School of Science, new students will be eligible for only Purdue degrees in chemistry, mathematics, biology, psychology, and physics and for I.U. degrees in geology.

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1100 West Michigan Street
Indianapolis, Indiana 46202

TRUSTEES APPROVE 1977-1979 BUDGET REQUESTS

Indiana University budget proposals for the 1977-79 biennium were approved last Saturday (August 14) by the board of trustees meeting in Bloomington. The requests cover I.U. campuses at Bloomington, Indianapolis, Kokomo, Gary, South Bend, Richmond and New Albany. (The proposed budget for the Fort Wayne campus will be prepared by Purdue University, the fiscal agent for both I.U. and Purdue programs there.)

The operating appropriation requests assume no increase in student tuition. The proposal for 1977-78 totals \$140.7-million (up 24.1 per cent) and \$163-million (up 15.8 per cent) for 1978-79. The plan asks for personnel compensation increases of 9 per cent for each of the two years. It assumes an inflationary factor of 7 per cent for each year of the biennium and calls for a corresponding 7 per cent increase in the cost of supplies and equipment.

The board directed President John W. Ryan to undertake a careful review and analysis of the present structure of student fees throughout the entire university and to make recommendations.

If the Indiana General Assembly should fund I.U. at the level requested, the expenditure for 1977-79 embracing all forms of income--legislative appropriation, student fees, and other general education income--for the support of I.U.'s instructional program would total \$216.4-million (up 14 per cent) for 1977-78 and \$240.7-million (up 11 per cent) for 1978-79.

President Ryan noted the proposal places the most emphasis on people and cited the need to maintain and attract the highest quality faculty.

The capital appropriations request for 1977-79 includes several new construction items. They are: \$8-million, library building, I.U. Northwest; \$4.1-million, health science building, I.U. Northwest; \$8-million, classroom-office building, Indianapolis; \$2-million, classroom-laboratory building, Kokomo; and \$1.3-million, applied music building on the Bloomington campus. Also included are repair and rehabilitation requests of \$5.5-million for the Bloomington campus and \$3.9-million for the Indianapolis campus. The capital appropriation request for the biennium totals \$38.8-million.

The board also approved appropriation requests for special I.U. programs identified for specific funding by the state legislature. The proposal totals \$14.6-million and includes: Centers for medical education, inter-residency program, medical education plan, chemical test program, blood study-toxicology, optometry education fund, and mental retardation center.

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