Scientists at the McDonnell Center for Space Sciences at Washington University have found the first evidence of silicon carbide in a primitive meteorite — microscopic grains that were formed before the solar system existed.

According to Thomas Bernatowicz, Ph.D., senior research scientist at Washington University and one of the authors of the cover story in the Dec. 24 issue of the science journal Nature describing the find, the silicon carbide may provide scientists a link between the early stages of our solar system and stellar systems that predate it.

"The more materials we can peg as pre-solar system, the more accurately we can determine the kinds of materials that were present when the solar system was formed," Bernatowicz says. "The more pre-solar materials we can identify, the more accurately we can determine how our solar system was made.

Scientists at the McDonnell Center for Space Sciences at Washington University, Phil Fraundorf, Ph.D., of Monsanto Co. Research Center; Ernst Zinner, Ph.D., and Brigitte Wopenka, Ph.D., both senior research scientists at the McDonnell Center, and Gail Fraundorf (seated), of Monsanto.

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The Eastman Brass, comprising resident faculty at the Eastman School of Music in Rochester, N.Y., will perform at 8 p.m. Saturday, Feb. 20, at Edison Theatre.

Eastman Brass quintet to perform in Edison

The Eastman Brass, the brass quintet comprising resident faculty at the Eastman School of Music in Rochester, N.Y., will take the stage at Washington University's Edison Theatre at 8 p.m. on Saturday, Feb. 20.

The Edison program includes "Music for Brass Quintet," by composer Gunther Schuller; "Gershwin Variations," by Rayburn Wright; and "Canzonets, Madrigals, Catches and Galliards," a program of early music, according to the Eastman Brass.

Tuition will be $12,450 in 1988-89, while room and board will be $4,427 for a student living in a double room and using the regular meal plan. For the current academic year, tuition is $11,400, and room and board are $4,168. The 1988-89 increases are 8.4 percent over the fees charged for the current year.

"Washington University's costs continue to rise faster than those in the general economy," Danforth said. "Our 'product' is education, which relies heavily on interaction between students and outstanding professors. We could save money by teaching larger classes with fewer faculty, but that is an outcome few would welcome and would not be consistent with what we are trying to achieve. In that sense, we are not like a factory producing goods that can save costs with production efficiencies."

"Beyond the cost of attracting and retaining talented faculty, we must also deal with other costs that are linked directly to quality. Examples are scientific materials and equipment, and direct to quality. Examples are scientific materials and equipment, anddirect to quality. Examples are scientific materials and equipment, anddirect to quality. Examples are scientific materials and equipment, anddirect to quality. Examples are scientific materials and equipment, anddirect to quality. Examples are scientific materials and equipment, andscientific materials and equipment," Danforth added.

"In Washington University's undergraduate programs, income from the income required. Other sources, notably gifts and income from the University's endowment, are critical elements but provide less than one-quarter of the University's basic academic and administrative functions," according to James Buchholz, dean of the School of Fine Arts.

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Harold Blumenfeld, professor of music, will have his first major orchestral work, "Diluvial. Evocations of A.R.," premiered on Feb. 18 at the Cincinnati Philharmonic Orchestra performs it under the direction of its conductor, Gerhard Samuel. On Feb. 12, Blumenfeld's 1981 Rimbaud cantata, "La Face Cendrée," will receive its 16th performance, this time by graduate performers of the Cincinnati College-Conservatory. Blumenfeld's "Ein Carnet de Danse," an extended setting of the final section of Rimbaud's "Scènes in Hell," was composed in early 1987 and premiered by the Voices of Change of Dallas with Blumenfeld serving as guest conductor.

Irving Engel, professor of architecture, has had a book published by Prentice-Hall Inc. The book, titled Structural Steel in Architecture and Building Technology, addresses the needs of architecture students and others in the building professions. The book is intended to serve as a college-level textbook as well as a professional reference.

Hollis Huston, Ph.D., assistant professor of English, has been selected to attend the National Council for Relationships with Hearing Impaired, "Telling Lies and Selling Truth" at the Themes in Drama Conference on Feb. 12-14 in Riverside, Calif.

Angela Miller, Ph.D., assistant professor of art history, recently presented a paper, titled "Region and Nation in the 1890s: Claiming the Part as the Whole," to the annual conference of the American Studies Association in New York City. The paper was given for a panel titled "Symbolic Transformations in the 1890s: Culture and Impending Catastrophe." Eric Pankey, coordinator of The Writing Program, received a fellowship in creative writing from the National Endowment for the Arts. The fellowship includes a cash award of $20,000.

Gerald R. Popelka, Ph.D., clinical research scientist at the Central Institute for the Deaf and professor of audiology, has been elected a fellow of the American Speech-Language-Hearing Association (ASHA) at its 1987 annual convention in New Orleans. He also presented a tutorial session on "Digital Signal Processing for the Hearing Impaired" and participated in a panel on "Hearing Aid Selection Strategies and Prosthete Microphone Measure" at the convention. Popelka served as an adjunct member of a National Institutes of Health study section that reviewed project proposals in Washington, D.C.


Eugene Rubin, M.D., Ph.D., assistant professor of psychiatry, and John C. Morris, M.D., assistant professor of neurology, lectured at a conference on "Geriatric Mental Health: An Overview for the Primary Care Physician," held Nov. 13 at the University of Nebraska Medical Center in Omaha. Rubin presented psychiatric grand rounds, titled "Behavioral Manifestations of Alzheimer's Disease," and Morris presented medical grand rounds, titled "Parkinson's Disease and Dementia."

Vesvator Stojanovic, Ph.D., visiting scholar from the University of Belgrade where he shares an appointment in sociology and philosophy, spoke on "East European Reflections on Glasnost" at the annual meetings of Christians and Jews at the National Council of Churches, National Council of Churches, National Council for Relationships with Hearing Association (ASHA) at its 1987 annual convention in New Orleans. He also presented a tutorial session on "Digital Signal Processing for the Hearing Impaired" and participated in a panel on "Hearing Aid Selection Strategies and Prosthete Microphone Measure" at the convention. Popelka served as an adjunct member of a National Institutes of Health study section that reviewed project proposals in Washington, D.C.

Robert B. Thompson, J.D., professor of law, has published an article titled "What Federal Role Is Appropriate in the Regulation of Teller Officers?" in a recent edition of The National Law Journal. He also wrote an article on "Defining the Federal and State Realms of Teller Officer Regulation," which was published in Vol. 64, No. 4 of the Washington Law Review Quarterly.

Carl P. Wellman, Ph.D., professor of humanities, gave a public lecture at the American Institute of the Arts, titled "The Infamous Symbol. The Conflict between Symbolism, a synthesis of visual art and literature, was given a place in the National Endowment for the Arts. The fellowship includes a cash award of $20,000.

Gene M. Zafft, L.L.M., adjunct professor of law in the graduate tax program, spoke on "Tax and Financial Aspects of Buy-Sell Agreements" in the 34th annual tax conference of Missouri Tax Practitioners, held in Jefferson City.

How 'Clean' is Clean? With the Clean Air Act of 1977, and in 1990, a banner year for meteors, the Allende meteorite fell in Mexico and the Murchison meteorite in Australia. Both were large meteors — more than 200 pounds of the Murchison were recovered. Two tons of the Allende were left intact. Allende was especially important because it enabled scientists to do their first time to study otherwise rare, primitive early solar system material through a wide variety of techniques.

Tony Fitzpatrick
CALENDAR

LEcTURERS


2 p.m. Dept. of Mechanical Engineering Lecture, "Special Element Methods for Incomparably Navier-Stokes Equations," Anthony Pareti, assoc. prof. of mechanical engineering, MTT 100 Cupples II.


2 p.m. Dept. of Sociology Colloquium with Eric H. Hegg, U. of Washington prof. of political sociology, lounge.

4 p.m. Dept. of Chemical Engineering Seminar, "The Behavior of Immobilized Living Cells: Characterization Using Biotic Tracers," Constantine Robinson, prof. of chemical engineering, MTT 100 Cupples II.


4 p.m. Dept. of Sociology Colloquium with Erin H. Hegg, U. of Washington prof. of political science, lounge.

Monday, Feb. 15 4 p.m. William H. Roever Lecture in Geometry with John W. Morgan, prof. of mathematics, Columbia U. (Also Feb. 16-19, same time.) Cosponsored by the Dept. of Mathematics and the William H. Roever Fund. 101 Lopata.

Tuesday, Feb. 16 4 p.m. Dept. of Chemistry Seminar, "Oil Sketches from the Ecole des Beaux-Arts," with Bee-Yin Soo, gradient student in music. Graham Chapel.


Friday, Feb. 19 9:30 a.m. Dept. of Engineering and Policy Lecture, "Technology, the Arm Race and Anthropological Challenges," Lloyd J. Dumas, prof. of political economy, U. of Texas at Dallas 104 Lopata.


SPORTS

Friday, Feb. 12 7 p.m. Women's Basketball, WU vs. U. of Chi- cago. Field House.

Saturday, Feb. 13 7 p.m. Women's Basketball, WU vs. DePaul U. Field House.

Tuesday, Feb. 16 7 p.m. Women's Basketball, WU vs. MacMurray College. Field House.

Thursday, Feb. 18 7 p.m. Women's Basketball, WU vs. New York U. Field House.

Saturday, Feb. 20 7:30 p.m. Men's Basketball, WU vs. U. of Roch- ester. Field House.

MISCELLANY

Friday, Feb. 12 6:45-7:30 p.m. "Introversion '88," a black awareness seminar sponsored by the Association of Black Students. Kerns speech, titled "Who Am I (or Want To Be?)" by Patricia Russell-McCullough, attorney and professional counselor. Simon Auditorium. Free and open to the WU community. For more info., call 899-5900 between 11 a.m. and 1 p.m., or 361-1081 after 5 p.m.


9 a.m.-10:45 a.m. "Workshop titled "Can We Talk?" led by attorney Patricia Russell-McCullough as part of "Introversion '88," a black awareness seminar sponsored by the Association of Black Students. Faculty will lead the discussion to the Community Simon Auditorium. For more info., call 899-5989 between 11 a.m. and 1 p.m., or 361-1081 after 5 p.m.

Tuesday, Feb. 16 7 p.m. Cultural Celebration International Fashion Show. Clothes from more than 20 countries will be featured. Simon Auditorium.

Wednesday, Feb. 17 7:30 p.m. Dept. of Music Plano Recital with Rebeca Salter, graduate student in music. Graham Chapel.

MUSIC

Sunday, Feb. 14 7:30 p.m. Dept. of Music Piano Recital with Rebeca Salter, graduate student in music. Graham Chapel.

EXHIBITIONS

Oil Sketches from the Ecole des Beaux-Arts," with Bee-Yin Soo, graduate student in music. Graham Chapel.

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FILMS

Thursday, Feb. 11 7 and 9 p.m. WU Filmboard Series, "The Virgin Spring," $2 Brown Hall. (Also Sat., Feb. 13, same times, Sun., 14 at 2 p.m., Brown.)

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Thursday, Feb. 18 7 p.m. Women's Basketball, WU vs. U. of Chi- cago. Field House.

Friday, Feb. 19 11 a.m.-2 p.m. Cultural Celebration Festival. Main Mardi Gras show will be held on the playground, 11 a.m.-2 p.m. on Saturday, Feb. 20, in The Gargoyle. The party, which is free, is open to the Washington University community only.

As part of Cultural Celebration, the Washington University Filmboard will present the films "Three Men and a Cradle," and "Wit- ness." "Black Narcissus" will be shown at 7 and 9 p.m. Feb. 17 and "Three Men and a Cradle" will be shown at 7 and 9 p.m. Feb. 18 and "Witness" will be shown at 7 and 9 p.m. Feb. 19 and 20. On Feb. 21, it will be shown at 7 p.m. only. The films cost $2 and will be shown in Brown Hall Auditorium.

Cultural Celebration is sponsored by the Student Union, Campus Activities, Residential Life and Stix International House. It is primarily funded by Student Union and the Congress of the South-40.

For more information on the films, call 998-5245. For more information on Cultural Celebration activities, call 899-5010.

Weapons topic of all-day conference

The Department of Engineering and Policy is co-sponsoring an all-day conference on "Jobs and Weapons: Disconnecting Them — Economic Conversion Planning for the 1990s."

The conference, also sponsored by the St. Louis Economic Conversion Project and the Lentz Peace Research Laboratory, will be held from 9 a.m. to 4 p.m. on Saturday, Feb. 20, in Lopata Hall.

Topics to be discussed include the impact of military spending on the economy, how weapons production impacts the labor force, and strategies for economic conversion. There will be a lounge and "introductory level" activities, "Black Narcissus" will be shown at 7 and 9 p.m. Feb. 17 and "Three Men and a Cradle" will be shown at 7 and 9 p.m. Feb. 18 and "Witness" will be shown at 7 and 9 p.m. Feb. 19 and 20. On Feb. 21, it will be shown at 7 p.m. only. The films cost $2 and will be shown in Brown Hall Auditorium.

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Calendar Deadline

The deadline to submit items for the Feb. 25-26 calendar in the Washington University Record is Feb. 11. Items must be typed and state time, date, place, nature of event, sponsor and admission cost. Incomplete items will not be printed. If available, include speaker's name and affiliation and the title of the event, also include your name and telephone number. Address items to King McElroy, calendar editor, Box 1070.