Cornell Scientists Find Lunar Rock Chemically Homogeneous

Two groups of Cornell University scientists have analyzed lunar rock and dust samples brought back to earth by the Apollo 11 crew and have determined that the lunar material is both chemically and physically homogeneous.

A seven-man research team led by George H. Morrison, professor of chemistry, measured 68 elements in a wide variety of tiny samples of the lunar material. Another team, headed by Thomas Gold, assistant vice president for research (Arecibo affair), and director of the Center for Radiophysics and Space Research, also examined the samples.

Both teams reported this week in Houston at a meeting of 142 National Aeronautics and Space Administration (NASA) scientists.

Gold told the group that samples brought back by the astronauts seem to be identical in appearance to surrounding lunar areas. While Gold's group was not yet able to determine the reason for the relative homogeneity of the lunar soil, it speculated that erosion on the moon caused the dust to be spread out much more than on earth.

The Gold team reported that rocks sources from the moon showed differences in color from dust sample when examined under a spectrometer. This Gold said, may enable future astronauts to determine from which areas on the moon the dust was free.

Also, Gold and his team reported that the dark color of the lunar soil appears to be due to a very thin coating of metal on each grain of soil. The silver coating was probably caused by the solar wind, the astronomer said. Some of the larger grains appeared to be like ball bearings because of the coating.

Morrison presented his group's findings at the meeting and said that the lunar material is physically the same, unlike anything seen by man before. Although chemically similar, the materials Morrison's group studied were in outward texture and appearance. The varied appearance of the rocks, Morrison said, "are due to heat processes over which more evidence must be gathered before one should speculate on the extent of the coating of the material." Morrison said that this prohibiting legislation in basketball is in considerable debate. We further understand that included in the list of restricted outside competition are the basketball competitions of the Maccabiah Games, while at the same time other sports such as swimming, soccer, track, and fencing of the Maccabiah Games have no such restrictions. We are persuaded that this prohibiting legislation in sports competition is in considerable debate. 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Faculty Opinion...

s. J. Roberts, D.v.M.

To the cornell Faculty:

I apologize for sending my letter of two weeks ago to the Cornell Chronicle. I did not expect to be published, the fact that it was published is an imposition upon this faculty and I trust you will accept my regrets.

Chairman and Professor of Obstetrics and Gynecology, New York State Veterinary College

Letters addressed to the Editor are considered to have been intended for publication unless they contain a statement to the contrary.

Scientists Report

Continued from Page 1 of this issue.

The new findings clarify preliminary analysis at NASA and earlier work on the surface of the moon itself. Surveyor V, which indicated the lunar surface has a general similarity to basaltic rocks found on earth and also to a particular type of stone more easily known as basaltic achondrite.

Morrison's more sophisticated techniques of analysis indicate details previously unavailable and show distinct differences which make the lunar samples unique. Morrison used spark source mass spectrometry, a technique he and his students have perfected over six years to detect and measure amounts of elements present in samples.

He said the uniqueness and apparent uniformity of the material on the moon's surface "implies detailed geochemical processes special to the history of the moon."

"However," he said, "this implementation of the material must await further confirmation through detailed analysis of the samples brought back by the Apollo 12 crew and analysis of those fascinating glass fragments found on the moon."

Morrison said he has made a preliminary analysis of minute glass spheres and has found that they also appear similar in chemical composition to some of the other lunar rocks and soil he has analyzed. He says he needs a bigger sample before he is able to do a thorough analysis. Morrison is scheduled to receive samples from Apollo 12 to compare with Apollo 11 samples.

New Seminar Series Set

A new series seminar incorporating a multidisciplinary approach to the study of nutrition and behavior will be offered during the spring term.

The series of discussions will be concerned with three aspects of nutrition behavior: the behavioral and/or intellectual results of early malnutrition, behavioral problems in the control of obesity, and discussion of the problems in changing culturally based feeding habits.

The intent of the seminar is to expose students to many different views of the same subject emanating from different disciplines in an attempt to stimulate novel thought on traditional problems.

Students Plan Anti-Pollution Electric Auto Race

A group of Cornell University students concerned about air pollution are planning the first International Electric Vehicle Race to focus attention on the clean-burning nature of electric vehicles in contrasted to combustion powered systems.

The students, six engineering majors and a red haired coed — have hurled a world-wide challenge for a non-stop, cross country electric car race.

The race, scheduled for Aug. 20, will start at the United Engineering Center in the United Nations Plaza in New York City and wind up 3,000 miles away on the California Institute of Technology campus in Pasadena.

Wally E. Rippel, 25-year-old graduate student from Los Angeles, is leading the team of students who are designing an electric propulsion system in a newly-established Electric Propulsion Laboratory in the School of Electrical Engineering at Cornell. The laboratory is sponsored by Electric Fuel Propulsion Inc. of Ferndale, Mich., a Detroit suburb. The motor and electronic controls will be installed in a special body being designed and built by EFP Inc. which also is designing the special lead-cobat energy cells which will power the car.

Rippel said an entry from Great Britain is expected and interest in the race has been expressed by groups at the University of Detroit, Drexel Institute of Technology in Philadelphia and Purdue University in Lafayette, Ind.

Rippel, a slender six-foot student, said that an electric station wagon around the Cornell campus, is an old hand at cross country electric car racing. Last year at Caltech, he won what was billed as The Great Electric Car Race between his school and the company considering future of Technology in Cambridge, Mass.

Only two cars were involved in that race which he won in 210 hours and 30 minutes. The young engineer said his new racer will have a lot of refinements which will enable him to cut this time by more than half in the August race.

Rippel said he has several reasons for promoting the international race.

CEEB Exams

The College Entrance Examination Board (CEEB) language placement examinations will be given on the Cornell campus Wednesday, February 25. Students planning to take a modern language in a future semester, who have not yet been placed in a language and who have not yet been placed in a course, must take the exam.

Students wishing to take the exam must register at the University Guidance and Testing Center, 375 Onlin Hall, before 4 p.m., Friday, January 23.

Students who are taking the exam as part of the final for a language course, or who have already met the qualifications requirements for a language, however, need not register for the exam.

A fee of $2.00 for undergraduates, and six dollars for graduates will be charged.

The exams will be administered at 7:30 p.m., as follows:

French — Olin 155
German — Olin 255
Spanish — Olin 165
Russian — Olin 145

Battery-Powered — Wally E. Rippel grad (at left) works with his team of Cornell University students on the electric motor they hope will win the First International Electric Vehicle Race for them next August. Other students are (from left): Jane Hershey '72; Peter Lord Jr. '71; Mark S. Hoffman '70, and Foster D. Hinshaw '70.

It's primary objective," he said, "is to help develop electric vehicle technology as a long range alternative to combustion powered systems. During the next 50 years, combustion processes could entirely ruin our planet. Even smog-free combustion engines must by nature emit carbon dioxide into the atmosphere, which in time will likely cause adverse changes in global weather, not to mention what may happen to all living things.

Other reasons for promoting electric vehicle technology, he said, is that electric energy is cheaper than gasoline energy and electrical systems last longer and require less maintenance than combustion engines.

Disability Coverage

Continued from Page 1 of this issue.

The report must be supported by the attending physician.

Benefits will be 50 percent of salary, to a maximum of $70. If the employee earns between $20 and $40 per week, the benefit will be $20 per week, and if the employee earns less than $20 per week, the benefit will be equal to the employee's weekly earnings. Earnings will be determined by averaging the wages of eight weeks of employment prior to the onset of the illness or injury.
Editor's Note:
In the December 11, 1969 edition of Cornell Chronicle, an "open letter to seniors" column, from Jack Fei, Arts '71, was printed. In that letter, Fei stated "I have filed charges with the Judicial Administrator Joseph B. Bugliari..." The Judicial Administrator Joseph B. Bugliari has replied to Fei and has made a copy of the reply available to Cornell Chronicle.

Dear Mr. Fei,

After careful review of your "Statement of Charges," I have found circumstances surrounding the events of November 13, 1969, I find no basis for any charges against any University official under the Rules for the Maintenance of Public Order.

Leaving the Rules for a minute, it is a fundamental legal principle that a law enforcer has the absolute right to act on any of his premises as well as access thereto and egress therefrom. More specifically, in Chapter 237 of the Laws of New York, 1914, vests Cornell University with a "complete control" over all its land upon which it rests. Thus, the University can clearly control all access to and egress from any portion or all of Barton Hall or any other University property in any legally permissible manner it might choose.

However, as you point out in Article II, Section 2(b), the regulations clearly state that "The University recognizes the rights of freedom of speech and of peaceful assembly or demonstration shall be conducted at such a time, in such a place, and in such a manner so as to conform to the principles and regulations herein set forth."

And Article VII (2) states that "Nothing contained in these regulations shall be deemed to impair the right of the University to take such action as may be necessary for purposes of order and safety."

This principle has been invoked in the vest in the University, through its duly authorized officials, the right to take such action as they deem necessary, of order and safety. They have the right to limit the time and place and manner of any demonstration to preserve the rights conferred on others under the law. They have a right to maintain order and safety. In making these administrative decisions, obviously some latitude and discretion must be exercised. The mere fact that a wiser course of action might have been chosen, particularly with the use of 20-20 hindsight, cannot be the test. Only when the course of action is clearly inappropriate or unnecessary so as to amount to an abuse of discretion would the administrators involved be subject to possible sanction under the Rules.

First the using of a roped off area to delineate where and when demonstrations could carry out their demonstrative actions, as, noted, within the power of the administrators and such as is done in the case of a paraple, here placement cannot be called an abuse of discretion. If this be so, it hardly can be urged that the ropes should not be in place before the demonstrators arrived.

Secondly, while for the sake of argument let us assume the worse course when the demonstrators did arrive and marched into the roped off area some 22 minutes before the scheduled drill, would have been the moment to the start of the drill to order them from the area, it must be remembered that the University also has no prior knowledge of the exact nature of the demonstrators' plan and so it should not be considered that any physical force was used to remove the demonstrators. Under these circumstances and the wisdom of the response, it was not so inappropriate as to amount to an abuse of discretion.

Finally, you assert that the presence and actions of University officials, uniformed Safety Division patrolmen and University photographers taking photographs constituted a harassment and threat of physical force limiting your participation in the demonstration. This contention is absolutely without merit. Presumably, you do not object to the presence of the University patrolmen and photographers. You cannot object to the presence of the demonstrators too. You have a right of free speech and peaceful assembly under the First Amendment. The University also has a right to keep track of all events which take place on its premises for the purpose of dealing with any violations of its regulations or of laws that may occur. Moreover, participation in a public demonstration clearly puts the participants under University community scrutiny. It is one of the prices of participation to bring your cause to public attention. The University has no advanced knowledge of exactly what would transpire, the presence of Campus Patrol was clearly in order. Nor is it necessary to note that there was any actual threat of force or violence. Rather, all the proof is to the contrary, i.e. the University sought scrupulously to avoid physical confrontation. Any threat of force would appear to have been only in your imagination.

In summary, I find no violation by University officials of the Rules for the Maintenance of Public Order.

Joseph B. Bugliari Judicial Administrator Editor

After talking to several people about the Chronicle, I have decided to write a "Letter to the Editors." We have one complaint about the paper. It needs a summary, index, or whatever you want to call it to help us find it.

Most of us just don't have time to read the entire paper through on Thursday when it is delivered. The first fact, if one keeps to the front page until Saturday to be read in its entirety. The front page is always skinned, I'm sure, and I have found that many times I have been spuriously buried on page three which really interested me, but I just never got to it until too late. The fact is, we're all busy people, and it just would help to have just a hint on the front page as to where we should look first, for our individual interests.

We think the Chronicle is a very worthwhile endeavor, and appreciate the work that goes into it. We think the response, it was buried on page three which really interested me, but I just never got to it until too late. The fact is, we're all busy people, and it just would help to have just a hint on the front page as to where we should look first, for our individual interests.

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Office of the Dean
Offers Sex Counseling

Cornell's Office of the Dean of Students has begun to publicize counseling on "medical and social aspects of sex."

In a letter from the Dean's office to all students living in University residences, fraternities and sororities make clear that the University and community agencies offering counseling and advice were presented. The list includes various groups such as the Clergy Consultation Service on Problem Pregnancies, the National Organization of Women (NOW), and the Planned Parenthood of Tompkins County.

"We have the general conviction that more information and openness is needed in this area," Ann Shumate, assistant dean of students, said. Miss Shumate heads a committee of students and Department of Counseling concerned with sex education on campus.

While no hard figures were available, Miss Shumate said there was a noticeable need for more sex counseling for students. "Students are hesitant to come to a University office for counseling on problems of contraceptives and pregnancy," she said.

In addition to the letter, the Office of the Dean of Students will offer two programs in sex education in February for dormitory staff members.

More Staff
For Chronicle

With this issue, Michael Rosenbaum joins the staff of the Cornell Chronicle as editorial assistant. Rosenbaum is a graduate of the School of Industrial and Labor Relations, Cornell, Class of 1969. He is former assistant managing editor of The Cornell Daily Sun, and was a reporter for the Rochester Democrat and Chronicle.

Spring Term Registration

Registration is scheduled for Friday, January 30. Registration materials will not be mailed and will be available starting Monday, and until January 20.

Students from the College of Arts and Sciences, the New York State College of Agriculture, basic science divisions, and the Graduate School may pick up registration material in the Office of the Registrar, 240 Day Hall. Other divisions may get material for registration at their school offices.

Ombudsman

The Ombudsman will have office hours from 10 a.m. to 11 a.m. on Tuesday, January 13, at 10 a.m. and 11 a.m. on October 26, in office 240, Sage Hall.
**Calendar January 8-21**

**Thursday, January 8**

7 and 9:15 p.m. *Film. The Incredible Shrinking Man. with Grant Williams and Randy Stewart. Goldwin Smith Cinematheque. Cornell University Cinema, sponsor. Goldwin Smith D.

**Friday, January 9**

4:30 p.m. Colloquium. "Do Such Results Justify the Cost?" Thomas Gold, director of the Center for Radiophysics and Space Research, speaking on the scientific results of the Apollo 11 mission. Rockefeller Hall A.


7 and 9 p.m. *Films. The Wrong Box (at 7 p.m.). and Cat Ballou (at 9 p.m.). (Attendance limited to Cornell community.) Cornell Cinema Society, sponsor. Ives 120.

7 and 9:15 p.m. *Film. The Night They Raided Minsky's. with Jason Robards and Britt Eckland. Cornell University Cinema, sponsor. Alice Statler Auditorium.

8 p.m. *Freshman Hockey. Fergus All Stars. Lynah Rink.

**Saturday, January 10**

1:30 and 3 p.m. *Wrestling. Freshman and Varsity vs. Harvard. Barton Hall.

2 p.m. *Junior Varsity Hockey. Colgate. Lynah Rink.

2 p.m. Varsity Fencing. New York University. Teagle Hall.


7 p.m. *Freshman Hockey. St. Jerome's. Lynah Rink.

7 and 9 p.m. *Films. The Wrong Box and Cat Ballou (see Jan. 9). Ives 120.

7 and 9:15 p.m. *Film. The Night They Raided Minsky's. (see Jan. 9). Alice Statler Auditorium.


**Monday, January 12**

Final Examinations Begin (ending January 20, 1970).

**Tuesday, January 13**


**Wednesday, January 14**

4:30 p.m. University Faculty Meeting. Ives 120.


**Thursday, January 15**

7 and 9:15 p.m. *Film. Forbidden Planet. with Walter Pidgeon and Anne Francis. Goldwin Smith Cinematheque. Cornell University Cinema, sponsor. Goldwin Smith D.

**Friday, January 16**

7 and 9:15 p.m. *Film. Three Into Two Won't Go. directed by Peter Hall, with Rod Steiger and Claire Bloom. Cornell University Cinema, sponsor. Alice Statler Auditorium.

**Saturday, January 17**

7 and 9:15 p.m. *Film. Three Into Two Won't Go (see Jan. 16). Alice Statler Auditorium.

**Sunday, January 18**


7 and 9:15 p.m. *Film. Night At The Funny House.