

Memories From the SEAS Time Capsules

The Twelfth Decade: 1975-1984



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New York Moments

The Twelfth Decade: 1975-1984



FORD TO CITY: DROP DEAD

Vows He'll Veto Any Bail-Out



**Abe, Carey
Rip Stand**

**Stocks Skid,
Dow Down 12**

Three pages of stories
begin on page 3; full text
of Ford's speech on page 28

President Ford gives his message at Washington's National Press Club yesterday.

- 1975 – The federal response to hard financial times in New York City is reflected in the headline (which, though not a direct quote, gets to the heart of the issue in a very direct New York way).



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New York Moments

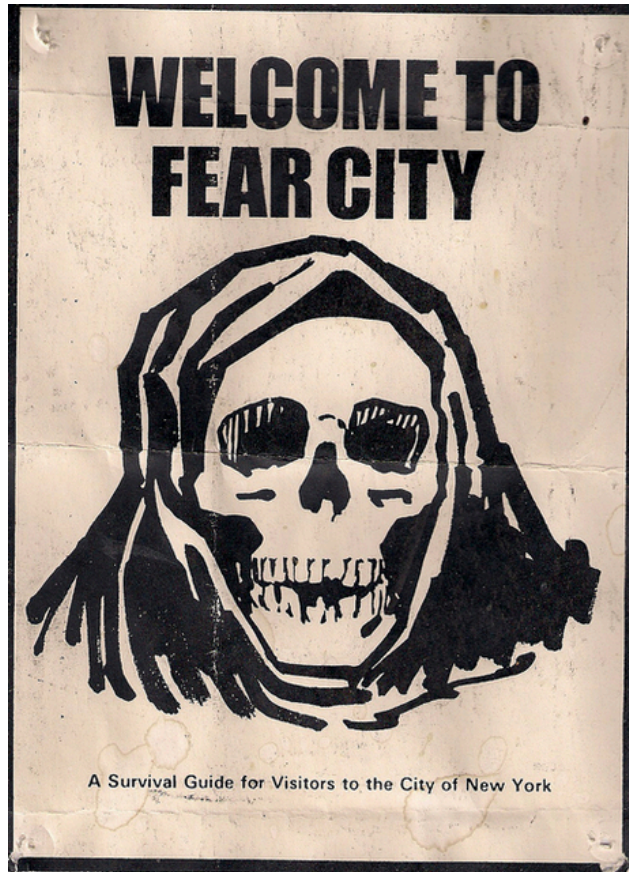
The Twelfth Decade: 1975-1984



- Sights like this are becoming more common in New York City.

New York Moments

The Twelfth Decade: 1975-1984



- 1975 - *Fear City: A Survival Guide for Visitors to the City of New York* is published by the NYC Council for Public Safety. This is another sign of the grim times.
- Tips meant to be “helpful” for outsiders include:
 - **Stay off the streets after 6 p.m.** — “Muggings and occasional murders are on the increase during the early evening hours.”
 - **Do not walk** — “Try not to go out alone.”
 - **Avoid public transportation** — “Subway crime is so high that the City recently had to close off the rear half of each train in the evening so that the passengers could huddle together and be better protected.”
 - **Remain in Manhattan** — “Restrict your travel to daylight hours.”
 - **Protect your property** — “The city is urging everyone to engrave identifying numbers on all property.”
 - **Safeguard your handbag** — “Never let it out of your hands; above all, never let it out of your sight.”
 - **Conceal property in automobiles** – “Remember too that auto thefts have increased this year.”
 - **Do not leave valuables in your hotel room**, and do not depot them in hotel vault – “Hotel robberies have become virtually uncontrollable.”
 - **Be aware of fire hazards** – “Try to avoid buildings that are not completely fireproof.”



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A Hewlett-Packard pocket calculator is a gift for a lifetime.

The HP-35 Electronic Slide Rule.

Performs all basic arithmetic, trig and log calculations automatically. Has an Addressable Memory, displays 10 digits in fixed decimal or scientific notation, automatically positions decimal point throughout its 200-decade range. Cost, \$225*

The HP-45 Advanced Scientific.

Performs 44 scientific functions including vector arithmetic, rectangular to polar conversion, mean and standard deviation. Has 9 Addressable Memories. At \$325* it's the pre-programmed calculator for all scientists, engineers and students of science and engineering.

The HP-65 Fully Programmable.

The world's only fully programmable pocket calculator. You can write, edit and record programs up to 100-steps long. You can take advantage of HP pre-recorded programs, so you gain the speed/accuracy benefits of programming without writing your own. Performs 51 pre-programmed functions. Cost, \$795*

The HP-70 Business.

Performs all sorts of general business, interest, financial management, lending, borrowing and saving calculations—precisely, quickly, easily. A Financial Memory Bank lets you enter numbers in any order and change them anytime. Has 2 Addressable Memories and a very affordable price, \$275*

The HP-80 Financial.

Performs virtually all time/money calculations in seconds. Has a 200-year calendar, an Addressable Memory. Lets you make new kinds of management calculations that enable you to make better decisions. Cost, \$395*



*All HP pocket calculators have Hewlett-Packard's patented RPN logic system with 4 Memory Stack. Prices exclude state and local taxes.

Make this a special Christmas. Ask for an instrument crafted to last your working lifetime and designed to solve the problems you can expect to encounter throughout that lifetime.

Circle the HP pocket calculator that's right for you, then slip this ad to you-know-who. They can call us toll-free at (800) 538-7922 (In Calif. call (800) 662-9862) for the name, address and telephone number of a nearby HP dealer.

HEWLETT HP PACKARD
Sales and service from 112 offices in 65 countries

- Ad for HP “pocket” calculators from the 1975 *Columbia Engineer* yearbook.
- The HP-35 is called an electronic slide rule, showing the transition from old slide rule technology.

From the SEAS Time Capsules

The Twelfth Decade: 1975-1984



- Minicomputers start becoming popular in the late 1960s for local computation and for analysis in laboratories, and last into the 1990s.
- Shown, a minicomputer from Data General Corporation, founded by former employees of Digital Equipment Corporation (DEC) which is the leader in minicomputers; photo from the 1975 *Columbia Engineer* yearbook.



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- “Live from New York, it’s Saturday Night!”
- This is first said by Chevy Chase, on *Saturday Night Live*'s first show on October 11, 1975.
- The first cast is shown on the left.
- Many begin getting their news and news commentary from the enlightened weekly *Weekend Update* feature (below).



From the SEAS Time Capsules

The Twelfth Decade: 1975-1984



- The Engineering Library, showing the stairway from the 4th floor of Mudd to the 3rd floor library space; photo from the 1976 *Columbia Engineer* yearbook.
- Updates:
 - In the late 1990's, the 3rd floor library space was converted to offices and labs for biomedical engineering.
 - Starting in 2014, the 4th floor library space is converted to offices for data sciences, as the Engineering Library is integrated with the science libraries and relocated to the Northwest Corner Building.



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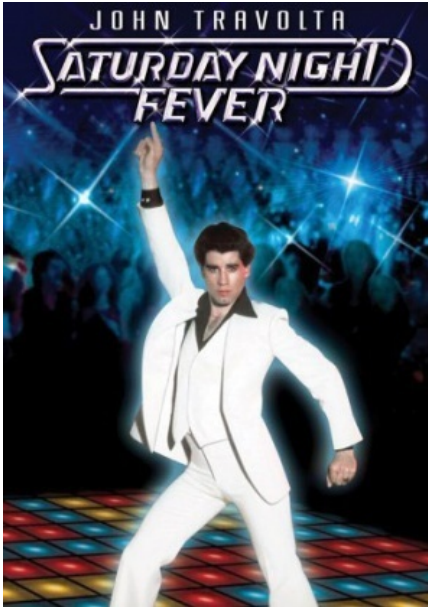
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- Disco evolves and flourishes in New York City.
- In December, 1977, the movie *Saturday Night Fever* is released. It expands the popularity of disco, by way of a coming-of-age theme in the City.
- From 1977 to 1981, Studio 54 helps promote disco music and culture, as it skyrockets to international fame.



<http://mothersofbrothers.com/wp-content/uploads/2011/06/snf.jpg>

http://38.media.tumblr.com/bc45389e48d34f26fd57439fd31e905b/tumblr_mwletvvXcW1qgwi7to1_1280.jpg



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- Getting nourishment; photo from the 1977 *Columbia Engineer* yearbook.



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New York Moments

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- High-profile crime is on the minds of New Yorkers:

- From the summer of 1976 to August 10, 1977 the “Son of Sam” terrorizes the City.
- December 8, 1980 – John Lennon is killed in front of his home at the Dakota Apartments.

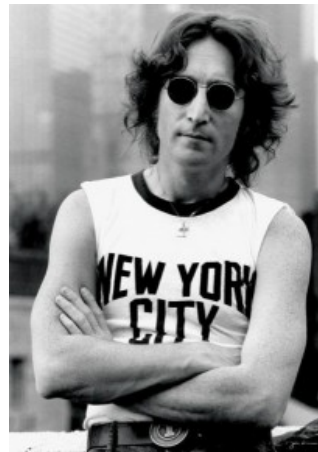


Photo: Bob Gruen

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The Twelfth Decade: 1975-1984



- Personal computers become widely used.
- Shown are some of the first mass-marketed products, starting in 1977.



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The Twelfth Decade: 1975-1984

Engineering revamp proposed



Peter Likins
...drafted proposal

By ANN KOSHEL

Plans for a major departmental reorganization at the School of Engineering and Applied Sciences will be presented to the central administration this week, according to Engineering Dean Peter Likins, author of the proposal.

The plan calls for the establishment of a new Department of Applied Physics and Nuclear Engineering. Also in the proposal is the merger of the Industrial Management and Engineering Department with the Operations Research Program into a new department of Industrial Engineering and Operations Research.

The new structure will result in seven departments at engineering instead of the current six. Mechanical Engineering, currently aligned with Nuclear Engineering, will remain a separate department under the proposed change.

- 1978 – Dean Peter Likins proposes, and later gets approval for, two major changes in SEAS.
 - He founds the Applied Physics and Nuclear Engineering (APNE) Department by combining the Plasma Physics Committee, an interdepartmental doctoral program, with the existing Division of Nuclear Science and Engineering, which had been aligned with the Mechanical Engineering Department.
 - He merges the Industrial Management and Engineering Department with the Operations Research Program, which had been in the Civil Engineering Department, into the new Department of Industrial Engineering and Operations Research (IEOR).



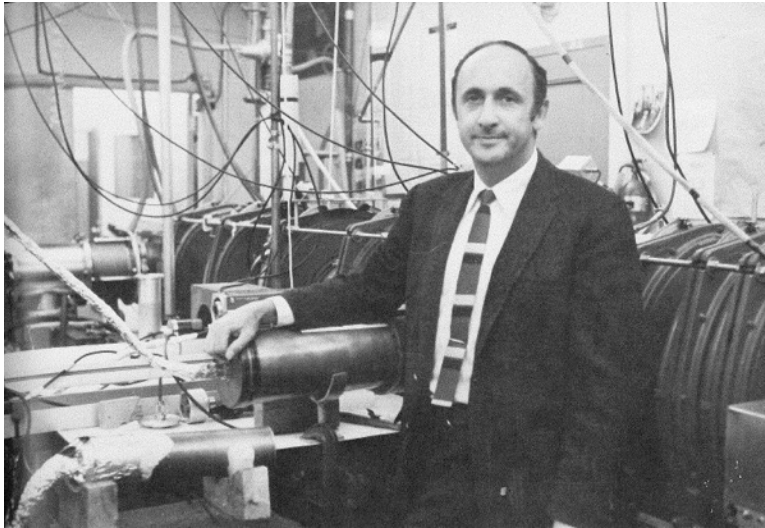
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- 1978 – The Applied Physics and Nuclear Engineering (APNE) Department begins, with Prof. Robert Gross (photo) as the founding chair.
- Prof. C.K. Chu leads department expansion into solid state physics and applied mathematics in 1984.
- After the nuclear engineering program ends, APNE becomes Applied Physics (AP) in 1990.
- AP becomes the Department of Applied Physics and Applied Mathematics (APAM) in 1998 to reflect the faculty's commitment to scholarship in both applied physics and applied mathematics; this is partially fueled by the Fu Foundation endowment donated to SEAS.



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- 1979 – The Department of Computer Science is established, with Prof. Joseph Traub as founding chair.
- 1983 – The new Computer Science Building, adjoining the Mudd Building, opens. The headline is from the Feb. 11, 1983 *Spectator*.

Comp sci home nearly done;
to finish under \$5.6 million

By JULIUS GENACHOWSKI



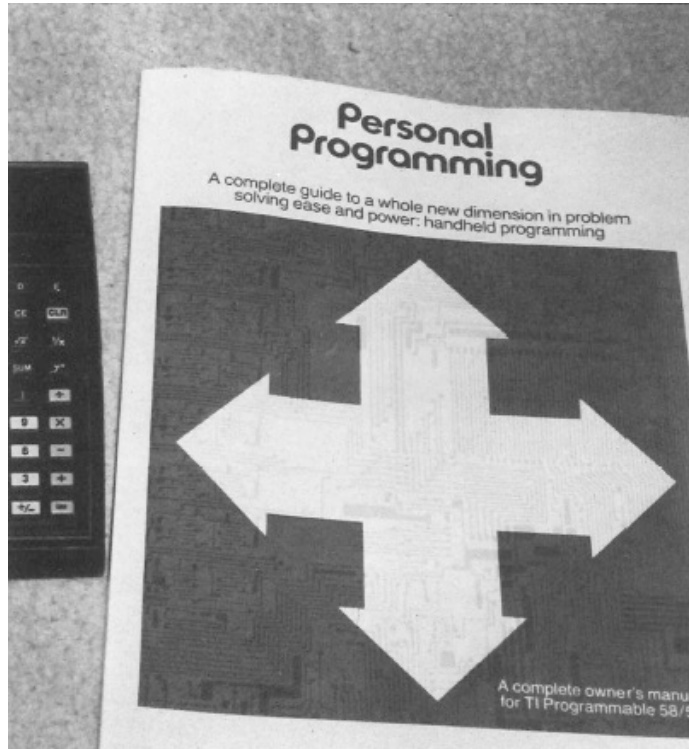
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- The widespread use of handheld calculators for programming changes how engineering is done; the photo is from the 1980 *Columbia Engineer* yearbook.

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The Twelfth Decade: 1975-1984

Carousing at Camp Columbia



- A reunion at Camp Columbia, by then used once a year for alumni functions; the photo is from the Fall 1981 issue of the *Columbia Engineering Alumni Times*.



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Training Minority Engineers for the Future



- Prof. Frank DiMaggio shows Rafael Cordero J.H.S. students a compression test on a concrete pillar in the Carleton Strength of Materials Laboratory; the image is from the Fall 1981 issue of the *Columbia Engineering Alumni Times*.



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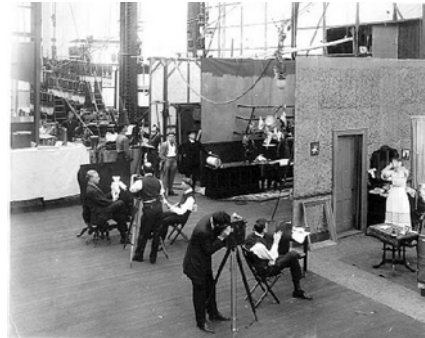
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New York Moments

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- 1982 - New York City takes title to the film studio property in Astoria, Queens, and leases it to a partnership headed by George S. Kaufman, a real estate developer, and entertainers Alan King and Johnny Carson. The space is renamed the Kaufman Astoria Studios.
 - The studio was originally built in 1920 to provide the company with a facility close to the Broadway theater district. Many features and short subjects were filmed there between 1920 and 1933, along with *The Cocoanuts* (1929) and *Animal Crackers* (1930), the first two Marx Brothers films. Earlier, hundreds of films had been produced at Edison's early production company in the Bronx (lower photos).
 - In 1942, the U.S. Army Signal Corps Army Pictorial Service took over the studio for the making of Army training films until 1971.
- Television shows filmed at the studio have included *Sesame Street* and *Where in the World Is Carmen Sandiego?*, and some episodes of *Judge Judy*, *The Cosby Show*, and *Law & Order*.



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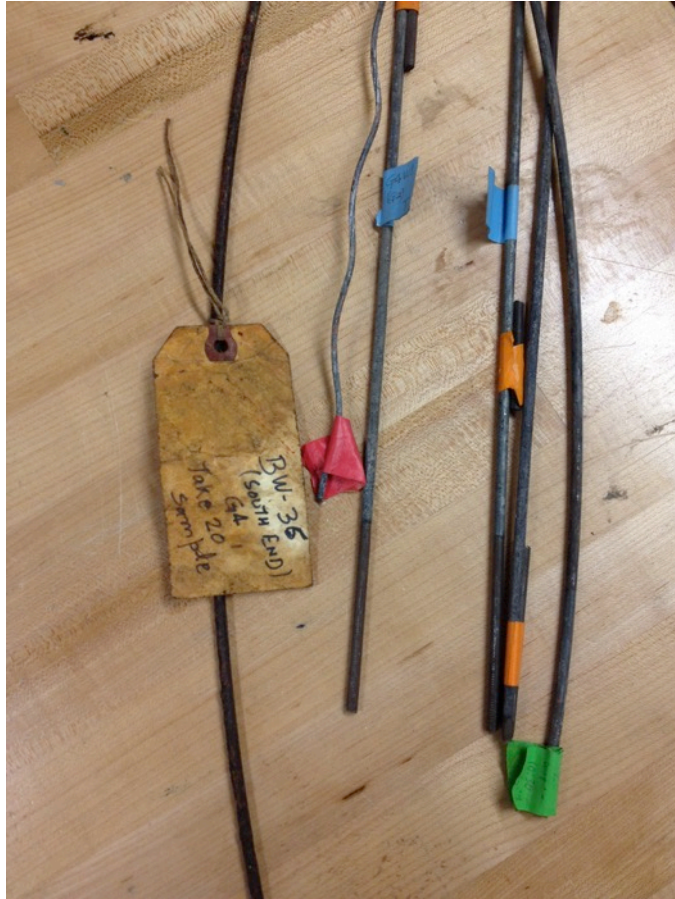
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On December 3, 2013, a 34,800 square foot backlot was dedicated, the only studio backlot in New York City.

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- 1982 – Investigation of cables from the suspended spans of the Manhattan Bridge in the Carleton Laboratory.
- Strands from other bridges, including the Brooklyn and Triborough Bridges, have been continually tested in the Carleton Laboratory.

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- Scenes from the SEAS library, photos from the 1977 (upper) and 1982 (lower) *Columbia Engineer* yearbooks.



From the SEAS Time Capsules

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- 1982 – “Father of the Nuclear Navy” Admiral Hyman Rickover, who had attended SEAS, succinctly outlines his management philosophy in a speech at Columbia University; excerpts follow.

“Human experience shows that people, not organizations or management systems, get things done. For this reason, subordinates must be given authority and responsibility early in their careers. In this way they develop quickly and can help the manager do his work. The manager, of course, remains ultimately responsible and must accept the blame if subordinates make mistakes.”

“Complex jobs cannot be accomplished effectively with transients. Therefore, a manager must make the work challenging and rewarding so that his people will remain with the organization for many years. This allows it to benefit fully from their knowledge, experience, and corporate memory.

The Defense Department does not recognize the need for continuity in important jobs. It rotates officer every few years both at headquarters and in the field. The same applies to their civilian superiors.

This system virtually ensures inexperience and nonaccountability. By the time an officer has begun to learn a job, it is time for him to rotate. Under this system, incumbents can blame their problems on predecessors.”



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- 1983 – A tribology experiment by Mech. Eng. Prof. Coda Pan will be performed in the first flight of Spacelab 1 (a reusable lab), due to fly aboard the Space Shuttle Challenger at the end of October, as reported by the Sept. 1983 *Alumni Times*.
 - The mission STS-9 launched on Nov. 28, 1983 aboard the Space Shuttle Columbia, and Pan’s “Bearing Lubricant Wetting, Spreading and Operating Characteristics in Zero-G” experiment was performed.

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- 1984 – Wares of the Engineering Boutique, as displayed in the August 1984 *Alumni Times*.



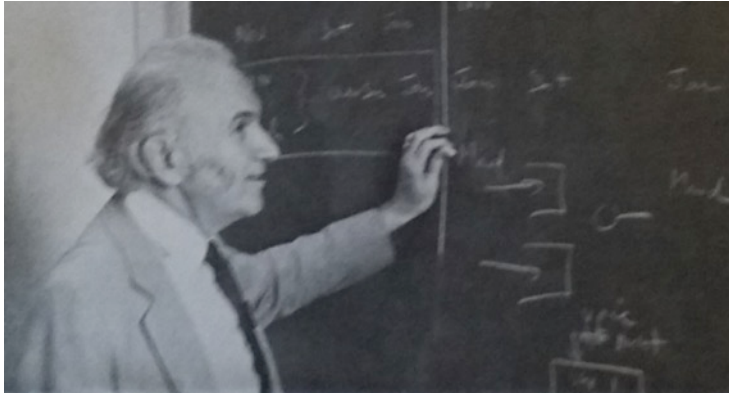
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- April, 1984 – Four Columbians are named to the IEEE Electrical Engineering Centennial Hall of Fame to honor the most outstanding electrical engineers of the century, as reported by the August 1984 *Alumni Times*. 30 are elected: 10 as educators, 10 as technical contributors, and 10 as industrial contributors. Of them:
 - Three educators are from Columbia: Mischa Schwartz (shown), Michael I. Pupin, and Jacob Millman.
 - The fourth from Columbia is Edwin Howard Armstrong, elected as a technical contributor for his many inventions.
- Columbia is represented more than any other university.
- Others elected include Ampere, Bardeen, Bell, De Forest, Edison, Faraday, Henry, Hertz, Hewlett, Marconi, Maxwell, Noyce, Ohm, Packard, Sarnoff, Shannon, Siemens, Steinmetz, Tesla, and Westinghouse.



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New York Moments

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- 1984 – In the movie “Ghostbusters” parapsychology “scientists” save New York City.
- The “scientists” are shown to be based at Columbia University (but not in SEAS) (before being kicked out and saving the City).



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