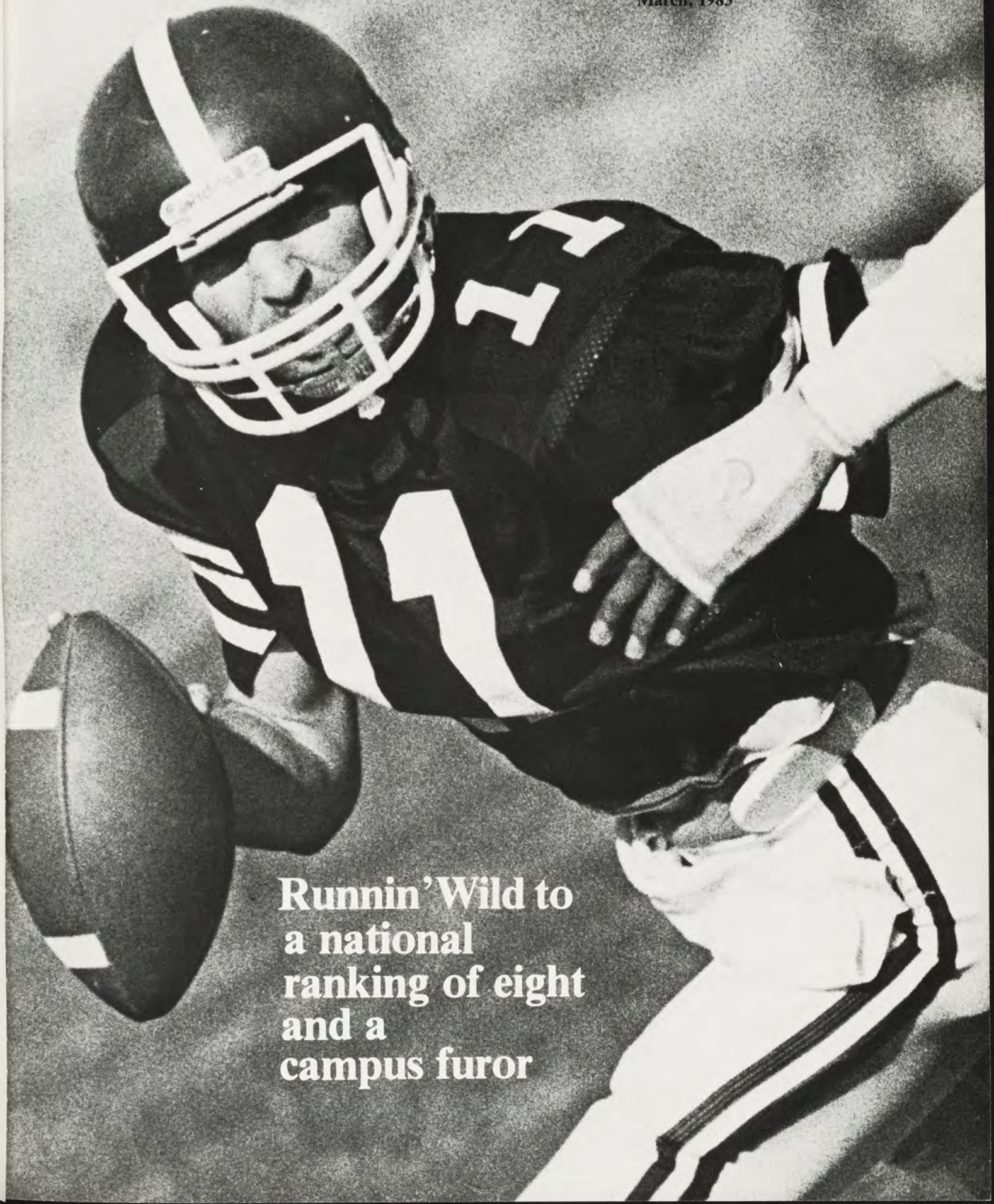
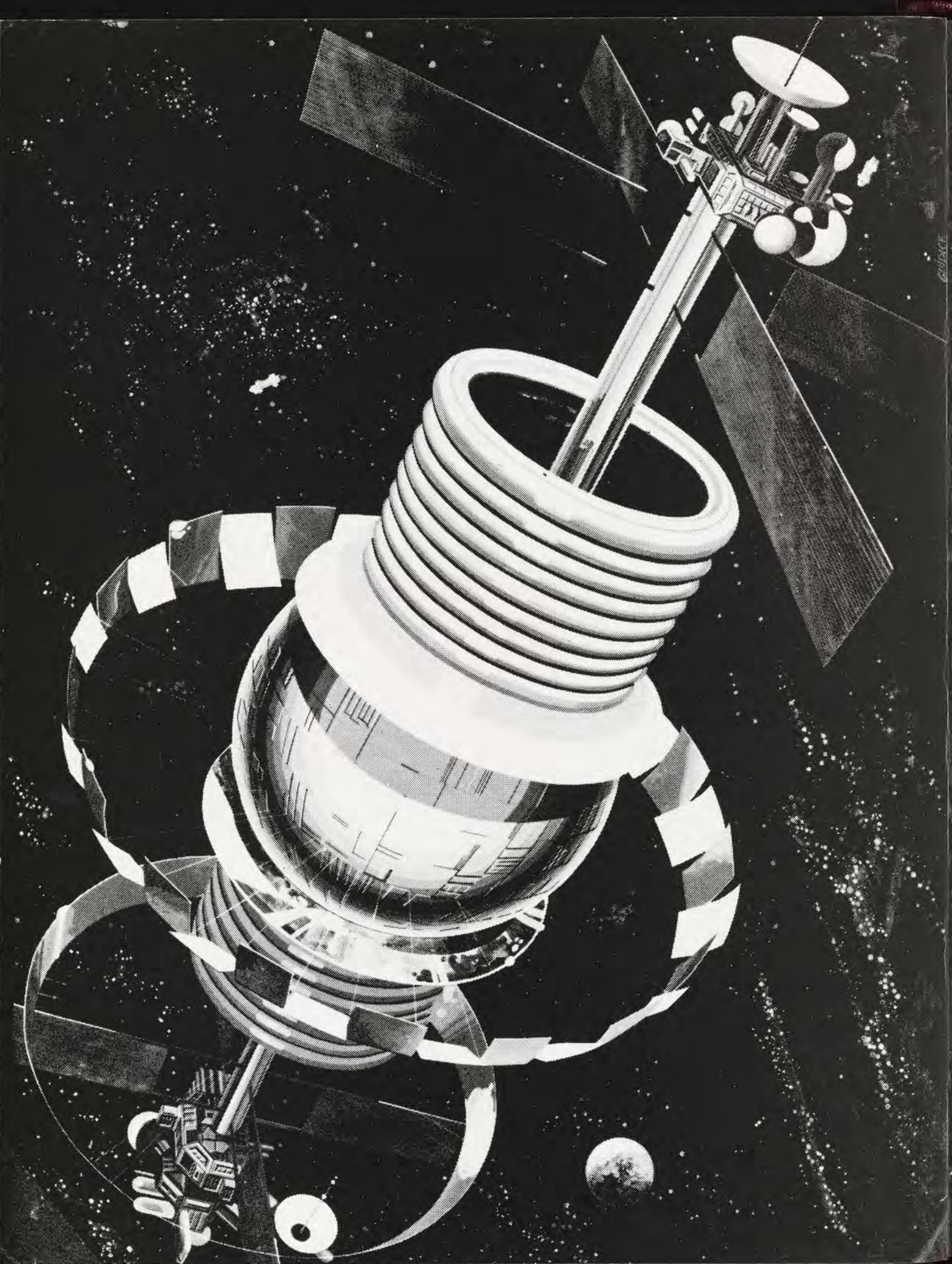
# Swarthmore College Bulletin

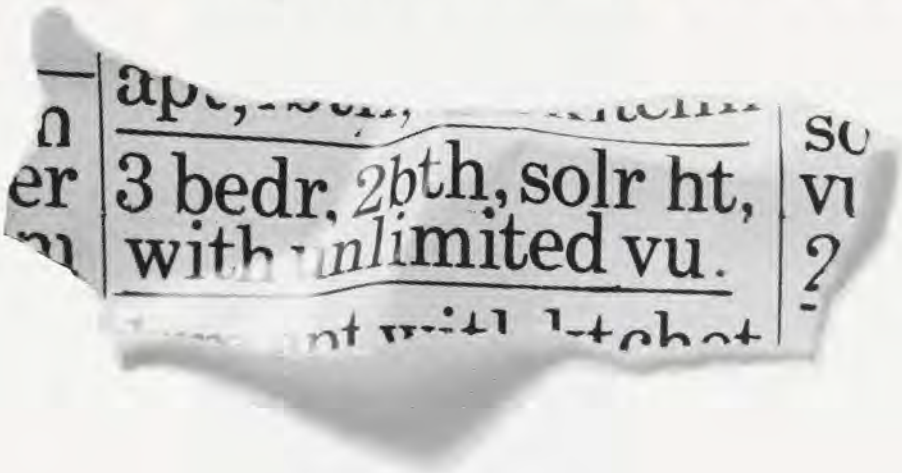
March, 1983



## Runnin' Wild to a national ranking of eight and a campus furor



# Living in outer space? Physicist Gerard O'Neill '50 predicts it will be possible before the end of this century. More than that—he believes it is imperative.




*By Nancy Smith*

In a modest office suite over an optometrist's shop on Nassau Street in Princeton, a small group of very bright people is planning your future.

This is the home of the Space Studies Institute, a nonprofit corporation established in 1977 to fund projects in space research without drawing on government money. The institute is the creation of Gerard K. O'Neill '50, a professor of physics at Princeton University and author of *The High Frontier* and *2081: A Hopeful View of the Human Future*. O'Neill has blazed into prominence in the field of national and international space planning within the past fifteen years, notably because of his advocacy of the feasibility of space colonies.

"We *can* colonize space, and do so without robbing or harming anyone or polluting anything," says O'Neill. "The technology is available now, and if work is begun soon, nearly all our industrial activity could be moved away from the Earth's fragile biosphere within less than a century."

But putting humans in space is only the means to more ambitious goals. O'Neill believes that the migration of people and industry into space will encourage self-sufficiency, small-scale governmental units, cultural diversity, and a high degree of independence. These are themes he returns to again and again in his writings and his conversation.

*"Island One," which has a circumference of about one mile, would house agricultural areas and industries. Mirrors reflect sunshine into the habitat.*

The walls of the Space Studies Institute are decorated with large poster-like paintings of proposed colonies and manufacturing facilities—"Island One," an advanced-stage colony, looking rather like a gigantic sparkplug, surrounded by farming pods and solar mirrors; delicate filigree structures stretching thousands of meters out from a central capsule-shaped habitat; stacks of donut-like glass structures containing fields or other agricultural systems. Any reader of science fiction will recognize the style. But this is not science fiction. These are serious scientific blueprints for places in which people can live and work in outer space, and the staff of SSI is going to help us get there if we want to go.

The primary objective of SSI, says O'Neill, is to conduct and support "leading-edge research essential to opening the resources of space for human benefit within this century. Research supported by SSI has shown theoretically that there can be material trapped in the Earth's orbit around the sun, material that would be easy to retrieve and mine." Another SSI grant (of $100,000 to Rockwell International, builders of the NASA shuttle) supported the chemistry research for designing a chemical processing plant for space. This plant would separate lunar soil into oxygen, aluminum, and silicon —and the silicon could be used for solar cells in a sun-powered satellite. Still another grant is sponsoring construction of a prototype mass-driver, an electromagnetic launch device. Future mass-drivers could project materials from the moon into space, haul freight between orbits, or retrieve mineral-rich asteroids.

Not only is all of this possible, it is financially within our grasp. "Our research has shown," says O'Neill, "that we can reach, benefit from, and settle the High Frontier for an investment cost no greater than that of such private ventures as the Alaska pipeline."

The concept of space colonization is not new, and O'Neill directs the curious to the inspired work of Konstantin Tsiolkovsky, Robert Goddard, J. D. Bernal, and Dandridge Cole as the most "accurately prophetic." But serious work on human habitation in space, he notes, could not have begun earlier than 1969, when the first Apollo samples of lunar soil were returned to the Earth and their possibilities determined.

In that same year, and purely as a classroom exercise, O'Neill asked the students in his elementary physics class the question: "Is a planetary surface really the best place for an expanding technological civilization?" After extensive review, the pupils concluded that the answer might be "no," and that an ideal solution pointed to extraterrestrial manufacturing facilities—or space colonies.

For several years thereafter, O'Neill pursued this line of research on his own. The more he looked, the more the facts and figures kept falling into place. "You start working on something, expecting the numbers to shoot it down, and instead the numbers keep coming up right." By 1974, O'Neill was convinced that workers operating from a space

colony could construct solar satellite power stations using materials obtained from lunar soil, soil which could be removed at a relatively low cost by a mass-driver based on the moon. The power stations could then be located in orbit and could supply energy for the Earth through low-density microwave beams.

O'Neill's work took a giant step forward when the first conference on space manufacturing was held at Princeton in 1974. In that same year he published an article called "The Colonization of Space" in *Physics Today*—the first technical article on the subject, and one which had an explosive effect on the scientific community and the general public. A door was opened which could never again be closed.

In 1975 government support for the research began, a much larger conference was held at Princeton, and a serious summer study program was initiated, sponsored by NASA, Stanford University, and the American Society for Engineering Education. All O'Neill's findings from his six years of calculation at Princeton were given to the summer study for examination. The participants in the study concluded with a unanimous endorsement of the basic concept of space colonization, and recommended that concrete projects be initiated. With the establishment of the Space Studies Institute, work on projects such as the mass-driver and the chemical processing plant got under way. O'Neill and his colleagues hope to have a model of the mass-driver ready to display to the next space manufacturing conference in May.

While the primary rationale for space colonies is economic—the need for profitable earnings and for clean energy sources on Earth—much of the popular interest in them is based on a fascination with the Earthlike possibilities for the colonies and on their implications for human development and progress.

In 1977 O'Neill published *The High Frontier*, "the space colonists' Bible" (reissued in 1982, with new preface and appendices). In it, he outlined what we might expect to see in our own lifetimes. The prototypical colony could be shaped like a sphere; it will spin to create an artificial sense of gravity, rotating every twenty to sixty seconds. Inside the colony there will be "valleys" containing houses, soil, streams, forests, village clusters, and gardens. The constant sunlight of space can be let in for a day-length chosen by the colonists, following a 24-hour cycle.

*Baseball-sized payloads of lunar minerals leave the mass-driver to be caught at manufacturing stations in space.*

Simply by varying the day-length, the weather and climate can be varied; one colony may be balmy and tropical, another crisp and Alpine; eventually, scientists should be able to create Earthlike clouds and rainstorms.

The first establishment will be a massive laboratory, a jumping-off stage for further building and development. This will be a "small" unit, housing about 2,000 pioneers and technicians, and would be located in a high circular orbit between the Earth and the moon. As much bigger colonies would be more expensive per acre, later colonies will remain village-size, or at least expand to no more than 20,000 to 50,000 inhabitants. It is absolutely fundamental to O'Neill's thinking that space colonies remain manageable, even intimate.

While he is meticulous and precise about scientific details, he is cautious in making predictions—or suggestions—about life styles. "I'm very careful not to specify anything about the details of how people will choose to live. That's up to them. I'm trying to provide a technological option which people can use in order to develop their own ways of living."

In addition to the initial laboratory satellite, there would be a small outpost on the moon itself. Samples of lunar soil brought back to Earth have contained more than 12 percent aluminum, along with iron, magnesium, and other metals. Lunar soil is also rich in oxygen, which could be combined with hydrogen to make water or simply used for breathing.

Once the labor force is in place, continued construction in space will be expensive. Zero gravity and the availability of limitless sunlight which is directly convertible to electricity will greatly reduce the costs and ease the work. Silicon, needed for solar cells, is very expensive and rare on earth, but plentiful on the moon. Electrical energy provided by the first working solar satellite will allow the project to begin paying for itself.

The lynchpin in the plan for mining moondust is the mass-driver. It is a computer-designed array of drive coils forming an accelerator 250 meters long. It accelerates moving coils called "buckets," and the buckets carry baseball-size payloads of sintered lunar soil. When each bucket reaches a velocity of 1½ miles per second, its load is released to continue soaring alone on its way. The moon minerals are then caught, separated into components, and used to construct the solar satellite.

"Only the initial colonies would use lunar materials," says O'Neill. "After that the colonists could chip away at the asteroids which are rich in iron, nickel, carbon, nitrogen, and hydrogen." With the eventual mining of the asteroids, he sees an almost unlimited future for man's expansion into the universe.

Though Senator William Proxmire sniped at O'Neill, saying, "Not one penny

for this nutty fantasy!" O'Neill's NASA funding for the work continued until he decided, in 1980, that following the twists and turns of government policy was too constraining for research. Hence SSI.

O'Neill's projections have captured the imagination of a large band of enthusiasts. Since the publication of his first paper he has been carried along on a wave of public awareness and interest. He is a sought-after speaker at colleges and universities, has appeared on TV and spoken on the radio, and has been written up in scores of newspapers and magazines. In addition to his regular academic work at Princeton and the time he puts in as president of SSI, O'Neill clocks about twenty hours flying time each month, piloting his own Cherokee Arrow to and from personal appearances around the country.

He has a Diamond Badge for his exploits in gliding, including soaring 500 kilometers during an eight-hour flight. As a child, he was fascinated by aviation. "I loved planes, as lots of kids do, and at the same time I was very taken by the science fiction movies of the '40s—the Buck Rogers era. You must remember that for someone of my age—I graduated from high school in 1944—my formative years were tremendously affected by the Second World War. I joined the Navy on my seventeenth birthday." In the Navy he was trained as a radar technician. Later he studied physics at Swarthmore, and was introduced to the pleasures of astronomy by Peter van de Kamp. "After the war, information started coming out about the V-2 rockets; it was obvious that someone would soon go into orbit."

Today O'Neill is internationally known not only as a designer of space systems but also for his research in one of the most productive areas of physics—that in which beams of high energy particles are fired head-on at one another. Among his accomplishments is the development of storage rings for high energy particle accelerators—devices that produce the highest energy particle collisions ever achieved by man.

During the '60s O'Neill became intrigued by the opportunities of space. When NASA was expanding its Apollo project to include personnel who were not military test pilots, he applied (along with about 1,000 others) to be a scientist-astronaut. He reached the short list in 1967 but the entire program was severely cut by Congress just one month later. O'Neill is not a man to waste time on regrets: "I don't think any of the things I could have done as an astronaut would have made nearly as much of a contribution as I can hope to make with the humanization of space."

The space colony concept is not without its critics. Aside from those who simply think the idea won't ever get off the ground, there are others who believe that O'Neill is far too optimistic in his cost estimates, or that he has not thoroughly evaluated all the problems of trying to create a completely controlled ecology. But for O'Neill the idea is not a whim or a luxury. It is a process which *must* take place to prevent the catastrophe of the "steady-state" society, a world threatened by limited resources, energy shortages, famine, police states, and military disaster. But he isn't offering a Utopia. "Many people are excited by space colonies because they feel that somehow the personal ills of humankind will fall away when we can live in them. I'm afraid I see no reason why that should be true. People in space will be going through the same sorts of personal problems that they have here.

"But the space-colony concept does address the big issues: two major sources of conflict here on the surface of the Earth. One of them is territoriality and the other is scale.

"Territoriality first. If you read *African Genesis*, or look at history, or read a daily newspaper, you see examples of military conflict based on territoriality. No nation on Earth can enlarge its land area without crossing a border and going to war, and it's an insoluble problem because land cannot be expanded, moved, or changed. But space colonies are creatable. If you become cramped, you can build a new colony, make new territory, without going to war.

"And I think the question of scale is a very important one. The evidence is that human beings can get along with each other perfectly well when they are in community-size units, when they sense

*This drawing depicts a residential area in the "Crystal Palace," a maximum sunlit agricultural habitat.*

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that real power is in their own hands and not elsewhere. I think that a lot of the serious problems of government—of the remoteness of government, of disinterest of the governing in the governed—are problems of scale."

When corresponding with an illustrator for one of his publications, O'Neill urged the artist to "keep the scale small and human. The whole idea is *not* to be monumental. The shops should be small—boutiques, bookshops, tiny restaurants. . . ."

O'Neill, who is probably weary of hearing himself described as trim and youthful-looking, is a trim and youthful-looking man of great presence. He is not particularly tall, but gives the impression of height and dominance. He is patient and quiet-voiced, yet leaves his listeners a little breathless, as though a whirlwind has passed close by. There is nothing of the zealot about him, but his calm conviction conveys its own dynamic. "The truth is," he says, "that technology has great power, power which can be used either for good or for bad—and that means you have a correspondingly great responsibility for what you do with it. If you have a powerful tool that can be used in two ways, you have the responsibility not to misuse it for ill, and the responsibility not to *fail* to use it properly by neglect."

In the 1970s, according to O'Neill, our great sins were the sins of omission—things we could and should have done but didn't. Such as? Magnetic flight, for one thing, a high speed transportation system based on magnetic levitation that could carry people at 1,000 m.p.h. It does not require air around it for flight, so it can operate almost without drag. It is a system that would burn no oil, create no pollution, and have twenty times the energy efficiency of a jet plane. "For ten years we did absolutely nothing in this field while the Germans and the Japanese

Dear Brian and Nancy:

I can understand that you want to hear from someone who's working and living in space before deciding whether to make the commitment yourselves. According to your letter, you've reached the "finals" in the selection process now. The next step will be the admission interview. After that, if you get an offer, you'll have to decide whether to go for the six-months' training.

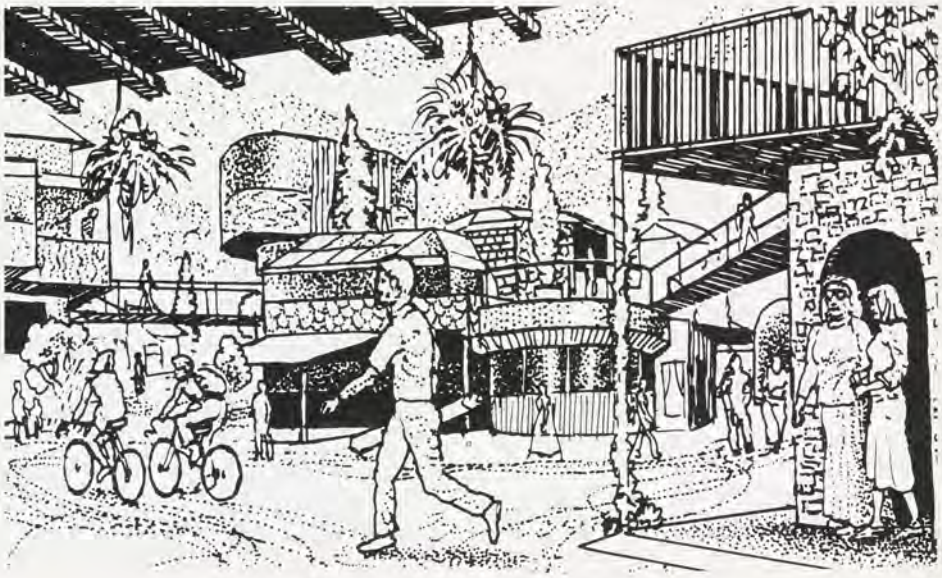
Then there's the big step of the first space flight, the three-weeks' stay in low orbit. By now the flight itself is quite routine; you'll find that the single-stage shuttle interior is much like that of one of the smaller commercial jets; there'll be 150 of you traveling together. The g-forces will be higher than in commercial aviation, but still nothing to worry you. The trip into orbit will take only about twenty minutes, and then you'll experience something really new: zero gravity. You may feel queasy at first—as if you were on a ship at sea. The purpose of the three-week trial period is to sort out cases of severe space-sickness and to find out whether you are among those who can adapt to commuting each day between normal gravity and zero. That's important because our homes are in gravity obtained by rotation—here in the colony we are held to the ground by centrifugal force, which pulls us to the outer shell of the habitat. But many of us work in the construction industry, which is conducted outside the habitat where there is no gravity at all. Those who can adapt to rapid change qualify for higher-paying jobs. The trial period also gives a person the chance to decide "this is not for me."

After the three weeks, you'll be ready to transfer to one of the "liners" on its next trip in.

In the colony orbit, the biggest things you'll see will be the solar satellite power stations being assembled to supply energy for the earth. Those power stations are about ten times as big as the colonies themselves. You won't see much detail from the outside of the colonies because they're shielded against cosmic rays, solar flares and meteoroids by a thick layer of material, mainly slag, which occurs as a waste product from the processing of lunar soil to obtain construction materials.

All the habitats are variations of basic sphere, cylinder, or ring shapes. We live in Bernal Alpha, a sphere about 500 meters in diameter whose inside circumference is nearly a mile at its "equator." We have track races and bicycle races that use the ring pathway. That path wanders all the way round, generally following the equator, and near it is our little river. Bernal Alpha rotates once every 32 seconds, so there is earth gravity at the equator. The land forms a big curving valley, rising from the equator to 45-degree "lines of latitude" on each side. The land area is mostly covered with low-rise, terraced apartments, shopping walkways, and small parks. Many services, light industries, and shops are located underground or in a central low-gravity sphere, or are steeply terraced, because we like to preserve most of our land area for grass and parks. Our sunshine comes in at an angle near 45 degrees, rather like midmorning or midafternoon on earth. The day-length, and therefore the climate, are set by our choice of when to admit sunlight. We keep Canaveral time, but two other colonies near us are on different times. All the colonies serve the same industries, so the production operations run twenty-four hours a day, three shifts, but since the workers are on different times, no one has to work the night shift.

Alpha has a Hawaiian climate, so we lead an indoor-outdoor life all year. Our apartment is about the same size as our



plunged ahead. If we do something with magnetic flight in this country, it's going to be with imported technology."

In *2081: A Hopeful View of the Human Future* O'Neill discusses magnetic flight and a great many other delights and conveniences to come: robots in our homes and our factories, bionic medicine, centralized computer services, cities with controlled climates, holographic visits by telephone, and, of course, space colonies containing all the finest pleasures of life on Earth. But above all, O'Neill paints a picture of a world filled with possibilities, in which technology can be used both to widen our horizons and to reduce our institutions to a more human scale.

In *2081*, as in all of O'Neill's projects, "hopeful" is the important word. "I was led to start thinking about space colonies originally by reflecting on the predictions of the Club of Rome—the idea of the limits of growth and the necessity of giving up personal freedom in order to live within a supposed rigorous set of physical laws. It seemed to me that the whole point of opening up the resources of space is to escape from that set of consequences."

O'Neill is impressed by the numbers of young people who speak to him after his lectures and tell him the same thing: His lectures, and the reading they have done on space colonies, have given them new hope, new zest, new enthusiasm.

"Where people are involved," says O'Neill, "there is always the potential for good and for evil, but there seems a good chance that opening the door into space could improve the human condition on Earth. Relieved even a little from the drive to squabble with other nations for the diminishing resources of our planet, we could hope for a more peaceful future than will otherwise be our lot. I think there is reason to hope that the opening of the new High Frontier will challenge the best that is in us."

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old house on earth, and it has a garden Alpha was one of the first colonies to b built, so our trees have had time to grow to a good size.

You'll notice immediately the small scale of things, but for a town of 10,000 people, we're in rather good shape for entertainment: four small cinemas, quite a few good small restaurants and many amateur theatrical and musical groups. It takes only a few minutes to travel over to the neighboring colonies, so we visit them often for movies, concerts or just a change of climate. There are ballet productions on the big stage out in the low-gravity recreational complex that serves all the colonies. Ballet in one-tenth gravity is beautiful to watch: dreamlike, and very graceful. You've seen it on TV, but the reality is even better. Of course, right here in Alpha we have our own low-gravity swimming pools, and our clubrooms for human-powered flight. (You'd really enjoy riding a "bicycle" with flapping wings instead of wheels.) Quite often Jenny and I like to climb the path to the "North Pole" and pedal out along the zero-gravity axis of the sphere for half an hour or so, especially after sunset, when we can see the soft lights from the pathways below.

To go on with our situation, it's a comfortable life here. Fresh vegetables and fruit are in season all the time, because there are agricultural cylinders for each month of the year, each with its own day-length. We grow avocados and papayas in our own garden and never need to use insecticide sprays.

You asked whether we feel isolated. Some of us do get "island fever" to some degree, probably because we're really first-generation immigrants; it never seems to bother the kids that were born here. When you sign your contract there


are clauses that help quite a bit, though. One is the provision for free telephone and videophone time to the earth. Another sets up free transportation to earth and return on a space-available basis. Jenny and I took a six months' leave after our first three years here. Our visit was luxurious, because our salaries are paid in part in earth currency; we're both employed, Jenny as a turbine blade inspector and I in precision assembly. Our housing, food, clothing, and the rest are purchased in colony currency, so our earth salaries just accumulate in the bank. When we went back we had a lot of money to spend, and even on a luxury basis we couldn't go through it in six months.

We found something, though, that may help to answer your basic question: By the time the vacation was nearly over, we were very ready to come back here. We missed our own place. Jenny is an enthusiastic gardener, and though other people were living in our apartment here and taking care of the greenery, she wanted to be at home to enjoy it herself. And I missed the friends I'd been working with. I can best describe the other thing that drew us back by saying that the space habitats are exciting places to be. They're growing and changing so fast that if you're away for six months you've missed a lot. Of the people who came with us, more than half intend to stay after their five-year contract is up. I understand that the settlement of Alaska since its acquisition has had about the same kind of "stay ratio."

Now we're beginning to ask ourselves: Will we want to retire to earth or not? We don't have to face that for another twenty years, but we can see already that it won't be an easy decision. Some of us who are handy with tools have formed a club to design and build our own spacecraft—rather like the home-built aircraft clubs on earth. We're thinking of homesteading one of the smaller asteroids, and the numbers look reasonable. Especially if our daughter and son-in-law decide to come along, with the grandchildren, I think we're more likely to move farther out than to go back.

If you do decide to come out, let us know what flight you'll be on and we'll meet you at the docks. We'd like you to come to our place for supper, and we'll be glad to help you to get settled.

Ed and Jenny

Bernal Alpha Colony
6/24/03

(Reprinted with permission from *The High Frontier* by Gerard K. O'Neill.)

# AMERICA'S FIRST WOMAN IN SPACE

Astronaut Sally Ride prepares for a simulated ejection during a training exercise at the survival training school at Vance Air Force Base in Oklahoma.
(Photos courtesy of NASA.)

# When the space shuttle flies in April, astronaut Sally Ride '72 will be one of the crew.

From the *Delaware County Daily Times* of November 21, 1969: "Sally Ride, an 18-year-old sophomore at Swarthmore College, may one day be the first woman astronaut but for the moment she is the number one woman college tennis player in the East."

Those words were prophetic indeed. When NASA's space shuttle "Challenger" makes its second flight in late April, Sally Ride '72 will become the first American woman in space. (The Russians sent up the first woman astronaut, Valentina Tereshkova, nearly twenty years ago.)

The native Southern Californian came to Swarthmore as a physics major in 1968 and quickly made a name for herself by winning back-to-back crowns in the Invitational Eastern Women's Intercollegiate Tennis Championships in her freshman and sophomore years. As it turned out, she played well enough to consider becoming a professional tennis player, returned to California ("where tennis was easier to play"), and transferred to Stanford University. It was there that she received two bachelor's degrees, in English and physics, and her master's and doctor's degrees in physics.

Her break into the astronaut program came in 1978, when she saw an article in the Stanford student newspaper in which NASA was reported to be looking for shuttle astronauts. More than 8,000 hopefuls applied, including 1,544 women. Thirty-five were selected to join NASA's eighth class, six of them women, one of them Ride.

She completed her training, worked in Toronto with Canadian scientists who developed a "remote arm" for the space shuttle, and traveled to Australia to visit tracking stations there.

She served as a capsule communicator for shuttle flights number two and three, that is, as the go-between astronaut who communicates with the shuttle from Mission Control in Houston, relaying messages from various ground personnel.

It was during the second flight that Ride asked the men in space, "When do I get my turn?"

She's getting her turn fairly early. Some of the seventy-nine active astronauts, including her husband, Steve Hawley, have been waiting more than ten years to go into space. Is Steve jealous that she's going first? "No," Ride said. "The space program has been funded through the decade of the '80s and will include more missions beyond the space shuttle. He'll get his turn."

Commanding her mission will be Navy Captain Robert Crippen, who flew on the maiden flight of the first shuttle, "Columbia," nearly two years ago. Ride's job title will be mission specialist, as will that of the third astronaut, Air Force Lt. Col. John M. Fabian. Among other tasks, the pair will put three satellites into orbit: two communications satellites and one to be used for a "rendevous" test. "We will release the satellite, let it float free, orbit around it, and use the shuttle's mechanical arm to bring it back on board." This, she said, will be the first demonstration that the shuttle has the capability to retrieve payloads in orbit for servicing, etc.

Her specialities as an astrophysicist are X-ray stars (stars which give off high levels of X-ray radiation) and the manner in which those rays are absorbed by clouds in space. These stars are difficult to study from earth where the rays are blocked by the atmosphere, so Ride and other X-ray astronomers usually rely on space satellites and space-born telescopes for their raw data. In the future the space shuttle program is expected to carry into orbit a large telescope that will be perfect for studying X-ray stars.

Ride said she had not given much thought to being a role model as a woman until her recent selection for the shuttle program and the ensuing public relations tours, talks with youngsters at schools, and press conferences. "I've always followed the space program closely," she said. "I could tell you exactly where I was when John Glenn went into space and when Neil Armstrong walked on the moon. I was interested in space but it wasn't anything I built a career around.

Instead I planned to go into research in physics. I wouldn't have known how to prepare for a career as an astronaut even if it had occurred to me to try, since women weren't involved in the space program at the time."

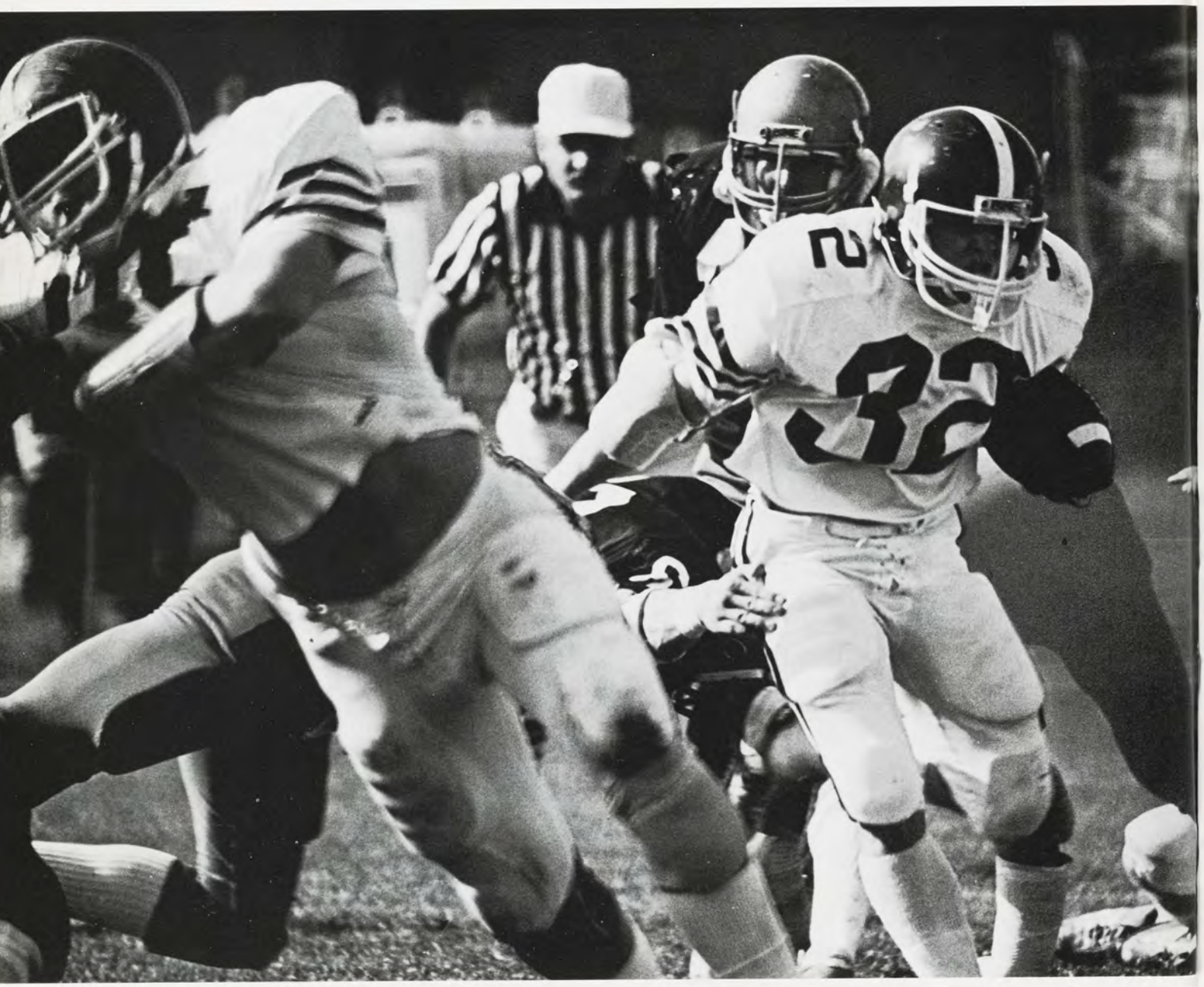
Times change, and her years in the astronaut program and her advice for *anyone* hoping to join the program carry no hint of sexism. "Pick a field you like. NASA has no requirements that you be in superb physical shape or great at anything. There's no 'best' field of study, since the program uses a wide range of the sciences—physics, biology, geology, medicine." She added she hoped she was not picked because she was a woman but because she was a scientist.

Commander Crippen put those doubts to rest in a recent interview. "She's being treated no differently from any other astronaut. She was chosen for the mission because she's good."

*By Maralyn Orbison Gillespie '49*

# THEY PLAYED SKY HIGH

## *The little team that shouldn't proved it could*



"This year we should have been a very weak team," said Coach Tom Lapinski, remembering the 31-12 loss against Trenton State in a preseason scrimmage.

"We had five seniors out for preseason practice," recalls Tri-captain Ed Pinney '83. "Three were starters in '81. We had lost fifteen men, all but one defensive lineman, a quarterback, and a halfback. Eighteen freshmen came out."

"Initially we thought the problem was going to be the defensive line," said Tri-captain Jim Sanderson '83. "All of the defensive line was supposed to return, but we lost one to an injury, one went to Rice as an exchange student for a semester, and two transferred to other institutions."

"Last year we had better players," said Jim Weber '84, "but this year we were 8 and 1."

"The coaches made the most of what we had," said Jeff Leiser '86. "We needed a tight end so they made one out of a freshman halfback. Another freshman, a high school fullback, was converted to an offensive guard. Where they needed size, they moved a 222-pound defensive tackle to the offense and a 232-pound guard to tackle. A reserve tackle became a center. Two quarterbacks became wide receivers, while a starting wide receiver was converted to a right halfback."

With none of the obvious advantages going for them, the players agreed early in the season, "Let's play one game at a time." All but the freshmen remembered the astonishing 7-2 record of the year before, with losses to only Lebanon Valley and the Middle Atlantic Division III champion, Widener—Swarthmore's first winning season since 1966.

The '82 squad was reminiscent in numbers of the '81 squad but not in experience and ability (according to the players' own evaluation). They played Game No. 1 to a 2-0 win over Moravian, scoring a safety in the last twenty-eight seconds of play. As *Phoenix* reporter Jeff Gutkowski '86 saw Freshman Jeff Leiser's break through the Moravian line to smother a punt, his "exertion on that one play was symbolic of the entire Swarthmore defensive effort of the game. If the stellar defense continues to play solidly," he wrote, "it's only a matter of time until Swarthmore's 'self-destruct' offense gets on track."

In Game 2 the defense continued to buy time for the inexperienced offense, as the defense held Lebanon Valley to 10 yards total scoreless offense and beat them 14-0. In Game 3 both offense and defense worked together to down Johns Hopkins 28-10. The inexperienced offensive line had begun to operate as a cohesive unit.

By October 9, when Swarthmore beat Dickinson 14-0, Jim Weber's front page article in the *Phoenix* told the story of the best football record for the partial season since 1916, 4-0; of the defense which held its opponent to negative rushing yardage for the second time in the season and to 83 yards total offense; and of the team tied for first place in its MAC Division.

Weber pointed out: "The defense (1) has not given up a touchdown this year; in fact, it has been 27 quarters since any team has scored a touchdown on the defense; (2) has not given up a rushing touchdown in 45 quarters of play . . . ; (3) has over the past ten games allowed an average of just 4.9 points per game to its opponents (consider that Swarthmore's offense averaged 18.2 over the same period)."

The Gettysburg win the following week was a big one. "We played sky high," said Jim Weber, to an emotional 29-7 victory over the team that had beaten Widener the week before.

The Garnet made it a 6-0 season by defeating Upsala 23-3. The *Phoenix* summarized (on the back page this time): "Well, the morals of this story are (a) Swarthmore isn't a fairy tale team and (b) they aren't to be fooled with." By the time the Garnet beat Ursinus 28-14 for its seventh straight win to make it the first 7-0 team in the 104-year history of football at Swarthmore (in the two former best years, 1939 and 1966, the records were 6-0-1), the Philadelphia *Inquirer* and the *New York Times* had something

*Was winning an embarrassment at Swarthmore? Not for the plucky players, nor the cheering fans who filled the stands, nor a young admirer of Coach Lapinski.*

to say about the team and the College. The Garnet had won too many games, the media said, causing embarrassment to some people at the academically proud institution.

"I get the feeling," Co-captain Sanderson was quoted in the *Inquirer* as saying, "that this campus resents us having a winning team." The *Inquirer* continued: "Members of the football team say that, for the last two years, students and faculty members have been publicly critical of the team, feeling that athletic success detracts from the school's academic reputation. Some players say they are openly insulted and snubbed. Head Coach Tom Lapinski says that his team's success has spawned anti-football sentiment so strong that he might be fired."

The *Inquirer* article also reported on a student-faculty committee that was formed a year ago "to investigate 'tensions' between athletes and non-athletes on campus."

The *New York Times*, in a six-column story headlined "Swarthmore's Shakespearean Cast and Other Tales," shored up its opening premise that "things are close to normal at Swarthmore these days" with this paragraph: "Normality in Swarthmore football has many meanings: It is the current coach, Tom Lapinski, being under fire amid a 7-0 start as were his predecessors during a 34-game losing streak a decade ago; it is a 39-player roster whose college board scores were around the mid 1200's and whose bodies averaged around 190 pounds and under 6 feet." Then it broke the story on Kevin Lagasse, who had just finished his second game under his real name; because his parents did not want him to play football, he had played the first four games under the pseudonym "Rockwell Thisbe." Lagasse performed the role of Thisbe when his Shakespeare class was studying *A Midsummer Night's Dream* and had borrowed the name.

Four days later the Associated Press picked up the story that was to find its way all across the country and as far as Paris and Johannesburg. The lead was: "The undefeated Swarthmore College football team, angered by a review of athletics at the school, refuses to wear the College insignia on its helmets."

The story of Swarthmore's football success had become "cute," as Announcer Douglas Kiker described it, after NBC-TV News sent him to the campus to investigate. His report appeared on Friday, November 12, at 6:30 P.M. EST. Saturday at noon CBS-TV Sports featured the team and the institution on a three-minute segment of a half-hour show in which football at Swarthmore was contrasted to football at Arizona State, scheduled to come off probation in December.

The Philadelphia *Daily News* reported Kiker as saying after his visit to the campus: "Swarthmore is such a center of Quaker intellectualism. They're taught to examine everything. That's why they examined the football team and its suc-

cess. We were stopping students at random in front of the cafeteria, asking them what they thought of the football team. One told me: 'It's like Jean Paul Sartre said, . . .' and he rattled off some quote. It's not often you find that happening."

His counterpart at CBS, Bob Mansbach, after talking to students, faculty, administrators, coaches, and players, was reported by the *Daily News* to have said: "All we're missing is the alumni—and James Michener wasn't available this week. Nor the Governor of Massachusetts, the three Nobel winners, nor the Senator from Michigan."

Swarthmore helped fill the void in the media created by the strike in the National Football League, and as the Baltimore *Sun* commented: "Who needs the NFL? Send Swarthmore to the Super Bowl."

The media's stories were "cute," occasionally inaccurate, frequently distorted; but they almost all made these telling points: Swarthmore is a prestigious academic institution; its football players average college board scores in the 1200's; all of the nine team members who graduated last year are now in law, dental, or business schools, or plan to attend in September, 1983; Swarthmore football players, none on athletic scholarships, play for the fun of it; and the team (when

*Widener was favored "by a nose" to win the MAC Championship, and squad size and depth did overwhelm the Garnet's emotional edge (whipped up by Lapinski at half time) to a 24-7 defeat in the mud.*

*"Go Swat," even a banner in Greek and a cheer beginning "Sophocles, Pericles, Peloponnesian Wars; $X^2$, $Y^2$, $H_2SO_4$," added to a half-time contemplative moment for Eddie Meehan, could not hold back Widener in the battle for the Middle Atlantic Conference Championship.*

the articles appeared) was 7 and 0.

(For a presentation of some of the controversial and philosophical issues involved in football at Swarthmore, please read the second part of this football feature, "Will Success Spoil Swarthmore?" on page fourteen.)

As the media exploited "normality" at Swarthmore, the Garnet continued to win. It took a 25-yard field goal with just 1:45 left in the game to beat Western Maryland 12-10. Perhaps the team had been caught thinking ahead to the following week when it would face Widener in a showdown for the conference championship. The *Delaware County Daily Times* billed the game as the Battle of Route 320. On November 13 chartered busloads of the College community crowded into the Widener stands.

*A supportive father comforts Ed Meehan '84 after Ursinus. Later Halfback Meehan and four teammates were named to the first All-Conference team: Ed Pinney '83 OT, Dom Lepone '85 LB, Jim Sanderson '83 DB, and John Walsh '83 DE. Lapinski was voted MAC (south) Coach of the Year.*

In eight games Swarthmore had given up only two touchdowns to its opponents' offense; it had not beaten Widener since 1969 when Widener was PMC. "We're not the better team on paper," said Lapinski. "Widener is. We're actually weaker this year than last year on paper. Emotionally we're higher than last year. Emotion has made the difference."

"It was the game we were waiting for," said Jeff Selverian, freshman defensive tackle, knowing it would probably be the last football game the two institutions would play because of a MAC realignment scheduled for the fall of 1983.

When the last mud-splattered play was run, Academia's Team lost 24-7; the impossible dream had ended.

As Lapinski commented after the game: "The numbers wore us down. . . . They were just too big for us, too many for us."

"We never expected to achieve what we did," said Sean Crowley '85 in retrospect.

"We won six games in a row last year," said Jeff Seagraves '84. "I sat down with the schedule and asked myself how in hell we were going to do it again this year, and we won eight games in a row."

The answer to how the outnumbered, outsized team with its many inexperienced players, playing out of position, did it, they say, is the coach and his staff.

Lapinski is lauded by the players for his play-making astuteness and his ability to motivate the team. "He's a brilliant offensive play-caller," says one member of the offense. "We would get six to seven brand new offensive plays each week."

"The coaching staff would totally revise our blocking schemes each week, with twenty new pages of plays to add to our play book, which was thick to start with."

"No one in the league has as complicated and intricate an offense and defense."

The team had the plays, and it also had the drive to win, attributable also, the players said, to the coach. "He gets the adrenalin flowing so much you can't help but get excited."

"He's inspiring. I look at how much he puts into it, and I want to give all I have. He's in his office all hours going over films and scouting reports, working out the next game's strategies."

Lapinski, who played a half dozen positions on the University of Delaware team 1962-66, is a full-time biology teacher in a Wilmington, Delaware, high school. He was given the job of bringing the Swarthmore football program out of an eight-year slump that included a 29-game losing streak. His first seasons were 1-7 and 1-7-1. By 1977 he was 4-4-1, then 4-5, 4-4-1, 4-5, and in 1981 7-2. During the first twenty-one games he coached, he was 2-17-2; during the most recent games he coached, he has been 18-5, and four of those losses were to nationally-ranked teams.

With an average of fewer than forty players out for the team year after year, success, explains Lapinski, "depends upon not getting injured. In '81 and '82 we've had two back-to-back seasons in which injuries have been minimal."

Lapinski's weekly Sunday schedule highlights his coaching methods. Before noon he is at his desk doing the routine paper work of reports, statistics, and records, and his three assistants begin looking at yesterday's game films. By four o'clock staff members get together to work until midnight planning strategies for tackling the next opponent. "First we look at personnel. How big are


PHOTOGRAPHS BY STEVE GOLDBLATT '67 AND MARTIN NATVIG.

they and how fast? Where can you create a mismatch (one-on-one where you can beat them on a certain play)? We try to figure out every adjustment they can make to any formation we use. We will devise 16 to 25 formations for each game. Most of our opponents play personnel football; Widener, for example, uses only four formations."

Lapinski sums it up: "If you can gather what your opponents are doing with their personnel and predict where they are going to be, give them the bait, and let them buy it, then you can take it away and catch them with their pants down."

The computer is an essential tool to the coaches, and 25- to 30-foot-long printouts of data, much of it secured by scouts, enable them to predict regularly with 70 percent success (they claim 96 percent against Upsala in '79 when Swarthmore pulled an unexpected 14-3 win).

Swarthmore also scouts itself, an uncommon practice. "Using data from film and charting sheets (every play, defensive and offensive, is charted the way it was run), we put ourselves through the computer in an attempt to find out what our offensive tendencies were. We hope that our opponent does the same thing. Then we try to deviate from those tendencies."

Lapinski further documents the effectiveness of his scouts with this example: Three years ago Villanova, as part of a study of its scouting procedures, asked to borrow Swarthmore's scouting reports, along with those from the University of Pittsburgh and the University of Wisconsin. When Villanova returned the reports to Lapinski, he was told that Swarthmore's were the most thorough of the three.

Commenting on his players' affirmations that he was the reason for their Rocky-like season, Lapinski said: "Character is caught, not taught. If you teach in a disciplined fashion, you will get a disciplined team. Some people call it conservatism: The rules are set; here is your assignment." His players, and his MAC colleagues who named him Coach of the Year, call it first-class coaching.

The '82 season is one the players and many other Swarthmoreans are going to remember the rest of their lives. Never has the media paid so much attention to a Swarthmore team. An alumnus in New York reported that early Monday morning conversations in his law office would start off: "Well, how'd Swarthmore do Saturday?" College administrators' mail was thick with letters from alumni asking what was going on. Alumni sent coach and captains their congratulations. Even people on campus became accustomed to reporters with cameras or pads and pencils wandering around Parrish and the Field House interviewing athlete and non-athlete.

At the end of it all, Jeff Seagraves could still say: "It's great to play football at Swarthmore. There's no high pressure. It's still fun to go out and play where the emphasis is on doing the best you can—winning will follow."

# Will Success Spoil Swarthmore?

## Last fall the glare of national publicity revealed that not all the clashes took place on the field.

*By Nancy Smith*

The headlines told a strange story: "Football surge hurting Swarthmore's image," "College shuns winning," "Winning riles folks at Swarthmore," "Winning tarnishes academic reputation."

A myth has been created and we seem to be stuck with it. Swarthmore may forever be the college which didn't want to have a winning football team.

For a brief time, the story was a hot item on sports pages and in syndicated columns across the country. Even in the funnies: For five days *Tank McNamara*, the so-called Doonesbury of sports cartoons, narrated the dilemma of the staff and students of Swinburne University—"an exclusive private institution"—who were deeply embarrassed by their football team's undefeated season.

All of this unexpected publicity was entertaining—up to a point. On campus, reaction took the form of startled amusement. But many alumni, distressed by reports of lack of support for the team, wrote and telephoned to voice their concern. The general burden of their comment was: "What's wrong with you people? We applaud excellence on the part of Swarthmore students in *any* endeavor!"

Presumably the media would have paid less attention to Swarthmore had it not been for the NFL strike. As it was, the reporters and camera crews descended in force, ravenous for copy and desperate for "color." Lured initially by the Garnet's second miracle season, they stayed to elaborate on the "man-bites-dog" theme of the college which felt a winning football team was incompatible with its academic reputation.

*Does* the Swarthmore community really disapprove of winning football games? Of course not! The crowd of students, faculty, staff, and parents braving icy wind and muddy grounds at Widener University on November 13th certainly weren't there to see the Little Quakers lose! But recent committee studies and reports concerning athletics—specifically, perceived tensions between some athletes and the general college community—have focused attention on the relationship between sports and the rest of the curriculum. These tensions (now generally acknowledged to be a thing of the past) were seized upon by the media and magnified to crisis proportions.

One example, nationally publicized, was the matter of the "SC" logo on the football team's helmets. According to the press, the members of the team were so dismayed by lack of support from the College community that they refused to affix the insignia, declaring they weren't playing for Swarthmore but for themselves and their coach. In fact, the insignia has not been used for at least two seasons, a point easily proven by photographs of the team in action in '80 and '81. The players said the letters kept slipping awry or peeling off and that they weren't attractive; there was no malice involved in not wearing them. After this season's brouhaha about helmet insignia, some team members are enjoying designing an altogether new logo for future use.

Football team members were themselves among the first to refute the media mythology. Interviewed on campus, defensive end Jeff Seagraves '84 said, "The *Inquirer* made us look like a bunch of cry babies. There may have been problems with the College community in the past, but that's over. We're making real progress now." Sean Crowley '85, offensive lineman, declared, "You can't ask for more support than we had from the kids this year." Eddie Meehan '84 summed it up: "We're pretty fed up with this controversy. We just want to go out and enjoy the respect of the community and represent the College. If the insignia means so much to people, I'll wear it on my forehead."

On November 1, 1982, the Philadelphia *Inquirer* carried an article by colum-

*Garnet players celebrate scoring a safety which gave them a 12-10 edge in the game against Western Maryland.*

nist Chuck Newman which was particularly irresponsible in its representation of faculty members as critical of the team and the coach and unsupportive of their efforts. Associate Professor of History Robert S. DuPlessis and Thomas Finholt '83, both of whom were misquoted in the article, wrote a three-page letter to the newspaper protesting that the quotations attributed to them "were taken out of context or truncated." The letter, which was never printed, concluded with the following: "Students at Swarthmore will continue to play football well, dance well, study well, and even take a break now and then. But none will expect that their particular interests and activities qualify her or him for special adulation. There's an interesting story to be written about how Swarthmore students manage to combine an extraordinary range of activities with academic excellence, without expecting any special attention. We thought this was the story we were giving Mr. Newman."

The newspaper did publish a letter from senior Suellen Heath: "The issue on our campus is not that there is no support for our team or that there is not enough support, but that the media have come in and focused on the few people who are indifferent to football rather than the majority who think our winning streak is pretty fantastic and lots of fun to be a part of."

A hand-made banner which hung in the locker room on the day of the Widener game said it best: "To beat or not to beat. There *is* no question."

But the myth dies hard, and the insistence even now that Swarthmore is either about to give up football, fire the coach, or both, continues to haunt the College community.

The relationship of athletics, and of the football program in particular, to the rest of the College has been a topic for philosophic consideration on campus for a long time. "Football has been associated throughout its history at Swarthmore with debates about what sort of college we wanted to have," observes Robert C. Bannister, professor of history. "This is not a new issue. If you look at the College at the time of the introduction of the Honors Program in the early twenties, and look at it again a decade later, you can see that the biggest change isn't so much in Honors as in the football schedule."

Recently, some members of the College community have been critical of what they perceive to be a new era of professionalism and intensity in athletics at Swarthmore, an escalation of recruitment activities, particularly in football. To use a popular expression, there is some fear that there has been a deliberate attempt to "change the character of the place."

In August, 1981, then-President Theodore Friend charged the Committee on Physical Education and Athletics (a standing committee of the faculty chaired by Harold Pagliaro, professor of English, and composed of faculty, students, and administrators) with three important topics for review:

1. *Intercollegiate athletics:* What is the appropriate balance between full-time and part-time coaching in intercollegiate sports? Between varsity and club teams? Between intercollegiate sports and the intramural program?

2. *Social integration:* How may such social and personal tensions as are perceived to exist between athletes and non-athletes, both as individuals and as groups, be reasonably reduced?

3. *Athletic recruitment:* What ought to be the relation of the athletic program to admissions?

The first two of these topics were assigned to subcommittees for discussion. The first subcommittee was chaired by Charles E. Gilbert, professor of political science, the second by Robert Bannister. The third topic was referred to the Committee on Admissions and Scholarships, chaired by Patrick Henry, professor of religion. Each of the reports ultimately presented by these groups reflected a compromise of differing views, but they underscored areas of common concern.

It is important to emphasize here that the "campus tensions" referred to in the following excerpts peaked in 1980-81 and have receded dramatically since then. Also, by the time a problem becomes so serious that committees have been convened to investigate it, naturally-occurring curative or restorative forces have begun to take effect. Pendulums swing in short arcs at Swarthmore.

Of the concerns identified by the committee and subcommittees, perhaps the most disquieting was the tension found to exist between football players (or a circle or circles in which football players are prominent) and other social and intellectual interests. There were allegations of aggressive intolerance on all sides. It was alleged too that football figured prominently (though not exclusively) in a separate and unconstructive, even destructive, campus subculture. There was general agreement that the pressures and practices of recruitment for football contributed critically to this condition in social behavior and academic performance.

The Bannister subcommittee noted that the "tensions are widely perceived to be unacceptable, particularly at an institution with Swarthmore's traditions and goals. Interviews with varsity athletes confirmed the fact that many, especially males in the contact sports, feel stigmatized and alienated and to some degree isolated by what they perceive as negative stereotyping and lack of support from other members of the College community." (It is important to note here that only 17.4 percent of the students who responded to a College-wide questionnaire considered the problems at Swarthmore to be "worse than elsewhere.")

On the other hand, large numbers of non-athletes cited as a cause of the tension the "in-group exclusiveness of athletes on and off the field—i.e., in the dining hall, in fraternities, at parties, etc." Further, resentment was reported among some male athletes that too much attention and too many resources were directed to football at the expense of other sports. (This was qualified as "perhaps better described as a peeve than a source of tension.")

Another dimension is the element of female vs. male athletes. Historically, some tension here may be a legacy of attempts (now accomplished) to achieve parity between women's and men's sports.

There have been suggestions that the "segregation" or "isolation" of the football players has been thrust upon them, and indeed certain logistical circumstances tend to foster separation. Prospective team members are frequently given "special" campus tours by members of the current team when they come to Swarthmore as candidates for admission. By the time of freshmen orientation, the football squad has already been on campus for nearly a week. While their new classmates are exploring the Ville, touring dorms, and getting to know each other, the football players and other fall team athletes are busy with practice and already eating their meals out of phase with other freshmen.

David A. Walter '62, associate dean of admissions, believes that some contact-sport athletes have the impression they are regarded as alienated by their peers

and professors. "True or not, it's an unhappy thought, but they may feel unwelcome and ostracised." To the argument that athletes have an excellent record of graduation, he replies: "We use graduation as a yardstick for survival. But have they really survived happily while in College? Has their education been affected? Have we done our best for them? We have to be very careful that we don't *force* them to be exclusive."

The concept of a "football subculture" is troubling to many people. There are many sub-sets or interest groups at Swarthmore—musicians, feminists, computerniks, members of religious organizations. While musicians are recruited as good students who are also musicians, there is a persistent supposition that football players are recruited first as football players without adequate regard to academic qualifications. The report of the committee chaired by Patrick Henry stated: "The committee's discussions, and our interviews . . . have persuaded us that most campus suspicion of lowered admissions standards centers on the football team." However, in a letter written to the *Phoenix* Mr. Henry emphasized: "Our report carefully and circumstantially refutes that suspicion."

Athletic recruiting is another controversial topic. The extent of recruiting activities at Swarthmore among the various sports varies widely. In some cases a coach does little more than send a letter or two to a prospective candidate, while in other cases hundreds of hours of a coach's time are spent specifically in recruiting. Overall, athletic recruiting at Swarthmore is still low-key, and several recruited students indicated that this low-key approach attracted them to the College. Dean of Admissions Bob Barr reports that approximately 10 percent of the applicant pool learned of Swarthmore initially through athletic recruitment contacts.

All the evidence suggests that recruiting across the country has become generally intense and integral to coaching, that it is not at all limited to football or to men's sports, and that it is accepted, with or without enthusiasm, by the coaching staffs as a fact of professional life. Coaches of major men's and women's sports say categorically that Swarthmore could not successfully compete in them without serious attention to recruiting; very few of the outstanding players in most sports today are "walk-ons," i.e., not recruited in some sense or degree.

Recruiting pressures are most demanding in football if only because of the size of the squads. Further, Swarthmore competes for players against many institutions with which it could not compete seriously in games.




According to last year's report of the Committee on Admissions and Scholarships: "Athletes are not misled about what they should expect at Swarthmore,

although some speak feelingly about their surprise at discovering disdain for their involvement and accomplishments in athletics." The report continues: "We believe that the football coach, the Department of Physical Education and Athletics, and the Admissions Office are sensitive to the paramount need for keeping recruiting efforts within the general framework of College admissions policy."

The question of balancing part-time and full-time appointments for coaching was considered with relation to all sports at all levels but focused most sharply on football because of an unusual proposal. In 1981 a concerned alumnus offered to fund a five-year experiment to re-establish the head football coach's job as a full-time teaching post (the full-time position had been eliminated in 1975). The person hired would have been expected to coach at least one other sport (in the spring) and to teach physical education courses. This proposal, designed to integrate football more effectively into the life of the College and to broaden the range of recruiting, would have eliminated the part-time position now occupied by Tom Lapinski, whose principal employment is as a biology teacher at a high school in Wilmington, Delaware.

The offer (and the tensions mentioned earlier) provided tempting grist for the rumor mill. Although Swarthmore employed a full-time football coach regularly through 1974, the 1981 proposal was viewed by some on campus as an attempt to upgrade football, to give it greater prominence than it already enjoyed. Others saw in it a Machiavellian scheme to fire the coach, since the salary range of the position might not have been attractive to Lapinski. While all three reports found merit in the idea, it was deemed equally beneficial to continue the present arrangement. The recommendation has been tabled for the time being. When announcing the re-appointment of Lapinski as coach for the 1983 season, President David Fraser said: "I believe that the football program can, and will, be increasingly well integrated into the College as a whole under the present system. Tom Lapinski has been an excellent coach. He is a fine teacher, not only with outstanding technical skill but also with a remarkable ability to inspire his players."

Although Swarthmore has played intercollegiate football at its present scale for a long time without disproportionate incidence of serious injury, there has been concern that the small size of the squad could compromise the safety of the players. The fear is that the men might conceal fatigue or injuries in order to continue playing, or not report injuries so frequently as they should to avoid letting their teammates down. This is a central concern, and a matter which impinges on both recruitment and admissions.

David B. Smoyer, chairman of the Department of Physical Education and Athletics, observes: "Our low rate of injury necessarily involves some luck, but it is also a tribute to the superb condition of the players." Thomas Blackburn, professor of English and former dean, adds: "Swarthmore students are too intelligent to indulge in bravado, and with Doug Weiss in the training room, they are doubly protected."

There is a sense, especially among people who have been around Swarthmore for a while, that the integration of the sports program into the life of the College isn't being handled so gracefully as in the past. Peter Thompson, professor of chemistry and faculty advisor to the football team, recalls the days of Saturday classes: Chemistry classes met on Tuesdays, Thursdays, and Saturdays, with quizzes normally scheduled for the Saturday sessions. "Lots of times a member of the chemistry faculty would ride the bus with the football players on the way to a game and give them their quiz on the way.

"There used to be a kind of elegance in the way students handled their sports involvement. I had a student in my physical chemistry seminar about fifteen years ago—when jackets and ties were still worn to class. He came to me one week and asked if we could have our seminar break at 3 o'clock instead of 3:30; I said sure. He left on time, returning at about 3:45, still in jacket and tie, and rejoined the group without comment. I didn't learn until later that he'd gone down to the field house and pinned an opponent in a wrestling match. I can't conceive of anything like that happening now."

As for the nationally broadcast myth of Swarthmore not wanting to win, Bannister summed up for the many faculty members who like himself attend most home games: "The suggestion that I or anybody else would rather see us lose than win is the craziest idea I've ever heard. People who believe that only show how completely out of touch they are with the College."

Smoyer and many other faculty members have been particularly bothered by the accusation that faculty do not support the teams. Says Smoyer, "At most games, I've seen from fifteen to thirty faculty members. That's pretty impressive, given a total faculty of less than 140, a certain portion of whom don't live in town or are away on leave."

Football is not like other sports. For players and spectators both it has a unique emotional appeal. Among players it inspires enormous exhilaration and camaraderie. "There's no other sport which requires team spirit as football does," says Thompson. "It's something that you simply can't understand if you haven't played on a team."

Patrick Henry: "One of the problems that football creates for Swarthmore is that in terms of national values and traditions, one's response to football is taken as the key to school spirit—one's commitment to things other than strict academics. I haven't heard anybody get excited about the fact that Swarthmore's tennis team has won the MAC championships for the past ten years, and CBS-TV didn't come around to ask why we weren't excited."

Referring to the press's oversimplified and truncated version of some faculty members' attitude toward sports, Henry continues: "Getting excited about football is something that all Americans are expected to do. Very often the things that Swarthmore values are things that the rest of the nation doesn't get excited about. Of course we support athletics. We admire excellence in students in any field. We are proud of their skills as debaters, as artists, as scholars. But we need not be cheering all the time. One of the things some of the faculty value is the right to be *indifferent* to football. Being indifferent is not to despise it, hate it, or to want it off campus. They are pleased if the football team is doing very well, but they don't think that is something to get more excited about than any other group on campus doing its thing well. Some people thought the football team was expecting a special kind of enthusiasm. It seems to me that the College's having, per capita, the second highest number of National Science Foundation fellowship winners (after Caltech) five out of the past seven years is something we have every right to get as excited about—or be as indifferent to."

Peter Thompson: "I'm a little cynical about all this excitement. People are talking as though this were the first time this has ever happened. Remember, we won the MAC Southern Division cham-

*(Continued on page 26 )*

# A high five f

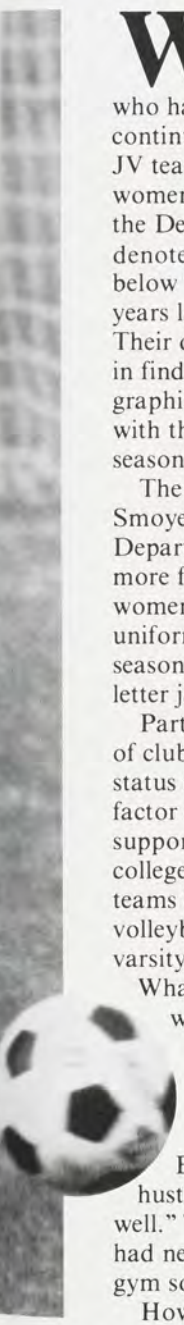
*Three members of the newest varsity sport on campus stretch to a "high five" after their victory over Dickinson, helped along by Charlotte Hartley '84, in action below; Kate Bond '86 and Emily Rothberg '83, warming up; and Coach David Smoyer, giving a half-time critique.*

# for women's soccer

With a 7-6-1 record, the women's intercollegiate soccer team signals a spirited "high five" for its first varsity season. Six years ago two women who had played soccer in high school and wanted to continue the sport at college worked out with the men's JV team. A year later, in 1978, they and twelve other women formed a soccer "club" (a designation used by the Department of Physical Education and Athletics to denote the status of a sport above an "interest group" but below "varsity") and played a three-game schedule. Two years later thirty women played a nine-game season. Their dedication, hard work, continuing interest, success in finding other women's teams within a reasonable geographic distance to play, and ability to be competitive with these teams won them varsity status for the 1982 season.

The rewards for varsity status, explains David B. Smoyer, associate professor and chairman of the Department of Physical Education and Athletics, are more financial support, a coach (although in the case of women's soccer, the team had always had a coach), new uniforms, two officials instead of one at games, pre-season practice, and opportunity to win awards, such as letter jackets.

Part of the reason the department requires three years of club status for any team before it can apply for varsity status is the added expense and the so-called dilution factor (additional teams dilute the pool of athletes who support existing teams), which can be critical in a small college. Swarthmore now fields four women's varsity teams in the fall season: hockey, soccer, tennis, and volleyball; a cross-country club is applying for varsity status.



What is the appeal of soccer for these Swarthmore women? They say it's fast, aggressive, fluid, and easy to learn and understand. Play can be more continuous because a minimum of rules results in fewer infractions. As one player said, "A lot of soccer is pure sports instinct, pure aggression. Effort is pretty much proportional to success. If you hustle, try hard, and run a lot, you are going to do well." These qualities of the sport mean that women who had never kicked a soccer ball or who had played only gym soccer could go out for the team and make it.

How long the inexperienced player will be able to find

# A high five for women's soccer

a spot on the new varsity team is questionable. The desire to better their 7-6-1 record and to insure continuing enthusiasm for the team is pulling coach and players into recruiting practices engaged in by other varsity sports. These low-key efforts involve visiting high school coaches and talking to their players and writing letters to applicants who have expressed interest in soccer. In spite of these efforts, Assistant Coach David Weksler '81 believes "stellar" recruits will be so few in number that there will still be room on the team for beginners.

With three daughters of alumni on the present team, the players have this message for other alumni: Send more soccer players! — *M.O.G.*

*Top, Assistant Coach David Weksler '81, former captain of the men's varsity soccer team, notes a good play by Patty Pesavento '83, above. Right, pre-game huddle breaks up with "Let's go, let's fight, let's win!"*

*Top and left, Liz Varon '85 and Michele Fowler '86, along with teammates and the Dickinson squad shown exchanging after-game handshakes, typify undergraduate enthusiasm for this fastest growing college sport. Said the* New York Times*: "Soccer may well become the game symbolic of our most crucial social change—the emergence of women."*

# THE COLLEGE

Richard M. Hurd '48

Ruth Wilcox Mahler '49

# Five new managers are named to the board

Five new members have been elected to the Swarthmore Board of Managers. They are Richard M. Hurd '48, Ruth Wilcox Mahler '49, Barbara Weber Mather '65, W. Marshall Schmidt '47, and J. Lawrence Shane '56. Two of the new managers, Mahler and Schmidt, were nominated by the Alumni Association and are known as Alumni Managers. Shane replaces Richard Willis '33 as vice chairman of the Board. Both Willis and Julien Cornell '30 were named emeritus members at the group's December meeting.

At the same meeting, the Board reappointed Eugene M. Lang '38 as chairman and Sue Thomas Turner '35 as secretary.

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Richard M. Hurd '48 is recently retired as vice-president/engineering of Bethlehem Steel Corporation, where he had worked since his graduation from the College.

In 1971 he received the Lehigh Valley "Distinguished Engineer" award from the Lehigh Valley Chapter of the Pennsylvania Society of Professional Engineers. That year he was also elected to the Association of Iron and Steel Engineers. He became president of the association in 1976 and continues as a life member.

Hurd served on the board of the American National Metric Council (ANMC) from the time of its organization in 1973, and in 1976 became the first chairman of ANMC following the organization's separation from the American National Standards Institute.

Hurd's other Swarthmore connections include membership on the Alumni Council and co-chairmanship of the College's engineering development committee.

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Ruth Wilcox Mahler '49 was the first woman president of the Swarthmore Alumni Association since its reorganization in 1937, a post she held from 1975 to 1977 after serving a two-year term as the Association's vice-president for women.

More recently, as vice-chair of the Centennial Committee, she helped organize and oversee the myriad programs of the year-long celebration of the Alumni Association's hundredth birthday.

Mahler has served also as chair of the Swarthmore Club of Pittsburgh, secretary of the Alumni Association, and a member of the Alumni Council.

She is creator and proprietor of Sun 'n Sand, a beach shop in Stone Harbor, N.J., and is active in numerous civic organizations in the Swarthmore and Wallingford areas.

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Barbara Weber Mather '65 is a partner in the Philadelphia law firm of Pepper, Hamilton & Scheetz, where she is engaged in commercial and antitrust litigation. She is chairman of the firm's associates committee and a member of the management committee.

In 1977 Mather was appointed by President Jimmy Carter to the Third Panel of the United States Circuit Judge Nominating Commission. She was a lecturer-at-law at the University of Pennsylvania Law School from 1980 through 1982. Mather has served two terms on the Philadelphia Mayor's Commission for Women and is a member of the board of directors of the National Alumni Association of the University of Chicago Law School, where she received her law degree.

Barbara Mather also served on the Alumni Council 1972-75 and 1979-82.

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W. Marshall Schmidt '47, a managing director of the investment banking firm of W. H. Newbold's Son & Company of Philadelphia, served as president of the Alumni Association from 1971 to 1973. During his term he organized the first Alumni College, helped launch the College's student extern program, and restored the traditional five-year reunion plan to Alumni Weekend.

Schmidt has served also as chair of the Alumni Fund, president of the Swarthmore Club of Philadelphia, and more recently chair of the Life Income and Bequest Committee.

Director of the Union League of Philadelphia, he is also president and director of the Children's Country Week Associ-

Barbara Weber Mather '65

W. Marshall Schmidt '47

J. Lawrence Shane '56

ation, the oldest summer residential camp for the underprivileged in America.

Schmidt is a permanent trustee and past chairman of the Securities Industry Association Wharton School Committee and past governor of the Securities Industry Association.

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J. Lawrence Shane '56, executive vice-president/financing and planning of Scott Paper Company, is a former member of the Board of Managers, having served as treasurer and vice chairman and on committees from 1970 to 1981.

Shane joined Scott as a project engineer following his graduation from Swarthmore with a degree in mechanical engineering. After leaves of absence for military service in the U.S. Navy and advanced study at the University of Pennsylvania Wharton Graduate School of Business, he returned to Scott in 1960. He was named treasurer in 1967 and elected vice-president/finance in 1971 before assuming his present position in 1981.

Shane serves on the boards of the Philadelphia National Bank, Drexel Burnham Bond-Debenture Trading Fund and Investment Fund, the Wharton Advisory Committee, and the World Affairs Council.

## College appoints Jon Prime as vice-president for finance

Jon L. Prime, vice president and chief financial officer of St. Louis University, has been named vice president for business and finance and treasurer of the College, effective March 1.

Prime succeeds Lawrence L. Landry, who resigned last summer to become vice president of finance and administration at Southern Methodist University.

In making the announcement of the appointment at the December meeting of the Board of Managers, President David Fraser said, "Swarthmore College is extremely fortunate to get someone of Jon Prime's experience and talents in financial planning and in the operation of an educational institution. He has done a first-rate job as financial planner and administrator at two high quality institutions."

"Jon Prime will bring to his work at Swarthmore an important combination of talents," added Eugene M. Lang '38, Board chairman. "He has not only considerable expertise and experience in the world of educational finance but also a keen understanding of the ethical and social issues that affect and are affected by an institution of higher learning."

Prime has been at St. Louis University since 1981, after serving in various positions at the Rochester Institute of Technology. Most recently, he was R.I.T.'s vice president for finance and administration.

He holds a B.S. degree in business administration and accounting from Bradley University and earned his Ed. M. degree in educational administration from the University of Rochester.

Jon L. Prime

## John Caspar Wister, creator of a campus arboretum, dies

The internationally-renowned dean of American horticulturists, John Caspar Wister, died December 27 at his home in Swarthmore at the age of 95.

At his death Wister was emeritus director of the Arthur Hoyt Scott Horticultural Foundation of the College and of the Tyler Arboretum in Lima, Pa.

Among his many honors, he was the first recipient of four major horticultural awards: the Liberty Hyde Bailey Medal, presented by the American Horticultural Council; the Scott Garden and Horticultural Award; the A.P. Saunders Memorial Medal of the Peony Society, and the Honor and Achievement Award of the International Lilac Society.

Dr. Wister was director of the Scott Foundation for forty years, and it was under his guidance that the Foundation's programs were established. His goal was to create a practical horticultural garden on the College campus, one including hardy plants that could be grown without special care in the climate of eastern Pennsylvania. Many of the collections established under his guidance—daffodils, lilacs, rhododendrons, cherries, and flowering crabs—have a national reputation. Through his efforts the campus became an arboretum, and many amateur gardeners were encouraged in horticulture by this visual demonstration.

For his work with the Scott Foundation and for his many other horticultural achievements, he received an honorary Doctor of Science degree from the College in 1942.

Dr. Wister is survived by his wife, Gertrude Smith Wister, a noted horticulturist who has been assistant director of both the Scott Foundation and the Tyler Arboretum.

## College moves to alleviate alcohol-related problems among students

After the University of North Carolina basketball team won the NCAA championship, jubilant fans celebrated by going on a drinking binge that resulted in thousands of dollars of property damage in dormitories and the town of Chapel Hill.

At the University of South Carolina a little over a year ago, a student drank too much and died during a fraternity hazing.

A recent nationwide survey of college deans commissioned by the *Chronicle of Higher Education* indicated that 15.4 percent of students at private liberal arts colleges drink excessively, and that nearly 20 percent of these students have to leave college because of their alcohol problems.

At Swarthmore, while students' problems with alcohol pale in comparison to reports like those above from around the country, officials agree that there is sufficient cause to be concerned about alcohol abuse on campus.

Citing failure of students to deal with stress and social pressure, Dean Janet Dickerson said, "It's [drinking] become a problem of increasing concern across the country and to us at Swarthmore. When we sat down to analyze the incidents of vandalism and other behavior problems among students on campus, we found that a significant number of them—about 80 percent—were alcohol related."

Trying to alleviate the problem before it becomes serious, Dean Dickerson, along with several student organizations, has taken steps to cut down on the availability of hard liquor on campus.

The Club, the student-run nightclub in the basement of Tarble Social Center, has stopped serving hard alcoholic drinks. Club co-director Bruce Griesenbeck '83 said, "We're trying to make it a place that will attract a wider crowd. We don't want it to be a bar, a place where people come just to drink."

The Budget Committee of Student Council has sharply reduced the amount of money available for social events which feature open bars, finding such expense "an inequitable way to spend the student activities fund money."

According to Dean Dickerson, efforts to work with students through conventional "alcohol education programs" have proven inadequate. Social pressures are far too potent, and posters and earnest speeches produce no tangible results.

"What has been most useful," she said, "is more direct tactics, including attempts to change the nature of parties. We're trying to get students to register their parties, urging planners and organizers to serve food more substantial than pretzels, and we're particularly trying to emphasize the need for supplying attractive, alternative beverages."

Most of these suggestions run counter to the prevailing social fashion, which favors drinking, so few of them have met with enthusiasm.

Said the Dean, "Although excessive drinking is not a major problem on campus, all of us are working on continuing efforts to help students learn to deal more responsibly with alcohol. This, too, is part of education."

*THE END OF THE LINE: The railroad trestle, scene of legendary undergraduate escapades through the decades, is currently undergoing extensive repairs. Spanning Crum Creek, the trestle links sections of track between Swarthmore and Wallingford. Trains operating on the Media Local line are now being halted at Swarthmore and passengers traveling farther west must continue by bus. Trestle repairs should be completed by October.*

## Music and Dance Festival returns for a second year

The second Swarthmore Music and Dance Festival will take place on campus June 10-25. It is being expanded to three weekends of concerts, dance performances, and a series of master classes in dance, piano, viola, and voice for area students of the performing arts.

James D. Freeman, director of the Festival, announced that headliners will include Edward Villella, one of America's most celebrated dancers; Jan De Gaetani, mezzo soprano; Lillian Fuchs, violist; Dan Wagoner and his dance company; Joseph De Pasquale, principal violist of the Philadelphia Orchestra; pianist Lili Kraus, who returns this year to perform Mozart; and Gilbert Kalish, famed chamber pianist.

The Festival schedule also includes world premieres of works by Richard Wernick, Pulitzer Prize winning composer at the University of Pennsylvania; a newly discovered work by Arnold Schoenberg; and a choreography by Dan Wagoner, along with Philadelphia area premieres of works by George Rochberg and Arne Running.

For further information write to the

*At ceremonies dedicating the new Cornell Science and Engineering Library, Julien and Virginia Stratton Cornell (both of the Class of 1930) were presented with a commemorative photograph album by the College's Science Librarian, Emi Horikawa (center). The album contains photographs of the library in various stages of construction, from groundbreaking in June, 1981, to its completion in August, 1982.*

*The dedication was the occasion for speeches and reminiscences by the Cornells; President David Fraser; Horikawa; David Bowler, professor of engineering and chairman of the Division of Natural Sciences; Beverley Bond Potter '55, president of the Associates of the Swarthmore College Libraries; and undergraduate Susan D. Stocker '85. College Librarian Michael J. Durkan was master of ceremonies, and a musical interlude was provided by the Swarthmore College Early Music Ensemble.*

Swarthmore Music and Dance Festival, Swarthmore College, Swarthmore, PA 19081.

## Regional phonathons are a success, thanks to a host of enthusiastic volunteers

In a matter of five short weeks, more than $93,000 in pledges from 1,360 individuals was raised for the Annual Fund by alumni and parents during Swarthmore's fall regional phonathon campaign. Enthusiastic volunteers and an expanded regional schedule account for the overall success. In addition to Boston, New York, and Washington, D.C.—previous phonathon sites—callers gathered in Chicago, Los Angeles, Philadelphia, and San Francisco.

Alumni and students spanning six-and-a-half decades—from Jake Nevyas '19 to Victoria Jordan '85—called classmates and other alumni to solicit contributions for the 1982-83 Annual Fund. Even Chloe Rutter, prospective class of 1991, offered a helping hand in the San Francisco phonathon, assisting her mother, Elisabeth '63, in making calls. A special accolade is deserved by the Class of '65, which provided the most participants in all regions, five of whom served as chairpeople.

A great deal of College news was exchanged—David Fraser's appointment as Swarthmore's twelfth president, the upcoming June reunion weekend, the affiliation of New York alumni with the Cornell Club, alumni receptions in California, and of course, Swarthmore's incredible football team!

Alumni volunteers served as chairpersons in each of the seven cities. Special thanks go to: Glen Kanwit '65, Chicago; C. Russell '47 and Edith de Burlo '50 and Janet Lundquist Steere '56, Boston; David Rowley '65, Philadelphia; Jacqueline Collins (co-chairperson of the Swarthmore Parents Association), Donald Fujihira '69, Sandra Spewock '73, and Sally Ann Warren '65, New York; John Goldman '71 and co-chairperson Hans Treuenfels '63, San Francisco; Yolande Erickson '77 and William Robinson III '60, Los Angeles; and Thomas and Bevra Krattenmaker, both '65, Washington, D.C.

For the first time, parents were invited to participate in regional phonathons. Many of them welcomed the chance to speak with fellow parents who share similar concerns. A total of $4,658 was pledged by 90 parents. In the New York City Phonathon, Walter Wheeler, father of Adam '84, won that night's prize for raising the largest total of specified pledges to the Annual Fund.

The results from these fourteen nights of phoning were encouraging. More than half of the alumni and parents contacted made pledges to the Fund, pledging a total of $93,000 (which does not anticipate corporate matching gifts). Perhaps more impressive than the grand total is the sum of $30,000 in new and increased pledges, representing 32 percent of total committed. Of those who indicated specific pledges, 53 percent (or 722 donors) increased their gift over previous levels. The Fund also welcomed pledges from 105 individuals who will be new donors in 1982-83. This will provide a healthy boost to the percentage of alumni participation.

Challenges also played an integral part in the success of the program. Anonymous challengers from the '60s and '70s encouraged new and increased gifts. For alumni of the '60s, the challengers agreed to match dollar-for-dollar any gift contributed by a member of the Classes of '60-'70 who had not contributed in the previous year, and any increased gift made to the 1981-82 Annual Fund. Alumni who graduated in '71-'81 were issued a slightly different challenge: The challenger offered to match dollar-for-dollar (up to $100) the gift of anyone from those classes who had not contributed to the 1981-82 Annual Fund.

Phonathons are increasingly important to Swarthmore's Annual Giving program. Not only are they an effective way of raising support, but they help achieve more extensive and effective communication among alumni, parents, and the College.

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In March and April, alumni, parents, and students again have the opportunity to raise gifts for the Fund during the Annual Campus Phonathon. Alumni/parent phoning is scheduled for March 21st-April 14th. Volunteers are welcome to join in what should prove to be an exciting and productive series of evenings. If you wish to participate, either call (215-447-7410) or drop a note to the Annual Funds Office, Swarthmore College, Swarthmore, PA 19081.

## Fall sports: Women's tennis and men's cross country shine

Although football caught much of the limelight and women's soccer gained varsity status, other team sports flourished (and triumphed!) during the fall.

In women's tennis, the team brought MAC honors to Swarthmore, first capturing the South crown and then winning the whole championship by defeating the Northern winners of the University of Scranton by a score of 9-0. The season record of ten wins and five losses was characterized by outstanding play by Belgian sisters Alice '85 and Yvonne Esselen '85, at No. 1 and No. 2 singles.

The men's cross-country team finished with a 9-3 record and placed fourth in the MAC championship—the best showing since 1974. The team was led all season by the one-two punch of Ethan Landis '84 and Robert Neff '85.

The women's cross-country club finished with a season record of eight wins and nine losses. Leading the team this year as she did last year was sophomore Sarah Sangree.

Men's soccer struggled to a 3-10-1 record, a frustrating season for first-year coach Curt Lauber.

The youth and inexperience of this year's field hockey team was frequently evident this season. Nevertheless, the women came away with a respectable record of six wins and eight losses.

The women's volleyball team started off slowly but finished with an 8-11 record, winning five of their last seven matches.

— Deborah Crabbe,
Sports Information Director

### McCabe Memorial Fellowship to Harvard Business School

Young alumni who are interested in going to Harvard Business School are eligible to apply for the Thomas B. McCabe, Jr., and Yvonne Motley McCabe Memorial Fellowship. This award provides a stipend of $3,000 toward the first year at HBS. Applications and letters of recommendation should be made to David Cowden, Chairman, Swarthmore College Committee on Fellowships and Prizes, to arrive not later than March 21, 1983. In selecting the recipient, the committee follows standards comparable to those of the McCabe Achievement Awards, giving special consideration to applicants who have demonstrated superior qualities of leadership.

Application forms are available from Mr. Cowden on request. Admission to Harvard Business School is a prerequisite for being chosen for this fellowship.

## Letitia McHose Wolverton '13 leaves $2 million endowment

Letitia McHose Wolverton '13, a woman who loved, taught, and helped students for decades, has left a trust and a bequest which together exceed $2 million to endow a series of scholarships.

For many years before her death in October, 1981, Mrs. Wolverton had given generously to the College to support a scholarship program bearing her name "for members of the junior and senior classes who have proved to be capable students and have need for financial assistance to complete their education at Swarthmore College."

According to Vice-President Kendall Landis, this is the second largest gift ever made to the College for endowed scholarships and will have a great impact on the College's ability to provide scholarships for students in need.

"As federal aid decreases," said Laura T. Alperin, director of Financial Aid, "we are more and more dependent on the generosity of alumni and friends to assure that no academically able student who demonstrates financial need will be denied admission or will be unable to remain in school for economic reasons."

Currently 42 percent of the student body is receiving some kind of assistance—some $2 million of which comes directly from College funds.

After receiving her degree in Latin, Letitia Wolverton taught for several years in Clinton, N.J. She married there and was very active in community affairs, later serving three terms on the school board. During World War II she became active in the American Red Cross and spent the remainder of the war years as a volunteer at the Veterans Administration in Washington, D.C.

Mrs. Wolverton always remained close to Swarthmore and served many years as a class agent. In addition to her bequest for scholarships, she provided a $25,000 gift to the Scott Horticultural Foundation.

## Will success spoil Swarthmore?

*(Continued from page 17)*

pionship two years in a row—in 1965 and 1966. If you look back a number of years, football at Swarthmore was very successful, very popular. We were the envy of the small college circuit. Then we went through a difficult period—the Viet-nam War and discontent with the 'system.' That was an anti-football (anti a lot of things!) time. Much of the College community—many alumni especially—were disturbed about that.

"So, the College went out and hired Tom Lapinski to do exactly what he's done—build a respectable winning team. He wasn't told to go around the country and find potential Ph.D.'s who could double as fullbacks. He's a local man with excellent local connections, no recruiting staff to speak of, and very little time or money to play with. Swarthmore gave him the resources to recruit in a limited geographical area. Which he did.

"Our program is tremendously admired by area coaches. They see it as practically a miracle and, frankly, so do I."

Looking back, there are many positive elements to be gleaned from the excitement and upheaval of the past two football seasons. David Smoyer notes: "The self-examination and scrutiny from others to which we have been subjected throughout this controversial period have been, in the end, healthy for us all. The focus of the media's spotlight on Swarthmore—although harsh at times—has resulted in a generally positive picture of the College to outsiders and a much greater national awareness of Swarthmore.

President Fraser observes: "The best spirit of amateurism survives in Swarthmore athletics and we are much the richer for it. As a newcomer to the campus I sense the respect for skills, delight in the collective accomplishments of teamwork, the drive to win, resilience in the face of defeat, and grace at the moment of victory. It is not easy to maintain this spirit when we live in a wider society that so clearly overvalues athletic prowess and accomplishment. Might it not be just the Swarthmore penchant for inquiry and criticism—which, when oversimplified, appears humorous to those outside the campus—which preserves that spirit by reminding us that athletics are a source of pride but not the most important things we do? Amateurism flourishes here not despite the spirit of criticism but because of it. Long live them both!"

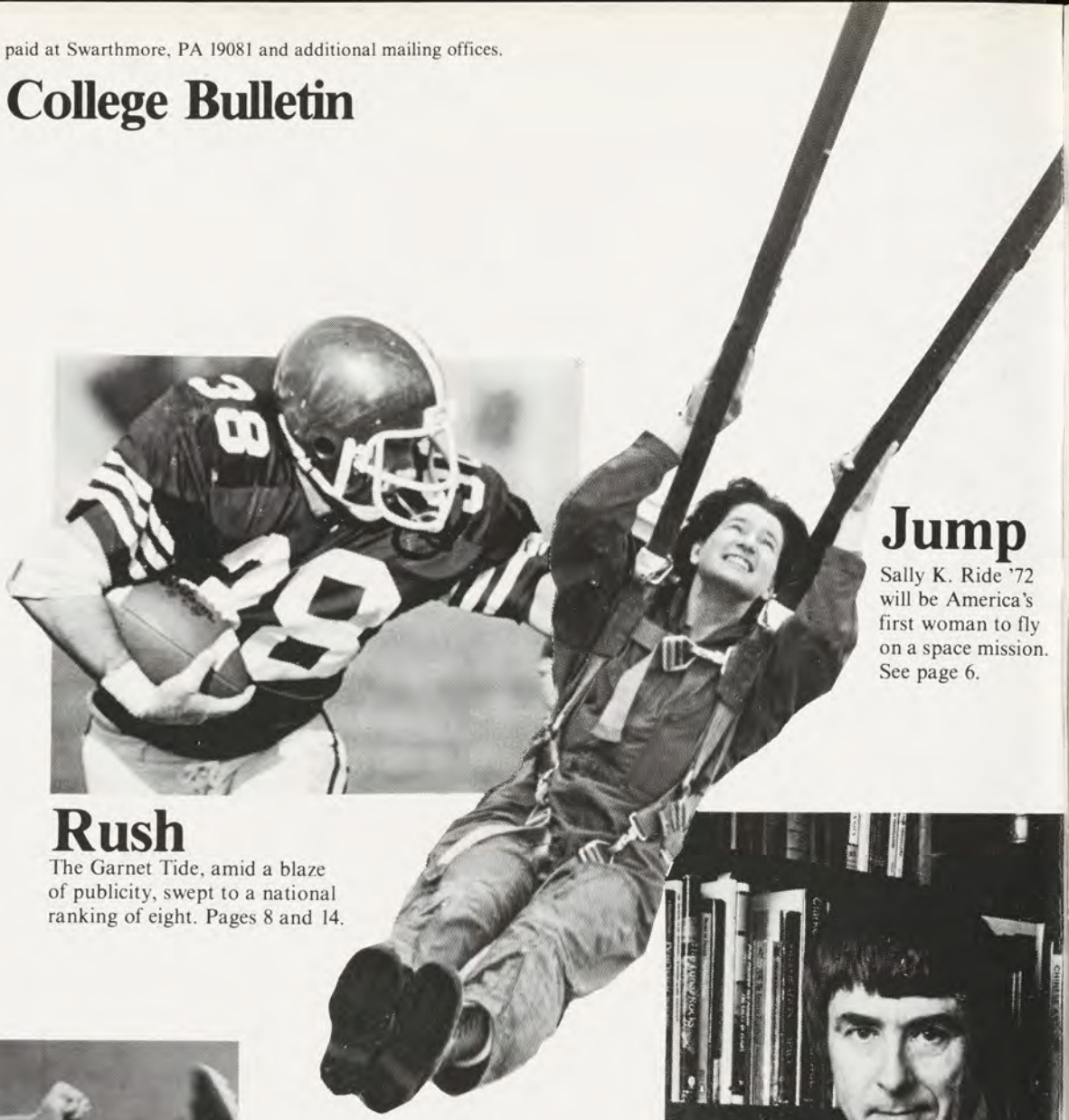
March, 1983 / Second-class postage paid at Swarthmore, PA 19081 and additional mailing offices.

# Swarthmore College Bulletin

In this issue:



**Cover:** Quarterback Mike Reil '84 rolls out for a pass during the game against Western Maryland. Photo by J. Martin Natvig.

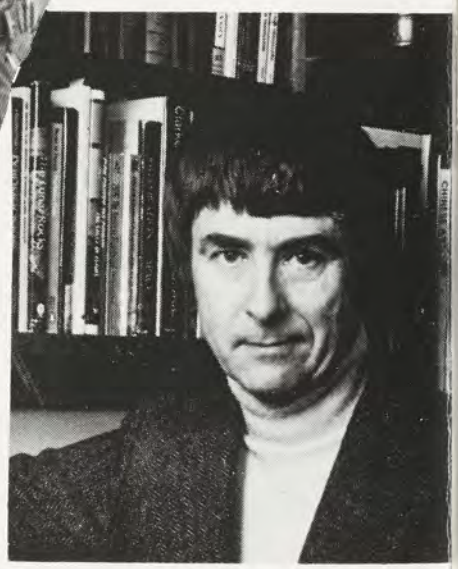


## Jump

Sally K. Ride '72 will be America's first woman to fly on a space mission. See page 6.

## Rush

The Garnet Tide, amid a blaze of publicity, swept to a national ranking of eight. Pages 8 and 14.



## Orbit

Want to get away from it all? Gerard K. O'Neill '50, Hon. '78, has a fascinating suggestion. See page 1.

## Kick

Women's soccer, now enjoying varsity status, is off to a rousing start. Page 18.

**And plan** to return to the campus for an event-filled Alumni Weekend on June 4 and 5. In addition to perennial favorites such as the Grand Parade, Alumni Collection, and a family picnic on the front lawn, your reunion chairmen are planning special private parties for returning reunion classes. See your old friends and meet President David Fraser and his wife Barbara.