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THE
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TECH

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Baxter Art Gallery Director Jay Belloli shows opening-night audience a work by Mark DeKooning

photo by Ron Gidseg

Admiral Gayler Speaks On The Way Out

by Diana Foss

Last Thursday, the Caltech Distinguished Speakers Fund, the Caltech Y, and the Caltech World Affairs Forum jointly sponsored a talk by Admiral Noel Gayler entitled, "The Way Out: A General Nuclear Settlement." The talk, which was given in Baxter Lecture Hall, drew about sixty people, mainly staff, faculty, and graduate students, with a sprinkling of undergraduates. President Goldberger introduced Admiral Gayler, who is a former Commander in Chief of the Pacific Fleet and a former director of the National Security Agency.

Gayler began his talk by emphasizing the threat of the huge nuclear stockpiles of the two superpowers. The numbers themselves, 50,000 nuclear warheads between the US and the USSR, are frightening enough, but doctrines such as NATO's threat of first strike in response to a conventional attack on Europe and the farcical idea of "limited exchange" make thermonuclear war more likely. He likened the present state of relations between America and the Soviet Union to those between America and Japan prior to World War II; there was a common perception that the two countries were eventually going to go to war. In the same way, the attitudes of the two superpowers toward one another, the fact that, in peacetime, each calls the other "the enemy," leads to an implicit notion that war is inevitable. This is very dangerous. Although Gayler is acutely sensitive to the danger of nuclear war, he feels that the present stability "is very strong," and feels that there won't be war this year, or in the next ten years, but that the sum of the dangers is very large. That nuclear war is bad is given. We must stop trying to pin the blame and start negotiating.

Security, Gayler said, can be found elsewhere than in nuclear stockpiles, in fact, reliance on nuclear weapons *decreases* our security, and although the present administration professes a desire to reduce these stockpiles, no one is behaving as though anyone wants arms control. In fact, "primitives have come out from under some rock and attacked the whole idea." He pointed out that there is no such thing as "unilateral security," security that one country can build all by itself. With 50,000 weapons in existence, numerical superiority doesn't equal security; neither does technology. A city can be

destroyed just as easily by a gravity bomb dropped from a plane as by a MIRVed ICBM. In fact, technology often has a highly detrimental effect. Improved accuracy of nuclear missiles has led to the ability to target silos with pinpoint precision. This leads to the dangerous philosophy of "use them or lose them," with such manifestations as preemptive strikes and launch-on-warning systems.

While Gayler views as laudable Reagan's attempts to find a more "humane" policy than Mutually Assured Destruction, he sees the Space Defense Initiative as a fruitless attempt to use technology to work impossible miracles, part of a general trend to make science an omnipotent god. He stated that "population protection is impossible." Countermeasures are always much easier to implement than the proposals they are intended to frustrate, and the SDI could be subverted by a bomb in a suitcase, or by a ship full of nuclear explosives in LA Harbor. Technology is a good in areas such as verification of treaty compliance, intelligence, and in improving conventional forces.

But Gayler is sure that there is a way out of this mess. He presented constructive ideas on how to bring about a general nuclear settlement. He stated forcefully that he is no friend of the Soviet Union, citing its brutal repression in Afghanistan, Poland, Hungary, and Czechoslovakia as well as within its own borders. This "has nothing to do with the question of our survival," however. We must deal with the Soviet Union, and we must eliminate the threat of nuclear war.

Gayler's points are as follows: 1) *The U.S. and the U.S.S.R. must put an end to the idea that war is inevitable.* The constant insulting of the superpowers by each other must stop. To attack, a country must be in fear, and feel that the enemy is less than human. This second condition is the result of this hostile rhetoric.

2) *The U.S. and the U.S.S.R. must formally renounce nuclear-war-fighting doctrine.* In particular, the U.S. should renounce the doctrine of counterforce—the targeting of Soviet silos and leadership bunkers—which leads to the danger of a first strike; the doctrine of protracted war—"shoot and shoot, then parlay" (With whom? Are you going to be any more

continued on page 3

Land of Abstraction

by Ketan Shah

The Nile as oil on rug, and *Hydra* as oil on marble. These are some of the landscape artworks now on exhibit at the Baxter Art Gallery.

The show, titled "Painting as Landscape: Views of American Modernism, 1920-1984," consists of works by 21 artists. These works were chosen in order to reexamine the influence of landscape on American abstract painting.

It was only in the nineteenth century that landscape became a major subject of paintings in Western art. Until then, landscape was a prop, and human and mythical figures were more prominent.

According to Klaus Kertess, the Robert Lehman Curator of the Parrish Art Museum of Southampton, New York, and guest curator of the Baxter exhibition, while landscape painting was an innovation of the nineteenth century, it was the revelations of means—that is, procedures of painting—that became the major subject of twentieth-century art. Landscape painting was a major force in early abstract art. In the 1950's, image representation, hitherto suppressed, began to reappear in paintings. Landscapes began to be obliquely referred to, and in the last fifteen years, restraints on allusion and metaphor have slowly been released. The "Paintings as Landscape" exhibi-



Anselm Keifer, *Ride to the Vistula*, 1980

tion takes up from recent developments where "landscape has reclaimed many of its prior prerogatives" and it illustrates the relevance of landscapes to American modernist painting, from 1920 to the present.

During the opening night reception last Tuesday, Jay Belloli exclaimed that some of the paintings were indeed *very*; new. When they were unpacked, they exuded the oily aroma of fresh paint. Some of them still do.

The show begins with the early modernism of Arthur Dove and John Marin, and traces chronologically the development of landscape-inspired abstraction to

the present, in works by artists including Augustus Tack, Carroll Dunham, and Brice Marden.

On April 18 Baxter Art Gallery will present a lecture, free and open to the public. Mr. Belloli will speak on "Painting as Landscape" and new contemporary trends. The talk will be in Baxter Lecture Hall at 8 pm.

The show opened on March 13 and continues until May 5. The Baxter Art Gallery is open seven days a week, from noon until 5 pm. "Painting as Landscape" will be BaxArt's second-to-last exhibit. The last show, "Twenty-Five Years of Space Photography," will open in mid-May.

Erin Go Bragh!

by Lep Ree Khan

Begorra, if it isn't a little party I see before mine own two eyes! The MOSH is throwing us a bosh on this very after-nooning. Come one, come all; sing, dance, and make merry. The festivities will be at day's end—5pm—and we'll dance until we can't dance no more. Where shall all this happen? On the Olive Walk,

no less. Food for all—all those on Servo contract (\$6.50 otherwise)—starting at half-past, music by Dan Kahane's Irish Country Band, and dancing with the Cripple Creek Cloggers: what better way to end a term? Why, you ask? Well, why not?—but mainly because Sunday is St. Paddy's Day!

Kamb on Moving Ice

by Tom McKendree

Barclay Kamb, a professor in Geology and Geophysics, gave the second Earnest C. Watson lecture of the term in Beckman Auditorium last Wednesday. Kamb discussed his expedition to the Variegated Glacier in Alaska.

Kamb is interested in glacial motion because it is similar to the geological motion of very large rock formations, but happens quickly enough for study.

His well delivered presentation, designed for a general audience, was well appreciated. He showed a blurry fast-motion film of the surge, but his preliminary explanation made it understanding. Barclay's wry understatement of the hazards contrasted favorably with his dire photographs.

The Variegated Glacier "galloped" from last May to June. The Glacier had grown especially thick and heavy over the years near

the top of its slope, and had worn thin near the bottom. This bulge surged like a slow motion tidal wave down the glacier, reaching a maximum velocity of 50 meters a day.

The next Watson lecture will be April 3rd in Beckman. Professor of Behavioral Biology Masakazu Konishi will discuss recently discovered differences between male and female brains.

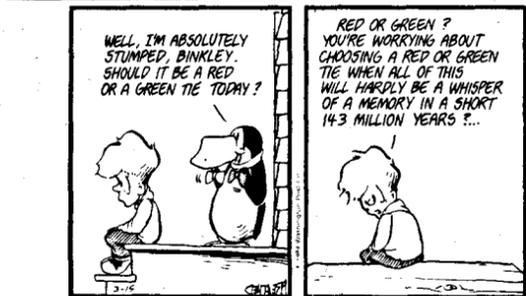
BLOOM COUNTY

by Berke Breathed



by

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letters

Catalina Complex Complications

We would appreciate your looking into this matter and look forward to the use of this system in the near future. This system will afford residents a place to relax from the pressures and tensions of school and bring the residents closer together."
[As of this date, 31 signatures are on file in the offices of the California Tech, attached to this letter.]

To the Editor:
The following is a copy of a letter, signed by over 30 residents of Catalina Complex, which was sent to the Housing Office on February 18. Needless to say, neither has any action been taken on this matter, nor has the Housing Office even given the courtesy of some response to this letter.

"As residents of the new graduate complex on Catalina Ave., we are writing to you concerning the status of the recreational center. With allocated funds, a pool table, ping pong table and furniture were bought and placed in the center. However, an audio-video system (including a big-screen TV, compact disk, VCR, etc.) were also purchased at this same time. Nevertheless, this equipment has not yet been placed in the rec-room for residents' use. It has found its way into the apartment of the assistant manager, where, to the best of our knowledge, it is freely used.

Though we understand that it is imperative to build a secure stand for this system before it can be installed in the rec-room, we feel the system could and should have been installed securely months ago. It not only provides a disincentive (to such placement) to keep this expensive and much needed system in a manager's apartment, but it also is clearly a poor choice for security reasons; the apartment is no more (and probably less) secure than that of the rec-room.

To the Editor:
I want to compliment Ketan K. Shah for his intelligent and informative article on South Africa. It showed research as well as a principled stand against Apartheid. How many of us knew it was against the law in South Africa to train Blacks for jobs requiring skill and to employ Blacks in jobs reserved for Whites?
I wish that Chief Buthelezi were more in touch with the African National Congress of his country, and their struggles.
—Margaret Katz

Conflict of interest? What conflict of interest?



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The Caltech Y Fly-by

- Friday . . . March 15
Noon concert?
More Cats tickets winners, thanks to the Alumni Association and the Y. If you signed up before, check again.
Philharmonic trip tonight!
Sign up for Cinderella by March 20.
Sign up for Sailing.
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Sailing, March 25-28 sign up before March 20.
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For more information, contact the Caltech Y at 356-6163, or just drop by.

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Gayler's Eight-Point Plan

from page 1

reasonable after you've been bombed a few times?); and the doctrine of first use of nuclear weapons in defense of Europe—we can arrange conventional forces which will make Europe "indigestible." These renunciations would have an effect on the real world, not just on paper.

3) *The U.S. and the U.S.S.R. must improve communications.* Improving communications includes a "hot line" to explain strange happenings that would increase tension between the two countries, increased trade, and increased cultural and scientific exchanges. Gayler pointed out that such exchanges would in now way be unilateral. The Soviets have much to give. He also suggested the impact that full Soviet acceptance of microcomputer technology would have, with its many foci of knowledge, on the "thought control and compartmenting of information" of the Soviet state; the two could not co-exist.

The Soviet Union, he stated, must "open up or remain primitive."

4) *The U.S. and the U.S.S.R. must agree to a "moratorium" on the testing, development and deployment of nuclear weapons.* This moratorium would be the product of negotiations between the American president and the Soviet premier, and would lead ultimately to a comprehensive test ban. Weapons development has hit the point of diminishing return anyway; once one has made a warhead three feet tall, it really doesn't represent that great an improvement to make one only two feet tall. Weapons labs would then be freed to pursue non-destructive work. Gayler also favors the creation of nuclear-free zones in Europe to move some missiles out of range and ameliorate the hair trigger on Europe-based weapons.

5) *The U.S. and the U.S.S.R. must leave each other's satellites alone.* America depends far more on its satellites than the Soviet

Union does, so it is in our own best interest to put an end to the development of anti-satellite systems and to keep war out of space. Furthermore, since a poor ABM system can make a good ASAT system, an abrogation of the ABM treaty would be folly on the United States' part, if only for that reason.

6) *The U.S. must stop research on the Space Defense Initiative.* While Gayler sees a poor SDI as neither stabilizing or destabilizing, he does see it as a very bad signal to send to Moscow at the beginning of the talks in Geneva. Soviet Foreign Minister Andrei Gromyko has said that there will be no arms reduction if the SDI goes ahead. In addition, Soviet scientists are sure that there is no way the SDI will work, but they can't believe that America would stake its prestige on something that must fail.

7) *The U.S. and the U.S.S.R. must destroy their nuclear weapons.*

continued on page 6



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The Inside World

Lloyd: Skating was of us Saturday. Apart from the random bruise and bloodshed, Lloyd House survived ice skating in the lounge (10:00) relatively unscathed. Thanks for the doughnuts goes to Blacker. Let's see more two-house events in the future.

And who could forget our volleyball team's victory over Fleming? A high-pitched, exciting match, with many a turnover.

Enough paraphrasing. "I see," said Alice, though she really didn't see at all. How many of us fool ourselves into believing that "we see" rather than making the effort to ask and learn? Why do cats go up trees, but find themselves unable to come down? (I'm stuck, Ma, come get me!) What happens when we fall?

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Buckaroo Reviews

A Weekly Column by Matt Rowe

VU The Velvet Underground Verve/PolyGram Records

One of the most important albums in the history of rock has just been released.

VU was recorded by the Velvet Underground in 1968 and 1969, but for some reason it was never released. While preparing for the reissue of the Velvets' first three albums (due this month), PolyGram Records discovered the long-lost tapes for VU. They knew what they had, and immediately began remixing and editing the tracks for release. Even after sixteen years in a box, VU is simply amazing. Easily the Velvet Underground's best album, it may be one of the best rock records ever.

The Velvet Underground formed in 1965, taking their name from a book on sadomasochism. There were four members: Lou Reed, vocals and guitar; John Cale, bass and viola; Sterling Morrison, guitar; and Maureen (Mo) Tucker, drums. (The icy-voiced European singer Nico joined the band for a brief period that included the recording of their first album, but she soon left to pursue a solo career which has been critically well-received but popularly ignored.) They played their first gig at a New Jersey high school dance, but quickly found their way across the Hudson.

In New York, the Velvet Underground met the *avant-garde*: specifically, Andy Warhol. The pop artist and his ego decided to add the band to his travelling "show," the Exploding Plastic Inevitable. Thus the Velvets acquired a non-commercial, "dangerous" reputation which, so far, has been hard to shake.

Warhol produced the band's first record, *The Velvet Underground and Nico* released in March, 1967. It featured a now-famous peel-off banana on its cover. *White Light/White Heat* followed in December of 1967, after the band had split with Warhol. At this point, John Cale left to begin a solo career, and was replaced by Doug Yule. With this lineup, the band recorded *The Velvet Underground* (March, 1969), and the tracks which are now included on VU. In 1970, they switched from MGM/Verve Records to Atlantic, and recorded the classic *Loaded*, which includes Lou Reed's anthem "Sweet Jane." By the time *Loaded* was released in September, 1970, the Velvet Underground had split up. (An amazing but lengthy collection of live tracks was released in 1974 under the title *1969*; it is highly recommended.)

Lou Reed's solo career has been the most noticeable result of the Velvets' breakup. He had a number one hit in 1972 with "Walk on the Wild Side," from the David Bowie-produced album *Transformer* (RCA Records), and, although he hit a slump in the late seventies, he has always been critically well-received. 1982's *The Blue Mask* (RCA) was a magnificent return to form, and 1983's *Legendary Hearts* was equally impressive. In April of last year, Reed released *New Sensations*,

featuring upbeat, danceable pop like "I Love You, Suzanne" and the Top 40 "My Red Joystick." The album is still doing well on the charts, and it ended up on many best-of-the-year lists (including my own). With the attention accompanying the release of VU, Lou Reed's continued success seems assured.

Enough. If I'm going to claim VU is one of the best rock records ever, I have some convincing to do: first, that it is the Velvets' best album; and, second, that the Velvet Underground was as important as Elvis, the Beatles, or the Rolling Stones in the history of rock.

Lou Reed has long been acknowledged as one of the best songwriters in business, but he seems to have had three periods of incomparably great inspiration: 1962-64 (and beyond, we hope), when his style has shifted back toward the seventies and eighties pop he helped to invent; 1972-73, when he released *Transformer*, *Berlin*, and *Sally Can't Dance*, albums which helped define the musical direction of the seventies through their influence on artists like David Bowie, Tom Verlaine, and the Rolling Stones; and 1968-69, when he wrote the material for the last three Velvets albums.

The Velvet Underground and Nico was in many ways a harsh album. Tracks like "Black Angel Death Song" were dominated by John Cale's discordant viola playing, while Reed's simplest melodies, rendered by the chilling voice of Nico, became frighteningly direct messages of despair. Many of the songs from this classic album are still influencing music: "There She Goes Again" has recently been covered by both R.E.M. and the Beat Farmers; "Heroin" predicted stylistic features of heavy metal; and "Sunday Morning" is perhaps the most beautiful piece of "adult contemporary" music ever recorded.

White Light/White Heat didn't work—and therein lies its brilliance. The Velvets' second album is full of extremes, from the opening burst of head-banging distortion rock in the title track to the seventeen relentless minutes of "Sister Ray" (covered by Joy Division) that close the album. In between, we find "The Gift," a short story (left channel) and instrumental (right channel), and the gem "Here She Comes Now," a quiet semi-acoustic tune which predicted the band's next album. *White Light/White Heat* was highly experimental, and its failures are many, but its successes are stupendous.

The Velvet Underground was as relaxed as its predecessor was unrestrained. Even on relentless rock anthems like "What Goes On" and "Beginning to See the Light," the band falls into an easy groove and takes no chances. Reed's songwriting genius is evident on this album, from the acoustic "Pale Blue Eyes" (recently covered by R.E.M.), with a melody scarcely more than an arpeggio; to "Jesus," a moving, heartfelt plea—from a non-believer; to "What Goes On," musically as simple as "Pale Blue Eyes," but here rendered by two



THE VELVET UNDERGROUND

(Left to right) Sterling Morrison, Maureen Tucker, Lou Reed & John Cale. L.A. 1966.

guitars and an organ with the power of a train; to "That's the Story of My Life," a funny, folksy romp through the band's career.

Most of the tracks on VU were recorded in May and June of 1969, although two ("Stephanie Says" and "Temptation Inside Your Heart") were recorded in February 1968 and feature John Cale. Every one of the best qualities of its predecessors turns up on VU, along with a wry humor and a pop sensibility which guided the early portion of Reed's solo career (and which he has found again on *New Sensations*). Over half the songs on VU, in fact, later turned up on Lou Reed albums—but the magic of these recordings could never be matched. VU is as experimental in its way as was *White Light/White Heat*, but it is an unqualified success.

The epic power of "Ocean," with Mo Tucker's cymbals imitating crashing waves, is unmatched among Reed's compositions. "Temptation Inside Your Heart," with a tabla drum and a funky bassline, is so catchy as to be almost hypnotic. In the background, one can hear Reed the lead vocalist conversing with Reed the backing vocalist about whether the song sounds like Motown or not; at the end, both Reeds break into laughter. The opening track, "I Can't Stand It," turns a subject of despair into absurdity with its lyrical catches; consider the opening lines:

It's hard being a man

Living in a garbage pail...

Reed could easily have rhymed the lines, but he wants us to know from the beginning that he isn't serious. On the other hand, tracks like "Lisa Says" render a sad situation with convincing realism. Lest the listener get so depressed as to do something drastic, VU closes with "Andy's Chest" and "I'm Sticking With You"—the first a satirical syncretized look at Andy Warhol's crowd, the latter a cute, irresistible duet with Reed and Tucker:

*I'm sticking with you
'Cause I'm made out of glue
Anything that you do
I'm gonna do too*

Like the Beatles and the Stones, the Velvets were not great musicians, but they overcame this difficulty as easily as either of these

bands. Reed's consistently surprising songwriting ability might even be compared to that of Lennon and McCartney or Jagger and Richards. The Velvet Underground influenced some of the most important names in rock, from early David Bowie to the Stones themselves, yet the Velvets have escaped popular attention. The heavy, powerful rock of songs like VU's "Foggy Notion" provided the direction for albums like *Sticky Fingers* and *Diamond Dogs*; while quiet, mellow songs like "Stephanie Says" fit the tastes of many children of the sixties as they

grew up into the seventies. In the eighties, thanks to bands like R.E.M., the Dream Syndicate, Lone Justice, and Tom Petty and the Heartbreakers, the Velvet Underground's genius and influence are becoming more directly acknowledged. VU is easily the best example of this genius, and as such it must be one of the most important albums in the history of rock. Like two other landmark albums by the great bands of the sixties (I'm thinking of *The Beatles* and *Beggar's Banquet*), it is also undeniably classic. Even if it is only three weeks old.

Television Parts

by John Fourkas

Michael Nesmith's Television Parts
Thursdays, 9:30 pm, NBC

Michael Nesmith is back with a vengeance with a sequel to his little-known but award-winning videotape, *Elephant Parts*. What do you mean, Michael who? Everybody knows who Michael Nesmith is. Look, you watched *The Monkees* when you were a little kid, right? Remember the one named Mike (his most distinguishing feature was that he was not Dave, Peter, or Micky)? Yeah, him. That was Michael Nesmith. No, wait, keep reading—he is not like that any more. *Elephant Parts* was great, and *Television Parts* is pretty reasonable, too...

First of all, you ask, what was *Elephant Parts*? It was a mixture of songs and very funny skits ("Now how much would you pay for this record? Don't answer yet—it also chops tomatoes!") in a ratio of about 1:3. If the songs did not seem too interesting, it was still well worth it to sit through them in order to see the next hilarious comedy scene (after all, who ever watched *The Monkees* for the music?). Well, *Television Parts* works along the same lines—kind of a mixture of comedy and music videos. The difference is that *Television Parts* is not solely Michael Nesmith material; he brings in lots of famous comedians to do videos.

Last week's episode (the first) was quite promising. The guest list was impressive; it included Mar-

tin Mull (who did an incredible video on home safety) and Jim Stafford. In fact, the only sore spot in the show was Nesmith himself. He just was not funny this time around. He did one rather boring song and spent the rest of his time trying to introduce the skits humorously. Perhaps it was just because all of the videos were so good that the introductions fell flat. Still, this is a minor complaint, and Nesmith is far better than any VJ on MTV. Check out *Television Parts* if you get a chance...

Montoya

Flamenco guitarist Carlos Montoya will make his twentieth appearance in Beckman Auditorium tomorrow night, March 16th, at 8 pm. Carlos Montoya is the grandmaster virtuoso of flamenco guitar. As in all of his recitals, Montoya will create as he plays.

Born in Madrid, Montoya began playing at the age of eight. He initially studied under Pepe el Barbero, a barber from Madrid who also played flamenco guitar. Montoya then went on to learn from other great flamenco guitarists of the time.

Caltech student ticket prices are \$7.50-6.50-5.50; a limited number of \$5.00 rush tickets will go on sale the day of the show. Tickets may be purchased at the Caltech Ticket Office (x4652), just north of the Beckman parking lot.

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Ars Amore

by Charles Barrett

Over There

Throughout history, people have gone to great lengths and undertaken hazardous journeys to be with their beloved. Marc Anthony went to Egypt for Cleopatra, and Paris left Troy, traveled to Greece, abducted Helen, and returned to Troy (of course, he did end up starting a rather messy and drawn-out war as a result...). Caltech students have, on occasion, been known to hazard similar travels too: to Occidental, to Scripps, to UCLA, or (for a less arduous journey) to PCC. Even a journey across the Olive Walk has its complications, romantically speaking.

For a small community such as ours, it is understandable that a certain number of individuals would seek companionship elsewhere. When the disproportionately low number of women is taken into account, the prospect of an off-campus relationship is especially appealing to the men. For gays and lesbians, too, off-campus provides a broader base of individuals than is available on-campus.

Akin to an off-campus relationship is a relationship with someone from another House. This is certainly common enough, but it presents a different set of circumstances than does involvement with a fellow House member. The whole concept of the House system is to provide several close-knit social living environments of manageable size, avoiding the blandness of dormitories and the elitism of fraternities and sororities. Because most social activity on campus is at the House level, one must work at it to get to know many individuals outside of one's own house well.

Like a world traveler holding more than one passport, multiple House social memberships allow you to feel at home in more than one place.

For those relationships involving people in two different Houses, the desire to spend lots of time together (that is the idea, after all) may mean that one partner must spend less time in his or her own House (or forsake it altogether) in order to be in the other's. It is also possible, of course, to split time evenly between the two Houses and the friends in each.

The observation that a relationship outside your own House will mean you have less time with your other friends is in some ways a dumb one for me to make, considering that any relationship is going to take time away from your other friends. It is possible, however, to become a stranger in your own House, a situation which may or may not be to your liking.

Houses can also be rather possessive of their members, and a suitor from another House can face a little animosity if it seems like he or she will be 'stealing away' someone. This is especially true with a House's female members, where the "Hey, she's one of ours" mentality can prevail.

Time is the biggest single consideration with off-campus rela-

tionships. It takes time to go out and mingle, it takes time to form the relationship, and finally it takes time to maintain it. If the partner isn't a student and instead works a normal 40 hour week, he or she will have free time in the evenings and especially on the weekends. In other words, far more free time than you have.

In car-crazy California, an off-campus lover can live 'freeway close' and still be thirty miles away, meaning at least one of you will be doing a lot of driving, which takes still more time (I know first hand; I drove to Inglewood every weekend for six months during one relationship).

It is all too easy for time to fly by when seeing someone, and if you aren't going to have your academic work go down the drain you have to be diligent. An off-campus lover is frequently unaware of just how much time schoolwork here demands of you, and since a lost weekend of debauchery is more fun than one spent doing AMa 95 homework (if you don't think so, stop reading this and seek professional help NOW!), you are going to have to make plans to get your work done.

If a weekend date is planned ahead of time, getting Monday assignments done by Friday means a guiltless weekend (at least from an academic point of view). Otherwise, plan to stay up a little later Sunday night/Monday morning.

The other type of off-campus love affair involves the high-school sweetheart, who is either still at home or at another college. Symptoms of this situation are: astronomical phone bills for one or both parties involved, and a heightened awareness of exactly when the next term break starts. As far as the phone goes, Sprint or MCI help, but even discount services get expensive under circumstances like these. Of course, for those of you who are from this area a high-school sweetheart does not present the same distance problem as it does for out-of-state students.

Every college campus has at least a few people who are committed to someone at home or at another college. They get more mail than the rest of us do. To maintain a relationship from a distance, with only the occasional vacation for physical presence, presents its own problems. Remaining faithful and interested is one of them.

People at college have a distinct tendency to change and mature, and what appeared to be a great match a few years ago may not seem so hot now. The specific situation here at Caltech is such that men, as a group, have fewer temptations to sway them from loyalty to a distant love than do the women. Women here face pressure on any subject that makes them unavailable socially, and men in the community may not respect their wishes to remain free from enticement. The argument can be made, however, that the temptation to wander may indicate that the

promise of long-distance loyalty was unrealistic and unfair.

In the high-pressure, close-knit campus society at Caltech, relationships have to battle adversity on many sides to stay alive. Sometimes they survive, other times they don't. One big advantage to being involved with people out of your own House is that there is a neutral corner to retreat to. In case of a little spat or a complete falling-out, at least you don't run into him or her every time you turn around: at lunch, at dinner, or in random socializing. A complete break between two people in the same House can become especially painful when one or the other of them become obviously involved with someone else. Having to deal with an ex-lover can be painful, and constantly running into them in day-to-day life as a result of living in the same House can often prevent the split from being a friendly one. At least after breaking up with someone outside the House you're not constantly running into the jerk...er, person. Who knows, the time apart may allow you to salvage a friendship out of the situation.

As always, direct comments and criticism about this column or its author (please be gentle...) to Charles Barrett in Ricketts (1-59 by mail, or call 577-8593), or in care of *the California Tech*, 107-51. Let me know what topics you would like covered next term. Good luck with Finals!

Admirable Admiral

from page 3

Gayler envisions a depot, perhaps in the North Atlantic, where the superpowers would bring their missiles. The fissile material would then be converted, under the supervision of both Soviet and American monitors, to fuel grade material and sold on the open market. The missile would be "chewed up," rendered completely inoperable. All this would take place under the gaze of the world's television cameras. He asked the audience to imagine the impact that the image of the first destroyed missile would have. Trust would lead to deeper arms reduction, which would lead to more trust, etc. After a few years, nuclear stockpiles would be cut drastically, and nuclear stockpiles would soon "evolve into the minimum invulnerable deterrent to nuclear war," only a few tens of missiles.

8) *The U.S. and the U.S.S.R. must insure the non-proliferation of nuclear weapons.* We have a common interest in insuring that no more countries join the "nuclear club," and if both superpowers made a serious effort in their direction, "they lean on their friends, we lean on ours," we can prevent the growth of nuclear capability.

As citizens of the United States, Gayler said, we have a responsibility to do everything within our power to bring about a nuclear-free future. As scientists, we are particularly responsible. Policy makers don't often understand technology, and we must use our knowledge to make sure they know that policy can't change the physical world. As a man who lived practically his whole life in the Navy, Noel Gayler stated that in now way was reducing the risk of nuclear war "anti-American" or "anti-military." Rather, "increasing the security of the United States is profoundly patriotic."



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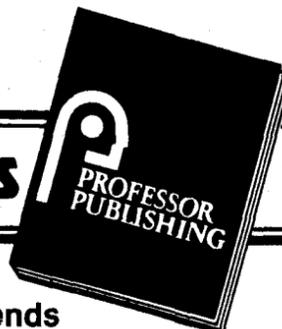
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Book Review

Ring Around a Neutron Star

by Nick Smith
The Integral Trees
 by Larry Niven
 Del Rey paperback, \$3.50

When you read a Larry Niven book, one of the things you can expect is careful detail and craftsmanship. Another is that he will explore every possible detail of a bizarre environment. *The Integral Trees* lives up to both expectations.

The book takes place almost entirely in mid-air. Not hovering over a planet, or anything so mundane, but in a toroidal atmospheric ring around a neutron star. The gas toroid, as well as a planetary body,

orbits the neutron star at 26,000 kilometers distance and very high speed. In the middle of all this, a flying ecology has developed, with plants and animals that never have to touch solid ground, and would be destroyed by more than minimal gravitational forces.

Of course, all that still wouldn't be so interesting without people, so Niven tosses in the descendants of a shipwreck or mutiny or both. (Everyone's sort of lost track except for a computer that's not entirely lucid itself.) 500 years have passed, and the low-gravity humans are not quite like you Earthers. For instance, anyone as

short as two meters tall is considered a "dwarf." Their bones are probably a bit fragile, since sources of calcium are rather limited. Also, they've had 500 years of a limited gene pool and peculiar environment.

The story is the odyssey of a motley crew of misfits and outcasts who are sent to find a new food supply for a small community that is having a *cosmically* bad time. They're running out of water, they've lost all their turkeys, and the integral-shaped flying tree that they call home is altogether too close to Gold, the planetary body orbiting Voy (the neutron star). Ah

yes, the integral-shaped flying trees. Those are the key to this book. Niven has created a plausible flying structure that creates spin, pseudo-gravity, water flow, a viable ecology, and the silliest predators I've had the pleasure of encountering in any literature. The trees are sort of giant propeller blades whose foliage trails off behind the spin to create the titular integral-sign shape.

I won't give away the plot, only mention that the adventurers manage to get *very* far afield from their original quest, and run into various alternate cultural norms that could exist in a low-to-zero-G environment. The characters are good, the plot is riveting, and I found myself compelled to finish the book once I had gotten a short way into it.

The Integral Trees is not

without flaws. For one thing, I found the ending somewhat unsatisfying, since it practically screamed "There *might* be a sequel." All of the immediate plot lines are resolved, but *none* of the long-range ones. Everything's tightly focused on the main characters, so we *never* find out what happens after they've left any of the places they visit. In at least two cases, the reader is left very much wanting to know what happened next, and the information just isn't there.

The Integral Trees is not the best of all possible Nivens, but it is a *very* good book. And for those of you who claim you don't have time for extra-curricular reading, analyzing the physics of the Smoke Ring should get you extra credits in a Physics tutorial, at the very least.

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sports

Yes, It is Cricket

by Malcolm Nash

After months of dormancy, idled away in tame sports like football, the Caltech Cricket team came back to life last Sunday at Anaheim, starting its 1985 season with a game against the Anaheim Cricket Club.

We lost the toss as usual, and Anaheim elected to bat first. Ram (7 overs, 16 runs, 1 wicket) and Nadeem (6 overs and 3 runs) opened the bowling for Caltech. They maintained a tight line and length, and gave away only 22 runs in the first 10 overs. At this point, Mani was brought on and got three wickets in a quick spell. He ended the day with 4 wickets for 7 runs off 7 overs. After 22 overs, Anaheim's score was 36.

Trying to make an even game of it, Caltech eased up on its bowling and gave away 44 runs in the next 5 overs. Tightening up again, we managed to hold the run rate down. Rakesh (6 overs, 16 runs, 1 wicket) and Zeta (who, in spite of one over in which he gave away 16 runs, ended the day with statistics of 7 overs, 21 runs and 2 wickets), took care of most of the second half of Anaheim's innings. At the end of 40 overs, Anaheim had scored 115.

Caltech's innings opened extremely well with what may be a record opening partnership of 30 between Brian and Mani. Mani was out for 13, after a fine innings that included 2 hits to the boundary. A quick collapse followed, with Rajeev (2), Dayalan (2), Ramu (0), Rakesh (3) and Nadeem (0) getting out in the space of 26 runs. Anaheim's bowling was indifferent, and Brian took advantage of this. In reaching his career-high of 42, he was aided by fine shots all around the field, six boundaries, and indifferent fielding (including one "lost ball" which yielded 4 runs). He was out when Caltech's score was 64.

After this, it was just a question of time. Ram was out, soon after, for 3, with the team score at 70. It was getting late and dark, but the team decided against appealing for light. Despite the adverse conditions, there was a determined last-wicket stand between Francis Peckam (12) and Zeta (1 not out) which helped Caltech reach a score of 85.



Second baseman Kurt Lemke puts a tag on the runner against Pacific Christian. Backing up is Mike Keating

Beavers Take Two

by Doug Oute

Caltech had a good week in baseball last week. The Beavers took two out of the three games they played to gain momentum going into next week's contest against MIT.

On Saturday, the Beavers hosted Pacific Christian in a doubleheader. The Beavers got off to a slow start, scoring no runs in the first three innings, while Pacific scored two. In the fourth inning, the sleeping Beaver offense awakened with a vengeance. Tech scored ten runs, highlighted by Kurt Lemke's RBI double, and Ed Casey's three-run homer into deep left field. After four innings the score stood 10-2. The game was never really in doubt after that point. The final score was 11-6. Ed Casey had a good day, going 2-for-4 at the plate with a home run and four RBI's, and Kurt Lemke was 2-for-3 at the plate.

The second game was more interesting. Pacific started out the game by scoring four runs in the top of the first, and after two innings the score was 5-1. The Beavers began their comeback in the bottom of the third, scoring three runs on Kurt Lemke's dou-

ble and some help from Pacific's defense. The Beavers struck again in the bottom of the fourth, scoring three more runs on singles by Russ Graymer and Jim Hamrick. After four innings of play, the score was 7-5 in favor of Tech. The Beavers added a run in the fifth, but in the sixth inning Pacific scored two runs to narrow the gap to 8-7, and in the top of the seventh tied the game up. Caltech was up to the challenge, as Dave Bruning drove in the eventual winning run with a single. The Beavers scored again on Mike Keating's single, and the score was 10-8. That's how the game ended up, with Caltech notching its second victory of the day. Mike Keating led the Beavers offensively, going 2-for-4 at the plate, and driving in two runs.

Tuesday's game against L.A. Baptist was an exercise in frustration for the Beaver faithful. The Beavers were in control for more than half of the game, leading 6-2 after five innings. Then the Beavers fell apart, giving up 13 runs in two innings on a combination of bad pitching and bad defense. The final score was 18-9. Jim Hamrick had a good day in a losing cause, going 5-for-5 at the plate with a triple and a double, and driving in four runs. Mike Keating also had a good day, going 3-for-6 at the plate.

On Saturday, March 23, Caltech hosts MIT (yes, the MIT) in a game at 2:00 pm. This will be the first meeting ever between the two baseball teams.



announcements

PA 15 Meeting

There will be a meeting of the PA 15 class, which is the student newspaper, at 12:15 pm today in 127 Baxter.

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LOST: Three French manuscripts: *Citations de la Revolution de Mai, Strategies et Revolution en France, Les Baricades de Mai.* Reward offered, please contact Behzad Sadeghi at 449-7561.

E10 Students

Hate speaking in front of a group? Job interviews a nightmare? Tongue-tied on dates? Maybe you need E10 (Technical Seminar Presentations). E10 is open to any student, including grad students.

If you are planning to—or even just thinking of—taking E10 next term, be sure to attend the Organizational Meeting on Monday evening, Registration Day, at 7:30 pm in 142 Keck.

Register Early

Undergraduates who are receiving financial aid are reminded to register during the first week of spring term, if they wish to retain their financial aid award.

On December 21, 1984, the Financial Aid Office sent a memo to all undergraduate students regarding this new rule. Copies of this memo are available in the Financial Aid Office for those students who would like to review the details.

Female Scientists

The American Council of Independent Laboratories is offering scholarship awards in a minimum amount of \$750 to females majoring in Physics, Chemistry, Engineering, Geology or Biology. Candidates must be in their junior year or above, and enrolled in an accredited college. Deadline for application is April 15, 1985. For further information, contact the Office of Financial Aid, Parsons-Gates, 10-31, x6280.

Shabbat Celebration

Come enjoy the last Shabbat for this quarter with Caltech and CSLA Hillel. This Friday, March 15 at 7 pm in the Y Lounge. Service and Potluck Veggie/Dairy Dinner. Bring a dish or drinks if possible. Contact Myra through Y office x6163 if any questions arise.

Junior Travel Prize

Hey, juniors! Starting to plan your summer vacation? Well, listen to this. The Dean's Office has no-strings-attached money available to ease along any summer travel plans you might have. Whether it's a car trip across the country with your buddy, a visit to Bali without your buddy, a train ride through Pakistan, a wine-tasting bike tour in the Moselle River Valley, a water tasting tour of Mexico, snorkeling in the Great Barrier Reef, or a slow boat to China, your wandering dreams are fair game for funding. Some of the above ideas have actually been done by real Caltech people; no one has yet tried going to Barstow by Greyhound or selling Girl Scout Cookies in Beirut, but you could be the first. Maybe even the last. But such an experience! The Junior Travel Prize fund has unspecified amounts of money for your transport needs. How to apply? It's easy, it's fun: just write a brief yet colorful essay: 1) Describing how you always wanted to do this (i.e. "My life would be enriched if..."), "My cultural/emotional horizons would be broadened through...", 3) Describing as accurately as possible how much money you'll need for this broadening enrichment. Submit this civil yet shatteringly honest appraisal to the Dean's Office, 102 Parsons-Gates. Proposals will not be judged until April 19th.

So you're not into major dramatic excursions to exotic lands where the food makes you sick? If your name is Mr. or Ms. Mellow, try alternately the soft-seil approach like a bike trip in California or, if your summer job is in an interesting locality (if it's Pasadena, you'd better spend more than a few hours on your essay, kid), weekend excursions may qualify. Almost anything goes, just make it sound good; this experience just could give you the oomph to get through your senior year (or your fourth year, as the case may be!)

Spring Desert Trip

A space is available on a student anthropological trip to the Navajo Indian reservation (Arizona/New Mexico) with visits to the Grand Canyon, Monument Valley, and Canyon de Chelly National Parks. Transportation and lodging costs are paid for. In return, students are expected to participate in a slide show presentation about their experience some time during third term.

You MUST have a valid driver's license, and the trip will involve some long hours of driving. Lodging will be in form of camping and staying in Indian homes and institutions. For more information, please contact John Beahan at 356-6163.

SCPC Meeting

The Student Computing Policy Committee meets Thursdays at 5:00pm in the conference room upstairs in Booth. Donuts, etc., will occasionally be available.

Parade!

There will be a St. Patrick's Day Parade tomorrow (St. Patrick's Day Eve) starting at Green & Hill at noon and ending at Green & Mentor at 1:30 pm.

FOCAL Book Drive

Friends of Caltech Libraries (FOCAL) are holding their annual book drive from Monday, March 18 until Friday, April 12. Books of any kind should be turned in to first floor Millikan.

Caltech librarians will review all donations with an eye to adding to departmental collections. The remainder will be held for the FOCAL booksale on Friday, May 10.

Rod Casper (356-6405) or Helen Lyons (793-7205) will be happy to provide further information or assistance.

Bridge Tournament

The First Great Annual Caltech Bridge Tournament will be held early third term. All welcome (students, faculty and staff). Big prizes. Call Jeffrey Pugh (x4744) or write 205-45 for information. Monday night bridge continues...

Come Fly With Me

The Caltech Flying Club is open to any member of the Caltech-JPL Community who is a pilot or would like to become one. We have two trainers and three more advanced aircraft and flight instructors are available. Inexpensive introductory flights are available. For info, call Eric Umland, x4836.

LIFE'S little NECESSITIES

Carlos Montoya: See article in this issue for details.

One Deadly Summer and Diva: A couple of fantastic French movies. Rialto Theatre, South Pasadena. Wed. Mar. 20. *One Deadly Summer*—9:25 pm; *Diva*—7:00 pm.

Makoto Ozone: Sensational jazz pianist. *The California Tech's* Best Premier Jazz Album for 1984. California State University, Northridge. Wed. Mar. 20, 8 pm and 10 pm. \$10.50 general admission, \$6.50 students with ID.

Andrea Anderson: Pianist extraordinaire. Ramo Auditorium. Sat. Mar. 30, 8 pm. \$12, \$10, \$8. Caltech student rush: \$5.

"The Gender Gap in the Brain": Watson Lecture by Dr. Masakazu Konishi. Beckman Auditorium, Wed. April 3, 8 pm. Free

Equicon: SF convention on April 5-7, but get your tickets early; \$15 in advance for all 3 days, \$25 at the door. Held at Sheraton Universal Hotel, North Hollywood. Write to: Equicon, 3963 Wilshire Boulevard, Box 600, Los Angeles, CA 90010.

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