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By HERON MARQUEZ ESTRADA Sentinel Staff Writer

The greening of a university

SANTA CRUZ - Charles Dickens, in "A Tale of Two Cities," best described not only pre-revolution France, but, inadevertently, post-revolution UC Santa Cruz when he wrote:

"It was the best of times, it was the worst of times. it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity, it was the season of Light, it was the season of Darkness, it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us...

The Dickensian extremes may seem inapplicable until the path the university has followed the past 10 years is considered.

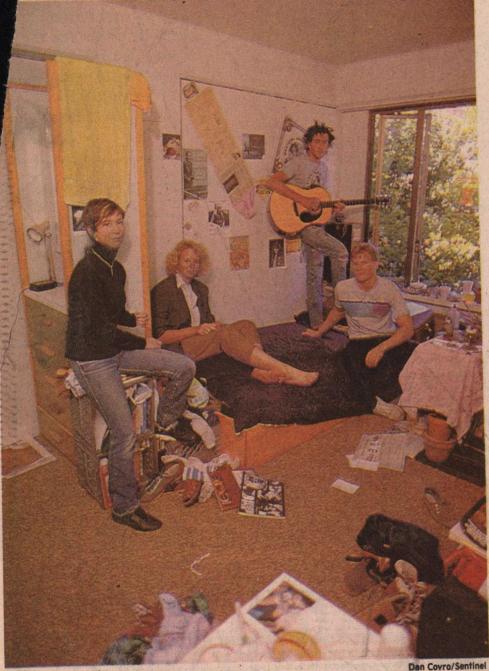
What had started in 1965 as a plan to build a unique, undergraduate, liberal arts-oriented university of 27,000 had, by 1975, turned into a struggle for survival with an enrollment of close to 6,000 and an image which threatened to leave the school as an anachronism in American higher education.

UCSC also found itself in the middle of ousting a chancellor, confronting declining enrollments that seemingly curtailed any hope for future growth, and budget restraints that led to severe infighting among departments wanting a bigger piece of a shrinking pie. The threat of closure was a serious possibility.

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1965: The look on UCSC's campus was mostly lvy League.



1985: Heidi Sinclair, Shannon Tracy, Joel Peart and Stan Biesiadecki of Porter College.

UCSC looks to the future-

Continued from Page A1

It was a time, said Steve Reed, the school's director of public relations, when "staff and faculty did not have a very clear or consistent view of themselves or the future."

But from the dark and tumultuous days of the '70s has risen, like a Phoenix, a quieter, more serious university which has embarked on a 20-year plan to double enrollments, become one of the top 100 research centers in the country, expand its graduate programs, and take its place among the top universities in the United States.

Chancellor Robert Sinsheimer can now speak of transforming the school and city into "a university town, in the best sense of the word," modeled after Cambridge or Oxford.

There was even an indication from the UC Regents during recent budget deliberations that the UC system is fiscally sound and may be willing to support UCSC with the kind of money it needs to fulfill its goals.

"It's clear we are on our way," said Kivie Moldave, the academic vice-chancellor. "It's clear that we have turned the corner."

The goals are outlined in the school's 20-year-plan and they represent a definitive break with the past, when the school was best known for its undergraduate programs, counter-culture image, and the demonstrations and protests which developed during the school's first decade.

During that time, from Vietnam to apartheid, the university's students, as others around the country, saw themselves as the primary obstacle to the spread of unwanted sociopolitical movements.

Now, as UCSC enters its second 20 years, those images are receding and the school is seeking another level of social activism, that of a catalyst to change and developer of "knowledge yet to come."

"UCSC aims to provide our state with graduates who are more than technocrats and more than scholars, who are, as well, concerned, informed, and enlightened citizens to lead our way into the next century," states the 20-year-plan. "Whatever changes we introduce, it will remain our aim to educate each student in such a way that the application of expertise is always accompanied by a sense of personal fulfillment and is

always guided by a sense of social concern."

In the past, where students sought to react and push society toward where they thought it should be, the next phase of UCSC seeks to have the school, both faculty and students, acting as an engine which will pull society forward.

It is doing this by instituting what it calls its "research university context" where it will seek to support faculty research to produce "individuals who are not simply purveyors of received information, but creative, original thinkers, who are already looking toward a state of knowledge yet to come."

This turnaround, this spring of hope, has come after a winter of despair which saw Chancellor Dean McHenry retire, Chancellor Mark Christensen ousted, and Chancellor Angus Taylor holding the university together until the stability of a permanent leader could be implanted.

That came about with the appointment of Sinsheimer as chancellor in 1978.

During his tenure, Sinsheimer has seen the truncated growth and development begin to turn, to the point the first major project of his administration will begin next year with the construction of the long-awaited Natural Sciences III building.

For all its problems, believes Reed, the university turned out for the better as the financial hardships and related turmoil forced the school and its departments to turn inward and concentrate on streamlining and improving themselves, instead of seeking constant expansion as an indication of success.

It is only within the past four years, however, that university officials were able to see the light a the end of the tunnel and consider the possibility that the school might be able to fulfill its goal of being the perfect complement of research center and undergraduate-based university.

Director of Admissions Richard Moll can even pinpoint the time and event which, he said, turned the school around and announced to the rest of the state, country, and educational community that UCSC was becoming "serious."

It was in 1981 when the school voted, barely, to include a grade option for its courses, abandoning its traditional policy of having strictly

narrative evaluations as a measure of class performance.

The narrative policy, Moll said, gave the impression that the school was "far more hippie-dippy than the place actually was." The grade option, he said, indicated that the school was joining the mainstream a little more and "pulling in its sails."

The addition of more practical programs, such as computer engineering and applied economics, also served to indicate that the school was willing to balance its curriculum and allow students more options, Moll said.

"That sealed our (new) position in the public mind," Moll said.

An indication of how succeessful the school has been in its efforts is the fact that applications to the school increased 51 percent last year, which Moll said was the biggest percentage increase in the UC system in 10 years.

Moll, who recently submitted his resignation and will be leaving to work as a recruiter for a New York law firm, likened the present UCSC to the Ivy League's Brown University, a highly selective and quality institution with approximately the same number of students.

Seeking to become the "Brown of the West," Moll said, is ideally the kind of future UCSC should be striving to achieve. He expressed some reservations about the school's plan to grow to approximately 15,000 students by 2005, saying that undergraduates might get lost in the struggle to forge a first-class research university.

Ideally, Moll said, the school should be seeking to expand the number of applicants, which will allow it to be more selective in the quality and type of student admitted. The kind of policies, he said, followed by the best schools in the country.

Both Sinsheimer and Moldave believe, however, that such expansion is not only wanted, but needed because of the millions in additional revenues it will produce.

They add that the presence of more graduate students will instill a more serious and scholarly atmosphere to the school, which can only help the undergraduates because they will see the vitality involved in conducting research and the expansion of the limits of knowledge.

1965/

College town? It can't happen here

EDITOR'S NOTE — Former Sentinel City Editor James Kruger gazed into the crystal ball back in 1965 and predicted how UCSC would affect the Santa Cruz community. No one could have forseen the drastic changes in store for all America during the late '60s, but his view of the future hit surprisingly close to the mark.

By JAMES I. KRUGER Sentinel City Editor

College town? It can't happen

You've heard about or seen the stereotype: The community whose raison d'etre is the local college or university, where every facet of daily life is oriented to "the school," where — if the school should miraculously evaporate — the college town would evaporate, too.

It can't happen here. Santa Cruz will never be a college town. Its history dates back almost 200 years; its culture is woven into a pattern too complex ever to be entirely unravelled, the marks of its heritage are too deeply imprinted ever to be entirely erased.

But that the advent of the University of California at Santa Cruz won't alter the pattern of our culture, won't leave its indelible imprint on the character of our community, is unthinkable.

Santa Cruz' experience is rare: Seldom has an institution of such magnitude and potential been dropped so suddenly in the midst of an established community. Its impact undoubtedly will create far more than a ripple on the face of this ever-changing cultural sea.

The influences which have made Santa Cruz what it is today — from the mission fathers to the boardwalk barkers — are many and varied. Like other communities in America today, ours already shows the effects of the accelerated "ages."

If the horse and buggy age is still with us in our pride in our history, the space age — with its emphasis on education — is no less so. UC's impact is part of the pattern, along with the recent influx of light industry, the relocation and expansion of Cabrillo Junior college, the sudden growth

in population and its attendant demands.

The immediate influence of the university may not seem great, "40 or 50 middle class families moving into the community," as one UC educator summed it up. But, he pointed out, the educators and their families will have their influence on the culture of Santa Cruz

They will be moving in town the block from you; they will be casting their ballots when you do; they will be taking an active part in community affairs as integrated, interested citizens of Santa Cruz. Their presence, like yours, will help to mold the character of the community.

And those 40 or 50 families are only a beginning. Add to them the other educators and their families who will follow as new colleges are established at the university, perhaps at the rate of one a year for 10 years. To this add the undeniable influence of an ever-growing number of students whose socio-economic relationships with our community alone will have a decided effect on the character of Santa Cruz.

UCSC will not be an isolated ivory tower on the hill, inhabited by students and faculty separate and apart from Santa Cruz. The human element alone will make the institution a vital part of the currents of change that reflect our character.

As the university grows, it probably will attract others to this area who will supply the needs of a growing population, and still others who will come to draw upon the intellectual resources of UCSC. This brings to mind the proliferation of industry on the San Francisco Peninsula, in close proximity to Stanford University. Will UCSC turn such an area?

Not precisely, according to Charles Page, provost of UCSC's Stevenson college.

Page, a sociologist, recalled the experience of Princeton university in New Jersey, where the presence of a number of experts in the various social sciences led to the establishment nearby of social research businesses.

Noting the trend toward "think farms" — where major industries

turn their scientists loose for independent research in an atmosphere conducive to constructive thought — and noting also the ideal climate and terrain in our area, Page would not discount the possibility of such a development in Santa Cruz in relation to UCSC.

Other businesses and light industries, attracted by the expertise available among the faculty of any large university, undoubtedly will cast an approving eye on Santa Cruz.

In only two areas, then, the human and the intellectual, UCSC can be seen to have a potentially large influence on the culture of Santa Cruz.

What about the university's impact on the patterns of culture that already exists here? What about Santa Cruz as a tourist attraction, Santa Cruz as a mecca for the nation's elderly, Santa Cruz as a summer resort area, Santa Cruz as an agricultural center, Santa Cruz as it is today in all its various roles?

UCSC won't erase any of this. There is nothing culturally incongruous about a university library and a boardwalk's fun house, green acres of campus and stretches of sunny beaches, dormitories and mobile home parks, fields of knowledge and fields of Brussels sprouts.

As the latter in each case has made its mark on the culture of Santa Cruz, so the former will make its mark. All will be a part of the Santa Cruz of the future, an ever-changing yet integrated community.

College town? It can't happen here

The culture of Santa Cruz is not about to be transformed. As a variable, integrated, consistent pattern, it will be changed, of course, by the addition of the university. But as a living, social entity it will take these changes in its stride.

If one of the mission fathers of two centuries ago could return to Santa Cruz today, he would find recognizable elements of the culture he and his colleagues established here. If that same padre should return 200 years hence, he would find those same elements. Such are the patterns of culture.

1985/

Who says conflicts are all bad?

EDITOR'S NOTE: As the university celebrates its 20th anniversary, City Editor Tom Honig takes a look at the relationship between the city on the hill and the city by the bay, just as City Editor Jim Kruger did back in

By TOM HONIG

Sentinel City Editor SANTA CRUZ — Twenty years after the opening of UCSC, the campus and the community find themselves standing at another threshold.

In 1965, Santa Cruz and the University of California linked arms, and no one really knew where the union would take them. It's a similar story in 1985, as both the community and the university face a future filled with hopes and doubts, dream and fears and perhaps more than anything, uncertainty.

For the first 20 years of its existence, UCSC has stood as a most obvious instrument of local change. The Santa Cruz of 1965 was known for its Boardwalk, tourism, a large retirement community and maybe most of all, its coastline.

In 1985, all those remain features of the landscape, yet the face of Santa Cruz is not altogether what it once was. The alternative lifestyle, a phrase not even understood back in '65, has been woven inextricably into the Santa Cruz fabric.

No one will ever know what role UCSC played in that change. Change came to the nation as a whole in the late '60s, by coincidence just as UCSC was starting up. Santa Cruz felt the change just as many communities did across the nation, but the new university up on the hill was a convenient symbol for those who lamented - or exulted in - the upheaval.

There has been an uneasy alliance between the community and the campus. But each influences the other; one can't imagine the campus in any other community in the world, nor could one look at the Santa Cruz of today and not feel the impact of the university.

More change is in store over the next 20 years. No one can predict the course of that change, but the marriage of Santa Cruz and the university is by now so strong that the dual influence of

town and gown will remain.

There are many unknowns. Today's establishment differs from that of 20 years ago. Back then, progress itself was to be encouraged; today, the word carries with it a red flag. Judging from recent elections, the community is opposed not only to population growth, but change of any kind that might encourage growth - anything it sees as a threat to the identity of Santa Cruz.

Many of those in the 1985 Santa Cruz establishment once were UCSC students who themselves fought for change in our community. They may be surprised when the future brings change to them - no one guarantees that they'll agree with what UCSC's impact will be on the Santa Cruz of the next 20 years.

Numbers tell a big story.

UCSC today has about 7,100 students. In 20 years, according to the campus' 20-year plan, there will be 15,000. The plan is for the growth to be accommodated by on-campus dormitories, but don't expect a city the size of Santa Cruz (little more than 40,000) not to be affected by the infusion of close to 8,000 students.

Add to that the impact of more staff - professors, officeworkers and other personnel. UCSC already is the region's largest employer, with more than 2,800 full-time and part-time employees.

But numbers only tell part of the story. Expect UCSC to be cut from different cloth than it is now. A decade ago, UCSC's critics delighted in taking potshots at the apparent profusion of off-beat courses — the history of consciousness being a prime target. The typical UCSC student had the reputation of being a liberal-arts student with Marxist

That aspect of UCSC has faded, even in the public consciousness, as the campus' contributions in the sciences become better known.

Currently, the administration is considering new fields of study, both for undergraduates and graduates. And expect more university research into fields that may not even be recognized by the general populous.

The undergraduate of the next 20 years will be studying in some of these fields: communications, biotechnology, electronic engineering, environmental engineering or industrial automation. Expect graduate students to be earning doctorates in some of these areas: linguistics, computer engineering, environmental toxicology, anthropology, art history or music. Other graduate-level programs likely will include creative writing, women's studies, applied physics, neurosciences, education or theater

UCSC's research during the next 20 years will reach into lands unexplored in 1985. There are research programs now being discussed in a wide variety of areas: nuclear policy studies; law, science and ethics; mathematics and science education; molecular biology; isotope geochemistry, and the list goes on.

These new frontiers at UCSC will bring on the unexpected for the community. As I mentioned earlier, today's Santa Cruz establishment is a neo-conservative one, opposed to change if it means encouraging population growth, or in fact, change of any kind.

A university standing at the crossroads, like UCSC, will likely butt heads with the community. Already, a proposal for a hightechnology research and development park on campus has at times erupted into a full-scale fight between the community and the university, and it won't be the last time the two lock horns.

I, for one, appreciate the uneasy alliance between the campus and the community. Both entities thrive on challenges: the university to be responsive to the community, and the community to be aware of the world around it. The community in particular can't hide under the cloak of no-growth and conservatism from the truly exciting changes brought to light by the university.

Yet, UCSC will never take over the community of Santa Cruz. In the accompanying article, former Sentinel City Editor Jim Kruger predicted that Santa Cruz will never be a college town. His words ring true 20 years later; the culture of Santa Cruz will never be completely transformed. Twenty years after the university's arrival, Santa Cruz is still Santa Cruz. And that isn't likely to change.

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A youthful romance under the redwoods

EDITOR'S NOTE: Rick Chatenever attended UCSC's Stevenson College, majoring in Literature and graduating with honors in 1968. He joined the Sentinel staff in 1977. He lives with his wife and daughter in Live Oak, paying property taxes and making mortgage payments just like any other member of

what he used to call "The Establishment." 10-24-85 By RICK CHATENEVER

Sentinel Staff Writer

Saving the world was only one of the items of our lists of things to do before we grew up. We had to end the war, upend the middle class, exorcise racism, educate our parents and catch the Jefferson Airplane the next time they played at the

Fillmore Auditorium. For the first students, those of us dubbed "the pioneers," UCSC: 65/85

UCSC in the '60s was a wonderful movie. It was a youthful romance, unfolding in a sensual redwood forest where the mist turned everything into a backdrop for a fairy tale, and the Monterey Peninsula floated on the horizon, like something out of "Gulliver's Travels." It was a folk-rock musical, orchestrated to the visionary lyrics, the newfound conscience, and the blazing electricity of our poet-prophets. It was a political adventure, we thought, of ideals and courage. And it

was, ultimately, an escapist fantasy. Those years come back now in distant, barely remembered images. Like the night all the students on the third floor of

Stevenson College Dorm One gathered at midnight in bath-

robes and pajamas. Our mission: to listen to the Beatles' "Sgt. Pepper's Lonely Hearts Club Band," broadcast at 12:01 a.m.,

the moment it was released. Or the California Democratic primary of 1968, our first election, now that the voting age had been lowered to 18. It was a bitter race between Eugene McCarthy and Robert Kennedy, at a time when the most radical among us were questioning whether to vote at all. I cast my ballot for Kennedy. His victory - and the argument that maybe the system did work after all - were cut cruelly short that night, as the televised election returns were replaced by the jerky cameras and the sounds of

gunshots from Los Angeles. College is a coming-of-age time, a time of change. But who among us - or our parents, or our teachers - was ready for what the '60s had in store? Considering that my generation was

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A youthful romance-

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out to eliminate the labels we thought symbolized ticky-tacky middle class evidence of conformity, we actually wound up with quite a few labels of our own.

Hippies. Protesters. Flower children. Radicals. College students.

I remember one night at Bonesio's Liquors, when a friend and I were accosted by a drunk. He took a look at the length of our hair before going off on a tirade against "hippie Beatles."

Now we remember the long hair, the drugs, the music, the political demonstrations. They're history. What we don't remember is that when they were happening, they were brand new.

Indeed, most of us started the 1966 fall quarter at UCSC with short hair, Ivy League wardrobes and roots in the suburban middle class, just a collect phone call away.

We were the children of the children of the Depression. We were to have everything they hadn't — even if we weren't sure we wanted it.

Still, we might have been ready to carry on the traditions — the weekends at the shopping centers, the John Wayne movie version of war, the Ronald Reagan movie version of courage — if it all hadn't short-circuited a few years earlier with the first Kennedy assassination. Most of us had been in high school, some in civics class, when the news had been broadcast through a million classroom PA speakers across the IIS

That was lesson number one in our celebrated political consciousness. Lesson number two came when we got to college, and started hearing what our leaders weren't telling us about Vietnam, or the Third World. Isn't that what college is about — learning new things?

But there was still continuity with the past when we arrived on the UCSC campus, where freshmen students lived in trailers and the rest of us learned to notice the trees and the woods as we walked down magic paths to the library. We actually believed in what the UCSC publicity staff was calling "the dream" — the

utopia, the community of scholars, the California equivalent of Oxford University, transplanted to this newest branch of the UC system.

In some ways, that dream came true. The remoteness of the setting provided an intellectual greenhouse, stirring many of us with the newfound excitement of merely exchanging ideas. It was the opposite of vocational training; most of us would have to go through various forms of "reality therapy" later. But still, I think few of us regret that brief time of intellectual vitality, of pristine ideals, of learning how to think.

In those days, UCSC had barely 1,200 students and two colleges, their white-walled buildings still under construction. It was an academic experiment, not intended to break the classical mold so much as to just change it a bit.

But of course, who was ready for the '60s?

In my first year, as a junior at Stevenson College, I have this recollection of all these faculty members, arriving from prestigious schools

"back East," many with the ink still wet on their Ph.D.'s and the gold still shiny on their Phi Beta Kappa keys. By the end of the year, at least some of them had gotten divorced — then realigned with each other's mates. LSD, Haight Ashbury, marijuana, the Grateful Dead, be-ins, Big Brother and the Holding Company, political rallies, — there was a brand new world out there, and most of them weren't much older than most of us.

Ivy League wardrobes were delivered to Goodwill Industries, exchanged for old Army jackets and other items with more "character." Barbers in Santa Cruz who had looked forward to the university's arrival were sadly short of business.

One young philosophy professor committed suicide that first year, one gunshot to the head. That generated all kinds of undergraduate fiction and poetry. Everything had to mean something to us — even if fewer and fewer things were making sense

No one could have foreseen the

cultural revolution of the '60s, with its new styles of music and dress, and its new lifestyle of sexual liberation and drug experimentation. No one could have foreseen that we would be in a war we couldn't win—no one could have conceived that maybe we shouldn't have been in it in the first place. And never before had there been the media—the electronic global network which linked our minds, creating idols and illusions even as it was bringing us reality from Dallas, Los Angeles, Atlanta, Chicago and Vietnam.

As opposed to the radical leaders who got the spotlight during those turbulent times, I think most of us were more naive than the intimidating tone of our rhetoric suggested.

In some respects we were educated too well; we couldn't settle for worlds less perfect than those in the books we were studying. It would take most of us several more years to complete our educations.

One final event floats into memory: This one a year later, the UC Board of Regents meeting, when we trapped then-Gov. Reagan in the

kitchen of the Crown College dining hall.

That was the meeting when one of Reagan's fellow Regents, conservative Max Rafferty, looked around him and branded the campus a "hippie brothel." Although we had Reagan, Rafferty and the rest of them outnumbered, we didn't have a clue what to do next. We wound up lining the walkways, being shoved out of the way by Reagan's security men as we sang the chorus — "M-I-C...K-E-Y" — from "Mickey Mouse Club."

What we were trying to say, I think, was that we thought his administration was Mickey Mouse, a rinky-dink sham, a TV myth.

But looking back now, perhaps we were saying something else. Under our strident militancy, we may have been voicing the subconscious wish to still be members of the "Mickey Mouse Club," pleading to this leader—himself a creation of television—to take care of us and make everything right, just the way he did it on "General Electric Theater."

UCSC-14STORY

UCSC: 65/85

Dean McHenry:

Taking a look at the way things were

By DON MILLER Sentinel Staff Writer

SANTA CRUZ — Dean McHenry was UCSC's first chancellor, beginning in 1965, retiring in 1974. In retirement, he has become a winemaker and viticulturist in Bonny

Doon. McHenry, wearing a wine-colored shirt and string tie, reminisced in his small office on the fourth floor of the university library that bears his name.

The story of the first time I saw the site where this campus now sits



Covello & Covello/photo

Chancellor Dean McHenry is flanked by twins David and Carolyn Sanford, two of the first applicants to UCSC, in this 1965 photo.

probably has grown in my mind. The Regents had already chosen locations for the Irvine and San Diego campuses. The choice for Northern California was between Almaden • Valley in Santa Clara County and Cowell Ranch in Santa Cruz.

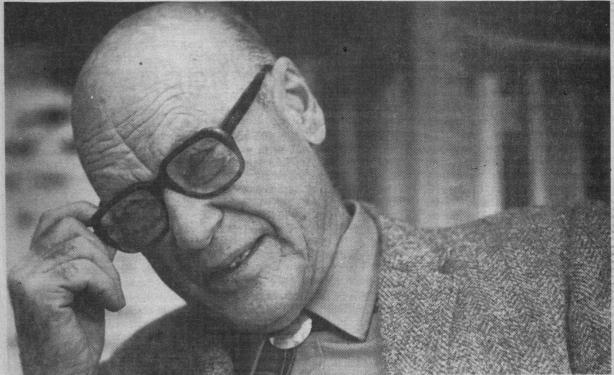
So, on a hot day in the fall of 1960, the Regents rolled down the Nimitz Freeway in an air-conditioned bus. We came into Santa Cruz. A pall of fog had just lifted over the bay. The sun was sparkling. Scotchy Sinclair (then-editor of The Sentinel) had set things up beautifully — the bus pulled up on a dow hill he'd had bladed and the 'impression was favorable.

We got back in the bus and drove over the hill to look at the Almaden site. We went up on a hill overlooking it. It was very hot. The men began to peel off their coats. We saw a subdivision and lots of houses. The city of San Jose and county of Santa Clara had offered \$2 million each if we chose their site.

But as we rolled out of San Jose, I heard one Regent, Mrs. (Dorothy) Chandler, say, "It would cost us a fortune to air-condition this place."

We'd justified the new campus on the basis of population growth, which wasn't in Santa Cruz or Monterey counties. Any political gain would have come from Santa Clara County. But there were only two no votes for Santa Cruz.

It was obvious to (former UC president) Clark Kerr and myself that Santa Cruz would have to be a different type of campus. The vehicle was residential colleges. Kerr was convinced a university had to have fine undergraduate work and a graduate school and a big research component. The first day he was president he called me in and said, "Let's get cracking on the new cam-



Bill Lovejoy/Sentine!

Dean McHenry: 'If I were chancellor, I'd open a discussion on disincorporation.'

puses — and try to find a way to make them seem small as they grow large!"

But, in fact, as the smallest of the new campuses, we were almost systematically deprived. We were intended to have an engineering and a business school. But all the other campuses wanted business schools and Santa Cruz was deferred.

One of the first things Kerr said after he was dismissed as UC president was, "take care of Santa Cruz!" I think had he continued as president another five or 10 years, this place would be purring along.

His replacement, Charles Hitch, was sympathetic, but much less daring than Kerr. A report came out that said California already had more engineering schools than it needed. It killed us. Hitch was new. He didn't stand up and fight.

I've often regretted I didn't threaten to resign. It was my greatest disappointment.

We had good connections, but we didn't have punch. One of the factors was we were not represented on the sports pages. We lacked that powerful he-man type of support. The public thought we were not big time, that we were pantywaists. Bush League.

But I like it the way it is. I'm a little afraid the school will go too far in the other direction.

The "hippie school" image was here almost from the beginning. Our students came from well-to-do families and high schools on the peninsula, from Marin County and Brentwood. The were bright and deviant.

Our 1970-71 freshman class was maybe the brightest ever — it had the highest combined SAT scores of any state university in the country. It's gone down since then, 100 points and now we're only fourth in the UC system.

The hippie image may be good in

getting creative people. On balance, though, the political thing is bad. If I were chancellor, I'd open a discussion on disincorporation of the campus from the city. My recollection is that the city wanted us to annex, but I never dreamed people who went away to a school would vote in the town where the school was. It's warped the politics in college towns and it's an irritant here. I'm shocked that votes are often nearly 90 percent in one direction.

Was my opinion valued after I-retired? In some quarters. But no-body asked me what kind of person should be my successor. I would have liked to have had the opportunity to write down criteria.

Santa Cruz is a special university. It's identity could be blunted by trying to make it look too much like an ordinary campus. There is just no chance a young campus can be a junior Berkeley. This school has to go new ways.

University is firmly woven in fabric of city

By JOAN RAYMOND

Sentinel Staff Writer

SANTA CRUZ - Old-timers were understandably skeptical of the students and professors with the beards, backpacks and leftist ideologies of the '60s who invaded a conservative downtown at the time of the university's Santa Cruz debut.

When he first arrived in Santa Cruz in 1969, university Community Studies Lecturer Michael Rotkin recalled the "hostile attitude toward students."

Back then, noted Rotkin, students were at the bottom of the social totem pole in the same way street people are today.

And today, Rotkin - the instructor with a salt-and-pepper beard, unruly hair, socialist politics, penchant for wordy arguments, and peace march experiences - is a symbol of how changing times have firmly entrenched the university into city business and politics.

Rotkin is now one of seven members of the City Council and a member of its liberal-progressive majority that wrested power from the conservatives several years ago. Rotkin served as the city's first socialist mayor for the 1981-82 term.

On the other end of the political spectrum, a symbol of the strong ties between the university and the city is UCSC graduate Tim Morgan, a Santa Cruz lawyer and lead spokesman for Republican conservative causes.

In the 1983 council race, Morgan helped orchestrate campaigns leading to election victories for two top vote-getters and members of the conservative-moderate All Santa Cruz Coalition slate, Council members Katy Sears-Williams and Arnold Levine.

Another UCSC graduate, John Laird - one of Rotkin's political allies - was last year's mayor, and has gained publicity as the city's first openly gay mayor and one of the few openly homosexual elected officials in the nation.

Although the so-called town-gown relationship is still strained at times, city officials and business representatives agree the relationship between the city and the university has improved through the years and will get even better.

Councilman Levine put it this way: "For the city, the university was like putting on a coat - you have to shrug your shoulders until it fits well."

Although there is still grumbling about the university's impact on traffic congestion and city politics. community leaders agree the "coat" envelops great economic and cultural strides for the city. Besides, they say, even without the university, Santa Cruz would have grown substantially.

What used to be a town with one institution — tourism — is now a small city with two institutions tourism and the university.

And, political lines that used to represent a town-gown split, now divide on a conservative-liberal split, both on- and off-campus. In contrast to the youthful days of the campus, there are a growing number of conservative-thinking students at UCSC.

Civic leaders now take for granted the university is going to grow substantially and want to participate in planning for that growth.

Commented Levine: "With the frustrations of growth and not being able to get through town for all the traffic, the old-timers, and some new-timers, looked around for someone to lash out at. They lashed out at the university.

"This was an extremely conservative area. There had to be a nose-to-nose confrontation. Some still goes on, but in the long run. there will be a settling down."

City Council members agree com-



'This was an extremely conservative area. There had to be a noseto-nose confrontation.

- Arnold Levine

munication is a key link between good town-gown relations.

Commented Levine: "The door of communication has to be kept open. I think it is necessary for us to realize this (university) growth is inevitable."

Levine believes the door of communication between the council and the university is "not very open"

Rotkin noted council members several years ago instructed City Manager Richard Wilson to make a top priority the breaking down of divisions between the university and downtown businesses.

"The university responded by putting in more parking near the entrance," said Rotkin, "and business put out 'welcome back students signs.' "

Today, there is a true interdependence between downtown and the university.

UCSC's impact - both direct and indirect - can be seen every day in many different ways: such things as book, backpack, bagel and croissant sales; bus and bicycle ridership; coffeehouses: Szechwan restaurants; ethnic music, gay-lesbian, and political-talk radio shows; film festivals and art galleries.

Bookshop Santa Cruz would not be here "if it weren't for the university," said Neal Coonerty, a politically active downtown businessman. "I probably would not have moved here if it were not for the universitv."

Metropolitan Transit District Director Scott Galloway said university bus routes enjoy more ridership than any other.

About 11 percent of the district's revenues - \$312,600 from a total \$2.8 million revenue budget for the 1985-86 fiscal year - derived from the district's contract for bus passes with the university.

However, that does not mean the district is making money off the university routes, said Galloway, because university bus passes can be used on any routes in the system.

University officials have published a brochure of statistics to show the positive impact of UCSC on Santa Cruz County.

The statistics show most of UCSC's \$76-million operating budget is spent in Santa Cruz, either as salaries or as payment for supplies and services, even though nearly all the budget comes from sources outside the county.

This supports UCSC's thesis that much of the money spent by the university represents "new" money to the community.

The statistics for the 1981-82 year show students spent \$27.2 million on food and beverages, rent, books and supplies, transportation, entertainment, clothing, business services, furniture and household maintenance, utilities and other items.

Faculty and staff expenditures for the same year for those items, plus mortgages and savings, are at \$45.1 million.

Ninety percent of the student and faculty expenditures (\$24.5 million and \$40.6 million, respectively) were spent inside the county, the statistics show.

The statistics also show total spending in the county for that year - including campus visitor spending, university purchases and health and retirement benefits - amounts to \$77.4 million.

If multipliers are used to translate the expenditures into an overall economic impact, the total leaps to \$171.5 million.

Council members and city officials have recently agreed to start meetings to address the critical housing situation. It is expected to become more critical as the university grows.

Coonerty said: "The real critical problem is housing. The rental market is impossible as it is. But I think there can be creative solutions."

Rotkin believes the university should take the lead in solving campus-related housing and other growth problems. "My feeling is the university won't do enough without real pressure from the city.".

Rotkin said he is willing at least to start out with a spirit of cooperation, and to keep his skepticism in check - for a while.

One strain on the town-gown relationship is a campus high-technology research and development park proposed three years ago by UC Chancellor Robert Sinsheimer.

In 1983, city voters passed an initiative giving the City Council permission to assert planning veto authority over the project.

Sinsheimer and other university officials responded the city has nolegal authority over a state-empowered institution like the univer-

Back then students were at the bottom of the social totem pole in the same way street people are today.

- Michael Rotkin

sity.

UCSC officials said they were willing to let city officials participate in the planning process, but not have veto power.

The issue has never been resolved.

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Science blooming amid the redwoods of campus

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By JOHN McNICHOLAS

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Sentinel Staff Writer

SANTA CRUZ — UC Santa Cruz began as an institution emphasizing the liberal arts: But over the years the quiet, wooded campus has grown into a busy center of scientific research with a national and international reputation, where 40 percent of the students are studying a science-related major.

The redwood-shadowed buildings are home base to people and institutions known around the world for raising important questions and working to find answers from the deepest folds of the earth to the farthest reaches of space and time.

Researchers are working on the cutting edge of high-energy physics, astronomy, astrophysics, math, earth sciences, seismology, chemistry and medical biology. The country's largest group of faculty studying marine mammals is gathered at UCSC.

A full accounting of the work pushing forward on campus could fill several books, and would be out of date soon after it was started. But a sampling of several areas shows the range and the importance of the questions — and the answers — under investigation in the city on the hill.

• Marine studies were an area of concentration in the early years of the campus. After slowly building a core of faculty, the Center for Marine Studies was officially recognized in 1976. The center grew and became the Institute for Marine Studies this year.

The 28 faculty members, 20 researchers, nearly 90 graduate students and what Director Bill Doyle calls "a host of technicians and support staff" are studying several aspects of the oceans, their inhabitants and structures.

Institute scientists are studying how large segments of the earth's crust are being pushed away from seafloor volcanic areas and crowded under other segments — the cause of the recent Mexican earthquake.

Some of the most appealing research to lay people is on marine mammals — anything with big eyes is bound to win hearts and minds.

The institute is famous for its studies of communication among — and perhaps someday with —

The scientists are looking into the behavior of seals and sea lions, determining how much the animals can learn — "how many adverbs and modifers you can add to a word,"

Doyle says.
"We've tried to concentrate on things we can do particularly well at UCSC, and not to compete with other

researchers' elsewhere, he said. "We don't plan to be huge, but we plan to do things well."

• Lick Observatory was built atop Mount Hamilton above San Jose and completed in 1984. Since 1966, it has been headquartered at UCSC, and UCSC astronomers have pioneered observing techniques and equipment, and pushed at the frontiers in many areas of astronomy.

Lick astronomers bounced a laser beam off a reflector left on the moon by Apollo astronauts — called lunar laser ranging — and were able to produce the most precise measurement of the lunar distance up to that time.

Astronomers at Lick led the way in computer-controlled telescopes and the use of television cameras to locate and track objects in the heavens for observation by telescope. This freed astronomers to move from a cold seat beside their telescope into control rooms with direct access to the computers collecting and analyzing the information.

Lick astronomers took the first pictures of the pulsar in the Crab Nebula. That neutron star rotates 30 times a second, flashing out powerful pulses of energy. Lick's Assistant Director Joe Miller and astromoner Joseph Wampler worked together to make the first photos of the star.

Don Penrod and Steve Vogt have developed the first images of a star's surface, and Miller showed that quasars — mysterious sources of enormous energy, thought to be powered by black holes — are in galaxies other than our own.

Dave Rank and Wampler began in the early '70s to pursue the idea of using a totally new technology to build a telescope larger than any other in existence. That idea grew into what is now the world's largest telescope. The 10-meter instrument will be housed in the W.M. Keck Observatory now under construction on Mauna Kea in Hawaii.

Stan Woosley is known for his work on the dynamics of supernovae, and Sandra Faber worked with UCSC physicists Joel Primack and George Blumenthal to form a model of how galaxies are born.

• Primack and Blumenthal are among more than 25 members of the Santa Cruz Institute for Particle Physics. The researchers are working at U.S. and European centers, looking into the most fundamental scientific questions — what is the nature of matter.

Using huge machines that accelerate and smash atoms and subatomic particles into their constituents, the UC physicists are working with others in the search to

understand the basic building blocks of matter and the forces that act on them.

Michael Nauenberg, chairman of the department, says funding from the U.S. Department of Energy and the National Institute of Health exceeds \$1 million a year.

He says the understanding of particle physics is "ever-shifting," and that while scientists believe they now know what the basic particles of matter are, "given the history of particle physics, one is no longer quite as sanguine that we have seen the final one."

• In earth sciences, the work of Bob Garrison and his students has shed light on sedimentary rocks buried millions of years ago with the organic material that would turn into today's riches — oil and phosphates

He has shown the unique nature of the Monterey Formation, a layer of rock under California that holds most of the state's oil. His studies help show both where to look and how to recover the oil here, and also have shed light on the phosphate rich soils in Egypt and Israel

soils in Egypt and Israel.

• Biologist Harry Noller has earned recognition for his research into ribonucleic acid, or RNA.

His research concentrates on the molecular complex called the ribosome, thousands of copies of which are present in every cell. They are the "molecular tape readers," he says, which translate the genetic code, the RNA language into protein.

The gene, he explains, is the "permanent DNA copy of" information on which cells are built. When a protein is needed in the cell, a messenger RNA copy is made of that gene, and the messenger RNA translated into protein.

"Probably the biggest and most complex problem in biology," Noller says, "is the molecular mechanism of the translation of the genetic code."

He and his lab workers and students have shown how the ribosome works, and helped to unlock its structure.

Biologist Frank Talamantes, an endocrinologist, has concentrated on the function of hormones secreted during pregnancy. In the last several years in experiments on mice, his lab has purified and shown the structure and characteristics of two hormones made by the placenta, which are unique to pregnancy.

The two hormones under study are involved with developing the mammary glands during pregnancy, and probably in the growth of the fetus as