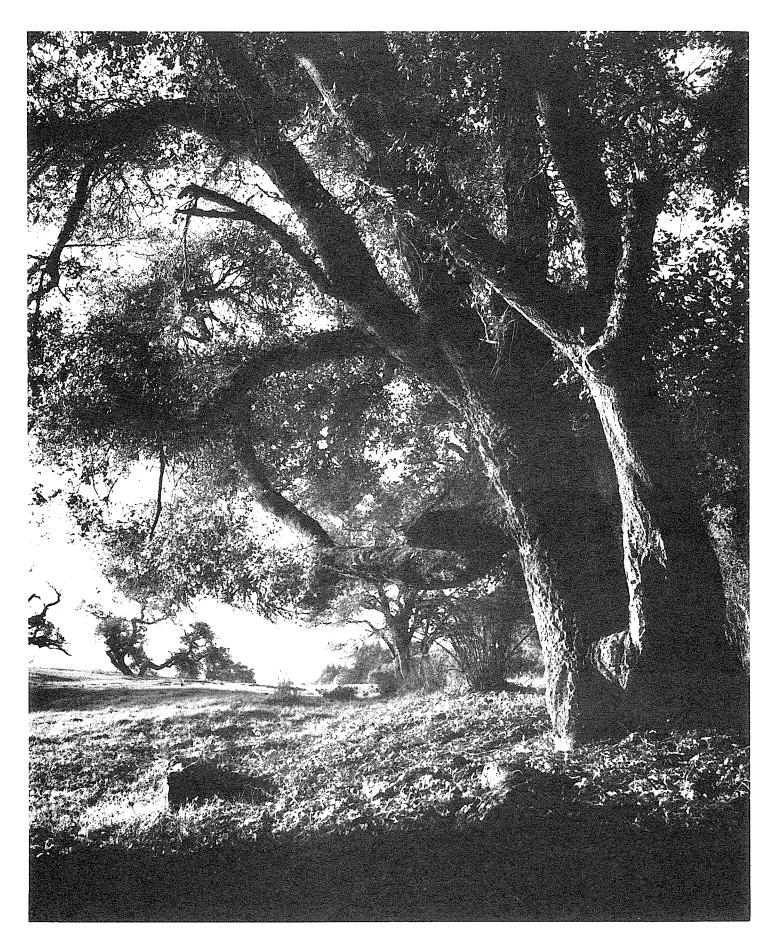
# LONG RANGE DEVELOPMENT PLAN UNIVERSITY OF CALIFORNIA SANTA CRUZ 1971



Where the forest meets the meadow

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# PREFACE AND SUMMARY

The physical plan and development of the Santa Cruz campus of the University of California rests upon a commitment to provide an environment that nurtures innovation in university education. The intent is to foster coherence in our educational enterprise, while at the same time maintaining fiscal soundness and academic excellence.

The current Long Range Development Plan. reflecting the perspectives of 1971, represents the culmination of several years of review and evaluation of the Long Range Development Plan adopted by The Regents of the University of California in 1963. While long range in terms of the overall framework, the development goals and plan components of this document provide specific guides for the physical-development decisions required during the next five-year period of campus growth.

The Long Range Development Plan translates the Academic Plan into physical terms, for we recognize the role that the essential nature of the campus and the character of its physical growth play in the implementation of stimulating educational concepts. At Santa Cruz the resulting plan and guidelines for physical development are intended to be flexible to accommodate changes in educational needs and methods or other unforeseen circumstances.

The key element in the development of the campus is still the residential college, or academic-residential module, as a basic unit of planning. The broad challenge at Santa Cruz continues to be the creation of a system of residential colleges related to a great contemporary university; the development of an aggregation of colleges, schools, and academic centers adapted to a spectacular natural site; and the opportunity for the contiguous community environment to grow with the campus. Our response to this challenge to date may be seen in the facilities already completed, the development goals and plans of this document, and the campus planning process itself.

In brief the general development guidelines outlined below are much the same as those of the 1963 Long Range Development Plan.

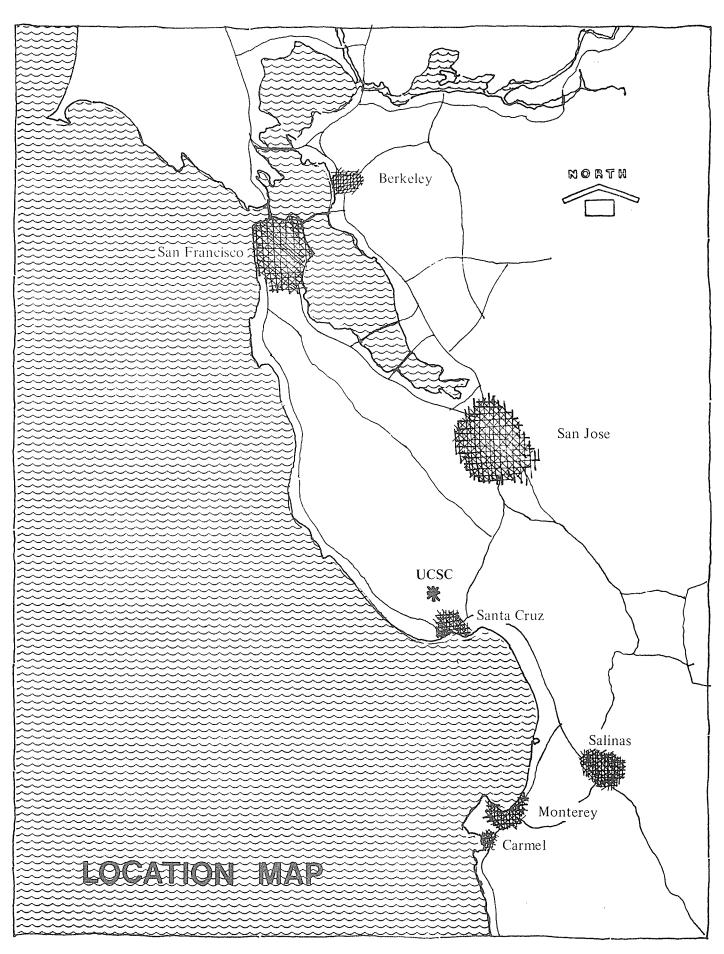
- + The natural site and its ecology will be respected. The utmost effort will be made to maintain the significant natural elements of the campus site.
- + Fifteen to eighteen residential colleges will be accommodated adjacent to a core of jointly shared university facilities, which will include the Library, administrative offices, and various academic centers. The colleges will be relatively self-contained providing

for much of the students' social and academic life. The academic centers will furnish forums for intercollegiate academic contact and space for special instruction and research.

- + Professional schools, while usually starting in core academic centers, will be self-contained. Some perhaps will be joined with colleges, but all will be located so as to promote close inter-disciplinary academic contacts.
- + Housing will accommodate approximately half of the student body on or close to the campus.
- + Certain athletic areas and other student activity spaces will be centralized, and some will be related to colleges and schools.
- + Commercial facilities to serve student, faculty, and staff will be developed in response to campus needs.
- + Campus vehicular circulation will consist primarily of an inner loop road and an outer road grid connected to the community and regional road networks.
- + Parking will be located to optimize accessibility

to destinations and arranged in the academic core to connect with a campus transit system.

- + A transit system, designed to ensure a large nonvehicular precinct in the central campus, will be developed to connect core academic centers with the colleges and to serve areas outside the central campus when required.
- + Architecture on campus will be directed toward the creation of building complexes, each with its own character and unity of style. Hierarchy of scale and style will be encouraged ranging from an informal, intimate scale and inward orientation in the residential colleges to a more formal approach in the academic core.
- + Landscape architecture will respect existing vegetation and topography. Thus indigeneous plants and materials will be used in landscaping, and roads, paths, and bridges will be adapted to the terrain. Open spaces will be retained and handled as natural scenic or buffer areas.
- + The campus and its environs will be viewed in terms of developing interdependent and mutually advantageous relationships in a physical, socio-economic, and cultural sense.



## HISTORY AND SETTING

#### **CAMPUS LOCATION**

The campus occupies 2,000 acres of the old Cowell Ranch in Santa Cruz County. The center of the site is about 2.5 miles from the downtown area of the City of Santa Cruz. Located on the northern end of the Monterey Bay, Santa Cruz is 75 miles south of San Francisco, 30 miles southwest of San Jose, and about 45 miles north of Monterey. Three state highways link the area with other points. State Sign Route 17 crosses the Santa Cruz Mountains to Los Gatos and San Jose, and connects with major freeways serving the entire San Francisco Bay area. State Sign Route 1 (Cabrillo Highway) along the coast extends from Santa Cruz north through San Mateo County to San Francisco and south through the Pajaro Valley to the Monterey Peninsula. State Sign Route 9 links Santa Cruz with the Skyline Boulevard via the San Lorenzo Valley.

#### **COMMUNITY HISTORY**

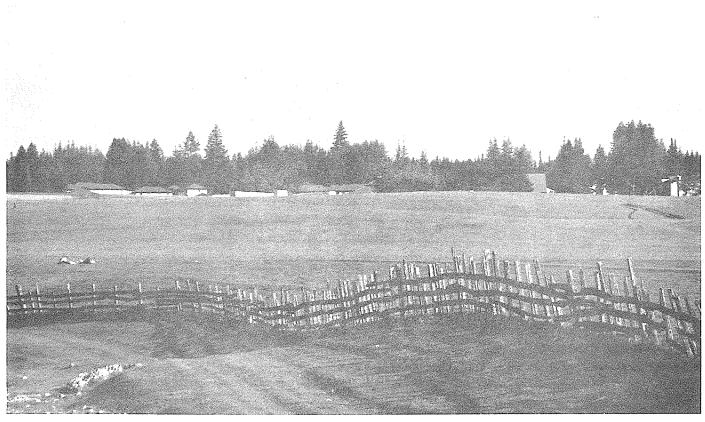
Although still somewhat by-passed by the tremendous growth experienced in other parts of the state. Santa Cruz is one of the older communities in California. Its history goes back to the settlement around the Santa Cruz Mission, which was founded in 1791. In 1797 the town of Branciforte was established by the Spanish government as a pueblo, and after the missions were secularized, the town continued as a population center. Branciforte was annexed in 1907 by the City of Santa Cruz, which had developed on

the site of the original mission.

Since its earliest years the city has been an agricultural trade center, and after 1850 lumber and lime production became important local industries. To promote trade, the first Santa Cruz wharf was built in 1853, and from it was shipped lime produced in a kiln at the upper end of Bay Drive. This enterprise became the Cowell Lime and Cement Company and occurred on the part of the Cowell Ranch that was acquired in 1961 as the site for a new campus of the University of California.

By 1880 the moderate climate, excellent beaches, and mountain and seashore beauty of the Santa Cruz area had been recognized, and it became a recreation and resort center. Since then, tourism has dominated the economy of the area, for Santa Cruz is still one of the most popular resorts and recreation centers serving northern California.

As the largest city in Santa Cruz County, Santa Cruz is the center of social, cultural, and economic activities as well as the county seat. In 1971 it is a city of approximately 31,300 inhabitants with an unincorporated fringe area half again as large. State facilities in the county include several beaches and parks along Monterey Bay and the Henry Cowell Redwood State Park, 2.5 miles up the San Lorenzo River Canyon and adjacent to the campus.



View from the meadow

#### **CAMPUS SETTING**

Located northwest of the Santa Cruz city center, the campus is surrounded on three sides by forest and grasslands. Only on the south do urban uses occur. The Henry Cowell Redwood State Park forms the northeastern boundary, with the S.H. Cowell Foundation owning most of the land along the western and eastern boundaries. The land on the south side of the campus is held in many ownerships varying from single lots to larger acreages, but good quality residential development extends from the center of the city to the campus. An elementary school and a church adjoin the southeastern corner of the campus. Some scattered residential development also occurs along the southern and western boundaries.

The campus is about three times as long as its maximum width. The site varies in elevation from about 300 to 1,200 feet from south to north. The topography varies from relatively flat-to gently rolling-to moderately steep. In the past, parallel streams flowing from north to south cut V-shaped canyons into a series of marine terraces. Grasslands occur in the northern and southern portions of the campus. The central area, where existing facilities have been built, is covered with mixed stands of trees and brush.

#### **GEOLOGY**

The geologic formations found on the campus consist of marble, mica schist, quartz diorite, sandstone,

shale, and limestone. The marble is a hard, compact, white to gray carbonaceous rock, outcropping extensively in the central and southeastern portions of the campus. This rock has a relatively thin soil cover, which in many stream valleys has been washed away. The mica schist is also found in much of the central portion of the campus. It is brownish to grayish in color and physically weak from an engineering standpoint. The quartz diorite, an intrusive igneous rock in the northern end of the campus, may have harder zones than the mica schist. Throughout the southernmost part of the campus are sandstone and shale formations, which are structurally the weakest rocks at the site. Cavernous limestone, underlying much of the campus, acts as a mechanism for ground-water storage, transmission, and discharge. Soil and foundation engineering for buildings in the vicinity of these limestone formations requires special design considerations that may result in construction costs materially higher than experienced under normal conditions.

The San Andreas Fault, about 12 miles northeast of the site, and the Nacimiento Fault, roughly 70 miles to the south, are potential sources of major seismic activity. A possible submarine extension of the San Gregorio Fault may occur off the coast approximately 5 miles from the campus. Several more limited faults also occur in the Santa Cruz Mountains. Nevertheless, the possibility of rupture by faulting at Santa Cruz is remote. In recent times this area has experi-

enced earthquakes of varying intensities but without major damage.

#### **VEGETATION**

Almost 70 percent of the campus is occupied by indigenous tree and shrub cover. The predominant trees are second-growth redwoods, many over 100 feet tall. The largest stands are located near the center of the campus and along the San Lorenzo Rim. Among other native trees on the site are Douglas fir, California laurel, live oak, madrone, Monterey pine, buckeye, and western maple. Other plants include native grasses and wild flowers, manzanita, ceanothus, toyon, chinquapin, ferns, vines, and azalea. Constant vigilance and study will be required if this vegetation is to be preserved.

#### **CLIMATE**

Due to Santa Cruz' proximity to the ocean, seasonal variation in temperature is minimal. The mean average temperature is 58 degrees Fahrenheit with the average high around 70 degrees and the average low temperature around 48 degrees. The area receives an abundance of sunshine throughout the year with rainfall concentrated mainly in the months of December through March. Rainfall at lower elevations i approximately 28 inches per year and approximately 50 inches at higher elevations. During the summer months, foggy and cool mornings are the rule, but May and June, September and October are relatively free of fog.

The prevailing winds in the area are generally wester-

ly, and seldom reach severe intensities. Because of this pattern of prevailing winds, there is no serious air pollution at present, and none is likely to develop in the future. During winter storm periods the prevailing winds are generally from the south, while in the summer months breezes come from the west and northwest.

#### **TOPOGRAPHY**

Since 65 percent of the total area have slopes of less than 15 percent, a large portion of the campus land is topographically suitable for construction. There are, however, other limiting physical features that influence the nature of development. The steep sides of the very deep canyon of the San Lorenzo River bound the site on the north and east, imposing severe limitations to access from this direction. A somewhat similar condition exists on the west with Wilder Creek and Cave Gulch generally paralleling the campus boundary. On the south, however, the land is less rugged.

On the campus itself there are several wide, deep ravines dividing the southern half of the campus into three relatively narrow strips. One large ravine and three smaller ravines occur at the center of the campus. Knolls and valleys occupy most of the balance of the land. The orientation of the campus with the long axis facing south and the terrain falling toward the bay provides spectacular vistas to the south and southeast. The campus enjoys marine views without the glaring western sun, a somewhat unusual situation on the California coast.



Aerial view from the northwest over the campus

# DEVELOPMENT GOALS

#### **PURPOSE**

In the physical growth and development of a college or university, there exists a need for a frame of reference within which daily decisions can be made, short-range problems resolved, and long-range issues or alternatives evaluated. This framework should be oriented to planning as a process and possess those attributes necessary to accommodate change over a period of time in educational needs or methods, socio-cultural attitudes, financial resources, construction technology, and architectural philosophy.

On the Santa Cruz campus of the University of California a set of guidelines has been drawn up to serve as that frame of reference within which the planning and constructing of physical facilities required in support of the academic effort may be carried out. These guidelines have been designed to accommodate changes in general or specific priorities of the University as well as possible recommendations from the community adjacent to the campus. This approach is consistent with the original Long Range Development Plan approved in 1963, and reflects the earlier effort that produced the initial physical-development guidelines at Santa Cruz.

#### **ASSUMPTIONS**

The following premises form the basis upon which the current physical development objectives for the campus have been formulated.

- 1. Physical development will be planned for potential accommodation of up to 27,500 students, undergraduate and graduate. This aim reflects the criteria used in selecting the Cowell site for a campus of the University of California in the central coastal area of the state. The University will continue to evaluate this assumption in terms of the qualitative goals of the educational experience provided by Santa Cruz, ecological site constraints in relation to the preservation of the natural character of the campus, and the economic and social interface between campus and community.
- 2. The Santa Cruz campus will grow and develop by modular units of colleges and graduate facilities. This premise continues to be the pillar around which academic effort and physical development are structured. It represents a concern with the maintenance of a "human scale" in the facilities that house the learning and living program at Santa Cruz. At the same time, it responds to the desire for effective and efficient academic units and a growth program that is academically viable, financially feasible, and politically manageable.
- 3. The Santa Cruz campus will provide more than the usual amount of residential facilities. It will use this opportunity to develop new patterns of social and physical organization that combine learning and living. Central to student and faculty involvement at

Santa Cruz is the concept of the learning and living experience. We are identifying and evaluating issues arising from the initial development of this concept and probing for ways to guarantee the continuation of the experience in the future.

4. The University at Santa Cruz will experiment with new methods to insure growth and development of an institution flexible enough to accommodate changing academic and physical concepts. This premise mirrors the needs of the present and seeks to respond to the probabilities and possibilities of the future. It directs our energies to plan facilities that nurture an open environmental system in order that our educational enterprise remain innovative.

#### **OBJECTIVES**

Certain primary objectives serve to guide development and provide a framework within which the University may evaluate its stewardship of the campus. While relatively general in nature, these objectives provide a means at the operational level for analyzing physical-development proposals. Monitoring is important to the maintenance of a meaningful set of goals. It is assumed that these goals will be modified eventually in response to changes in conditions, a careful appraisal of prior experience, or both. Nonetheless, the following objectives represent the perspectives of 1971.

1. To maintain the remarkable natural character of the site by being ever mindful of the sensitive relationships between the basic ecology of the area and the developed environment. As the campus grows and the natural aspects of the site are documented, studied, and better understood, it is apparent that this goal is critical to the successful melding of a man-made environment with an exceptionally beautiful natural landscape. "Any manicuring of this area will produce a commonplace effect," said Ansel Adams, photographer and conservationist. "To a greater extent than any of us have faced heretofore, the buildings are less important in the visual composition than the trees," commented Thomas D. Church, consulting landscape architect. Thus the situation should always be seen in terms of the impact of the site on the plan rather than the impact of the plan on the site.

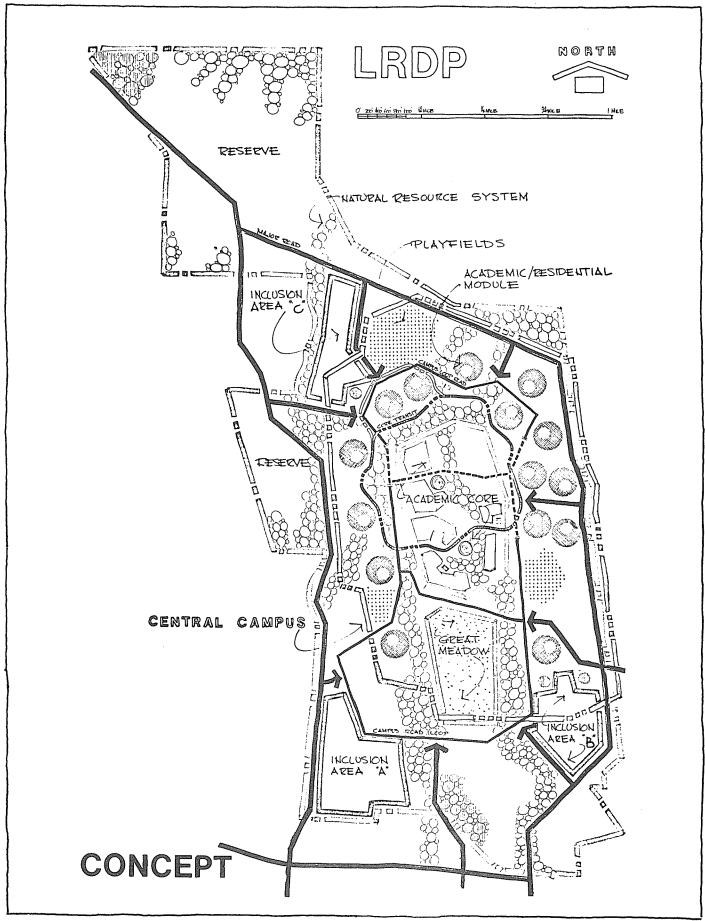
2. To establish a design framework within which a unified and attractive campus can develop without imposing intolerable restrictions on imaginative design of individual projects. The character of the Santa Cruz site plays a significant role in achieving this end. Maintenance of a clear development concept for the campus as a whole provides a framework within which individual projects and building complexes may develop. A commitment to an architecture of excellence complements a faculty of distinguished scholars and devoted teachers. This commitment contributes to the shaping of an imaginative environment, attractive and meaningful to all who come in contact with it.

- 3. To allocate space in such a way that each university activity occupies the best location for functioning effectively and for contact with related activities. The land-use pattern and circulation network of the Long Range Development Plan seek to take into account the full scope of relationships between activities on campus.
- 4. To phase physical development in relation to the paced growth of the Academic Plan; to allow adequate space and flexibility for future growth and change. The number and arrangement by region of the academic-residential modules in the Santa Cruz concept permit planned phasing of the development of these complexes. The module, as represented by a college, allows further internal phasing of academic, residential, or administrative units. Construction of central campus facilities may likewise be carried out in stages according to growth rate and availability of financial resources. Large and small areas of land throughout the campus have been held in reserve to provide flexibility and meet unforeseen future needs.
- 5. To facilitate intracampus pedestrian movement and discourage the internal use of the private automobile. The attainment of this goal requires both specific programs that respond to immediate circulation needs and an open-ended effort that permits the campus to avail itself of changes in transportation technology, a shift in transportation resource allocation, or a change in public attitudes toward transportation. Thus we have set forth a balanced plan for the

campus of traffic service, vehicular control, parking, transit, and pedestrian ways, while encouraging the development of regional transit systems.

- To create a campus that is a strong symbol of the University's role in society; to provide an environment that is visually pleasing. Academic programs, field study, and research are central to creating the image implied by this goal. Efforts to maintain this image in the developed environment of the campus will continue. Contrasting natural and developed environments will be nurtured in order to provide places that invite personal reflection as well as places that accommodate group interaction. The overall intent is an environment that encourages pursuit of all facets of knowledge and promotes an understanding of the role of knowledge in society. Winston Churchill's comment that we shape our buildings and afterwards our buildings shape us may be translated into the Santa Cruz concern for the interrelatedness between man and his environment.
- 7. To achieve a desirable interface between campus and community. A zone of high interaction encompassing both campus and community areas has been identified. Planning liaison is maintained with the City and County of Santa Cruz, and the Cowell Foundation, which owns extensive acreage east and west of the campus. This goal requires continuing and increased co-operation between the University and the community during the coming period of growth on the Santa Cruz campus.

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# DEVELOPMENT PLAN

### **APPROACH**

A conceptual diagram as an interpretive device in the planning process and as a framework within which activities may be allocated space provides a valuable tool in either the development or maintenance of an environment. The conceptual diagram for the Santa Cruz campus sets forth a basic physical order for the campus in response to the aims of the Academic Plan. As an overview it provides an image of the campus and its component elements in terms of long-range aspirations. This diagram, representing the perspectives of 1971, may be altered in response to changing insights, needs, or constraints. It will be continually maintained and amended in order to provide a primary framework against which physical-development decisions on the campus may be measured. The overall goal is providing a meaningful learning environment capable of supporting a viable activity system based on academic goals.

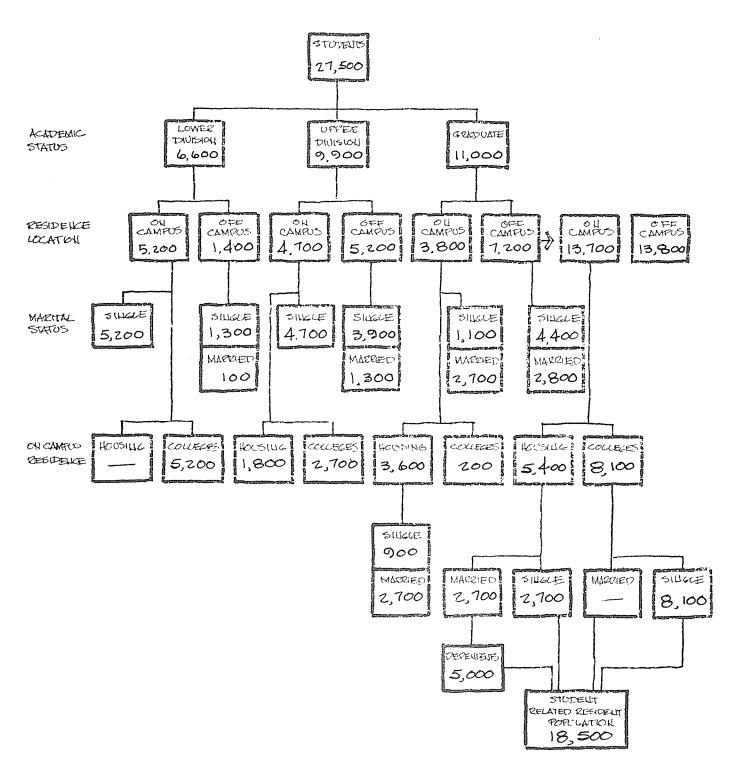
#### **CONCEPT**

Major components of the Santa Cruz campus plan are articulated in the conceptual diagram. The single most important feature of the 2,000-acre campus site continues to be its natural landscape—the forest cover, the marine terraces, the Great Meadow, and the relatively unbuildable slopes of its canyons. These resources provide a natural framework within which campus development may occur and a visually identifiable structure that will be maintained and reinforced over the years.

A central campus area of approximately 900 acres has been selected to contain the primary academic, residential, and recreational facilities of the University. Within the central campus there is an array of academic-residential colleges, or modules, organized in the shape of a horseshoe embracing the centralized academic core of buildings. Playfields, outdoor courts, and related sports and recreational facilities are organized by regions-east, west, and north. In addition, three inclusion areas—labeled A, B, C, - have been designated to provide land for university-related uses that cannot readily be accommodated on university property without some special arrangement. A further important aspect in the campus-planning concept is the assignment of two large areas to a reserve status to supply important flexibility in terms of future alternatives.

The circulation component of the campus plan provides accessibility to activities and facilities within the campus and responds to projected movements between the campus and the surrounding community. This component is comprised of three primary elements: a four-lane road grid enclosing an area of approximately 1,400 acres, a two-lane road loop within the central campus, and a campus transit system to facilitate the creation of an extensive pedestrian zone in the central campus.

Each of the components of the overall campus plan will be developed in detail in the remainder of this document.



2000-2001

#### **DEMOGRAPHY**

As a means of organizing and understanding the relationship between enrollment and residential demand, a series of population diagrams has been prepared. Each one shows an assumed enrollment distribution by academic level and residence during a school year. For a given enrollment, a diagram postulates college housing available to accommodate students and permits an identification of additional on-campus housing requirements as well as the housing demand on the surrounding community.

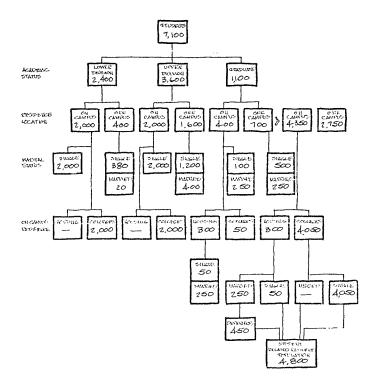
The final enrollment diagram reflects a possible maximum student population of 27,500 by the year 2000. The conceptual diagram for the campus and the following diagrams showing the land use, parking system, and circulation network all reflect judgments based on the 27,500-enrollment diagram with its assumed distribution of student-related resident population. By the year 2000, half of the enrollment is assumed to be residing on the campus in either colleges, university apartment complexes, or inclusion-area housing provided by private development on university land.

Similar distributions may be developed for any population. As a basis for better understanding the evolution of the campus, we have decided to project enrollment distributions for the academic years 1975-76, the end of the current major capital improvement program, and 1985-86, the chronological midpoint between the present and the ultimate enrollment of the campus.

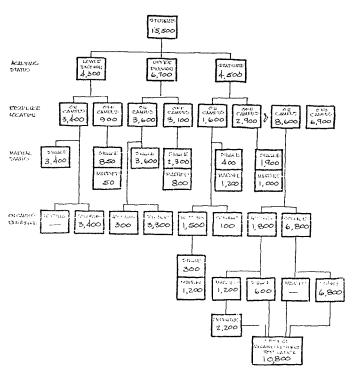
#### LAND USE PATTERN

The land-use pattern provides a graphic documentation of the land requirements of the Academic Plan. It permits precise identification of project sites for major facilities on the Santa Cruz campus.

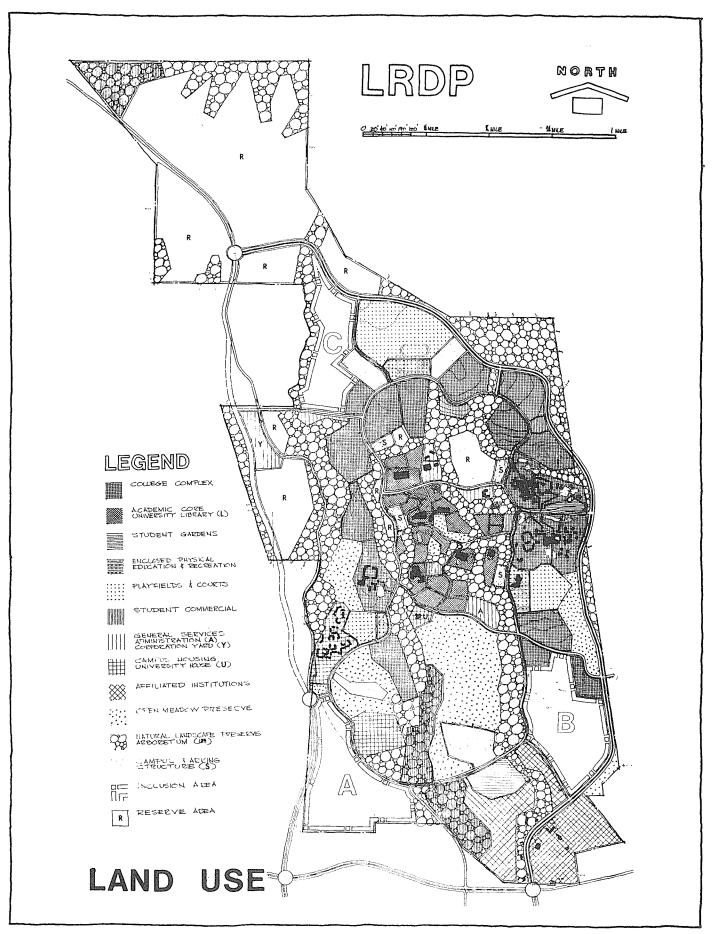
The Colleges: The site for a college, or academic-residential module, which is the basic unit around which the undergraduate educational experience is structured at Santa Cruz, averages approximately sixteen acres. Actual site size, however, varies from ten acres to twenty acres depending upon topographic constraints and planned college enrollment. Land parcels are allocated for fifteen such units. These parcels are sized to take care of a college's academic, administrative, residential, parking, and recreational needs. In addition, about 45 percent of the land assigned to each college is preserved as a natural landscape buffer around and between intensely developed areas of the module. Five of these units are already in operation -Cowell College (1966), Stevenson College (1966), Crown College (1967), Merrill College (1968), and College V (1969)—while sites have been selected for another two colleges. Of these, one complex, Kresge College, is ready for construction, and the other, College VII, is in preliminary design. Three units of college academic and administrative activity are also shown adjacent to inclusion areas wherein housing for these colleges could be financed and constructed by



1975-1976



1985-1986



private interests on land leased from the University under the inclusion area policy adopted by The Regents in 1967.

The academic-residential module concept of planning encourages academic innovation and allows future development to depart from the general pattern of existing Santa Cruz colleges.

The Academic Core: The academic core includes 75 acres of land to provide facilities for the natural sciences, the social sciences, the performing and visual arts, the University Library, and campus-wide administration. Two buildings for the biological and physical sciences have been completed, and a third unit is under construction, as is a building for the performing arts. Designed and ready for construction are a building for the social sciences and a classroom unit that will include large lecture room facilities. The first element of the three-stage University Library is in operation, and a second is in design development.

Two relatively small-scale areas of two to four acres are designated for commercial development in the academic core. One area, adjacent to the Upper Quarry Amphitheater, is intended to provide an initial facility to serve the campus community. A second area between the University Library and the Arts Center is planned to serve an enlarged campus community at a time when the activities of that area will attract a larger number of visitors. A 300-car parking structure is anticipated as an integral element of the commercial facility in this area. Land is also designated on the periphery of the academic core for four other parking structures.

Activities in the academic core occur in what primarily will be maintained as a pedestrian precinct. While the distance to the core is greatest for the northern colleges, all colleges are located so that the passing time of fifteen minutes between classes is adequate to move between any college and a core activity. Sites in the core will be developed to preserve significant areas of natural landscape. Normally each building will be limited to ground coverage of about 25 percent of its site to limit the developmental impact on the natural environment.

An average building height of four stories is adequate for initial programs in the natural sciences and social sciences. Future space and building needs of these subject areas, however, will be evaluated carefully in terms of possible accommodation in taller structures averaging six to eight stories. Decisions, growing out of these evaluations, will be determined by a desire to preseve and complement the natural environment.

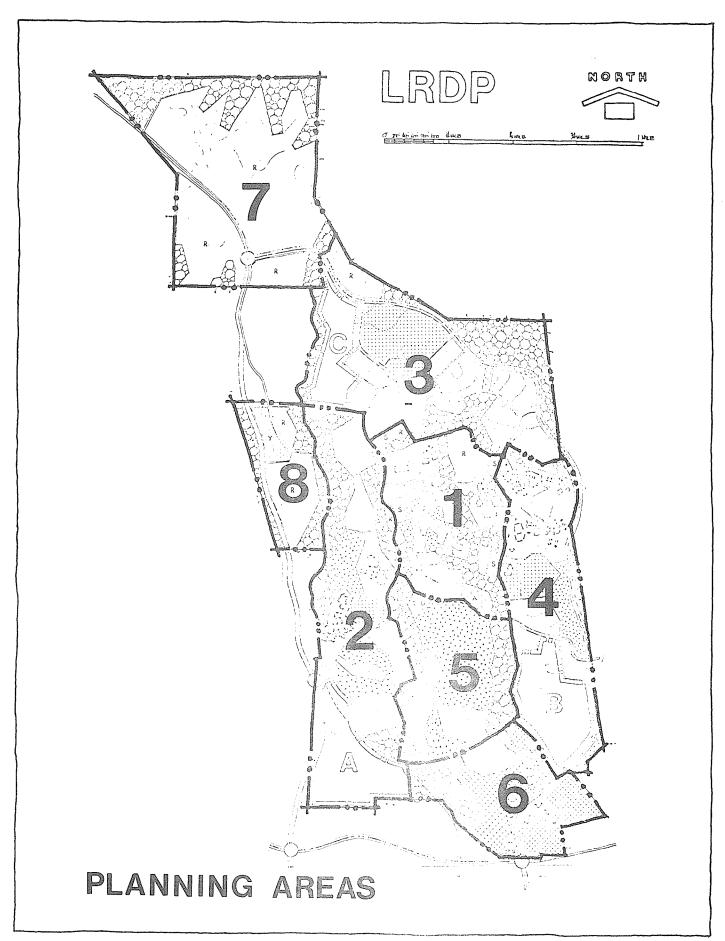
Professional Schools: The land-use pattern permits several alternative arrangements for the accommodation of professional schools as their form and needs are articulated. Facilities for professional schools may be constructed as part of an academic-residential

module, in areas assigned to affiliated insitutions, or in one of the reserves. Initially, professional schools may occupy space linked with the academic subject field to which they are related, and possibly some of them may continue to be housed in the academic core.

Housing: Santa Cruz continues to support the role and need of residential units in the colleges as positive and crucial, but the form, arrangement, and location of college housing continue to be evaluated. Academic-residential modules, non-collegiate housing areas in the central campus, and designated inclusion areas are planned to accommodate about half of an enrollment of 27,500 students. The designation of inclusion areas will permit efforts at innovative housing including the possibility of combining private housing with the academic and administrative units of a college.

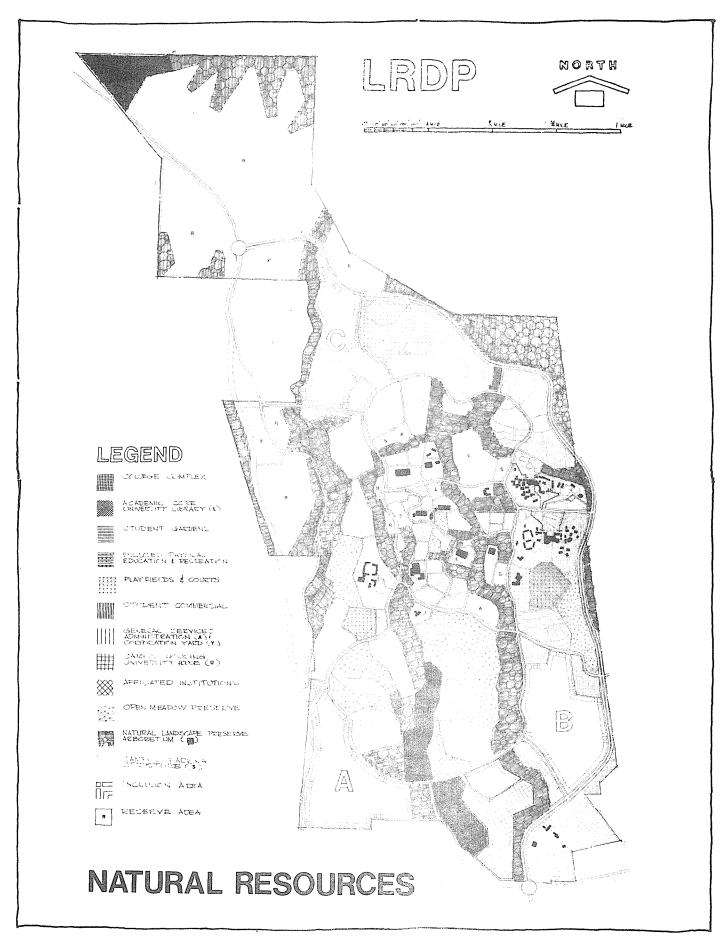
#### SUMMARY OF CAMPUS LAND USE

Land Use	Acr	eage	% of Total
College Complex Residential Academic/Administration General Services Recreation Roads and Major Paths Parking Natural Landscape	43 15 23 14 15 26 121	257	12.8
Academic Core Academic/Administration University Library	68 7	75	3.8
Student Activities Student Gardens Student Commercial	19 11	30	1.3
Physical Education & Recreation Enclosed Areas Playfields and Courts	19 69	88	4.4
Services General Services Administration Corporation Yard	14 7 12	33	1.6
Residential (Non-Collegiate)		40	2.0
Affiliated Institutions		90	3.0
Open Space Open Meadow Preserve Natural Landscape Preserve Arboretum	158 429 76	663	32.4
Campus Parking Remote Lots Structures	41 11	52	2.6
Inclusion Area		203	12.6
Reserve Area		370	18.5
Major Campus Roads 2—lane 4—lane	48 52	100	5.0
TOTAL		2001	100.0



## AREA LAND USE DISTRIBUTION

lanning Area	Land Use	Ac	reage
1			200
•	Academic Core (Academic/Administration)	68	
	Academic Core (University Library) Student Commercial	7 4	
	General Services	9	
	Administration	7	
	Open Meadow Preserve	4	
	Natural Landscape Preserve Parking (Structures)	64 11	
	Reserve Area	20	
	Major Roads	12	
2			340
	College Complex	66	
	Enclosed Physical Education & Recreation Playfields & Courts	3 9	
	General Service	4	
	Campus Housing	37	
	Open Meadow Preserve	50	
	Natural Landscape Preserve Parking (Remote)	73 6	
	Inclusion Area	78	
	Reserve Area	2	
	Major Roads	12	
3		0.7	369
	College Complex Student Commercial	97 7	
	Enclosed Physical Education & Recreation	8	
	Playfields & Courts	46	
	Natural Landscape Preserve	99	
	Parking (Remote)	19 50	
	Inclusion Area Reserve Area	18	
	Major Roads	25	
4			24:
	College Complex	94	
	Student Gardens	4	
	Enclosed Physical Education & Recreation Playfields & Courts	8 14	
	General Service	î	
	Open Meadow Preserve	23	
	Natural Landscape Preserve	10 75	
	Inclusion Area Major Roads	16	
5			190
3	University House	3	1./
	Open Meadow Preserve (The Great Meadow)	81	
	Natural Landscape Preserve	57 16	
	Parking (Remote) Major Raods	8	
	Arboretum	25	
6			16:
	Student Gardens (Orchard)	15	
	Affiliated Institutions	90	
	Natural Landscape Preserve	26	
	South Arboretum	25	
	Major Roads	7	
7		67	38:
	Natural Landscape Preserve	26	
	North Arboretum Reserve Area	284	
	Major Roads	8	
8		<del></del>	10.
U	Corporation Yard	12	10.
	Natural Landscape Preserve	33	
	Reserve Area Major Roads	46 12	
	Total		200



Commercial Units: Small-scale commercial facilities, located within the central campus, are necessary to supply the daily needs of students, faculty, and staff. These facilities may include restaurants, cafeterias, bookstores, coffee shops, and travel agencies. Two of these units are located in the academic core, and a third is located along the northern portion of the campus loop road. Each unit occupies a site of approximately two to seven acres.

Sports and Recreation: Reflecting the emphasis placed on intramural sports and optional courses in recreation, a regional approach to the provision of enclosed facilities, playfields, and courts was adopted. Land is assigned in the east and west college regions to handle limited programs serving adjacent colleges. The sports and recreation area north of the academic core is intended to serve the immediate needs of the colleges in that region as well as the major need of the entire campus. Extensive playfields can be developed in this area, as can a major swimming pool, field house, or gymnasium complex without working to the detriment of the natural landscape.

Reserves: To provide flexibility in land use, a total of 370 acres, or approximately 18 percent of the campus site, have been designated as reserves. They are distributed in small units throughout the central campus and in larger blocks to the north and west. These reserves are not excess land, and their use is under constant review. Assignment within them is made only upon the recommendation of the Chancellor and approval of The Regents.

Research: The current allocation of land on the campus assumes that research will occur primarily in the academic core and the colleges. If necessary, various-sized tracts in either the northern or western reserves could be developed to provide space, larger than that available in the academic areas, for major research activity.

Natural Resources: The remarkable natural resources of the campus include 158 acres of open meadow, 429 acres of natural landscape, and 76 acres of arboretum. Within this acreage are found historic features—limestone kilns, quarries, ranch buildings, Indian mounds—and outstanding natural elements—springs, dwarf redwoods, and azaleas. Teaching reserves, as well as research stations, are located within the natural landscape corridors and the arboretums. A maintenance program is being developed to insure the preservation of these spaces as natural resources for future generations.

Arboretums: The establishment of the two arboretums—one in the northwest corner of the site and the other near the southern boundary-represents an effort to utilize for teaching and research the great diversity in climate, topography, soils, and vegetation found within the campus. At the north arboretum rainfall totals about 50 inches annually, the elevation averages 1,150 feet, and the soil is a deep sandy loam. At the south arboretum the rainfall is about 30 inches, the elevation averages 470 feet, and the soils have

developed from rocks ranging from granite to schist and limestone. While frosts occur fairly regularly at the upper site, much of the lower site is frost-free. Such propitious sites for the planting of a wide range of trees may never again be available to the University. The north and south arboretums are designated as integral elements of the Long Range Development Plan, to be preserved in perpetuity for teaching and research.

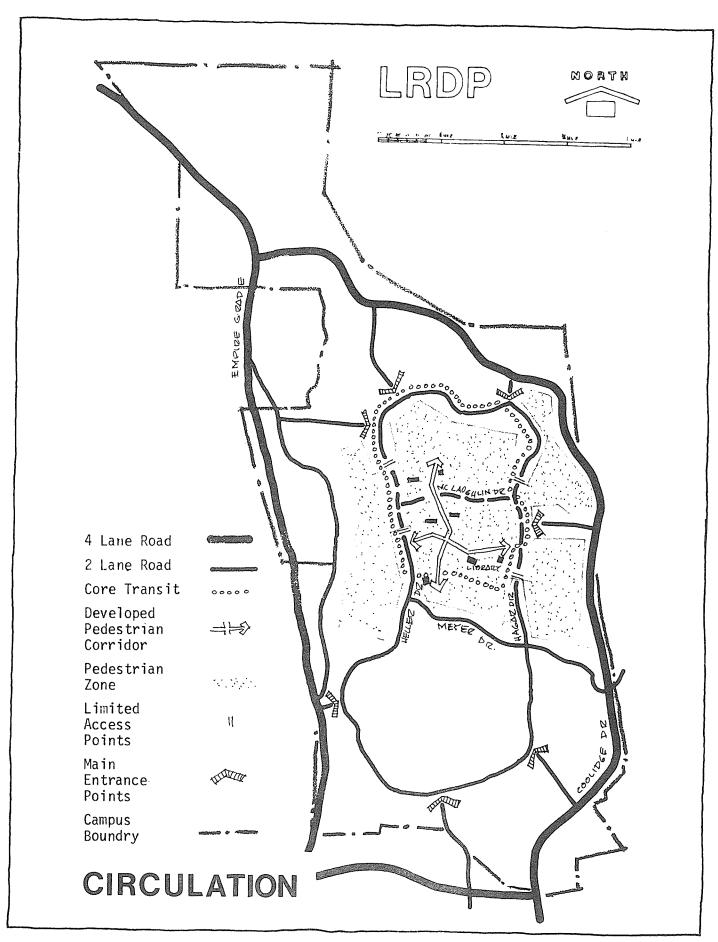
#### CIRCULATION

The movement of people and things, plus transfer between modes of movement, forms the basis for the circulation network and parking system of the Santa Cruz campus. The present framework within which both circulation and parking issues are evaluated and resolved represents today's best estimate of future problems and potentials. Assumptions about personal values, available technology, and financial resources will be reviewed constantly in the light of changing conditions.

Objectives: The circulation network and parking system of the Long Range Development Plan work in tandem to achieve the following goals. The first is to minimize private vehicular intracampus movement. The second is to maximize pedestrian movements and establish a pedestrian precinct in the central campus. The third is to optimize accessibility to destinations through the location of parking facilities and the



Commercial Unit



creation of an interconnecting transit system serving the academic core and colleges. The fourth is to utilize college clusters as major circulation terminals.

Circulation Network: An important feature of the circulation network is the four-lane arterial parkway forming a large, modified grid around the campus. This grid allows rapid vehicular movement around the central campus and connects the campus with the regional road network. The two-lane loop road within the central campus connects the colleges and provides access to the academic core. Eight entrance roads tie the loop to the grid. As the campus grows, four or five limited-access points may be established on the east and west extensions of the loop road. Controlled access is anticipated in order to assure students, faculty, and staff safe and pleasant movement along the campus pedestrian-path network.

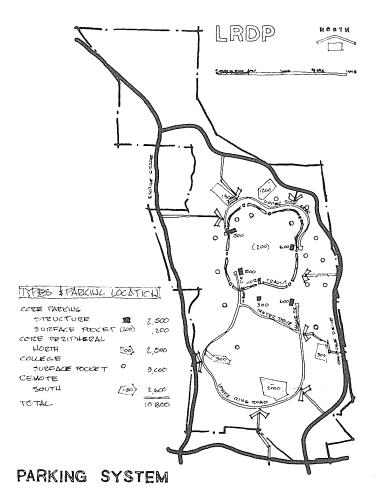
An integral part of the plan to create a large pedestrian precinct and limit private vehicular movement within the central campus is the development of a transit system along a core ring with possible north and south feeders. This system, specified in recent circulation studies and included in the major capital improvement program for the campus, may be automated and contained in its own right of way. With this network, college will be linked to college and reasonably rapid movement between colleges and facilities in the academic core will be ensured.

Two major intersecting pedestrian corridors contribute to the physical organization of the academic core and handle large movements of people walking between activity centers. One corridor, Steinhart Way, connects the east and west college regions with the University Library. A north-south corridor is planned to intersect the east-west corridor between the natural science center and the social sciences complex. These corridors will become important developed spatial elements as the campus matures.

Parking System: Within the circulation network, parking is located by area and type with most parking assigned to peripheral ring locations served by the campus transit system. Ultimately 10,800 parking spaces will be available for a ratio of .4 parking spaces per student. This proportion is less than the current standard used on many campuses and reflects a commitment to discourage use of private vehicles at Santa Cruz.

Academic core parking totals 2,700 spaces with 2,500 spaces in structures and 200 spaces in pockets of surface parking. The structures interface with the campus transit system to provide maximum accessibility and usually are located near future controlled core access points on the loop road. Core peripheral parking totals 2,500 spaces in two large surface parking areas located adjacent to the upper loop road.

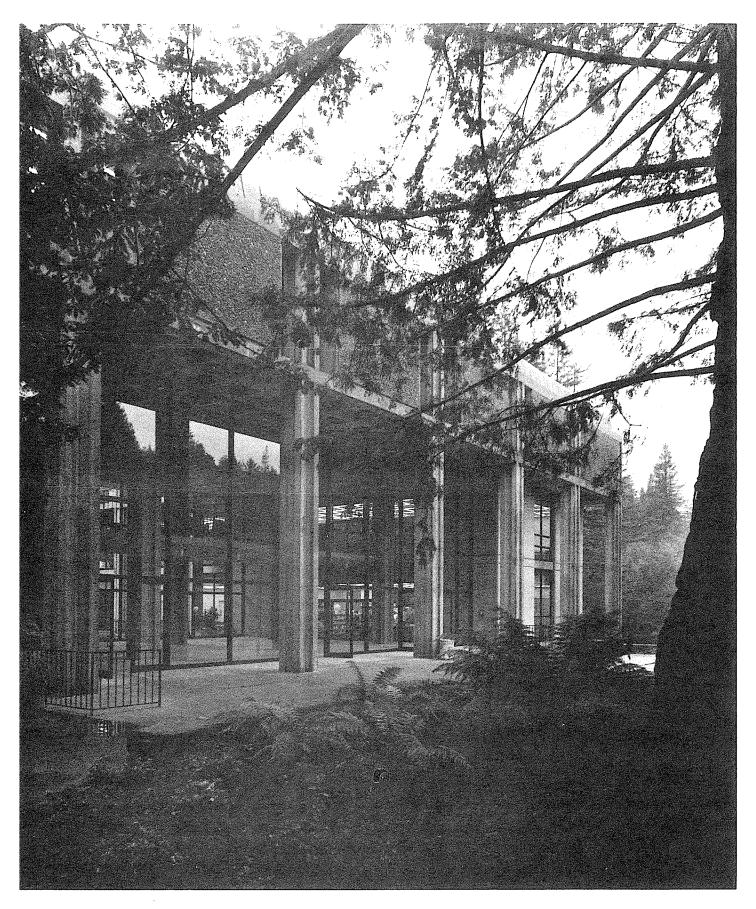
These areas also interface with the campus transit system adding to the reservoir of parking available for



activities in the academic core. College parking provides 3,000 spaces distributed uniformly throughout the fifteen colleges for which land has been allocated. Remote parking areas provide 2,600 spaces in several large surface areas located in the vicinity of the lower southern loop road.

Based on future evaluation, the planned parking system can expand in either the core peripheral or remote areas to accommodate an increase in demand. In case of a decrease in demand, a reduction would be made in the remote-area consignment.

Freeway: The Division of Highways intends to locate and construct a freeway from the intersection of State Sign Route 17 and State Sign Route 1 to a point on existing Route 1 immediately west of the City of Santa Cruz. Although the State Highway Commission has designated a route crossing the southeast corner of the campus (contrary to the recommendation of campus and community officals), we consider that the situation is unresolved and that it is premature to define a final road alignment at this time. Alternate alignments officially proposed do not obviate the principles or basic proposals contained in the Long Range Development Plan. The development framework for the circulation network and parking system of the central campus will not be affected significantly by any alignments presently under discussion.

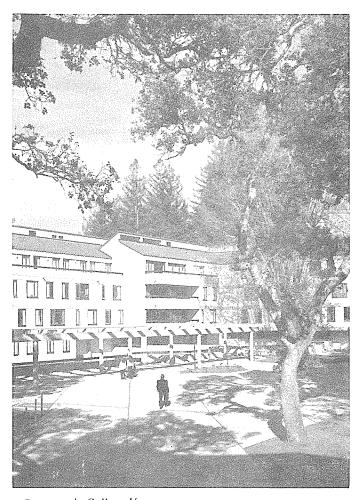


'Iniversity Library

#### VISUAL FORM

The site's topography and mantle of woods and meadows continue to form the overall framework within which the campus is organized, and the architecture must grow out of the problems, constraints, and potentials of these natural features.

Spatial Structure: The two north-south canyons, the Great Meadow, Cave Gulch, the series of marine terraces, and the Pogonip slope along with the San Lorenzo Valley Rim form the macro-elements ordering the natural spatial structure of the Santa Cruz campus. The preservation of the natural character of this large-scale landscape structure underlies all planning for development of the site.



Courtyard, College V

In the academic core pedestrian corridors provide another organizing framework for facilities to be built therein. Natural landscape buffers in the core are to be woven between areas designated for potential major building complexes. Following this plan permits the construction of relatively large buildings with the natural landscape persisting as a foil against which development occurs. The natural sciences buildings illustrate this approach as does the art center in the south of the academic core where the forest meets the Great Meadow.

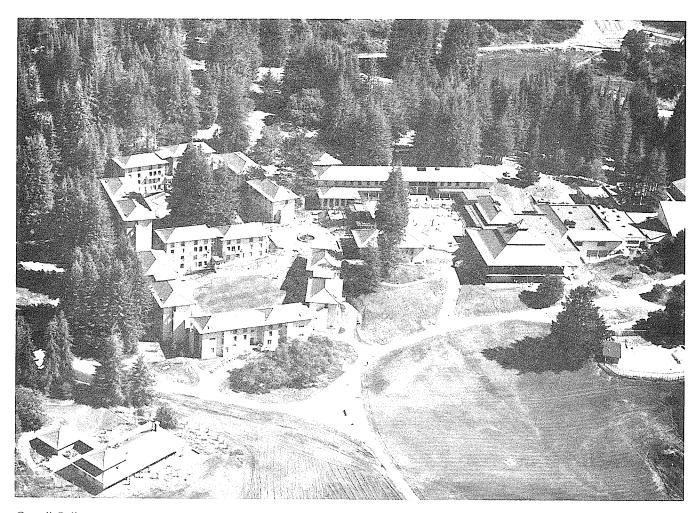


Pedestrian Bridge

Micro-elements: Care continues to be exercised in the design of small-scale objects that are required on the campus, such as the graphics used to direct people along the major roads and on the pedestrian path system of the campus, informational signs for parking and other purposes, legal enforcement notifications, and outdoor campus maps. Also included in this category of design concern are pedestrian bridges, light standards, street "furniture," and similar elements. Concern for detail and the resultant involvement with micro-scale design represents an important facet of the stewardship required in guiding and maintaining the physical appearance of the campus.



Redwood directional sign



Cowell College

Architecture: The guidelines originally set down for the architecture of the campus remain unchanged. The principle of architectural diversity continues to be pursued. A reasonably distinguished and diverse architecture in the colleges is encouraged by two practices. One is to assign different architects to each college in a region during a given period of development. The other is to charge that the physical program for a college be creatively translated into an architectural expression that represents an economically sound functional solution and a clear statement of the architect's environmental design philosophy.

In the academic core a similar principle is followed: diversity is encouraged between complexes rather than within a complex of buildings. A strongly integrated architectural expression within a complex of buildings is the intent. Between complexes diversity is expected because of program variants, the natural constraints of an area, the special nature of activities to be housed, and the passage of time. Such differences are already apparent between existing facilities in the natural sciences center and the new Performing Arts Building.

Design parameters for an individual building in a

specific complex of buildings are based on a desire for a unity of materials, colors, textures, and shapes and a meaningful relationship between the parts and the whole of the complex. No single architectural style or vocabulary applies to every building and every space. It is intended that individual buildings take advantage of the unique topography of the campus and depart from conventional architectural schemes. If a color palette can be identified, it is composed of earth tones with lighter colors in offwhites used within the densely wooded forest areas where the sun will not penetrate strongly. On the slopes and knolls, often in full sunlight, the warmer earth colors can add richness. Textures may vary from smooth to rugged. In general the more formal buildings might use smoother finishes, and the less formal ones can find rough textures and even woods and stones appropriate. Textures, as colors, can vary depending upon whether the building is sheltered by trees or stands in open light.

We adhere to the principle that the actual design of buildings should not be specificed in the Long Range Development Plan. One of the precepts enunciated at Santa Cruz is that the architecture of the campus should not represent a single style, for styles change



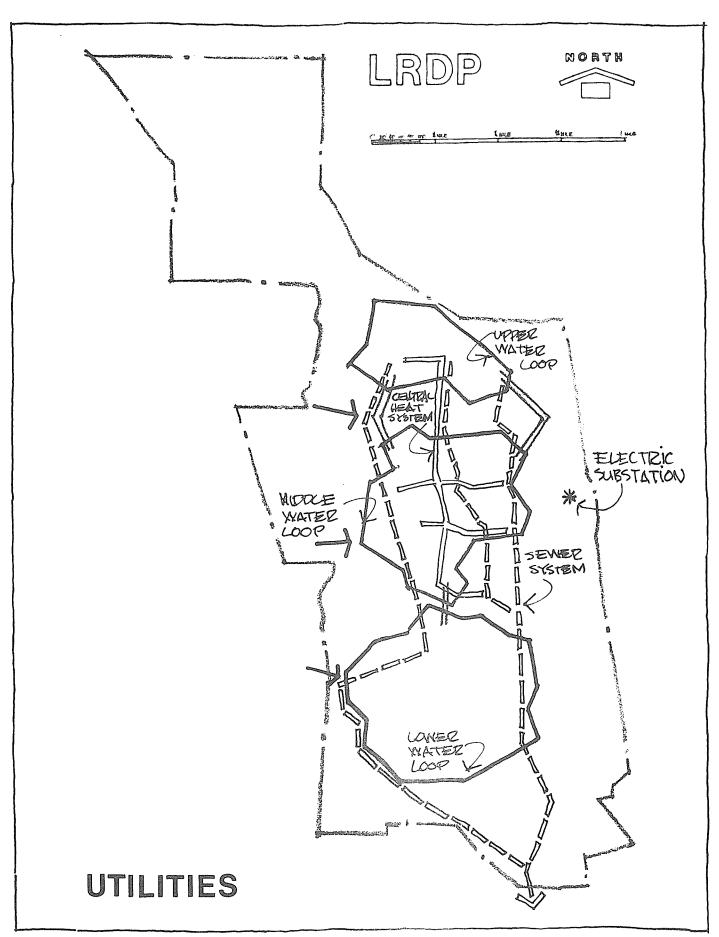
Natural Sciences Complex

from time to time according to the concepts and technology of an age. Principles of design and relationship, however, can be followed through many periods of change and even by many architects when they sincerely seek high quality and consistency of expression.

Landscape Architecture: The landscape challenge on the Santa Cruz campus remains not one of furnishing new material so much as preserving that which is here and making the best use of it. Thomas Church has said that among the natural features that make the site both provocative and difficult, it is the size of the redwood groves which must concern us the most, for these towers of trees are out-scale and more related to rugged knolls and deep ravines than they are to an academic landscape. We agree that they are to be thought of less as trees to enhance, screen, and shelter buildings-although they do—but more as great vertical elements of the topography having form, mass, and density against which to compose the architecture. It is important to acknowledge Church's warning that one of the inevitable results of building in the forest is that as man enters, nature recedes. And we must understand that covers of fern, johnny-jump-ups, and shooting stars may prefer to disappear rather than face our more intensive use of the land.

In our development of the campus site, we adhere to the principle that, with the exception of areas especially preserved in their natural state, the general effect must be one of sensitive collaboration between what man has designed and the spectacular natural environment with the intent that neither shall impose unduly upon the other.

The landscape design of the campus is inextricably related to the siting of buildings and the design of site developments. The establishment of the Great Meadow as a preserve within which no building will occur was a major physical planning decision that continues in force. Relationships of building groups in formal patterns are discouraged when in violation of the topography. There will be no indiscreet removal of major redwood groves to accommodate preconceived architectural schemes. The site will always dictate the form of development. While the Santa Cruz campus is not an ecological preserve, development will be based upon an appreciation of the ecological relationships involved in the intrusion of activities and facilities into undeveloped areas of the campus.



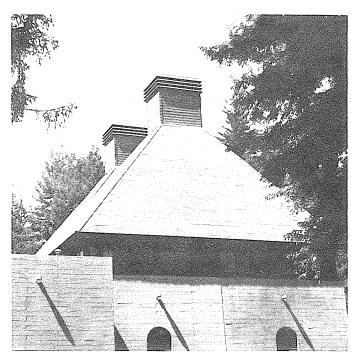
#### UTILITIES

Water Supply: The campus obtains its water supply from the municipal water system of the City of Santa Cruz. The long-range plan for expansion of the city's water-supply system to meet future needs includes those of the University. Additional extension of city water-distribution facilities will be required to serve areas of the campus presently undeveloped. No pumping or storage facilities are contemplated as part of the university sytem, as these are to be provided by the city. The range in elevation of the campus area lends itself to a pressure zone system served from existing and future city storage tanks. Campus distribution systems are looped with more than one connection to the city system in order to provide security and assure continuity of water supply.

Sewerage System: Sanitary sewage disposal for the campus is provided by the City of Santa Cruz via sewers extending from the southern boundary of the campus. The major portion of the campus area can be sewered by gravity to discharge into the city's sewers at the southern boundary. The university sanitary sewage collection system consists of two main trunk sewers following the two principal ravines which serve as natural drainage paths for the campus, and lateral sewers feeding to the main trunks. Payment for sewage disposal by the University to the city is based on the measured flow of sewage.

Electrical Power: The University purchases electrical power from Pacific Gas and Electric Company at a central substation located on the campus adjacent to Merrill College. Beyond this substation the University owns and maintains the campus power distribution system, which is entirely underground in multiple duct banks. Manholes are provided for maintenance taps and sectionalizing switches. The distribution system judged the most economical for the site is the radial type with parallel selective circuits rather than loops. Underground duct banks are also provided for telephone, television, fire alarm, and other special communications facilities. The duct banks and manholes for communications generally parallel electric power ducts.

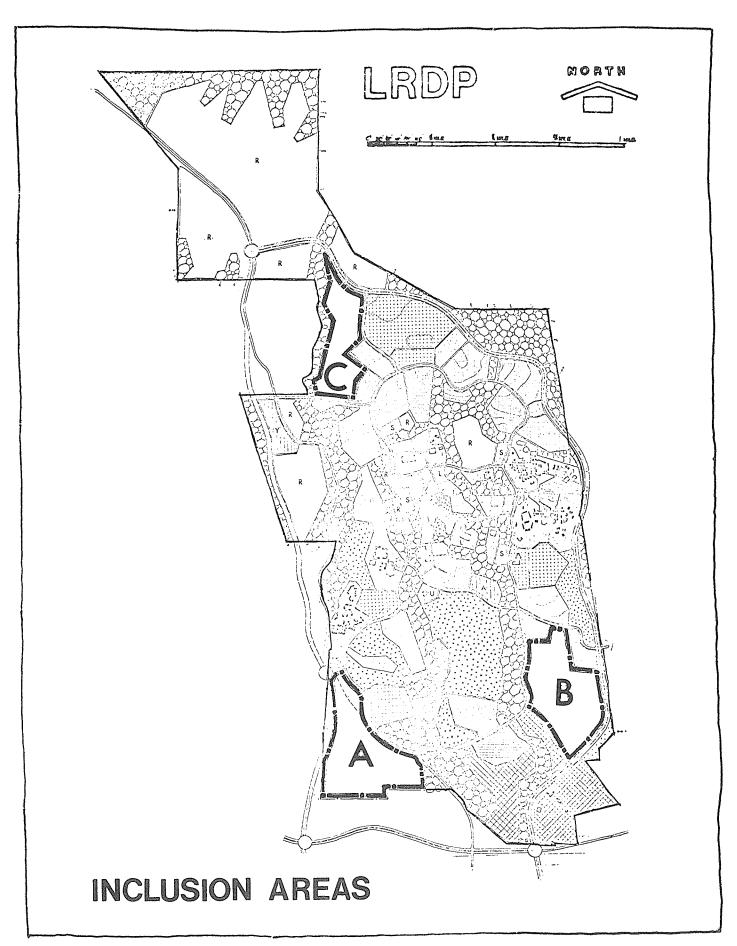
**Drainage:** The campus is drained by the two major canyons running north and south through the site. There is ample natural slope to these drainage chan-



Central Heating Plant

nels from all parts of the site. Buildings, courts, parking areas, and roads will all be drained to the natural channels. Problems with run-off erosion and the maintenance of the ground-water table are recognized. As much rainfall as possible, therefore, is to be returned to the ground-water system in the cavernous limestone formations underlying the campus.

Heating: Heating needs of the academic core are taken care of by central gas-fired boilers feeding an insulated underground, high-pressure hot-water distribution system. The colleges and building groups outside of the academic core have individual plants. Natural gas for heating and laboratory use is purchased from Pacific Gas and Electric, which maintains the necessary service mains to the south boundary of the campus. Gas mains within the campus are owned and maintained by the University. A liquid petroleum (propane) gas-air system, owned by the University, provides stand-by service.



# UNIVERSITY COMMUNITY

#### **INCLUSION AREAS**

Three areas totaling 203 acres are designated for inclusion-area development in accordance with the policy concerning inclusion areas adopted by the Regents in 1967. The extent and location of these areas relate to growth projections for the Santa Cruz campus and the projected need for housing and commercial support facilities adjacent to the central campus. These areas also provide a means for accommodating activities that, while unrelated to the University directly, provide facilities or services advantageous to the functioning of the university community.

Inclusion area A involves 78 acres in the southwest corner of the campus adjacent to a large private parcel of undeveloped land. Area B encompasses 75 acres and overlaps the southeast corner of the central campus. While geographically separated from the surrounding community, this area adjoins a county road, Glenn Coolidge Drive. Area C totals 50 acres and overlaps the northwest corner of the central campus. This area is separated from "Cave Gulch," an enclave of small private land holdings, by a major north-south ravine. Area C, however, will have direct access to the surrounding community by the future west entrance road to the campus and the extension of Glenn Coolidge Drive that will connect with Empire Grade to the north.

The campus will proceed with preliminary planning studies as a basis for precise development plans for inclusion areas A and B, the two areas considered to have the highest development priority. Campus studies will include (1) identification of specific site potentials and relationships to the surrounding campus and community, (2) evaluation of the spatial location and intensity of alternative land uses and activities, and (3) survey and analysis of the supply and demand for proposed uses. A concurrent universitywide effort will prepare recommendations regarding issues that concern community services and taxation and will investigate land development financing and management.

Inclusions areas that overlap the central campus afford an opportunity to experiment or innovate with collegiate forms wherein the residential elements of a college may be built by private interests on land leased from the University. It is anticipated that precise plans setting forth physical and socio-economic guidelines will govern inclusion-area development. To date proposed inclusion-area planning is consistent with the existing general development plans for the surrounding community. Since areas designated for this purpose occur in a potential zone of high interaction betwen campus and community, university-community liaison is important to the success of this program.

#### **ENVIRONS PLAN**

The environs plan for the Santa Cruz campus was adopted by the Santa Cruz City Council and the County Board of Supervisors and approved by The Regents in 1963. The general plan for future development for the City of Santa Cruz, incorporating the environs plan, was adopted by the Council that same year. These plans project the city's land use, circulation, and community facilities to 1990. The limited amount of development that has taken place in the environs since the enrollment of the first students at Santa Cruz in the fall of 1965 makes it difficult to gauge the effectiveness of these plans as guides for future development.

The City of Santa Cruz recently has undertaken a review and updating of its general plan through a Citizen's Planning Advisory Committee. All segments of the university community—students, faculty and staff—had an opportunity to participate in this process.

During the next four years, an effort should be made to evaluate further and redefine development policy in the environs. General goals, land use, and circulation as presently articulated appear to provide a reasonable relationship to the current Long Range Development Plan.

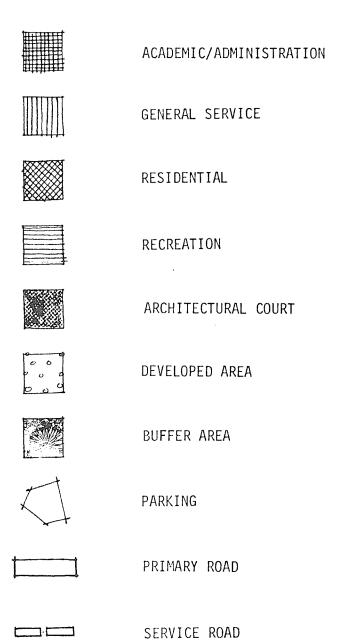
# **APPENDICES**

#### **CAMPUS PLANNING COMMITTEE**

Dean E. McHenry, Chancellor
Harold A. Hyde, Vice Chancellor
Business and Finance
Donald T. Clark, University Librarian
Robert F. Adams, Associate Professor of Economics
Charles E. Wheelock, Professor Emeritus
Henry Chu, Crown College Senior
John E. Wagstaff, Campus Architect
Ernest J. Kump, Consulting Architect
Thomas D. Church, Consulting Landscape Architect
Robert J. Evans, Assistant Vice President
Physical Planning and Construction

#### **STAFF**

Albert R. Wagner, University Planner Richard B. Grenfell, Associate University Architect Richard A. Peterson, Campus Planner Joel F. Summerhill, Assistant Campus Planner



CONCEPTUAL COLLEGE DIAGRAMS

## COWELL COLLEGE

PLANNED 1971-72 FTE: 400 Resident Students 275 Commuter Students

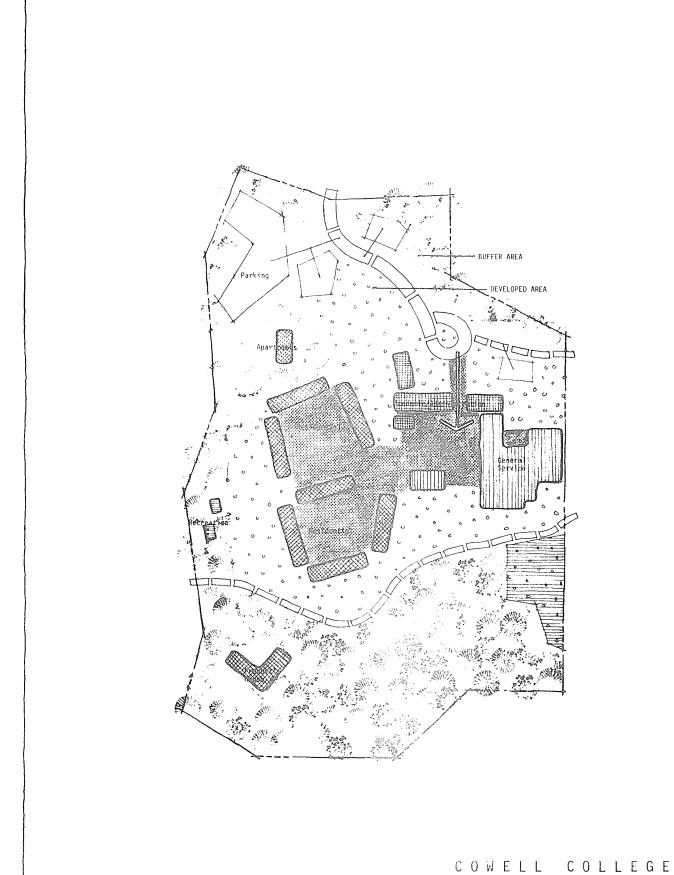
TOTAL AREA: 18.28 Acres

## DEVELOPED AREA

Land Use		% Area
Residential Academic/Administrate General Service Architectural Courts Major Paths Roads Parking	ion	9 4 7 26 4 9 1
Developed Landscape Acres Utilized:	7.11	100%

## BUFFER AREA

Land Use	and the second s	% Area
Roads Recreation Residential Major Paths Parking Natural Landscape		2 6 2 1 9 80
Acres Utilized:	11.17	100%



# STEVENSON COLLEGE

PLANNED 1971-72 FTE:

450 Resident Students

275 Commuter Students

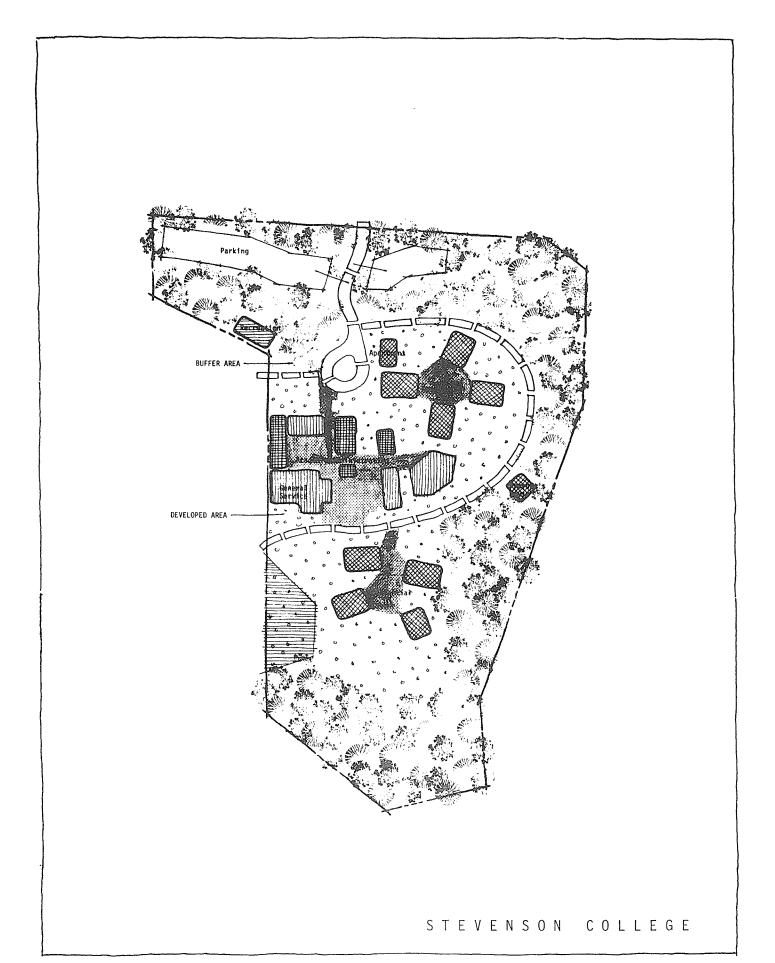
TOTAL AREA:

16.06 Acres

### DEVELOPED AREA

Land Use		<u> % Area</u>
Residential Academic/Administration General Service Architectural Courts Major Paths Roads Parking Developed Landscape	on	9 4 8 15 3 9 1 51
Acres Utilized:	7.10	100%

Land Use		% Area
Recreation Residential Major Paths Parking Natural Landscape		5 1 1 10 83
Acres Utilized:	8.96	100%



### CROWN COLLEGE

PLANNED 1971-72 FTE: 400 Resident Students

175 Commuter Students

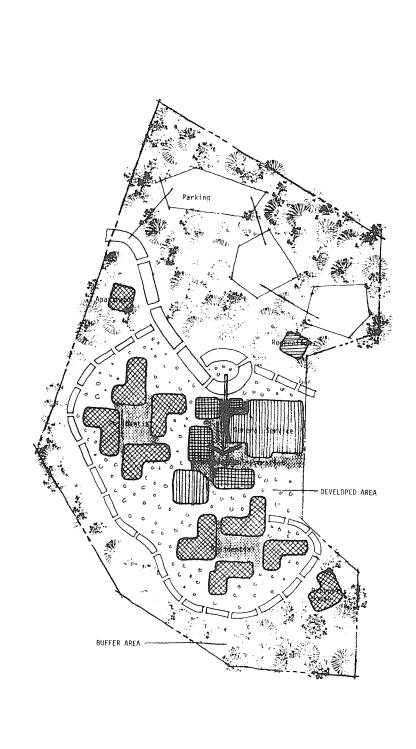
TOTAL AREA:

12.54 Acres

#### DEVELOPED AREA

Land Use	No. Modernoon	% Area
Residential Academic/Administrati	0.12	16
General Service	Off	11
Architectural Courts Major Paths		11
Roads Parking		12 1
Developed Landscape		42
Acres Utilized:	5.10	100%

Land Use		% Area
Recreation Residential Major Paths Parking Natural Landscape		2 2 1 15 80
Acres Utilized:	7.44	100%



CROWN COLLEGE

### MERRILL COLLEGE

PLANNED 1971-72 FTE: 400 Resident Students

200 Commuter Students

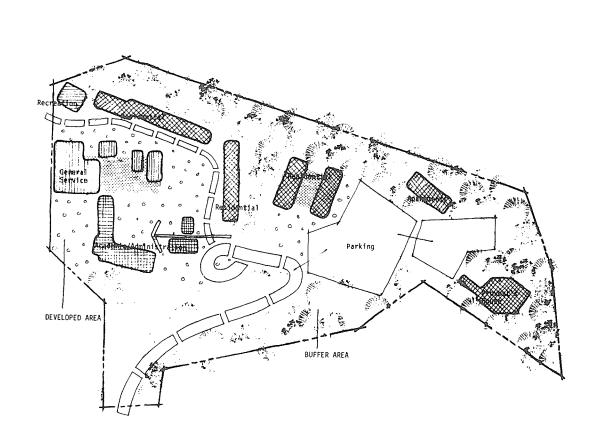
TOTAL AREA:

10.68 Acres

### DEVELOPED AREA

Land Use		<u>% Area</u>
Residential Academic/Administrati General Service Architectural Courts Major Paths Roads Parking	on	15 5 6 7 4 10
Developed Landscape		52
Acres Utilized:	4.66	100%

Land Use		<u>% Area</u>
Residential Parking Natural Landscape		1 17 82
Acres Utilized:	6.02	100%



MERRILL COLLEGE

# COLLEGE V

PLANNED 1971-72 FTE: 550 Resident Students

250 Commuter Students

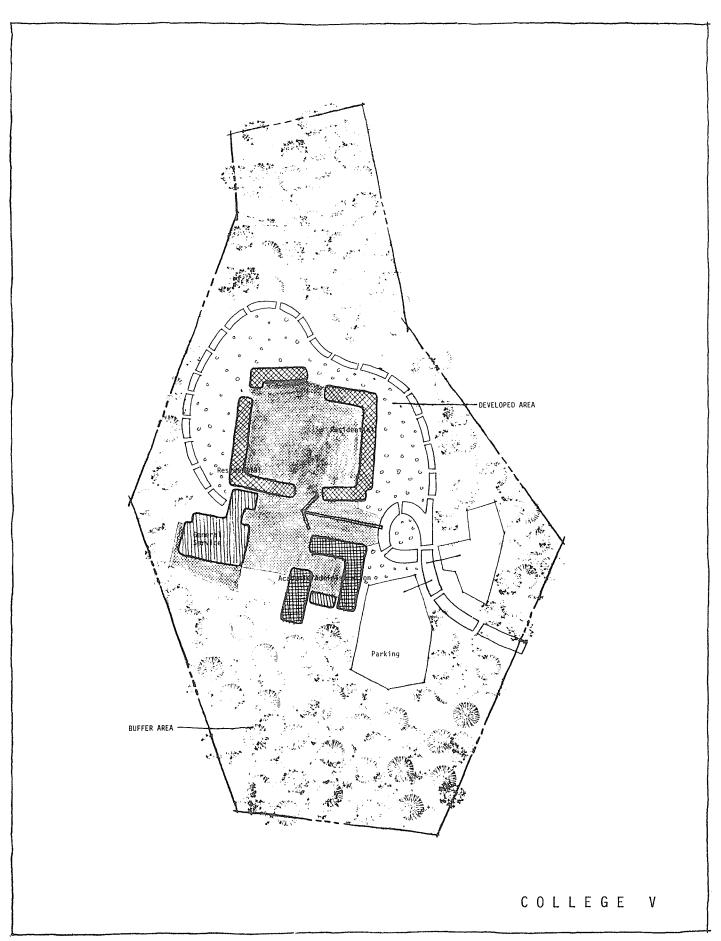
TOTAL AREA:

18.95 Acres

### DEVELOPED AREA

Land Use		<u>% Area</u>
Residential Academic/Administrati General Service Architectural Courts Roads Parking Developed Landscape	ion	10 6 7 38 14 2 23
Acres Utilized:	5.24	100%

Land Use		% Area		
Major Paths Parking Natural Landscape		1 7 92		
Acres Utilized:	13.71	100%		



#### APPENDIX C

### ACADEMIC SPACE PROGRAM

ENROLLMENT PROJECTIONS		1975-	1976		
Lower Division Undergraduates Upper Division Undergraduates Total Undergraduates	2,400 3,600 6,000 660 440 1,100				
Graduate I Graduate II Total Graduates					
Total Headcount		7,1	00		
ACADEMIC SPACE ALLOCATION *	COLLEGES	CORE	RESERVE	TOTAL	
HUMANITIES					
Undergraduate Classroom	02.000		F 000	00 000	
Laboratory	23,000	12,000	5,000 3,000	28,000 15,000	
Graduate		12,000	3,000	13,000	
Classroom/Seminar		3,000		3,000	
Laboratory		8,000		8,000	
Faculty Miscellaneous	28,000	7,000		35,000	
Total	$\frac{1,000}{52,000}$	$\frac{3,000}{33,000}$	$\frac{1,000}{9,000}$	5,000 94,000	
000711 007711070	32,000	33,000	2,000	34,000	
SOCIAL SCIENCES					
Undergraduate Classroom	12.000		2 000	16.000	
Laboratory	13,000	20,000	3,000 6,000	16,000 26,000	
Graduate		20,000	0,000	20,000	
Classroom/Seminar		2,000		2,000	
Laboratory		14,000		14,000	
Faculty	27,000	2,000		29,000	
Miscellaneous		3,000	3,000	6,000	
Total	40,000	41,000	12,000	93,000	
NATURAL SCIENCES					
Undergraduate					
Classroom		14,000		14,000	
Laboratory Graduate		48,000		48,000	
Classroom/Seminar		2 000		2 000	
Laboratory		2,000 92,000		2,000 92,000	
Faculty Table 1		58,000		58,000	
Miscellaneous		24,000		24,000	
Total		238,000		238,000	
TOTAL ARTS & SCIENCES	92,000	312,000	21,000	425,000	
PROFESSIONAL SCHOOLS				····	
All Programs		36,000		36,000	
TOTAL ALL FIELDS OF STUDY	92,000	348,000	21,000	461,000	

<sup>\*</sup> Assignable square feet.

	1985-	-1986			2000-2001 6,600 9,900 16,500			
	4,6 6,9 11,5	900						
	4,4 1,3 5,7	300				3	,600 ,400 ,000	
	17,2	200				27	<b>,</b> 500	
COLLEGES	CORE	RESERVE	TOTAL		COLLEGES	CORE	RESERVE	TOTAL
44,000	25,000	12,000 6,000	56,000 31,000		49,000	37,000	32,000 9,000	<b>81,</b> 000 46,000
51,000  95,000	10,000 30,000 14,000 6,000 85,000	6,000 24,000	10,000 30,000 65,000 12,000 204,000		63,000	18,000 58,000 21,000 10,000 144,000	22,000 9,000 72,000	18,000 58,000 106,000 19,000 328,000
27,000	38,000	7,000 10,000	34,000 48,000		43,000	60,000	8,000 10,000	51,000 70,000
46,000  73,000	10,000 30,000 16,000 6,000 100,000	5,000 22,000	10,000 30,000 62,000 11,000 195,000		62,000	17,000 54,000 21,000 9,000 161,000	21,000 8,000 47,000	17,000 54,000 104,000 17,000 313,000
	28,000 96,000		28,000 96,000		** •• • • • • • • • • • • • • • • • • •	42,000 144,000		42,000 144,000
	7,000 345,000 143,000 70,000 689,000		7,000 345,000 143,000 70,000 689,000			14,000 661,000 251,000 126,000 1,238,000		14,000 661,000 251,000 126,000 1,238,000
168,000	874,000	46,000	1,088,000	And the state of t	217,000	1,543,000	119,000	1,879,000
	85,000	100,000	185,000			157,000	200,000	357,000
168,000	959,000	146,000	1,273,000		217,000	1,700,000	319,000	2,236,000

# APPENDIX D

# CAMPUS BUILDINGS

Structure	Completion Date	Approx. Gross Sq. Ft.	Architect
Applied Sciences Central Heating Central Services Classroom Unit 1 College V College VII Communications Building Cowell College Cowell Student Health Center Crown College Field House Kresge College Merrill College Natural Sciences Unit 1 Natural Sciences Unit 2 Performing Arts Social Sciences Unit 1 Stevenson College Student Apartments University House University Library Unit 1	(Sched.) July 1971 August, 1966 July, 1965 (Sched.) January 1972 September, 1969 (Sched.) November 1973 September, 1968 September, 1966 September, 1967 September, 1967 September, 1965 (Sched.) November 1972 December, 1968 September, 1965 December, 1969 (Sched.) October, 1971 (Sched.) August, 1972 July, 1966 (Sched.) March, 1971 May, 1967	153,000 5,125 33,249 16,000 166,302 144,100 38,332 163,013 23,101 131,239 13,481 120,000 123,249 82,577 101,100 64,752 64,800 150,835 201,700 7,112	Reid and Tarics Spencer, Lee and Busse Ernest J. Kump Associates Marquis and Stoller Hugh Stubbins and Associates Gerald McCue and Associates, Inc. Spencer, Lee and Busse Wurster, Bernardi and Emmons, Inc. John Funk Ernest J. Kump Associates Callister, Payne and Rosse M.L.T.W./Moore Turnbull Campbell and Wong Associates Anshen and Allen Anshen and Allen Ralph Rapson and Associates, Inc. Germano Milono and Associates Joseph Esherick and Associates Ratcliff, Slama, Cadwalader Ratcliff, Slama, Cadwalader
Oniversity Library Unit 1	December, 1968	102.642	John Carl Warnecke and Associates

#### ESTIMATED POPULATION IMPACT: PLANNED EXPANSION OF UNIVERSITY OF CALIFORNIA SANTA CRUZ CAMPUS

Year	Students	Faculty	1 Staff	Student <sup>2</sup> Dependents	Staff & Fac. <sup>3</sup> Dependents	Induced <sup>4</sup> Loc. Emp.	Loc. Emp. <sup>5</sup> Dependents	Population Impact
1970	3,525	218	400	520	1,300	1,040	1,560	8,563
1971	3,875	255	470	650	1,520	1,070	1,600	9,440
1972	4,668	301	550	860	1,790	1,260	1,890	11,319
1973	5,456	345	630	1,110	2,050	1,450	2,180	13,221
1974	6,250	384	710	1,390	2,300	1,640	2,460	15,134
1975	7,100	428	790	1,710	2,560	1,850	2,780	17,218
1976	8,025	484	890	2,080	2,890	2,090	3,140	19,599
1977	8,900	536	990	2,310	3,200	2,320	3,480	21,763
1978	9,795	591	1,090	2,720	3,530	2,550	3,820	24,096
1979	10,685	645	1,190	3,160	3,850	2,780	4,170	26,480
1980	11,580	720	1,320	3,430	4,300	3,060	4,590	29,000
1985	15,500	1,020	1,880	4,870	6,090	4,230	6,340	39,930
1990	20,000	1,390	2,560	7,400	8,300	5,620	8,340	53,700
1995	24,000	1,770	3,260	10,200	10,600	6,980	10,470	67,280
2000	27,500	2,130	3,920	12,700	12,700	8,220	12,330	79,500

- Staff increment of impact estimated at 80% total full-time staff to account for University employed dependents. Total staff-faculty ratio estimated at 2.3:1.0.
- 2 Student dependents estimated at 1.85 persons per married student. Married student estimate varies from 8% of headcount enrollment in 1970 to 25% in 2000.
- 3 Staff and faculty dependents estimated at 2.1 persons per employee.
- Induced employment estimate using following multiplier formula:

  .8 [no. faculty + no. staff + (no. students ÷ 6.5)] \*\* = induced employment.
- 5 Local employees families estimated at 1.5 persons per employee.
- \*\* Based on 1967 UCB and UCSC community impact study for student divisor and 1966 University of Illinois (Champaign Urbana) impact study for overall multiplier.

Source: Number for students and faculty for 1970-1979 based on proposed Academic Plan for the University of California at Santa Cruz, 1970-1980.

#### APPENDIX F

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