THE TEXAS ARCHITECT

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THE TEXAS ARCHITECT

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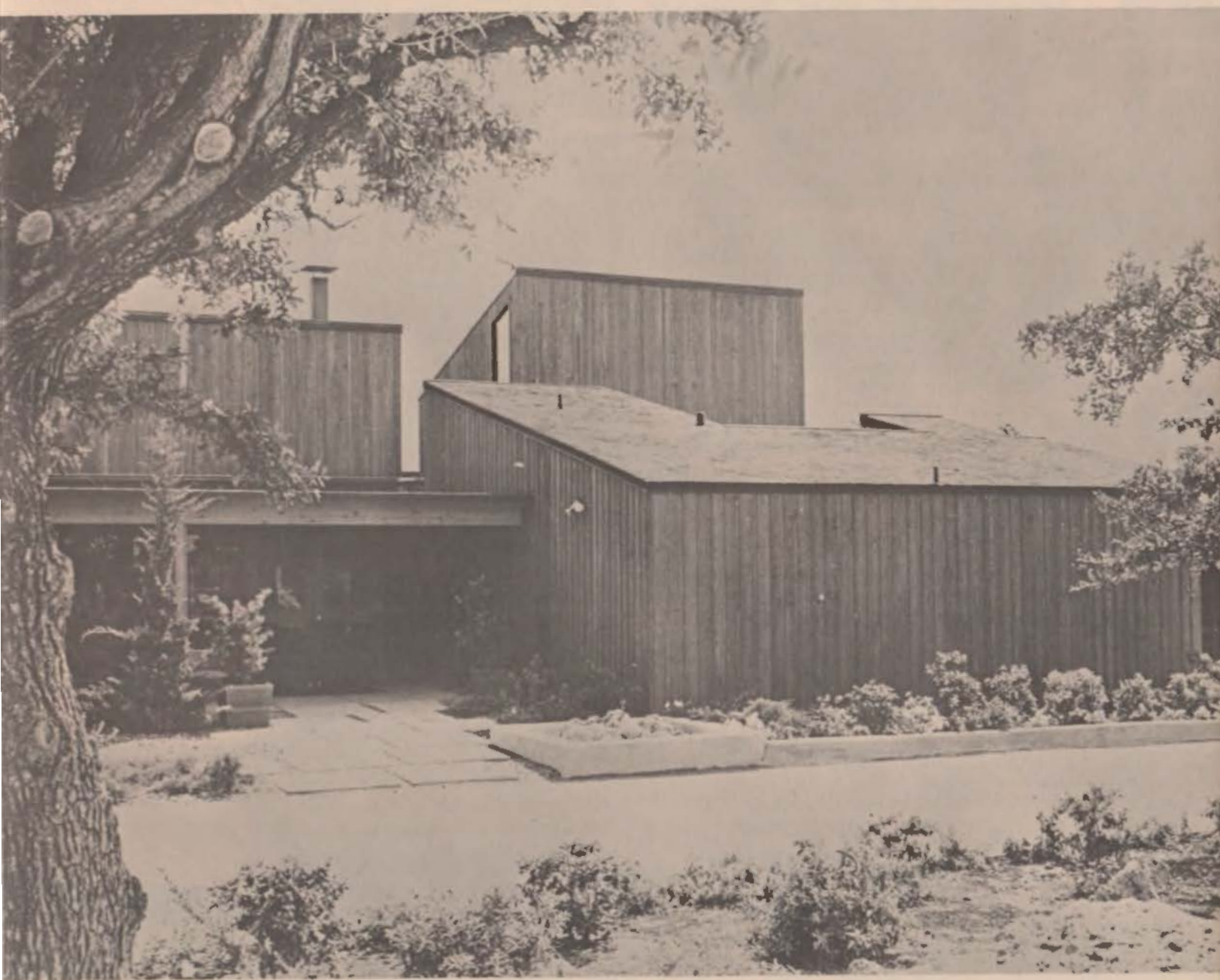
BRIARCLIFF GOLF AND COUNTRY CLUB

LAKE TRAVIS — NEAR AUSTIN, TEXAS



TANIGUCHI, SHEFELMAN, VACKAR
A.I.A. ARCHITECTS
AUSTIN TEXAS

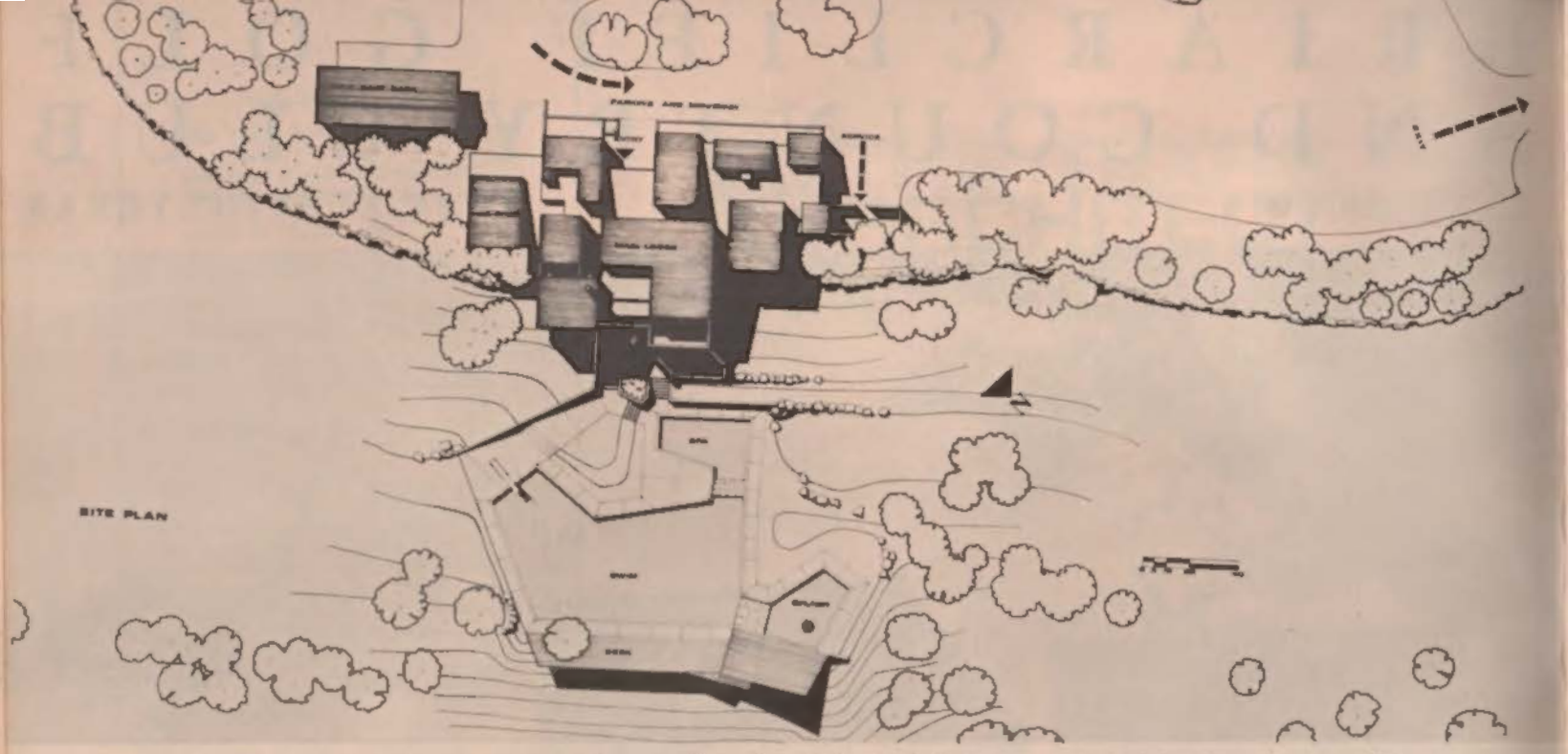
TEXAS ARCHITECTURE 1969

Editor's Note: One Hundred and Seventy entries were narrowed down to ten finalists by the *Texas Architecture 1969* awards jury. The jury selected three projects from the finalists to receive Honor awards. The three Honor award projects were featured in the January, February and March 1970 issues of *The Texas Architect*. This month *The Texas Architect* is pleased to feature one of the other seven finalists.

STRUCTURAL ENGINEER:
WM. CLARK CRAIG AND ASSOCIATES

MECHANICAL ENGINEERS:
RATLIFF AND TURDY ENGINEERS

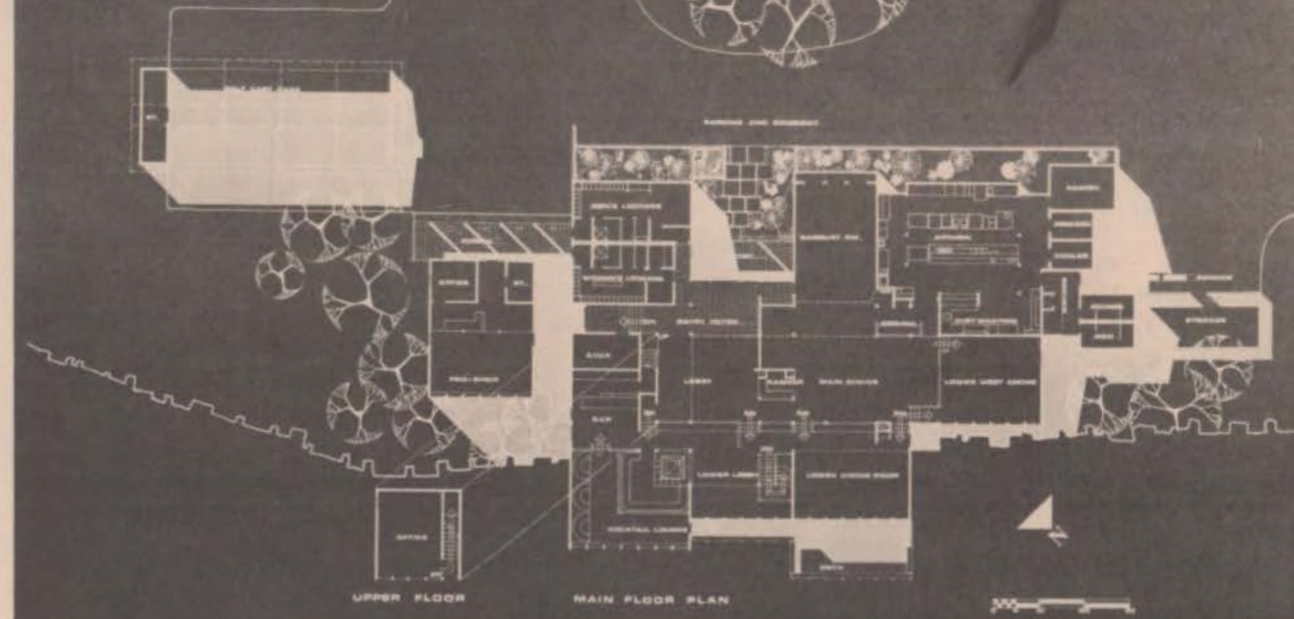
WALL RELIEFS:
ISMAEL SOTO

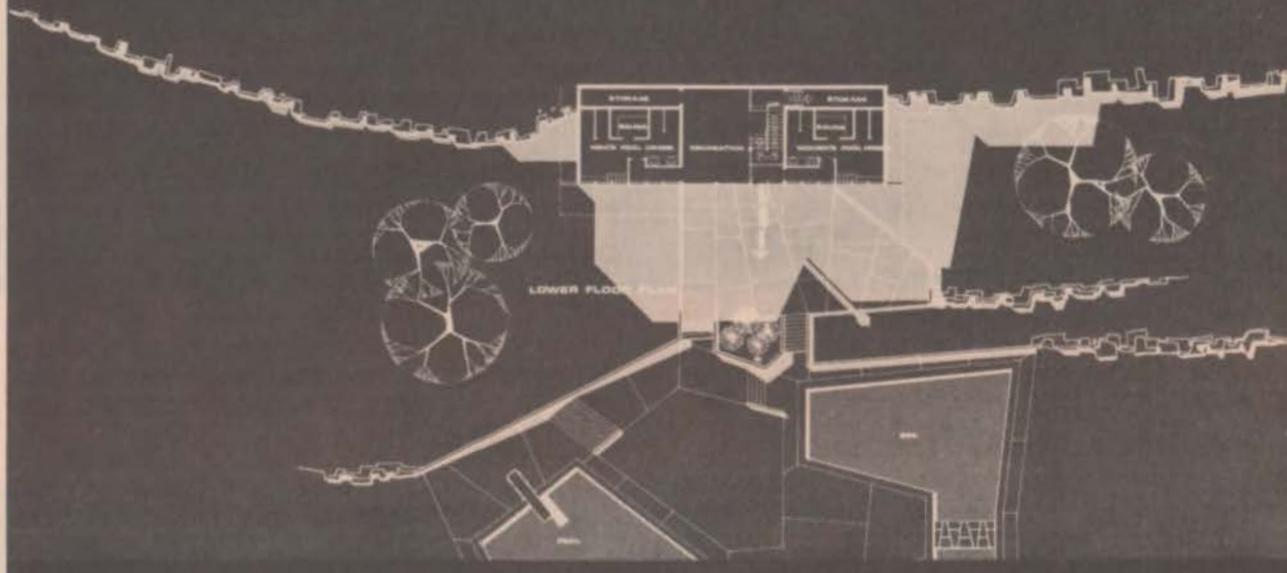


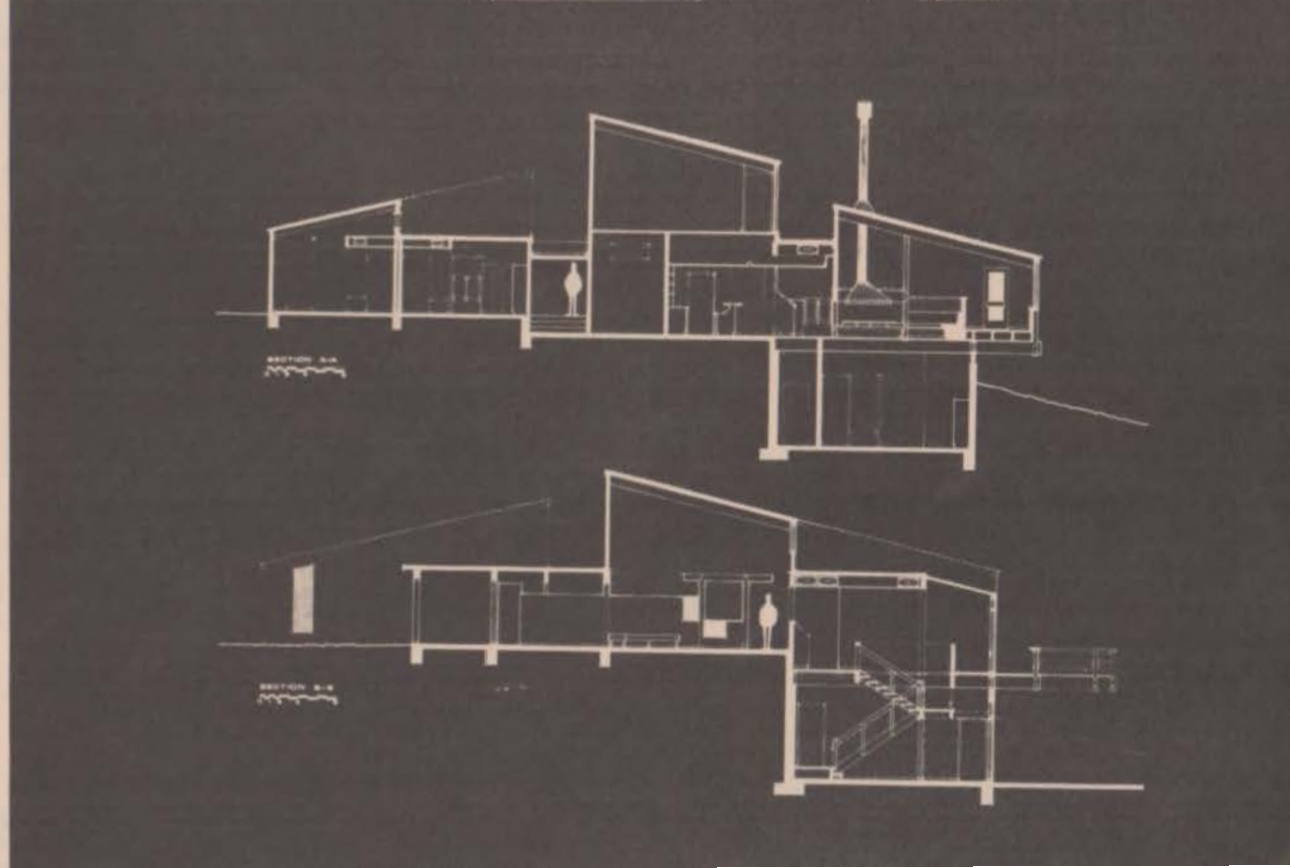
Briarcliff Golf and Yacht Club was built by Briarcliff, Inc. as a recreation facility and show place for its Lake Travis resort and home development. Its design by architects Taniguchi, Shefelman and Vackar, A.I.A., earned one of the Austin Chapter A.I.A. "Architecture 1970" design awards.

The architects chose to accentuate a limestone ledge forming the northeast crest of Briarcliff's highest hill by stretching a picturesque cluster of wooden buildings along its edge. Except for entrances the building volumes are closed from parking and service areas. Interiors surprise visitors with constant changes in volume and floor levels, rich colors and textures, and dramatic views of pools, the hills, and Lake Travis. The special organiation of different volumes and levels makes small intimate groups and large crowds feel equally at home.

The major building materials consist of laminated wood structure with walls of conventional wood framing, exposed wood roof decks, and rough sawn pine siding inside and out. Sculptor Ishmael Soto's wall reliefs of unstained scraps of pine siding are a special feature.

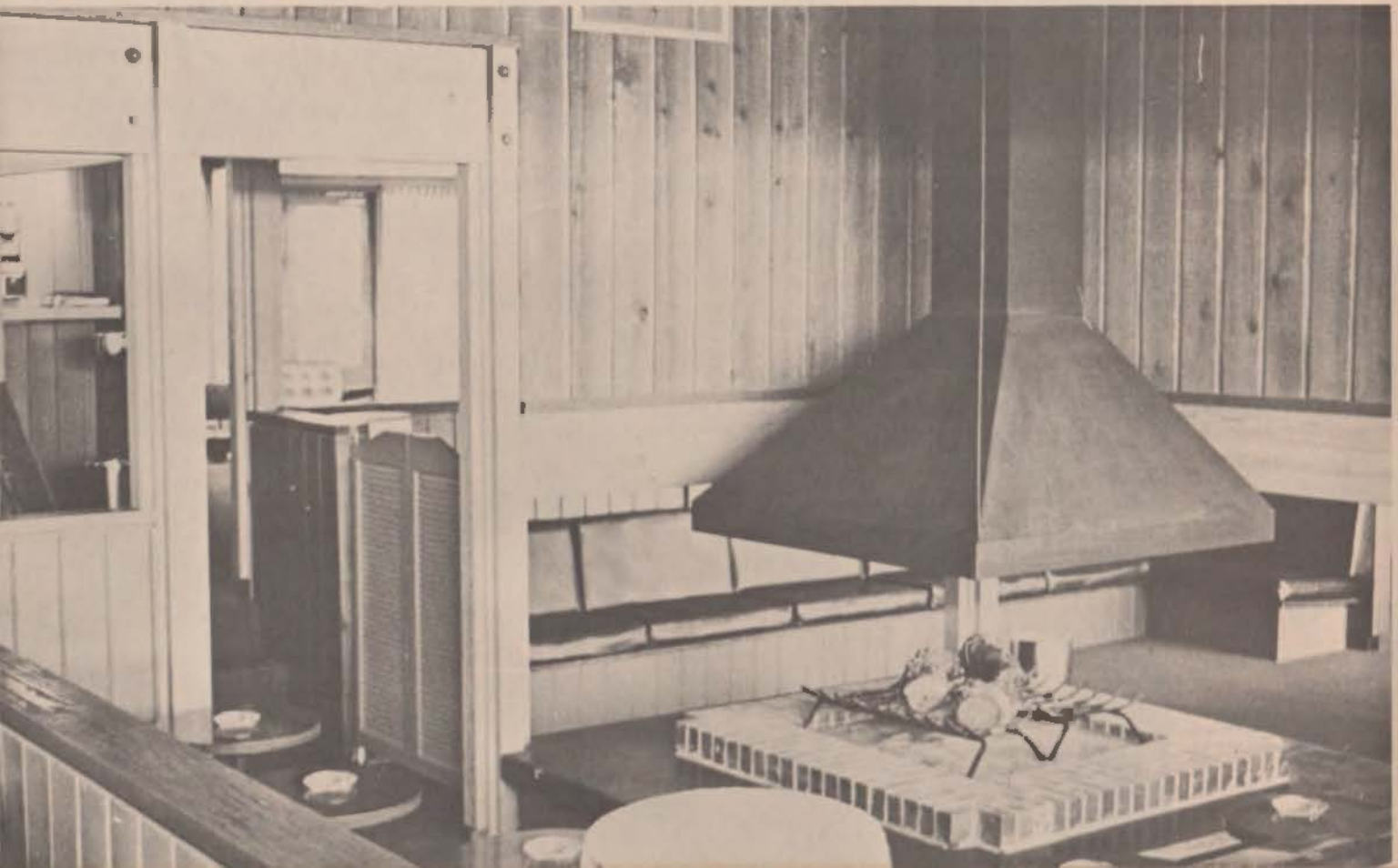

UPPER FLOOR
MAIN FLOOR PLAN





VIEW TOWARD ENTRANCE

VIEW: OF COCKTAIL LOUNGE



VIEW OF MAIN DINING ROOM

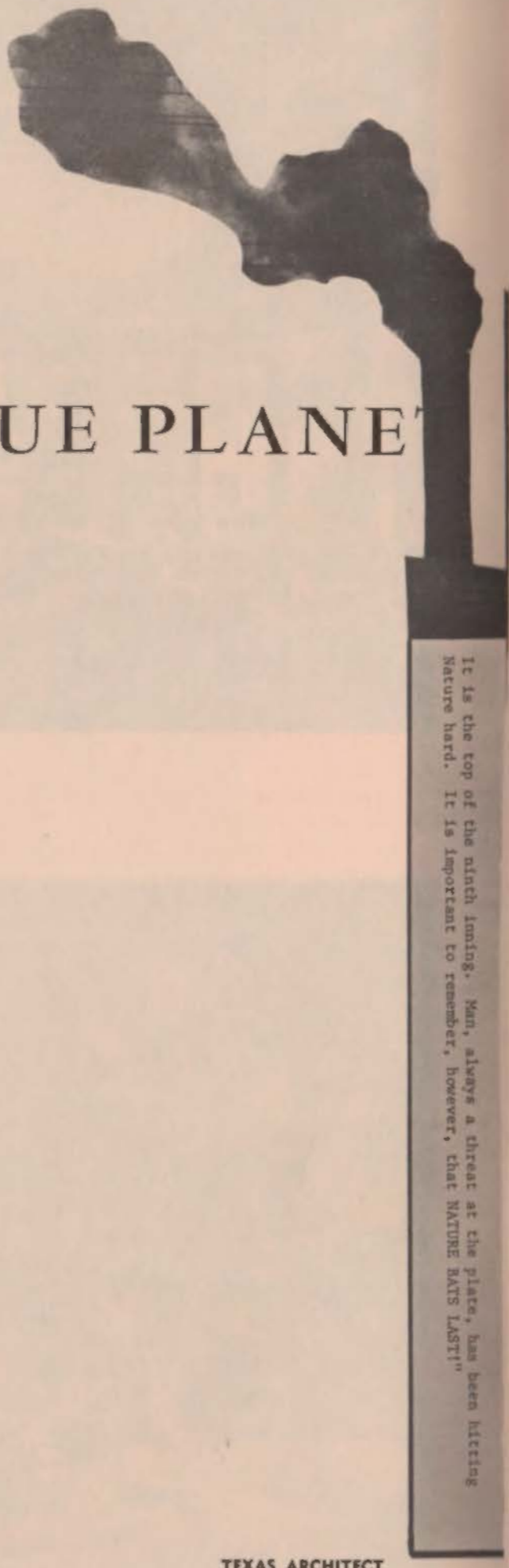
VIEW FROM EAST

Article Layout By V. Raymond Smith

DR. T. E. KENNERLY, JR.

The University of Texas at Arlingon

MAN AND THE BLUE PLANE



It is certainly human and often desirable in a practical sense to conserve resources to our own ends, to preserve landscapes to our own ends, and to manage lakes and game preserves, but in a long term effort to achieve ultimate harmony and equilibrium of the human life-form with nature. I believe a special intellectual effort is required. We must view ourselves through new eyes in equity with rather than in superiority to our planet and other life-forms.

A space-view of earth reveals that the dominant color of our planet is bluish with scattered patches of browns and wrapped in cloud-blankets. Our planet is chiefly blue because an extraordinarily large portion of its surface is covered with water. In fact, 73% of the surface area of our earth is water, 72% is salt water, and only 27% is land surface (the patchy browns from space-view).

In order to achieve maximum objectivity let us place ourselves in the position of Martians coming to the 3rd planet from the Sun for the first time to see what goes on here. They would surely be struck first with the enormous expanse of water covering our planet. Second, they would be very interested in earthly life-forms, and their sensors would record that earth life-forms utilize the same matter over and over again through generations, and that energy which drives and maintains life-systems flows through on a one-way course from the Sun through life-forms and back again into space. Our Martians would note at least one additional general point: although the earth's diameter is about 8,000 miles, life-forms exist in a shallow film at the earth's surface ranging upon land to a height of about five

earth death

A Question of Value

GIVE EARTH A CHANCE

miles on lofty mountains and ranging in the oceans from their surface to an average depth of about 11,000 feet and even to the floor of one or two trenches which exceed 35,000 feet in depth. The zone of life, therefore, covers the earth's surface partly in air and partly in water and, considering the 8,000 mile diameter of the earth, this zone is merely a film. A term for this thin layer of life is the Biosphere.

Let us now forsake our pretense of being Martians and resume our identity with its human limitations. We must slightly enlarge our definition of Biosphere. The Biosphere includes not only all earthly life but also all non-living environmental factors which affect life. *Ecology* is the study of the interworkings of the Biosphere. We may put it another way: ecology is the study of the relationships between living organisms and their living and non-living environment. One prominent ecologist prefers to explain ecology as the study of the 'structure and function of nature'.

An Ecosystem is the interrelationship of all living organisms and their environment within some 'natural' region. The living and non-living sectors interact and interrelate so that we may conveniently refer to and study; a forest ecosystem, a grassland ecosystem, a desert ecosystem, a pond ecosystem, a river ecosystem, an estuary ecosystem, a coral-reef ecosystem, even the cosystem of a cave, a spring or a rotting log. An ecosystem must meet two basic requirements: (1) most of its materials are cycled, that is, are used over and over again and (2) energy to drive and maintain the system enters from an outside source (ultimately the sun) and is channelled along fairly straight routes until lost to the system.

What has Diversity of Life to do with Man? I wish that we knew all the answers to this question but we do know part of the picture. Man carries his niche with him in the sense that use of clothing, heating and cooling devices enables us to exist virtually anywhere; yet we are corporate members of our ecosystem. We are positioned 'between' primary and secondary consumers and our wastes and eventually our bodies are processed by decomposers for the future use of producers.

A point more closely allied to Diversity of Life is that we practice monotypic (one type of plant) agriculture. In other words, we tend to farm one or very few plant species and further, we attempt to obliterate non-agricultural plants such as 'weeds' from our farms. We are actually forcing our agricultural ecosystems to remain forever very young and in doing so suffer the risks and often the penalties. How many times have you noted extensive damage to fruit orchards by severe cold or the decimation of a vegetable crop by some unwelcome beetle or the embarrassing mortality of our lawn grass (a classic example of monotypic planting) by some fungus. But the consequences of maintaining the very young ecosystems of agriculture over enormous regions of continents may have other adverse though subtle, long-range effects on the Biosphere. Massive fertilizing, crop rotation and pesticide application are some of the substitute measures we practice in an effort to keep these fragile, very young ecosystems going. The point is that we prevent vast continental regions to exist as mature ecosystems with their high diversity of life, efficient cycling of nutrients and maximum use of energy. Pesticides may be transported by rivers and oceans to decimate natural mature ecosystems far removed from the site of pesticide application; fertilizer is our substitute for efficient decomposer activity and crop rotation is a feeble substitute for a high species number. However, the increasing dietary demand of an over-populated planet cannot be ignored. We are damned if we do and damned if we don't.

The only long-term answer is control of human populations. We must no longer ask how many people our planet can feed. Instead we should determine how many people we want to inhabit this planet so that the spatial, aesthetic and social quality requirements are satisfied within the context of our ecosystem and biosphere.

Are there some basic ecological guide-lines for architecture and community-planning? I believe that our present knowledge of ecosystems does yield relevant do's and don'ts.

1. River valleys and deltas are rich in nutrients and should be reserved for agriculture. Where possible, dwellings and commercial structures should be placed some distance away from such areas, on hillsides or on plateaus. We ought not to attempt to transform every desert region into an oasis or garden. Many deserts are repositories of concentrated nutrients which slowly but surely ebb into river systems and contribute importantly to rich delta ecosystems and flood-plains. The usual consequence of desert irrigation is to quickly wash away these valuable nutrients so that we find ourselves obliged to employ massive fertilizing in desert soils which are often too porous to support food-crops well.

2. Cities ought not to be located on sites where temperature inversions (cooler air near the

ground, warmer air above) are the rule because the lower air column is often trapped in place and air pollutants easily become quite concentrated. Los Angeles is the classic example of a city where inversions are the rule.

3. Multiple, small dams across tributaries are better than one massive dam across the major waterway. The Aswan Dam across the Nile is an ecological catastrophe. The elimination of seasonal floods, while serving some good ends, deprives the Nile valley of deposit of rich soil nutrients which supported significant human societies for six millenia. Worst of all, reduction of freshwater thrust where the Nile meets the Mediterranan Sea has abolished the delta ecosystem (one of the world's richest) by permitting salt water to invade the delta. The fish harvest of millions of acres of delta has collapsed. The hope that irrigation would ease the food-crisis has been frustrated because Egyptians increased their population by 6.5 millions while Aswan was under construction.

4. New or improved systems of inter-and intra-urban transport must be implemented, such as swift monorail or subway systems so that congested automobile traffic can be significantly reduced. The internal combustion engine with its toxic fumes cannot be tolerated much longer. Asphalt coverage of the continents in the form of new highways and roads must be minimized. In California alone new roads cover one additional square mile of land each month.

5. We must act quickly to reserve very large sectors of our continents. This means protecting large, mature ecosystems from human disturbance. To certain real estate promoters and industrial interests such areas will seem "unproductive" in terms of economic return. But to a rapidly increasing segment of our citizenry such unmolested regions will appear to be what they really are: large, mature, well-functioning ecosystems which provide us with 10 to 30% of the oxygen we breathe and which cycle a vast array of nutrients most of which are exported to parts of our planet's biosphere via rivers, oceans and air currents.

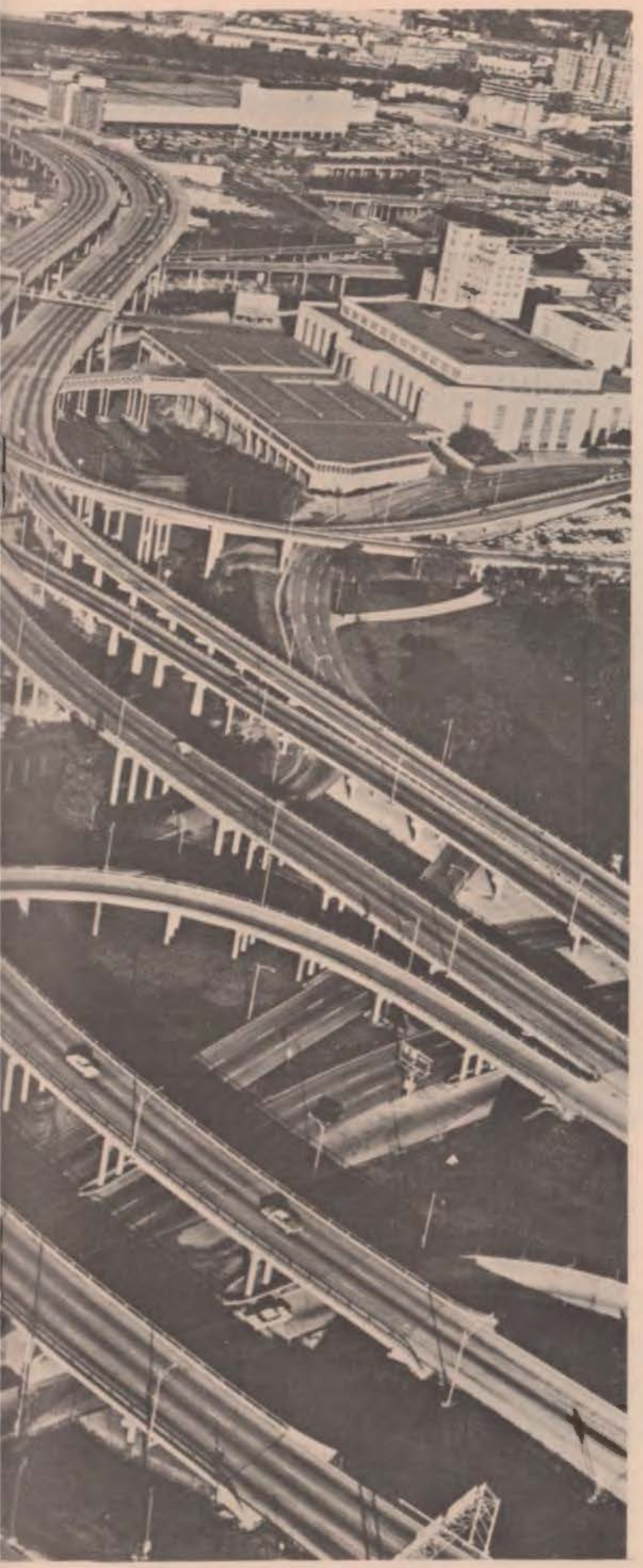
In summary, I will list a few nightmares which haunt ecologists and informed citizens alike. Note that virtually all these situations are linked to our global population explosion.

1. There is an increasing probability that some highly virulent virus strain may appear suddenly (viruses alter their properties quickly and often)

and spread from point of origin throughout most of the world. High density population in many countries and inter-continental jet transport are tailor-made factors for swift dispersal of air-transmitted disease. The only effective counter-measure against most viral infection is a specific vaccine. Under ideal circumstances months are required to develop, disseminate and administer a vaccine. There is a very real danger of a lethal epidemic of such awesome proportion that most of the world population would be affected in a few weeks time. It is staggering to contemplate one to two billion deaths but such a catastrophe is quite possible now and its likelihood increases each year.

2. The United States with only about 5% of the world's population utilizes 30% of the world's resources. It is clear that our present standard of living must deteriorate very soon. Natural resources are exhaustible to say nothing of the growing reluctance of other nations to support our present quality of life at the expense of their own.

3. We mentioned that large ecosystems are incredibly complex, finely-tuned and that tampering with these delicately balanced interrelationships may have severely adverse effects in unexpected places. The massive release of pesticides and over 500 other 'unnatural' substances (such as the host of industrial effluents) into the biosphere has had some publicity and caused well-founded concern. I shall mention a single example of an ecologic nightmare come true. The 16 armed Spiny Starfish was, until 1965, a rare and obscure creature of the Pacific Ocean. Its favorite food is coral which has formed countless islands and their break-water rings. By 1967 this starfish increased its numbers 600 fold. Herds of starfish travelling 250 meters a week appeared in alarming concentration at Saipan, Tinian, Truk, Guam, the Great Barrier Reef of Australia and most recently at Hawaii. Destroying coral reefs at a rate of half a mile a month, 40% of the reefs in Saipan, 70% of those in Tinian, 90% of the 38 kilometer Guam reef and 50,000 meters of Australia's Great Barrier Reef have already been destroyed. Reefs protect coral islands from ravishing storm waves and provide rich lagoon fisheries. Marine ecologists from many countries have mounted an intensive study in the Pacific but it is a desperate enterprise because no one knows which ecologic link has been broken. Professor Chesher of the University of Guam fears that, "the result could be a disaster unparalleled in the history of mankind." Spiny starfish produce 2 million eggs at a time and the dead coral



skeletons form ideal habitat for starfish larvae and so the population is snow-balling. We know so little of the ecology involved that some current efforts to restore balance are very nearly pathetic. At some sites divers attempted to control starfish populations with hypodermic injection of Formalin (four divers were able to kill 2,589 speciments). It was suggested that the killing of starfish must become a ritualistic practice, a part of local folklore of island inhabitants. Neither approach can be effective in the little time left. Australians faced with the prospect of northern Queensland ports becoming doomed, intend to install electric fences as a containment measure. One ecologist believes that some unknown parasite which normally kills starfish larvae has been decimated by some unidentified pesticide. We seem to have run out of time and the survival of the islands of the Pacific is at stake.

3. The menace of air and water pollution has been well publicized but such problems are exceedingly complex and require analysis in each affected locality by teams of expert specialists. Unlike other human disturbances of the biosphere, air pollution is not a new problem. Coal smoke has vexed Londoners since the 14th century when Edward I received a protest from nobility concerning the stifling air. Under the reign of Edward II (1307-1327) a man was put to the torture for releasing 'pestilential odor' through burning coal. In 1661, Charles II commanded the publishing of a pamphlet dealing with London's smokey air written by John Evelyn; in 1686, Justel invented an engine ". . . that consumes smoke." This was probably the first anti-pollution device. A Select Committee of the British Parliament was appointed in 1819 to study smoke abatement. Coal smoke seems to have been responsible for the death of many persons within a few days in 1873 in London and a similar episode occurred in Glasgow, Scotland in 1909, with the death of 1063 persons. Since World War I petroleum fuel products and a host of industrial effluents have become the chief ingredients which pollute the air. Each city has its own array of pollutants but the number of ingredients is always quite high and some are yet to be specifically identified. They vary from carbon monoxied, ozone and sulfur dioxide to fine particles of asbestos from automobile brake-drums and there is a family of pollutants which becomes toxic when exposed to sunlight. In December 1952, over 4,000 people died in London as a result of high concentration of of 'smog'; similar episodes have occurred in the United States, in Denora, Pennsylvania, Los Angeles, St. Louis, Pittsburg and in Mexico near Mexico City. Periods of high concentration of pollutants have now been definitely correlated with

increased mortality of persons suffering cardiac and pulmonary disorders and the incidence of stomach cancer also appears to relate to average pollution concentration. We know virtually nothing of long-term effects on human health but early results of research are quite ominous.

Water pollution like pollution of the air has many faces. In general, water pollutants disrupt ecosystems through (1) direct kill of certain organisms or (2) by lowering oxygen content and suffocating consumers. Both factors are usually operative in polluted waterways. A sterile stream or river is a depressing sight but a more hazardous consequence of waterway pollution is the destruction of estuary ecosystems. We mentioned the richness of life typical of estuaries (coastal regions where rivers empty to the ocean). This you may recall is due to the 'tumbling effect' where lighter freshwater over-rides heavier salt water depositing stores of nutrients. Also estuaries are relative shallow permitting sunlight to penetrate to the floor and producers are active at all depths. Estuaries are common to coastlines of all continents and historically have furnished an abundant fishery harvest. Today pollutants (and land-fills) have rendered many North American and European estuaries impotent and fishery harvests are declining rapidly. Even if we immediately terminated the disruption of our waterways, we can only guess how long it would take for our ailing estuaries to regain maturity and equilibrium. Some pollutants remain toxic for decades. The prognosis is not very encouraging because community and industrial use of waterways is a practical necessity and each community usually pumps-in water upstream and discharges sewage and other effluents downstream. The pattern is repeated by the next community downstream and the next and the next. Given enough distance a river can 'purify itself', i.e., bacteria can decompose the excess debris (a process involving a tremendous uptake of oxygen) and normal oxygen concentration is restored. Each waterway has its own particular capacity for recovery. It appears that we are to be always plagued with river-sectors which are rather sterile. The best we can do is improve the processing of effluents *before* release into waterways and space future communities and industrial plants along rivers with sufficient 'recovery-distance' between. As an epilogue to the water-pollution dilemma let us note the remarks of a renown ecologist LaMont Cole concerning the spillage of oil by the wrecked tanker, Torrey Canyon, in the English Channel. Cole believes that had the Torrey Canyon carried pesticide rather than oil, the kill of ocean producers would have been so devastating that most of the population of Great Britain would have suffocated for lack of oxygen.

4. Burgeoning human population is perhaps the most pressing and serious problem we face. The tragedy is that no matter how effective and prompt are our future curbs, global population has *already* over-shot world production. This means that massive famine in at least 30 to 50 nations is inevitable. Most population ecologists predict that this will happen in the mid-1970's and some pinpoint the last quarter of 1974 as the time of onset. Some nations (the United States, Russia, Argentina, Canada and others) will manage a slight food surplus until the year 2000 but the story will be nightmarish in most 'underdeveloped' countries especially those of Latin America and southeast Asia. Actually the matter rests largely on one's definition of famine. This year, 15 to 20 million people, most of them children, will die of starvation or malnutrition. Is this global famine? At the present time 14,000 people in India starve to death *each day*. Is this famine? Ironically, in 1970, world food production seems to be sufficient to supply at least 1700 Calories per person daily (a pitiful minimum sustenance) for the 3.7 billion global population but we are unable to *deliver* food to starvation areas at an adequate *rate*. The evidence is harshly clear. We shall have to endure massive global famine in this decade. At the same time we must pull out all the stops in an effort to reduce world population rate of increase to zero. There are 204 million Americans. This is quite enough people for our nation. The United States finds itself center-stage economically and politically. Many countries resent our warnings of over-population while we do little to curtail our own rate of increase. We must perform exemplary action in reducing our rate of increase to zero. The net increase (births in excess of deaths) in world population is now about 70 million per year. Population ecologist Paul Erlich reminds us that during the last 10 months our global population increase has replaced the 59 million fatalities of all wars waged since 1830. Only if the human creatures of our planet control their numbers in this decade will we have a chance to 'catch our breath' and launch massive action to solve or minimize the host of ecological problems which we see to be largely side-effects of an over-populated earth. Only then can we hope to administer truly effective global remedies and perhaps learn the ethic of living in harmony and equilibrium within or ecosystem. I am not optimistic personally but I hope to be proven wrong. The Blue Planet is a pleasant little speck in our galaxy. I wonder if Man will be able to inhabit it much longer? ■

LUBBOCK '69' DESIGN AWARDS

Eight Texas buildings have received awards for excellence in design by the Lubbock Chapter of the American Institute of Architects. The buildings were selected in the biennial awards competition sponsored by the Lubbock Chapter as part of its continuing program to improve the environment of the West Texas Area.

first honor award

CORONADO HIGH SCHOOL
lubbock

ralph d. spencer

first honor award

CLINIC FACILITIES
lubbock

howard schmidt & associates

award of merit

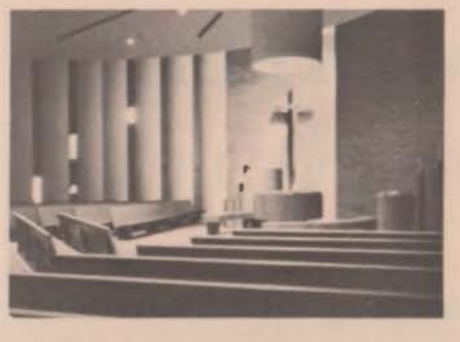
RESIDENCE
lubbock
nolan e. barrick

award of merit

OFFICE BUILDING FOR GIFFORD-HILL WESTERN
lubbock
billy j. cox

award of merit

FIRST FEDERAL SAVINGS AND LOAN ASSOCIATION
big spring
howard schmidt and associates



award of merit

FIRST PRESBYTERIAN CHURCH

plainview

stiles, roberts & messersmith

award of commendation

FIRST NATIONAL BANK

seagraves

howard schmidt & associates

award of commendation

RESIDENCE

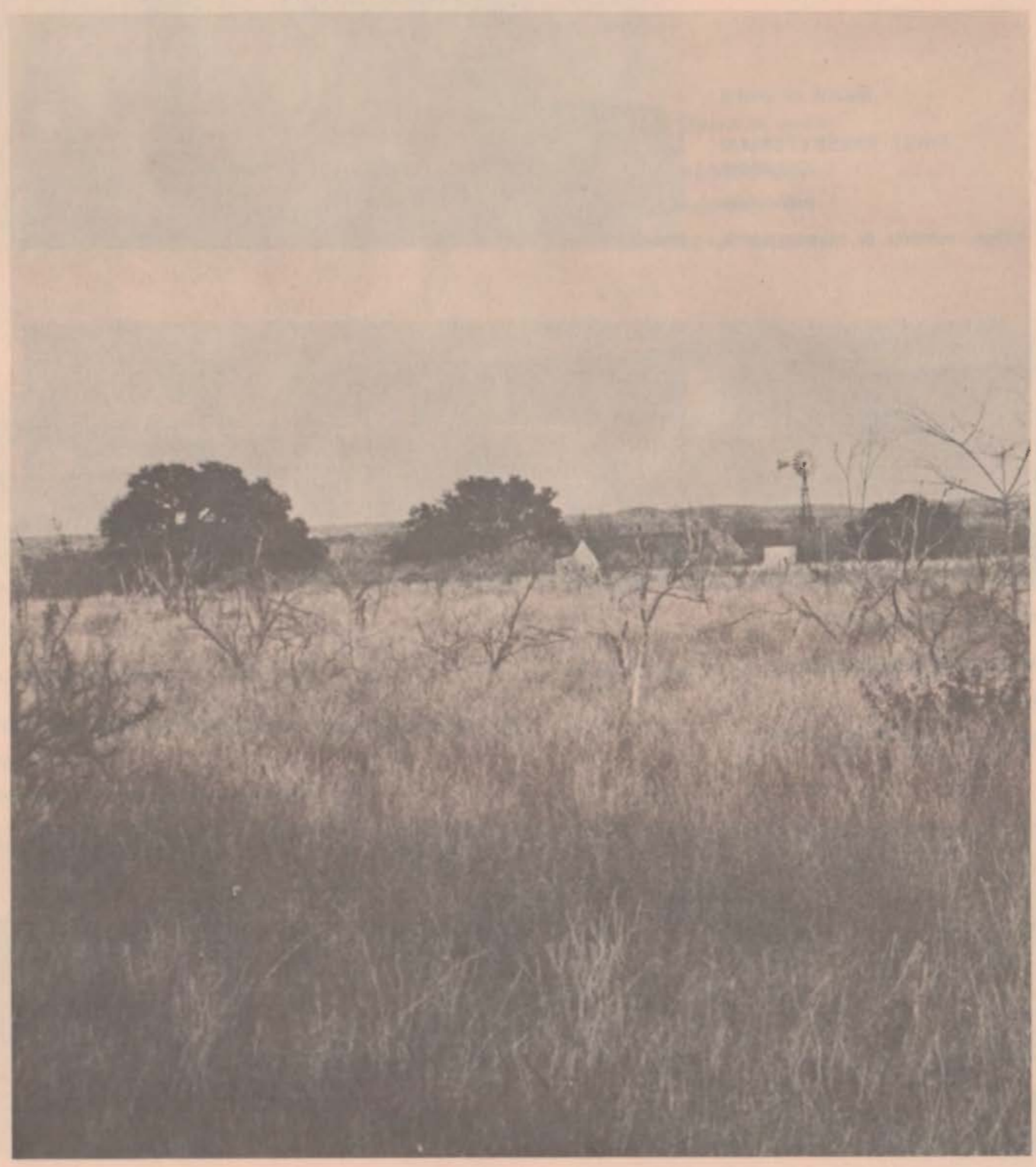
olney

stiles, roberts & messersmith

THE MOGFORD HOMESTEAD

TEXAS HISTORICAL ARCHITECTURE

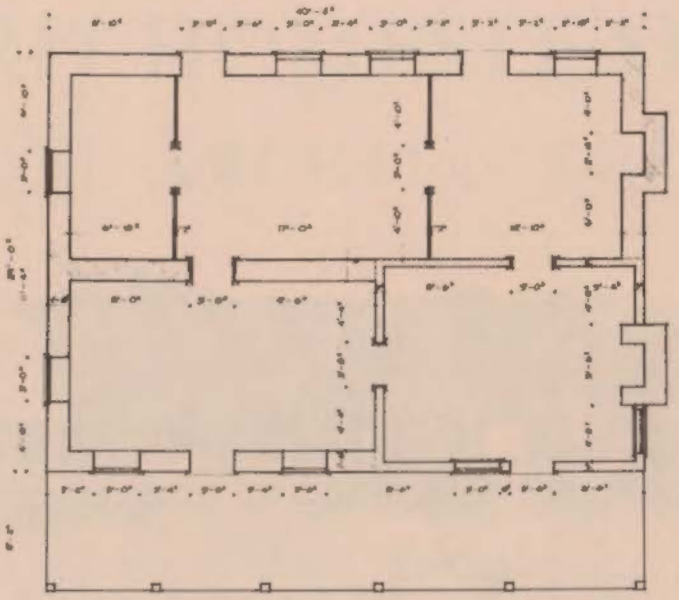
excerpts from a graphical essay by Fred & Hettie Worley, the University of Texas

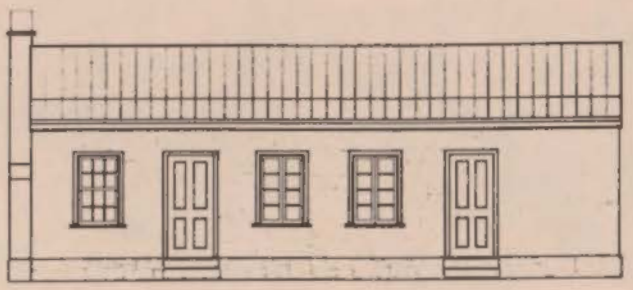


In the 1840's the Republic of Texas was ripe for settlement; land was cheap and plentiful. The "Adelsverein", or German Emigration Company, was established by a group of German noblemen in an effort to encourage immigration of their countrymen to Texas and thus establish a German claim in the New World.

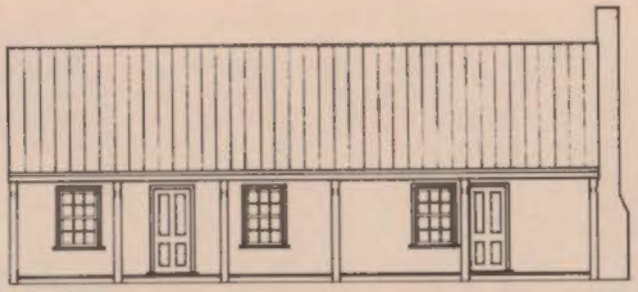
In the fall of 1844 Prince Solms-Braunfels, Commissioner-General of the society, met the first ship of German immigrants to arrive in Texas. Landing near Galveston, at what is now Indianola, the immigrants spent their first Christmas in Texas. Early in 1845 the first caravan of ox carts pushed inland to found the town of New Braunfels on the Comal River. Among the new arrivals was Frederick Keyser, his wife and their three children, two boys and a nine year old girl, Louisa. In May a party of about 120, headed by Baron von Meusebach, left New Braunfels to build a colony on a 10,000 acre tract of land along the Pedernales River. The three Keyser children were among the first to arrive in the new community of Fredericksburg.

William Mogford was born in Avon, England on February 11, 1812. He was a professor at Oxford College until he came to America in 1848. After coming to Texas he carried mail for the Pony Express from Mexico to Abilene, Kansas. He also served as an Indian scout and later was one of the first Texas Rangers. He was married to Louisa Frederica Keyser in February of 1850. After their marriage they settled on a large tract of land on the Pedernales River, about five miles south-east of Fredericksburg. Their first home was a one room log and stone cabin, which grew with the family of

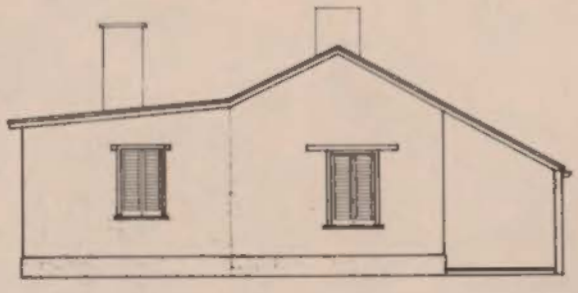




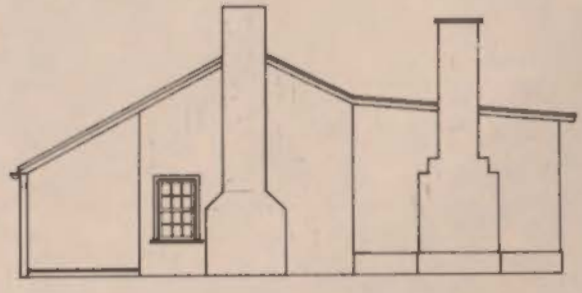
south



north



west



east

thirteen children into the present ranch house.

The front room with the fireplace was built the first summer out of squared logs with the spaces between filled with rocks and mortar. The ends were carefully notched and fitted together and pegged occasionally with wooden dowels. The frame room was covered with wooden shingles and the walls were plastered on both sides with a crude mixture of grass and calcareous clay. The split timber flooring was pegged to log joists anchored to the ground with stakes.

This small cabin was built quickly to get the Mogfords through the first winter until a more substantial dwelling could be started the next spring after planting.

The following summer the left front room was built out of stone and a covered porch extended the front length of the house. Lap board siding was nailed over the log cabin section and welded tin sheets were applied over the wooden shingles. The stone walls were rough cut limestone with lime mortar and waddle and daub plaster applied by mailing a twig mesh onto sticks imbedded in the mortar.

The third and final addition, the back half of the house, was built the following summer out of semi-finished limestone. No plaster was applied to the surface and a second fireplace was built on the east wall.

The Mogfords lived in the house until their deaths; both are buried in a small family cemetery several hundred yards in front of the house.

layout by B. Canizaro

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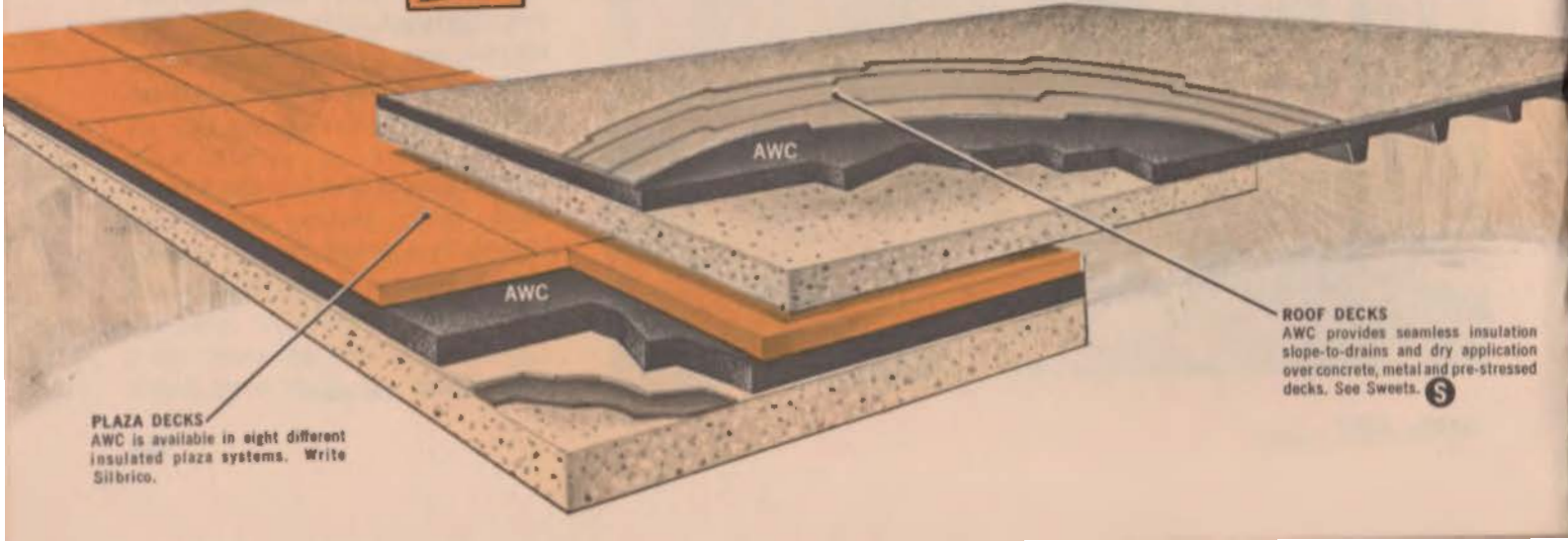

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One-fifth of a brick wall is mortar

...choose it carefully

In the new Houston Natural Gas Building they wanted white exterior walls. So they used 1,500,000 specially made king-size white bricks. That accounted for about four-fifths of the surface. The other fifth was the mortar. To get it white they made it of Trinity White Masonry Cement. Result: Walls that are five-fifths white. And spectacularly beautiful.

Trinity White Masonry Cement is pure white. Its purity of color recommends it for every white mortar specification—and for every tinted mortar as well. White accepts pigment best. Literature free on request.

GP CC

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CREDITS: Houston Natural Gas Building, Houston, Texas. Architect: Lloyd, Morgan & Jones—Architects. General Contractor: H. A. Lott, Inc. Sub-contractor: Herman L. May & Co., Inc.

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