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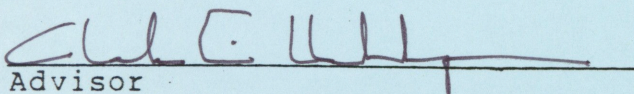
WILLIAM REA

A professional paper submitted in partial fulfillment
of the requirements for the degree

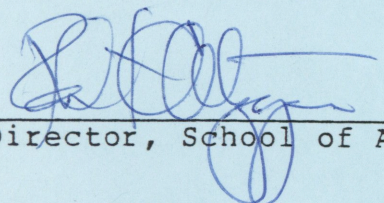
of

BACHELOR OF ARCHITECTURE

Approved:


Advisor

Thesis Coordinator



Director, School of Architecture

MONTANA STATE UNIVERSITY

Bozeman, Montana

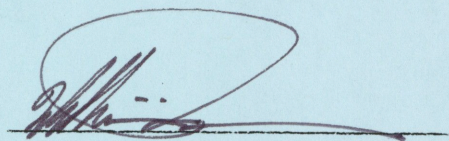
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WILLIAM REA

FOR MOM & DAD AND THEIR NEVER ENDING SUPPORT

I N T R O D U C T I O N

P R O J E C T

S I T E

P R O G R A M

D E S I G N

C A S E S T U D I E S

B I B L I O G R A P H Y

INTRODUCTION

INTRODUCTION

THIS THESIS IS ABOUT EXPLORATION AND EDUCATION. EXPLORATION AND EDUCATION FOR THE INTENDED VISITOR OF THE PROJECT. EXPLORATION AND EDUCATION OF THE CLIENT. AND AN EXPLORATION AND EDUCATION FOR MYSELF. FOR ME THE EXPLORATION AND EDUCATION COME FROM BETTER UNDERSTANDING HUMAN INTERACTIONS, STUDY AND DESIGN OF A NEW BUILDING TYPE, A CLIMATE UNIQUELY DIFFERENT FROM ANYTHING I'VE DESIGNED FOR BEFORE AND A SET OF CHALLENGING SITE RESTRICTIONS.

ANYBODY CAN PASS UP AN OPPORTUNITY BUT SOMEONE WHO EXPLORES IT IS THE ONLY ONE WHO HAS A CHANCE TO GAIN. THAT PERSON DESERVES RESPECT SIMPLY BECAUSE THEY OPENED UP TO A NEW EXPERIENCE, AN EDUCATION. ANY VISITOR TO THIS PROJECT WILL BE TREATED WITH THAT RESPECT.

THE CLIENT EXPLORES FOR A LIVING AND IS EDUCATED OUT OF NECESSITY. A BETTER EDUCATION LEADS TO BETTER EXPLORATION. BETTER EXPLORATION LEADS TO MORE EDUCATION, AND SO THE CHAIN CONTINUES.

11

USING THE MOST ADVANCED TECHNOLOGY. A SHIP'S CAPTAIN CAN PIN-POINT THE LOCATION OF HIS OR HER'S SHIP WITHIN 100 YARDS ANYWHERE ON THE GLOBE. THIS IS LESS THEN MOST SHIPS ARE LONG. 300 YEARS AGO A GOOD CAPTAIN COULD ESTIMATE HIS POSITION BY SEVERAL MILES AND THEN ONLY IN CLEAR WEATHER. THE SHIP CAPTAIN OF 1680 HAD TO RELY ENTIRELY UPON SIGHT TO AVOID RUNNING AGROUND, THAT WASN'T ALWAYS GOOD ENOUGH.

THE FLORIDA KEYS ARE BEAUTIFUL TROPICAL ISLANDS OF LUSH GREEN VEGETATION BORDERED BY RINGS OF WHITE SAND SET INTO AN AQUAMARINE PLANE UNDER A DEEP BLUE SKY. FOR A LARGE BOAT THIS BEAUTY OFTEN LEADS TO DISASTER. THE ISLANDS ARE A RESULT OF VERY SHALLOW WATER. THE KEYS MARK THE EDGE OF THE CONTINENTAL SHELF, IN TWO MILES THE OCEAN FLOOR CLIMBS FROM A DEPTH OF 600 FEET TO A SWAMP LIKE DEPTH OF 3 TO 7 FEET. THE SHALLOW WATERS MAKE ONLY CERTAIN CHANNELS NAVIGABLE BY LARGER BOATS. THE TROPICAL VEGETATION IS A RESULT OF THE INTENSE WEATHER EXPERIENCED IN THE KEYS. THE AREA IS FREQUENTLY POUNDED BY TROPICAL STORMS AND THE THREAT OF A MAJOR HURRICANE IS ALWAYS PRESENT IN THE LAST SIX MONTHS OF THE YEAR. THE AQUAMARINE WATER COMES FROM THE GULF STREAM THAT CURLS AROUND FLORIDA AND THROUGH THE KEYS. THE GULF STREAM CURRENTS ARE RIVER LIKE AND WITH THE ADDITIONAL TIDES THEY ARE OFTEN UNPREDICTABLE AND TREACHEROUS. THESE FACTORS, WEATHER, WATER DEPTH AND STRONG CURRENTS, LEAD TO

THE END FOR MANY VESSELS. NOT JUST BOATS FROM 300 YEARS AGO BUT RIGHT ON THROUGH HISTORY TO PRESENT TIMES. SO MANY WRECKS HAVE OCCURED OFF THE FLORIDA COAST IT OUT RANKS ANY OTHER STATE BY 2 TO 1 FOR SUNKEN TREASURE^①. MANY OF THESE VESSELS CARRIED A WEALTH OF INFORMATION ABOUT THE KIND OF LIFE IN THOSE TIMES. AND MANY CARRIED A MUCH MORE TANGIBLE WEALTH, PRECIOUS METALS AND GEMS. IN FACT, BY CONSERVATIVE ESTIMATES, SOMEWHERE IN THE NEIGHBORHOOD OF \$1,104,305,600^② (1985 VALUE) WORTH OF TREASURE HAS BEEN LOST IN AND AROUND FLORIDA.

ANYTIME MONEY IS INVOLVED CONFLICT IS SOON TO FOLLOW. IN THE FLORIDA WATERS WE CAN FIND A 1.1 BILLION DOLLAR CONFLICT. THE FIRST WAVE OF CONFLICT DELT WITH OWNERSHIP OF FOUND TREASURE. COUNTIES, STATE OF FLORIDA, THE UNITED STATES AND EVEN SPAIN CLAIMED OWNERSHIP TO VARIOUS FINDS. ON AUGUST 21, 1978 THIS WAVE BROKE. THE U.S. SUPREME COURT RULED THAT THE FINDER OF ANY UNDERWATER TREASURE WOULD BE THE SOLE OWNER^③. IN 1980 AND AGAIN IN 1985 THIS RULING WAS UPHELD AND REINSTATED^④. A SECOND AND MOUNTING WAVE IS NOW GAINING STRENGTH. THE VALUABLE ARCHAEOLOGICAL INFORMATION GAINED FROM ANY GIVEN WRECK CAN GIVE US A BETTER UNDERSTANDING OF HOW CIVILIZATION FUNCTIONED HUNDREDS OF YEARS AGO. UNDERWATER ARCHAEOLOGY IS ESPECIALLY IMPORTANT BECAUSE THE WATER PRESERVES ARTIFACTS THAT WOULD BE DISTROYED BY THE ATMOSPHERE AND PROTECTS THEM FROM WOULD BE LOOTERS. THIS SECOND POINT, LOOTING, IS THE POINT OF

CONFLICT. ANYTIME A TREASURE IS REMOVED FROM A SITE MUCH OF THE HISTORICAL EVIDENCE IS FOREVER DESTROYED, BASICLY THE SITE HAS BEEN LOOTED. THE PROBLEM IS THAT THE SITE WOULD HAVE NEVER BEEN FOUND IF IT DID NOT CONTAIN ANY TREASURE SINCE PURELY ACADEMIC ARCHAEOLOGICAL EXPEDITIONS CANNOT AFFORD TO SEARCH OUT SITES LIKE A FREE ENTERPRISE CAN. THIS IS ESPECIALLY IMPORTANT IN NAUTICAL ARCHAEOLOGY WHERE COSTS CAN BE GREAT. A BITTER CONFLICT IS WAGING BETWEEN THE TREASURE HUNTERS, WHO HAVE LEGAL RIGHTS TO THE SITE, AND THE ARCHAEOLOGISTS WHO STAND BY SCREAMING AS ETHICS AND HISTORY ARE DESTROYED. SOME TREASURE HUNTING COMPANIES EMPLOY ARCHAEOLOGISTS ON STAFF OTHERS SIMPLY "LOOT." BOTH THE TREASURE HUNTERS AND THE ARCHAEOLOGIST WANT THE SAME THING, TO FIND THE SITES. AFTER A SITE HAS BEEN FOUND THEY WANT TWO ENTIRELY DIFFERENT THINGS. THE TREASURE HUNTER WANTS THE WEALTH THE ARCHAEOLOGIST WANTS INFORMATION. THE IORNY IS THAT THESE TWO ARE COMPLETELY COMPATIBLE.

TO PROPERLY EXCAVATE A SITE WILL EFFECTIVELY DESTROY IT, AS EACH PIECE IS FULLY RECORDED, MAPED AND REMOVED. A "CORRECT" DIG WILL LEAVE ALMOST NOTHING, EVEN LESS THAN LOOTING. AFTER THE ARTIFACTS ARE REMOVED THEY ARE FULLY DOCUMENTED, CLEANED PHOTOGRAPHED, DRAWIN AND KEYED TO THE MAP OF THE WRECK. AFTER ALL THIS IS DONE THE ARCHAEOLOGIST IS DONE WITH THEM. AFTER THAT THEY ARE SIMPLY STORED. THIS ACTUALY POSES A PROBLEM FOR THE ARCHAEOLOGIST.

OLOGIST SINCE THEY SIMPLY CANNOT SAVE EVERY-
THING DUE TO A LACK OF SPACE AND NEED.^⑤

I SEE A CLEAR COMPATIBILITY HERE. THE
TREASURE HUNTER HAS MONEY, EQUIPMENT AND
MOTIVATION TO FIND SITES BUT LACKS ARCH-
AEOLOGICAL KNOWLEDGE. THIS LACK OF
ARCHAEOLOGICAL EXPERTISE IS THE ONE THING THAT
STILL THREATENS TO SHUT DOWN TREASURE
HUNTERS. CONGRESSMAN CHARLES E. BENNETT
(D. FLORIDA) HAS INTRODUCED A BILL INTO CONGRASS
FOR THE LAST 6 YEARS THAT WOULD EFFECTIVELY
END TREASURE HUNTING (WHKH WOULD IRONICALLY END
THE ARCHAEOLOGY TOO). AFTER ALL IS SAID AND
DONE BENNETT IS CLEAR TO STATE "I DON'T
CARE ABOUT GOLD OR TREASURE OR THE MONEY
END OF IT. IT'S THE HISTORY I'M AFTER."^⑥ THE
ARCHAEOLOGIST NEEDS TIME, MONEY AND EQUIP-
MENT TO FIND SITES AND GAIN INFORMATION.
THE TREASURE HUNTER NEEDS EXPERIENCED
ARCHAEOLOGICAL STAFF TO DOCUMENT SITES
SO THEY CAN GAIN TREASURE. BOTH
FACTIONS WANT TO GAIN FROM THEIR EXPLORATION
BUT EACH IN A DIFFRENT BUT VERY COMPAT-
IBLE MANNER.

THE ATOCHA: LOST AND FOUND

1973: Mel Fisher's company, Treasure Salvors Inc., finds three silver bars and the Atocha's anchor in shallow waters. During the next 12 years, Fisher and his crew crisscross the ocean floor, following the trail of artifacts.

Marquesas Keys

10 miles

17 feet

7 miles

54 feet

1622: The Atocha, caught in a hurricane, sinks with an estimated \$400 million in treasure aboard. Storm winds scatter cargo and debris across the ocean floor.

1985: On July 20 Fisher's divers find the wreckage of the Atocha—well preserved and laden with treasure.

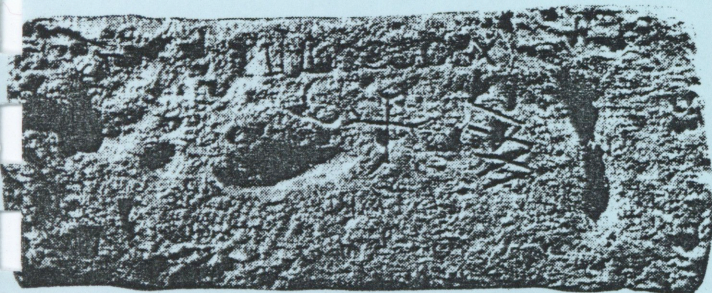


JULY 20, 1985 FIND⁷

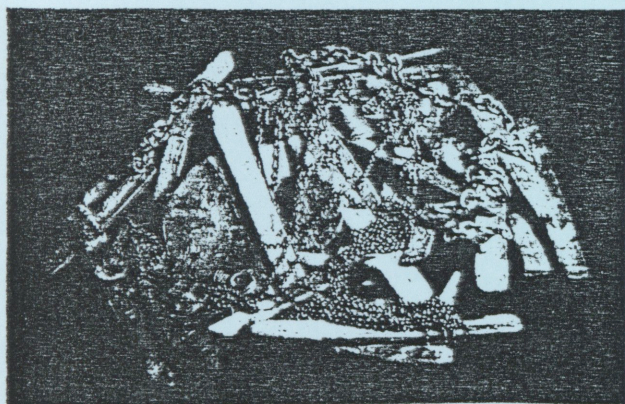
SPANISH DOUBLOON OF 1736⁸



75 POUND SILVER INGOT
FOUND OFF KEY WEST⁹



GOLD RECOVERED
SANTA MARGARITA¹⁰



P R O J E C T

PROJECT

THIS PROJECT IS THE BRIDGE TO SPAN THE NEED FOR A COOPERATIVE BETWEEN THE ARCHAEOLOGICAL COMMUNITY AND THE TREASURE HUNTER COMPANIES. A CENTER FOR RESEARCH AND DISPLAY FUNDED BY THE TREASURE HUNTERS TO PROVIDE THE COMMITMENT NEEDED TO CONTINUE THEIR WORK. A CENTER WHERE THE ARCHAEOLOGIST CAN FOLLOW THE WORK OF THE TREASURE HUNTER AND GAIN FROM THEIR RESOURCES. THIS IN TURN WILL GIVE THE TREASURE HUNTER NEEDED INFORMATION TO EFFECTIVELY FIND ADDITIONAL WRECKS. THIS IS A CENTER FOR THE MUTUAL BENEFIT AND COOPERATION OF TWO TRADITIONALLY OPPOSED FACTIONS.

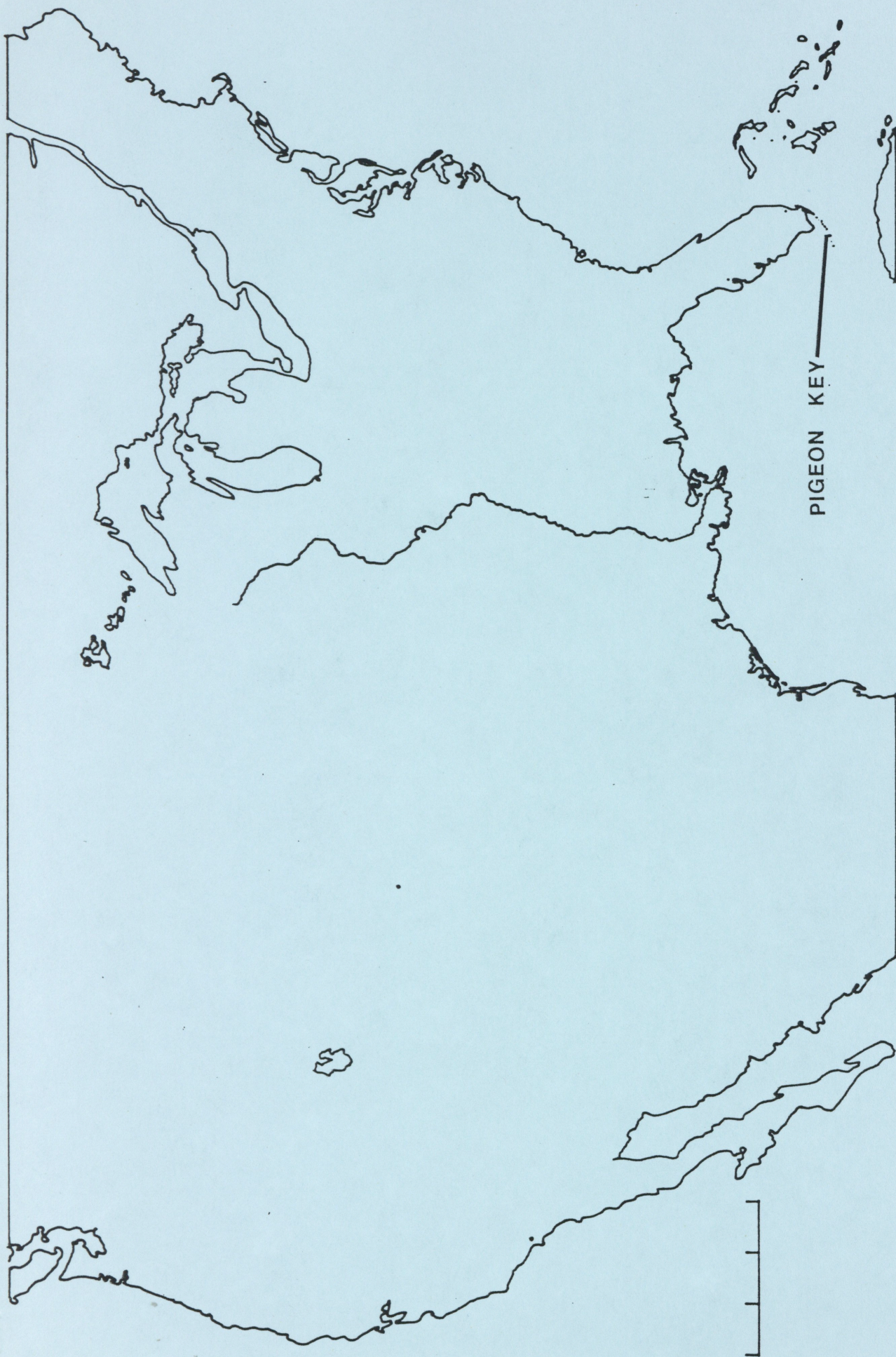
THE PHYSICAL PROJECT WILL CONSIST OF TWO BASIC AREAS WITH ADDITIONAL SUPPORT AREAS. A RESEARCH CENTER FOR THE LAND BASED FUNCTIONS OF THE ARCHAEOLOGIST AND A MUSEUM FOR THE DISPLAY OF ARTIFACTS AND EDUCATION OF THE PUBLIC. SUPPORT FOR THESE TWO BASIC AREAS WILL INCLUDE DOCKAGE, STORAGE, HOUSING, PARKING, AND FUNCTIONAL NEEDS (SEWAGE TREATMENT, BACK UP SYSTEMS ETC...). SINCE EACH TREASURE HUNTING COMPANY HAS ITS OWN HOME BASE ALREADY ESTABLISHED THIS GROUP OF BUILDINGS WILL SERVE AS A BASE FOR THE ARCHAEOLOGICAL COMMUNITY. THE PROJECT PROVIDES A CENTRAL INFORMATION POINT, THE SITE PROVIDES A CENTRAL LOCATION, PIGEON KEY FLORIDA. PIGEON KEY IS 53 MILES EAST NORTH EAST OF KEY WEST FLORIDA (THE SOUTHERN TIP OF THE KEYS) AND 57 MILES SOUTH WEST OF KEY LARGO (THE NORTHERN MOST KEY). IN ADDITION TO

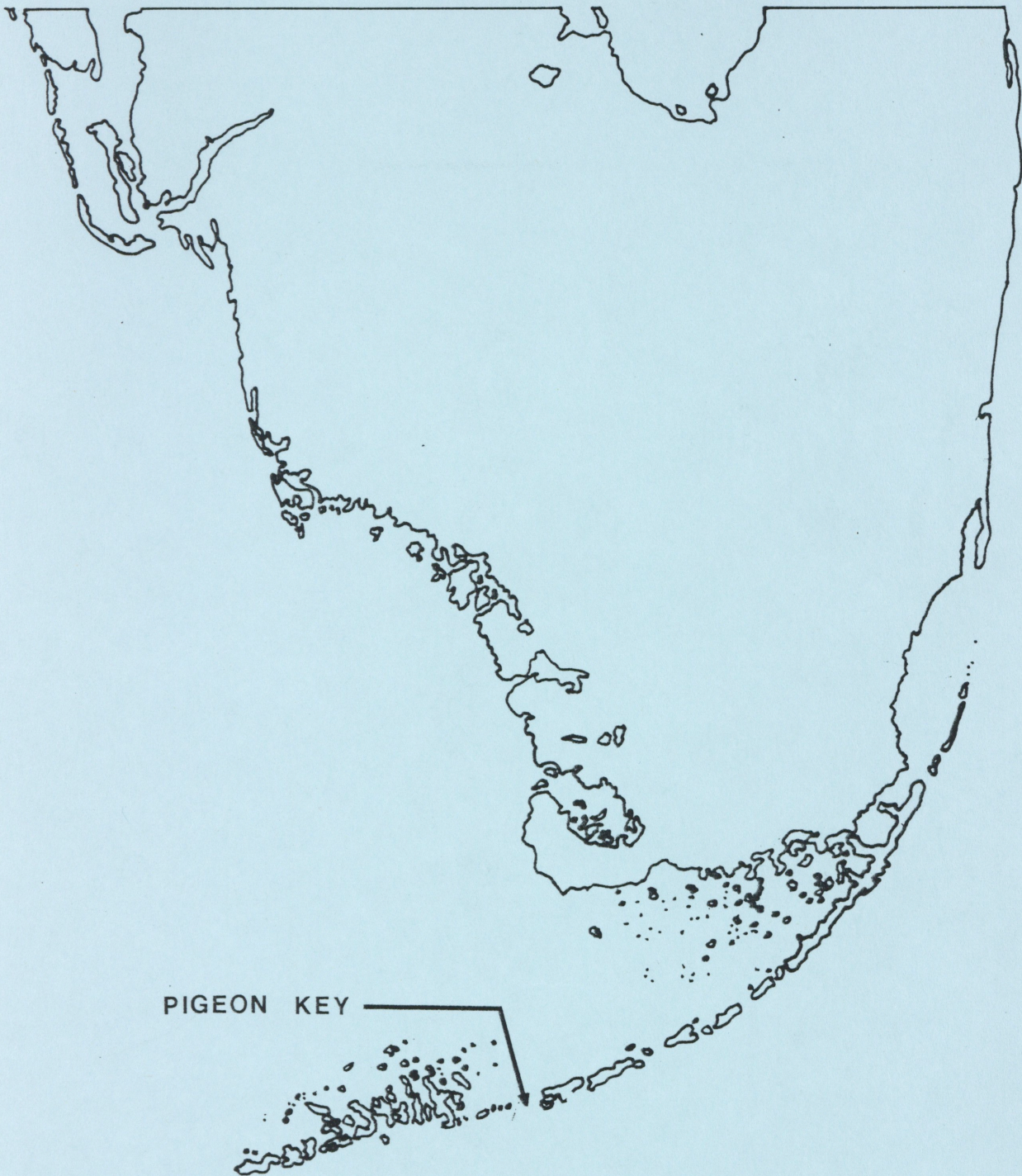
VEHICULAR TRAFFIC THE OTHER MAIN FORMS OF TRANSPORTATION IN THE KEYS ARE BOATS AND PLANES. PIGEON KEY IS A FEW HUNDRED YARDS FROM ONE OF TWO MAJOR BOATING CHANNELS THAT CROSS THROUGH THE KEYS. THE SECOND CHANNEL IS FIVE MILES WEST OF PIGEON KEY. THIS MAKES IT ONE OF THE MOST ACCESSIBLE KEYS BY BOAT IN THE KEY CHAIN. THERE ARE TWO COMMERCIAL AIRPORTS IN THE KEYS. ONE IN KEY WEST AND THE LARGER OF THE TWO IN MARATHON. MARATHON IS TWO MILES EAST OF PIGEON KEY. THE ISLAND IS PRESENTLY LEASED TO MIAMI UNIVERSITY AS AN ENVIRONMENTAL FIELD STATION BY MONROW COUNTY. THE PROPOSED PROJECT WOULD EXPAND THIS FUNCTION BY PROVIDING AN ADVANCED CENTER, FOR MARINE ARCHAEOLOGY THUS NOT CHANGING THE USAGE OF THE ISLAND (MIAMI UNIVERSITY PRESENTLY HAS A MARINE ARCHAEOLOGY DEPARTMENT BUT POSSESS NO SPECIAL FACILITIES).

THE ONLY FACILITY THAT COMES CLOSE TO MY PROPOSED PROJECT IS THE TREASURE SALVORS INC. TREASURE MUSEUM IN KEY WEST. HOUSED IN THE BASEMENT OF AN ABANDON ARMY BUNKER THE MUSEUM IS LESS THAN ADEQUATE. A VISITOR TO KEY WEST WILL FIND A LARGE BASEMENT BROKEN UP WITH CRUDE PLYWOOD PARTITIONS. THE AUDITORIUM CONSISTS OF A TELEVISION, A VCR AND WOOD BENCHS IN A PLYWOOD ROOM PAINTED FLAT BLACK. THE DISPLAY AREA IS ALSO BLACK WITH SMALL CASES CONTAINING VARIOUS TREASURE, MANY PIECES WORTH SEVERAL MILLION DOLLARS. AT THE TIME

OF MY VISIT THE CENTER OF THE CONCRETE FLOOR IN THE DISPLAY ROOM WAS BEING TAKEN OVER BY A GROWING PILE OF SILVER INGOTS SIMPLY STACKED THERE FOR LACK OF A BETTER PLACE. ONE VERY NERVOUS SECURITY GUARD STOOD WATCH AT THE DOOR (WHEN THE CROWD OF VISITORS WASN'T COMPLETELY BLOCKING HIS VIEW). THE OTHER SPACES WERE A BATHROOM (YES ONE STALL) AND A GIFTSHOP. THE LACK OF FACILITIES IS DUE IN PART TO A LACK OF FUNDS AND LACK OF ANY OTHER SUITABLE SPACE. PIGEON KEY WOULD BE THE IDEAL SPACE, AS FOR FUNDING..... ON THE AFTERNOON OF JULY 20TH 1985 TREASURE SALVORS INC. FOUND \$400,000,000 (FOUR HUNDRED MILLION) IN SUNKEN TREASURE, THE LARGEST FIND IN HISTORY. POSSIBLY THIS WOULD BE ENOUGH TO FUND A SMALL RESEARCH CENTER AND MUSEUM.

S I T E





BRIDGE

THE BRIDGE PROVIDES THE ONLY VEHICULAR ACCESS TO THE ISLAND. IF THE PROJECT IS LIMITED TO THE ISLAND MUCH OF THE POTENTIAL IS LOST, POTENTIAL THE BRIDGE CAN OFFER. SO IT MUST BE LOOKED AT AS MORE THAN JUST A ROAD TO DRIVE DOWN.

THE BRIDGE HAS AN AREA OF 30 ACRES, OR ABOUT 6 TIMES THAT OF THE ISLAND. THE CATCH IS THAT ITS ONLY 36' WIDE. AT AN ELEVATION OF 28-30 FEET ABOVE THE WATER IT IS ONE OF THE HIGHEST THINGS IN THE AREA. SINCE THE NEW BRIDGE (TO THE SOUTH) WAS BUILT THE OLD BRIDGE HAS BEEN USED ONLY BY PIGEON KEY. EACH OF THESE POINTS CAN BE THOUGHT OF AS A POSITIVE OR A NEGATIVE ATTRIBUTE. I BELIEVE EACH IS, OR WILL BE POSITIVE.

THE ULTIMATE LINEAR PROBLEM, 36 FEET WIDE 36,960 FEET LONG THE BRIDGE HAS TO PROVIDE MANY THINGS FOR THE PROJECT TO PROSPER. FUNCTIONALLY IT WILL PROVIDE TRANSPORTATION FOR PEOPLE AND THINGS, SECURITY, UTILITY LINES AND GIVE ACCESS TO DEEPER WATER. AESTHETICALLY IT CAN PROVIDE VISTAS, TERMINATIONS, PATH, PLACE, LINK TO THE PAST AND NUMERABLE OTHER OPTIONS. IN THE END THE BRIDGE HAS TO BE MAXIMIZED IN EVERY WAY POSSIBLE SINCE IT IS SUCH A LARGE PART OF THE PROJECT.

The story of the construction of the Florida East Coast Railway's Key West Extension is extraordinary. To Henry M. Flagler, president of the line, it was the fulfillment of a dream. Flagler, a real estate tycoon, had already almost singlehandedly turned a swampy "wasteland" into what some consider the ultimate resort—Florida. By the turn of the century he had already made and spent so many millions in developing land in that state that to him the idea of turning Key West a hundred miles off the coast into a great port was not far fetched as most people believed. Its harbor was, after all, unexcelled, it was closer to the Panama Canal than any other American port and was just a stone's throw from Cuba upon whose real estate just then Flagler and others, were casting covetous eyes.

Legend has it that Flagler assembled the railroad's executives and engineers and told them point blank: "The main line will go out to sea gentlemen, as far as Key West." Enthusiasm was by no means universal. Some engineers said it could not be done. But Flagler—who, some suspected, wanted to build a monument to himself—was adamant. He had been right before, so in the end it was decided to follow him again.

The struggle against enormous odds to build a railroad through the Everglades and out across the Keys began in 1903 and took thirteen years to accomplish. So great was the strain on Flagler's first chief engineer, Joseph Meredith, that after six years he died. His place was taken by his young assistant, William J. Krome, whose engineering brilliance brought the incredible project to completion. The problems facing Krome and his crew were without parallel. No contractor would agree to take on the task, so the railroad's own crews built the line with material that had to be brought hundreds if not thousands of miles by boat. Twice, a hurricane became a disastrous reality during construction, and another caused dire consequences after the line was built.

The outstanding feature of the Key West Extension was its bridges. Extending over 37 miles of water, nearly all of it open sea, 20 miles of the route were crossed by embankments, and the remaining, 17.7 miles were crossed by a total of 38 bridges of concrete and steel, 3 drawbridges, and 29 concrete viaducts. The latter were the extension's most outstanding feature.

Initially the Key West Extension was to have four deep-water crossings of reinforced concrete. The choice of concrete had been made partially because it was a more durable material than steel—especially in salt water—and partially because its great mass would be helpful "in resisting the overturning action of the waves." In 1909 after only one crossing, the Long Key Viaduct, had been completed, it was decided to substitute steel for concrete on two of the remaining three and for part of the third. It was obvious from the experience of building the first bridge that if the next were to be of concrete it would take forever to get to Key West—and Flagler was an impatient old man.

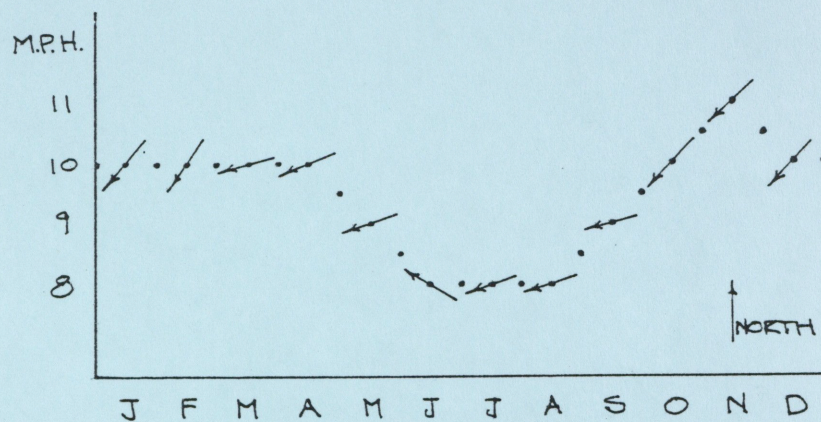
The Long Key Viaduct, the great work of the entire project, remains today the longest concrete-arch viaduct in the world. It contains 222 semicircular reinforced-concrete arches, and has a total length of 11,950 feet or some 2.15 miles. During the construction of this, the first of the deep water crossings, the engineers were confronted by formidable problems. The most difficult to overcome was the securing of a stable foundation for the piers. Much of the bottom was coralline limestone, a porous, uneven, and very difficult material on which to build a bridge. Another

problem was that the keys provided no rock or sand with which to make the concrete. This had to be brought from Miami by boat. Even fresh water had to be imported for the steam engines, for the men to drink, and for the mixing of concrete. In the latter case salt water would have corroded the steel reinforcement. The cement for the portions of the piers beneath the water came from Germany by ship, and for those above water from the Hudson Valley. It is little wonder that the engineers chose steel to complete the task.

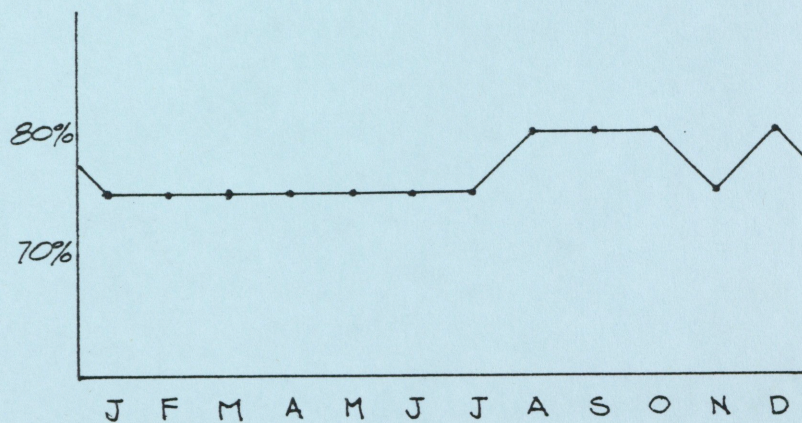
The longest bridge on the extension, for many years the longest over-water crossing in the world, was the Seven Mile Bridge, which in fact measures 35,815 feet. It consists of 335 deck plate-girder spans supported by concrete piers plus a concrete viaduct (almost as long as the Long Key); its 210 arches, measuring 1.75 miles over-all, were also of reinforced-concrete construction. Of the other remaining concrete viaducts on the Extension, many would rank as major structures in their own right if it were not for the fact that they are overshadowed by the two greater ones.

When the railroad first reached Key West in 1912, it was hailed as one of the engineering marvels of the day. Flagler lived to celebrate the occasion, but he died a few months later. The line had cost over twenty-six million dollars, and the freight and passenger revenues envisioned by the old tycoon never materialized. The great dream turned into an appalling liability. On Labor Day 1935, a hurricane swept over the Keys and damaged the line so severely that the railroad decided to abandon it completely. But all was not wasted. Eventually the bridges that survived fulfilled another much needed function. Between 1935 and 1943, with the help of the Federal Government, 108 miles of the old railroad, including thirteen miles of bridges were converted into the U.S. Highway 1. (12)

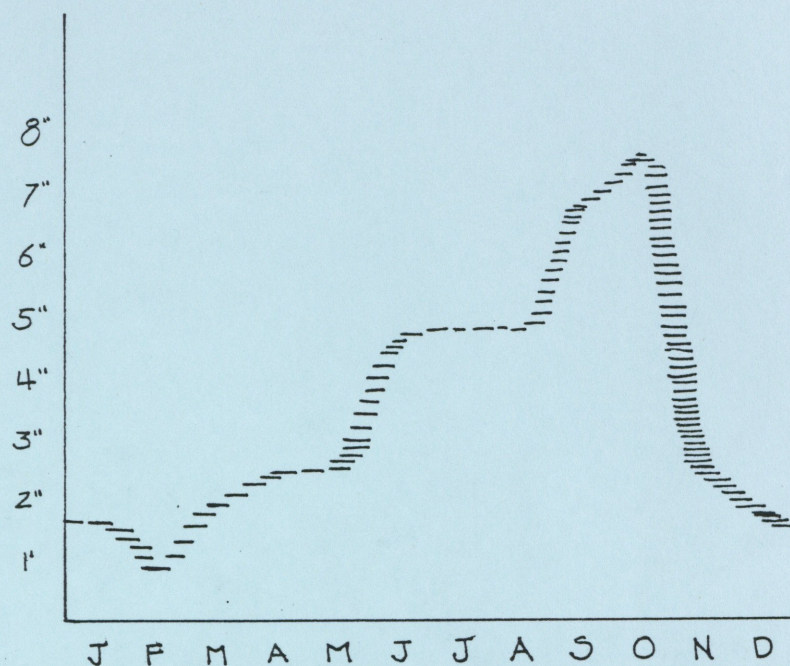
PREVAILING DIRECTION AND MEAN WIND SPEED



MEAN RELATIVE HUMIDITY



MEAN MONTHLY PRECIPITATION



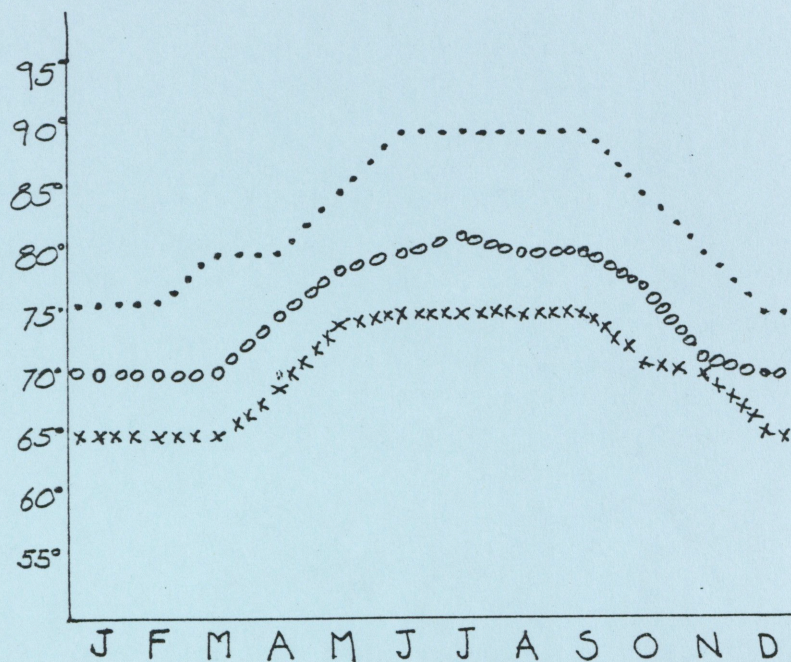
MEAN TOTAL PRECIPITATION 42.2"

MEAN ANNUAL PRECIPITATION IN MILLIONS
OF GALLONS OF WATER/MILE² 733

MEAN NUMBER OF DAYS WITH 0.01 INCH OR MORE OF PRECIPITATION PER MONTH



NORMAL DAILY RANGE OF TEMPERATURE



MAX .
MIN x
AVERAGE o

NUMBER OF DAYS OF 90°
AND ABOVE MAXIMUM
TEMPERATURE = 30

NUMBER 32° = 0

TOTAL HEATING DEGREE DAYS
(BASE 65°) = 108

CLIMATIC DATA FROM :
CLIMATIC ATLAS OF THE UNITED STATES
ENVIRONMENTAL SCIENCE
SERVICE ADMINISTRATION
WASHINGTON D.C.

P R O G R A M

MUSEUM



THE MUSEUM IS THE CENTER OF THE PROJECT. FOR THE MAJORITY OF VISITORS NAUTICAL ARCHAEOLOGY WILL BE A NEW KNOWLEDGE. EVERY VISITOR SHOULD BE TREATED AS THOUGH THEY KNOW LITTLE TO NOTHING ABOUT NAUTICAL ARCHAEOLOGY. AT THE SAME TIME THE VISITOR SHOULD NOT FEEL IGNORANT OR BE TREATED AS SUCH BY THE SPACE.

THE DOMINATE DESIGN CRITERIA IN THE DISPLAY SPACES AND FOR THE OVERALL VISITOR INTERACTION IS EXPLORATION. EXPLORATION OF THE ISLAND, BUILDING, SPACE AND DISPLAYS. THIS EXPLORATION WILL BE ENCOURAGE BY THE DESIGN THROUGH ITS UNIQUENESS AND OPENNESS. AFTER EACH LEVEL OF EXPLORATION TAKES PLACE THE SPACE WILL OFFER REWARD AND AN OPPORTUNITY FOR FURTHER EXPLORATION. AS EXPLORATION TAKES PLACE AN EDUCATION EVOLVES.

A TRADITIONAL MUSEUM FORCES ITS INFORMATION ON THE VISITOR. THIS MUSEUM WILL TEASE AND ENCOURAGE THE VISITOR TO SEEK MORE INFORMATION. IN THE DESIGN THIS WILL BE ACCOMPLISHED THROUGH VISITOR INTERACTION WITH DISPLAYS AND AN EVER PRESENT OPPORTUNITY FOR THE VISITOR TO GAIN MORE INFORMATION. DISPLAYS WILL GIVE MUCH OF THIS ADDITIONAL INFORMATION BUT IN ADDITION THE MUSEUM WILL HAVE AN EDUCATIONAL LOOP THROUGH THE RESEARCH CENTER AND A LIBRARY OPEN TO VISITORS. THE MORE SPACES THE VISITOR EXPLORES THE BETTER THE EDUCATION HE OR SHE WILL RECEIVE.

PUBLIC AREA

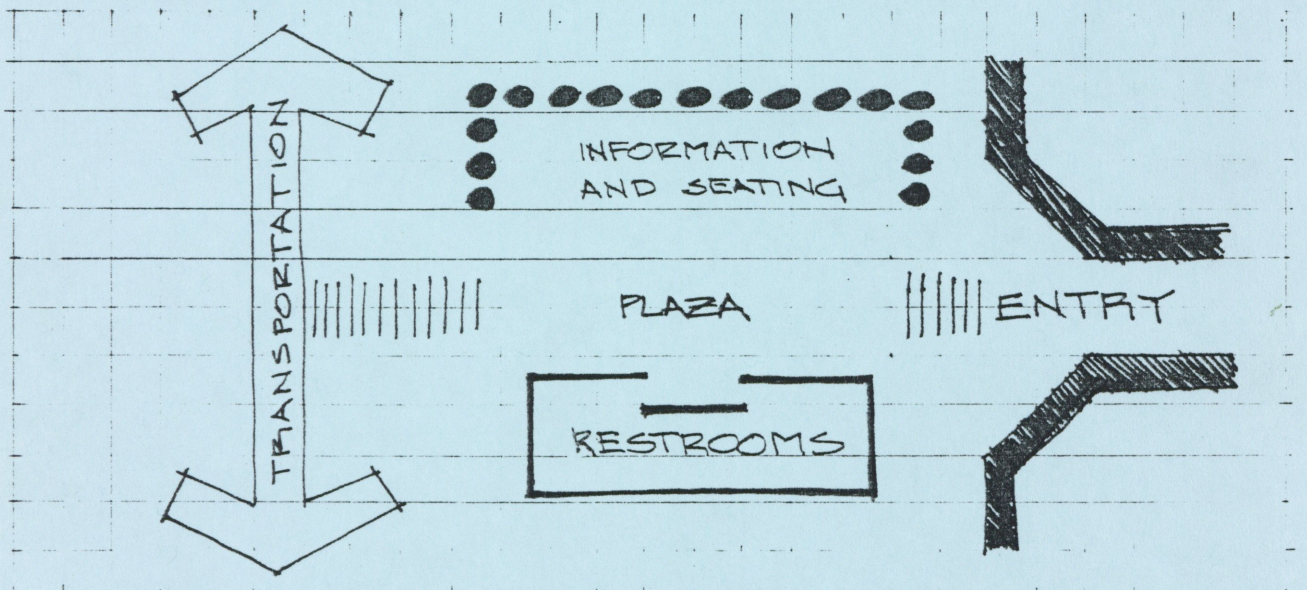


GOALS

PROVIDE AN AREA FOR GATHERING, ORIENTATION AND PLANNED MEETINGS. VISITOR SHOULD BE AWARE OF ENTRY AND BEGIN LEARNING OF WHATS TO COME INSIDE.

FACTS

- activities GRAPHIC MAP 140# RESTROOMS 720#
WIND SPEED TELEPHONE 60#
HUMIDITY & PRESSURE 140# PLAZA 6500#
COMPASS DIRECTION
SEATING 100#
TOTAL 7660 #
- equipment OUTDOOR FLOORING, NO H.V.A.C. IN RESTROOMS (USE NATURAL BREEZE) NATURAL LIGHT (DAY) AREA LIGHT & FIXED LIGHT (NIGHT)
- security LOW (REST ROOMS) NONE (OPEN AREA)
- special requirements AREA SHOULD BE USABLE AFTER HOURS.
- ideal adjacencies



CONCEPTS

LANDMARK WILL PROVIDE ORIENTATION. RESTROOMS SHOULD NOT BE OUT OF SIGHT FOR SECURITY BUT STILL BE SUBTLE.

LOBBY

*

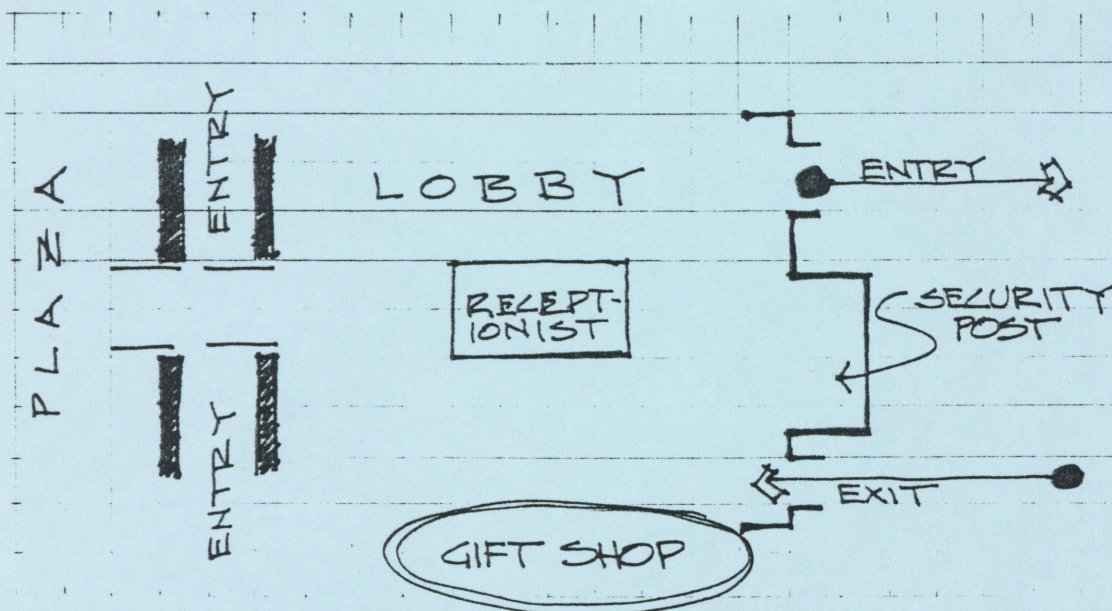
GOALS

LOBBY SHOULD BREAK THE VISITOR FROM THE OUTSIDE WORLD. THIS WILL BE THE POINT FROM WHICH THE MUSEUM STARTS. ACCESS TO NON-VISITOR AREAS WILL ALSO BE FROM THE LOBBY.

FACTS

- activities
MAIN ENTRY OPEN AREA 3000#
SALE OF TICKETS] 160#
RECEPTIONIST] MAIN EXIT
GUEST REGISTER 40#
SECURITY POST 160#

TOTAL 3360#
- equipment HARD FLOORING (WOOD?), MODERATE CONTROL OF TEMPERATURE AND HUMIDITY, NATURAL LIGHT WITH BACKUP TASK LIGHTING. BRIGHT ACOUSTICAL AREA, CLOSED CIRCUIT T.V. FOR SECURITY POST.
- security MEDIUM
- special requirements DOUBLE DOORS FOR CLIMATE CONTROL
- ideal adjacencies



CONCEPTS

ONLY VIEWS OUT WILL BE THROUGH FRONT DOORS AND SKY VIEWS. LOBBY SHOULD BE LIGHTER THAN ENTRY.

AUDITORIUM



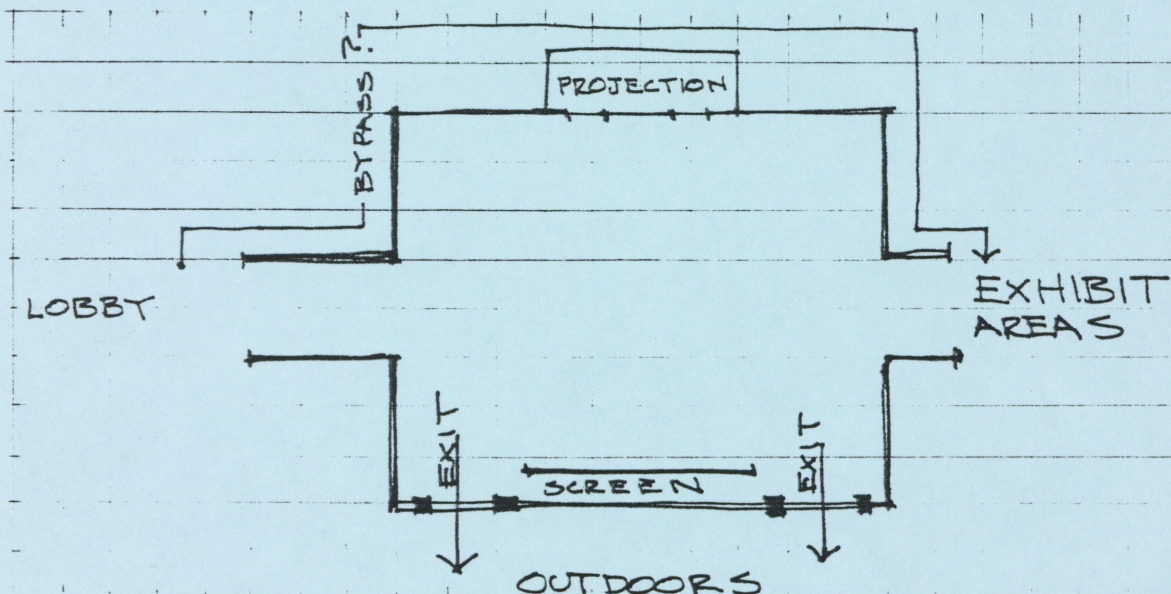
GOALS

AUDITORIUM "HAND FEEDS" VISITOR TO BUILD
INTREST FOR THE REST OF THE MUSEUM,
(OVERVIEW)

FACTS

- activities AUDIO VISUAL PRESENTATIONS FOR
GROUPS OF 150 PEOPLE 2000#
PROJECTION BOOTH 100#

TOTAL 2100#
- equipment SEATING OR STANDING RAILS. SOFT FLOOR.
HIGH C.F.M. COOLING AND HUMIDITY CONTROL. SOFT
ACCOUSTICALTY. LOW LIGHTING
- security LOW
- special requirements EGRESS TO OUTSIDE. PROVISION
TO BYPASS AUDITORIUM.
- ideal adjacencies



CONCEPTS

EXCITE AND INTREST VISITOR WITH
PRESENTATION, SPACE SHOULD BE SECONDARY.

CHANGING EXHIBIT

*

GOALS

PROVIDE A SPACE FOR CURRENT FINDS WORK OR DISPLAYS DEALING WITH NAUTICAL ARCHAEOLOGY.

FACTS

■ activities OPEN DISPLAY SPACE 785 #

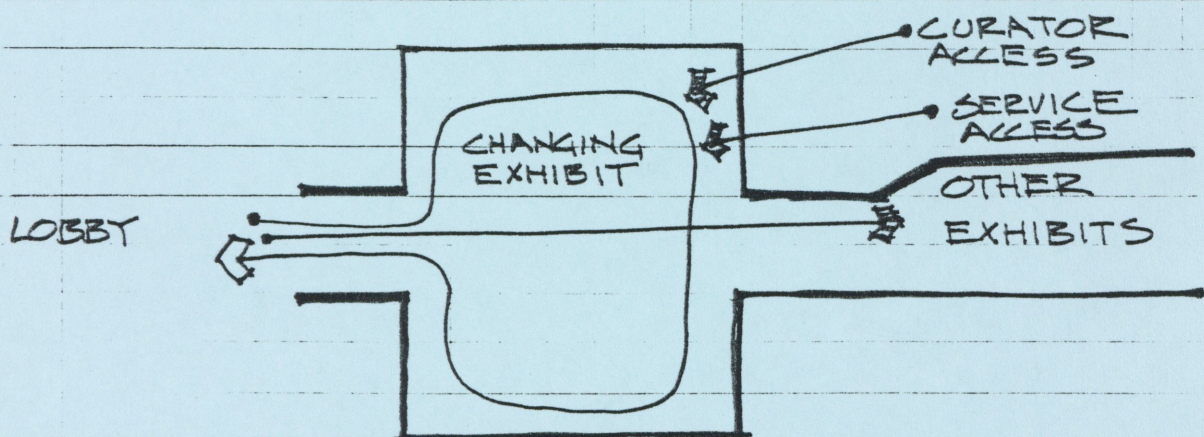
TOTAL 785 #

■ equipment SOFT FLOOR, LIGHTING AND DISPLAY ARRANGEMENT HIGHLY FLEXIBLE, MODERATE ACOUSTICAL TREATMENT.

■ security MEDIUM

■ special requirements FLEXIBILITY

■ ideal adjacencies



CONCEPTS

BY PROVIDING A SPACE THAT IS ALWAYS CHANGING ENCOURAGES RETURN VISITS

MAIN MUSEUM EXHIBIT AREA*

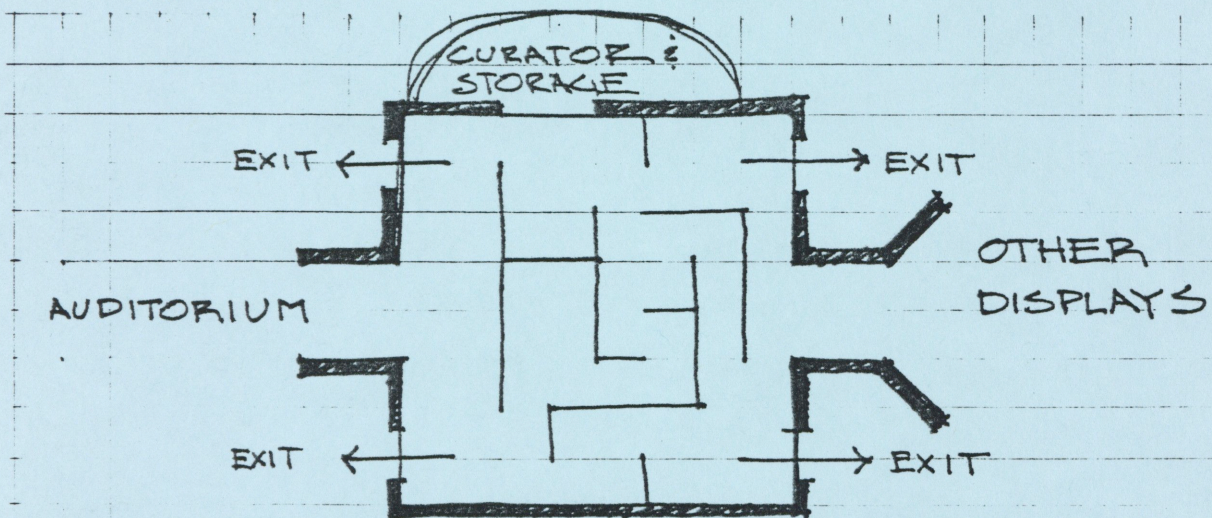
GOALS

SPACE SHOULD ENCOURAGE DISCOVERY AND INFORMAL INTERACTION WITH DISPLAYS. EXHIBIT AREA SHOULD FEEL LIKE AN UNDERWATER DIVE; ALONE, QUIET, FILTERED LIGHT AND LIMITED SIGHT.

FACTS

- activities
BOAT DISPLAY 2450# BOAT LIFE 150#
AQUARIUM'S (2) 200# TIME LINES 140#
LARGE ARTIFACTS 3400# OTHER DISPLAY 1110#
WAVE TANK 140# CIRCULATION 1350#
OCEAN FLOOR 160#

TOTAL 9100#
- equipment FLOOR CHANGES THROUGH OUT: SAND, WOOD, RUBBER CONCRETE ETC... HUMIDITY CONTROLLED BUT NOT CRITICAL. LIGHTING VERY SUBTLE AND SPECIALIZED. SOUND SHOULD BE KEPT TO A MINIMUM
- security MEDIUM (VARIOUS DISPLAYS HIGH)
- special requirements EXPRESS IMPORTANT IF SPACE IS BROKEN UP. NEEDS TO BE EASILY CHANGED FROM ONE EXHIBIT TO NEXT.
- ideal adjacencies



CONCEPTS

LEVEL CHANGE, MATERIAL CHANGE, LIGHT CHANGE
ALL HELP TO ENTICE VISITOR INTO NEW SPACES.

FAMOUS FINDS



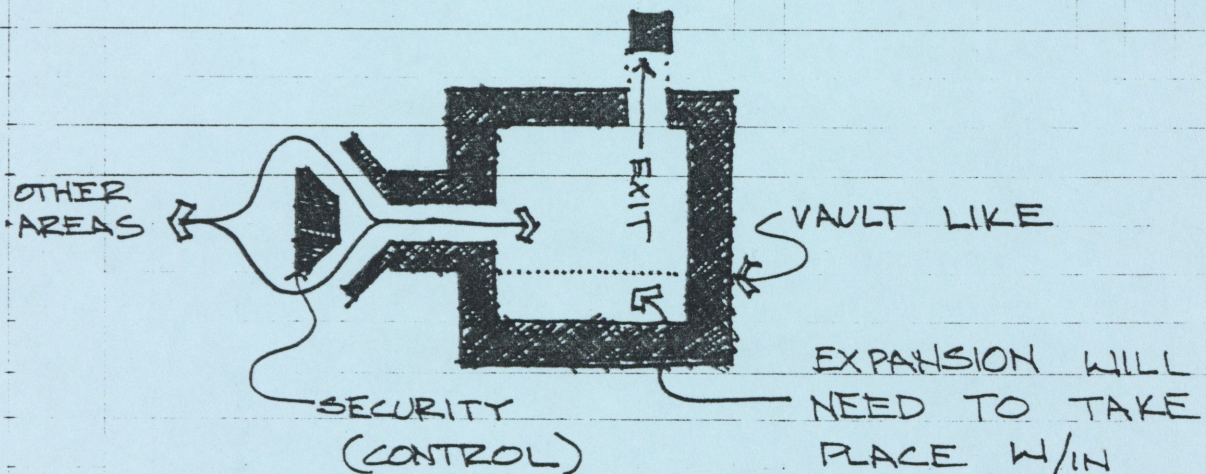
GOALS

IMPRESS VISITOR WITH WEALTH AND QUANTITY OF TREASURE.

FACTS

- activities

TIME LINE (S) (DATE LOST-FOUND)	160¢	TREASURE DISPLAYS	2600¢
TREASURE STILL LOST	140¢	SECURITY	80¢
FAMOUS TREASURE HUNTERS AND THEIR STORY	300¢	VALUE - COMPARE	80¢
HANDLE TREASURE	180¢	CIRCULATION	650¢
		TOTAL	4210¢
- equipment BASIC COOLING AND HUMIDITY CONTROL
STRONG ACCENT LIGHTING VERY DARK, QUIET
ACOUSTICAL SPACE
- security HIGH VAULT LIKE
- special requirements HIGH SECURITY COULD POSE A
PROBLEM FOR EGRESS. DISPLAYS SHOULD BE
VIEWED FROM ALL SIDES. NEED EXPANSION
SPACE.
- ideal adjacencies



CONCEPTS

OPPRESSIVE, VAULT LIKE SPACE WILL GIVE FEELING OF VALUE AND RESPECT.

NAUTICAL ARCHAEOLOGY *

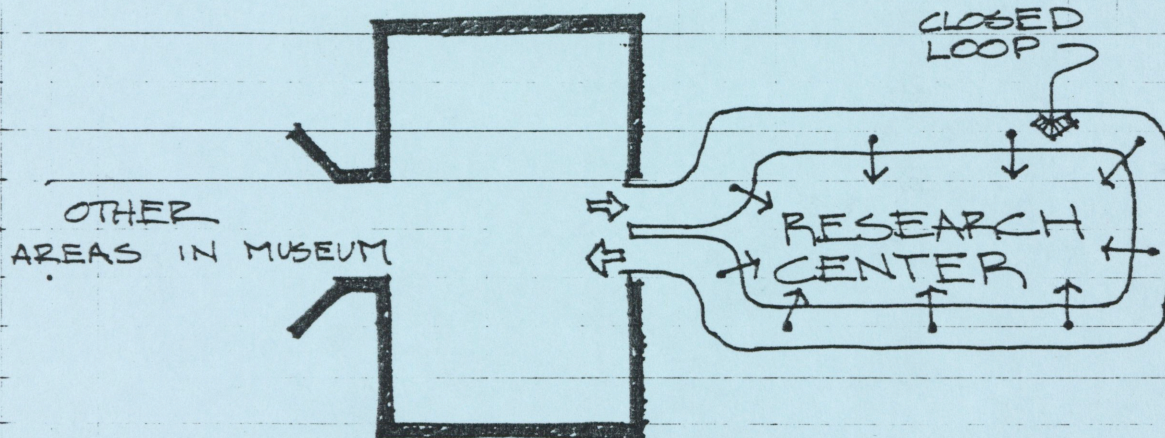
GOALS

THIS AREA IS PARTICULARLY IMPORTANT TO THE MUSEUM AND SHOULD BE CONVEYED AS SUCH. DISPLAYS SHOULD STRESS THE IMPORTANCE AND TIME INVOLVED IN NAUTICAL ARCHAEOLOGY. TOURS TO RESEARCH AREA WILL LEAVE FROM HERE.

FACTS

- activities

CODE OF ETHICS	}	140¢	VISITOR INTERACTION	
EXPLANATION OF ARCHAEOLOGY V.S. TREASURE CONFLICT			DISPLAY	280¢
			LOOTING DISPLAY	160¢
UNDERWATER TECHNIQUE		3100¢	INFORMATION TO BE GAINED	340¢
TOOLS		760¢	CIRCULATION	1350¢
			TOTAL	6130¢
- equipment NATURAL LIGHTING WITH CONTROL AND ADDITIONAL ACCENT.
- security LOW (RESEARCH LOOP HIGH)
- special requirements GATHERING AREA FOR RESEARCH CENTER TOURS.
- ideal adjacencies



CONCEPTS LOOP SHOULD BE ENCLOSED TO PROVIDE SECURITY. LIGHT LEVEL CAN HELP HEIGHTEN LEVEL OF ATTENTION FOR VISITOR.

GIFT SHOP



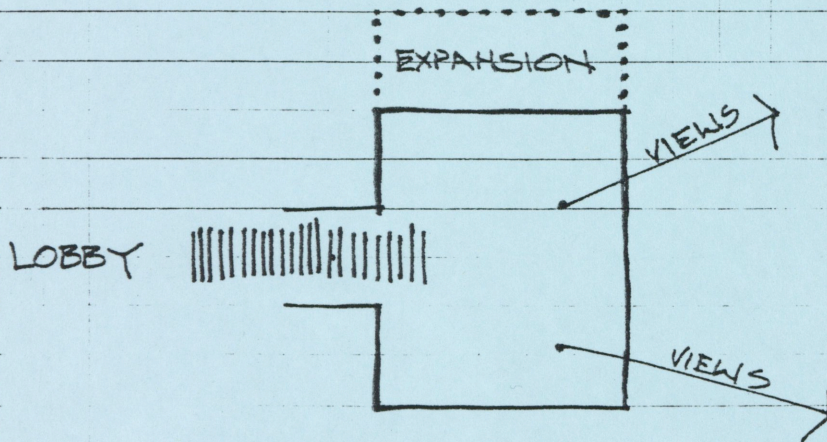
GOALS

MATAIN AN AIR OF SOPHISTICATION, AVOID
SOUVENIR STAND IMAGE.

FACTS

- activities
GENERAL RETAIL 420#
BOOKS 100#
JEWELERY 80#
CASH REGISTER 80#
STORAGE/OFFICE 200#

TOTAL 880 #
- equipment SOFT FLOOR, NATURAL LIGHT W/ACCENT
- security MEDIUM (PROVIDED BY LOBBY)
- special requirements JEWELERY CASES, ROOM TO EXPAND
- ideal adjacencies



CONCEPTS

QUALITY MATERIALS AND FIXTURES WILL
GIVE FEELING OF QUALITY.

OFFICE AREA

*

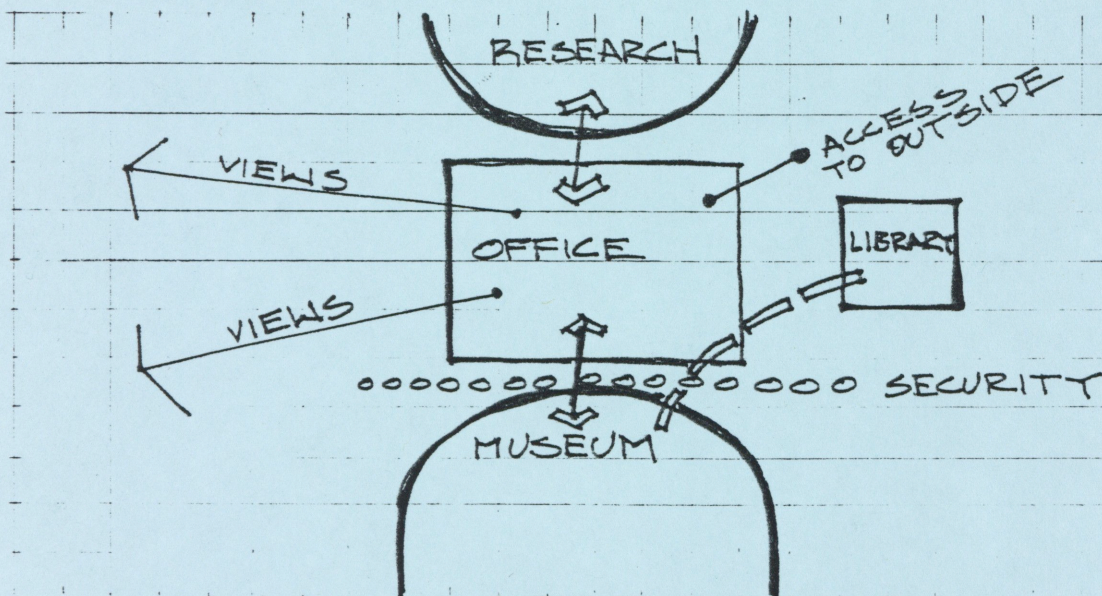
GOALS

OFFICE AREA SHOULD FEEL SEMI-PRIVATE AND CLOSED OFF TO THE PUBLK BUT OPEN TO THOSE WHO NEED TO DO BUSINESS.

FACTS

- activities

DIRECTORS OFFICE	150 #	COPY AREA	100 #
EXECUTIVE OFFICE	150 #	COMPUTER	160 #
GENERAL OFFICE	150 #	COFFEE	30 #
ARTISTS AREA	300 #	FILES	320 #
CLERICAL AREA	400 #	WAITING	90 #
MULTI-PURPOSE	700 #	TOTAL	2550 #
- equipment SOFT FLOORING. HUMIDITY AND COOLING VERY IMPORTANT. GENERAL AND TASK LIGHTING WITH NATURAL. QUITE SPACE, FLEXABLE SPACE & FLEXABLE MECH/ELEC TO MATCH.
- security LOW.
- special requirements OPEN OFFICE PLAN. MUSEUM AND RESEARCH AREA WILL SHARE OFFICE. PROVIDE CONTROL TO MUSEUM LIBRARY.
- ideal adjacencies



CONCEPTS

ACCESS TO OFFICE AREA FROM MUSEUM LOBBY WOULD PASS BY SECURITY FOR CONTROL.

LIBRARY



GOALS

TO PROVIDE VISITOR ACCESS TO ADDITIONAL MATERIAL IF IT IS DESIRED. MATERIALS WOULD HAVE TO BE USED "IN HOUSE". WILL ALSO BE USED BY RESEARCH STAFF FOR GENERAL INFORMATION.

FACTS

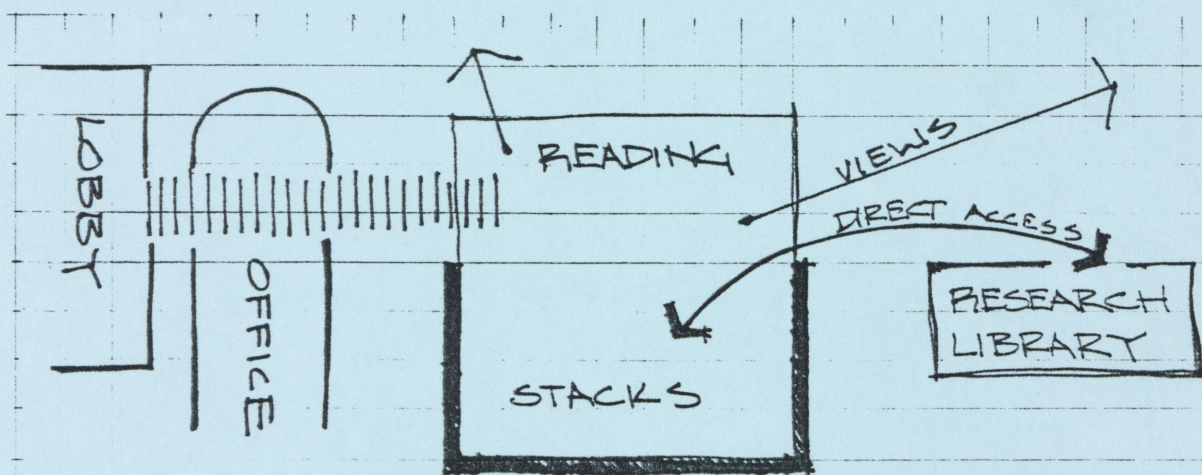
■ activities	READING AREA	415 #	STORAGE	300 #
	STACKS	1700 #	CIRCULATION	550 #
	FLAT FILE	160 #		
	INDEX	40 #		
	MICROFILM	100 #		
			TOTAL	3365 #

- equipment HALON FIRE CONTROL MAJOR HUMIDITY CONTROL. NATURAL LIGHTING IN READING AREA. CONTROLLED GENERAL LIGHTING IN STACKS

- security MED PROVIDED THROUGH OFFICE

- special requirements HALON FIRE SUPPRESSION.

- ideal adjacencies



CONCEPTS

ENCOURAGE USE THROUGH GRAPHICS AND SIGNS. CONTROL USE THROUGH SECURITY AND OFFICE.

CURATOR



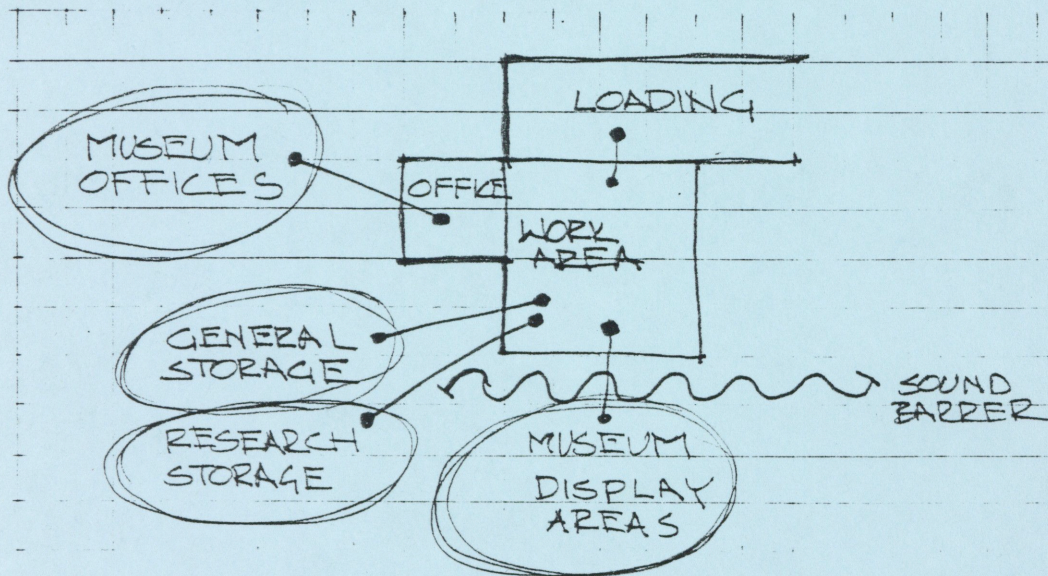
GOALS

PROVIDE CURATOR A PLACE TO WORK FROM
WITH MUSEUM FUNCTIONS AND DISPLAYS.

FACTS

- activities CURATORS OFFICE 200#
WORKSHOP 635#
TOOL & EQUIPMENT ROOM 180#

TOTAL 1015#
- equipment NATURAL LIGHT IN ALL SPACES STRONG
GENERAL LIGHTING IN WORK AREAS.
- security LOW
- special requirements EXTRA POWER LOAD, SAW DUST
HANDLING.
- ideal adjacencies



CONCEPTS

KEEP CURATOR CENTRAL TO MUSEUM
OPERATIONS AND MAINTAIN DIRECT LINK TO
RESEARCH

SUPPORT SPACES NON-PUBLIC

*

GOALS

PROVIDE SUPPORT SPACE FOR MUSEUM

FACTS

■ activities	BATHROOM'S (FOR OFFICE AREA)	200#	
	MECHANICAL	3000#	
	CIRCULATION	7850#	
	GENERAL STORAGE	1400#	
	SERVICE AND LOADING	800#	
			TOTAL 13250#

■ equipment

■ security

■ special requirements

■ ideal adjacencies

CONCEPTS

GENERAL STORAGE IS FOR MUSEUM SPECIFIC ITEMS
(DISPLAYS ETC...)

RESEARCH



THE BULK OF NAUTICAL ARCHAEOLOGY TAKES PLACE ON THE OCEAN FLOOR AND ON THE SUPPORT BOATS. THE PLACEMENT OF ANY GIVEN ARTIFACT IS JUST AS IMPORTANT AS THE ARTIFACT ITSELF FOR UNDERSTANDING A WRECK. BECAUSE OF THIS IT IS EXTREMELY IMPORTANT THAT EVERY ARTIFACT BE FULLY DOCUMENTED UNDERWATER BEFORE BEING REMOVED. MAPS, PHOTOS AND DRAWINGS MUST THEN BE MADE FROM THE INFORMATION. THIS IS DONE ON LAND AND PART OF WHAT WILL TAKE PLACE IN THE RESEARCH AREA. IN ADDITION TO DOCUMENTATION THE PRESERVATION AND CLEANING OF ARTIFACTS WILL BE DONE HERE.

MUSEUM AND RESEARCH WILL SHARE SEVERAL SPACES AND BE INTERRELATED IN OTHER WAYS ALSO. THE MUSEUM WILL HAVE A "LOOP" THROUGH THE RESEARCH AREAS FOR THE VISITORS. ADMINISTRATIVE OFFICES FOR BOTH AREAS WILL BE HANDLED IN THE MUSEUM. THE BULK OF STORAGE WILL BE USED BY BOTH THE MUSEUM AND RESEARCH. THE RESEARCH LIBRARY AND THE MUSEUM'S WILL BE USED BY THE RESEARCH STAFF BUT THE MUSEUM WILL NOT BE ABLE TO USE THE RESEARCH LIBRARY, THIS IS SIMPLY FOR SECURITY MUCH LIKE A SPECIAL COLLECTION FOR THAT IS WHAT IT IS.

SINCE THE RESEARCH AREA DOES THE BULK OF HANDLING ARTIFACTS IT IS THE HIGHEST SECURITY RISK. TO DEAL WITH THIS ZONE SHOULD BE ESTABLISHED WITH LIMITED ACCESS AND CHECK POINTS. A CENTRAL "MAIN" SECURITY POST WILL BE IN CONTACT WITH ALL ISLAND OPERATIONS BUT WILL BE LOCATED IN THE RESEARCH AREA.

OUTDOOR

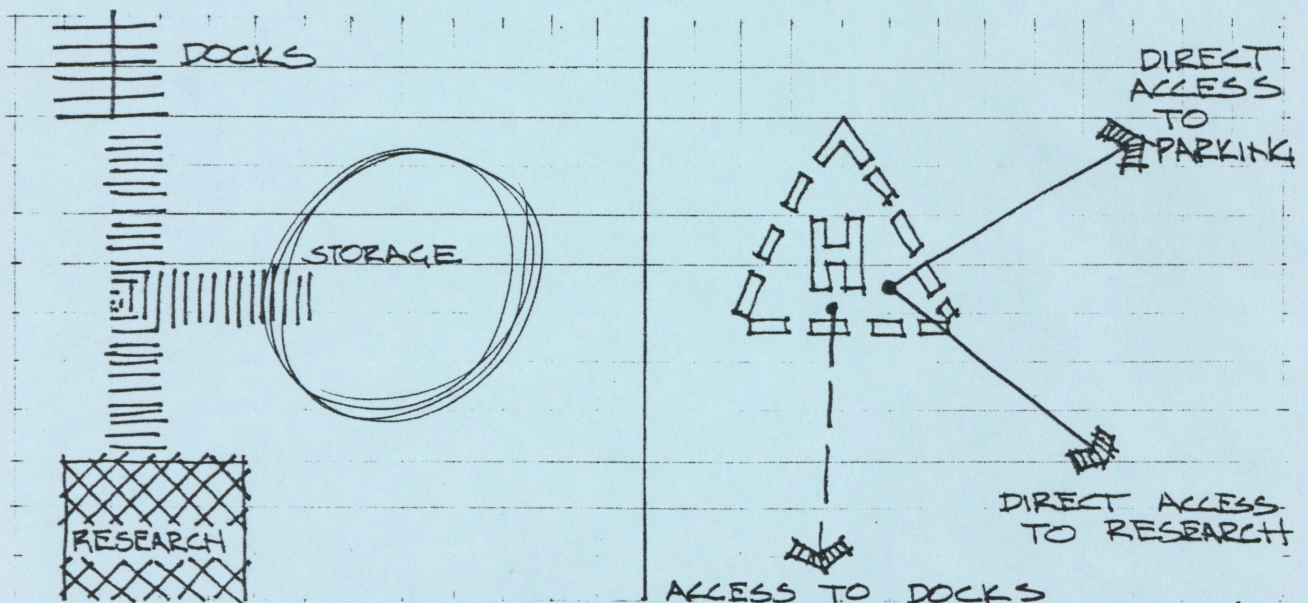
GOALS

PROVIDE SPACE FOR FUNCTIONS WHICH CANNOT TAKE PLACE INSIDE.

FACTS

- activities
HELIPAD 50' RADIUS 8000#
STORAGE 10000#

TOTAL 18,000#
- equipment LIGHTING, WINDS AND MARKINGS FOR HELIPAD, FENCE AROUND STORAGE WITH ACCESS TO HOIST.
- security HELIPAD → NONE, STORAGE → MEDIUM
- special requirements CLOSED CIRCUIT T.V. MOTION DETECTORS LIGHTING
- ideal adjacencies



CONCEPTS

USE HEAVY PLANTING AROUND STORAGE AREA TO AVOID JUNKYARD FEELING / HELIPAD COULD BE ON ROOF

COVERED OUTDOOR

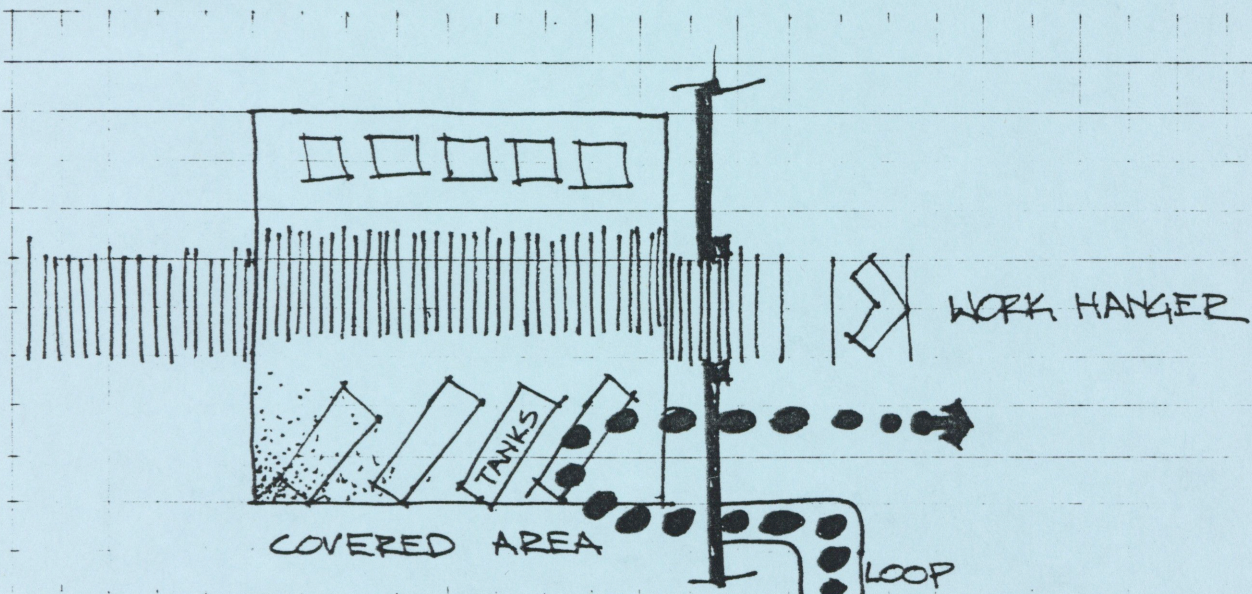
GOALS

PROVIDE SPACE FOR FUNCTIONS WHICH DON'T NEED TO TAKE PLACE INSIDE BUT STILL NEED PROTECTION.

FACTS

- activities FRESH WATER TANKS FOR ARTIFACTS.

20'x40'x5'	2	30,000 GAL	1600 #
10'x20'x5'	4	7,500 GAL	800 #
CHEMICAL TANKS			
8'x10'x4'	2	2400 GAL	560 #
CIRCULATION			2500 #
			TOTAL 5460 #
 - equipment FLOOD LIGHTING NON-SLIP DECKING
MUST HAVE ACCESS TO HOIST.
 - security MEDIUM
 - special requirements CLOSED CIRCUIT T.V. MOTION DETECTORS
SECURITY LIGHTING SAFTY SHOWER
- LOOP AREA
- ideal adjacencies



CONCEPTS

USE LINEAR PATH FOR EFFICENCY

ARTIFACTS WORK AREA

GOALS

PROVIDE HIGHLY FUNCTIONAL WORK SPACE

FACTS

- activities
WORK HANGER 4000\$
WORK ROOM 1640\$
PACKING AND SHIPPING 550\$
SAFTY STATION/SHOWER 80\$

TOTAL 6270\$

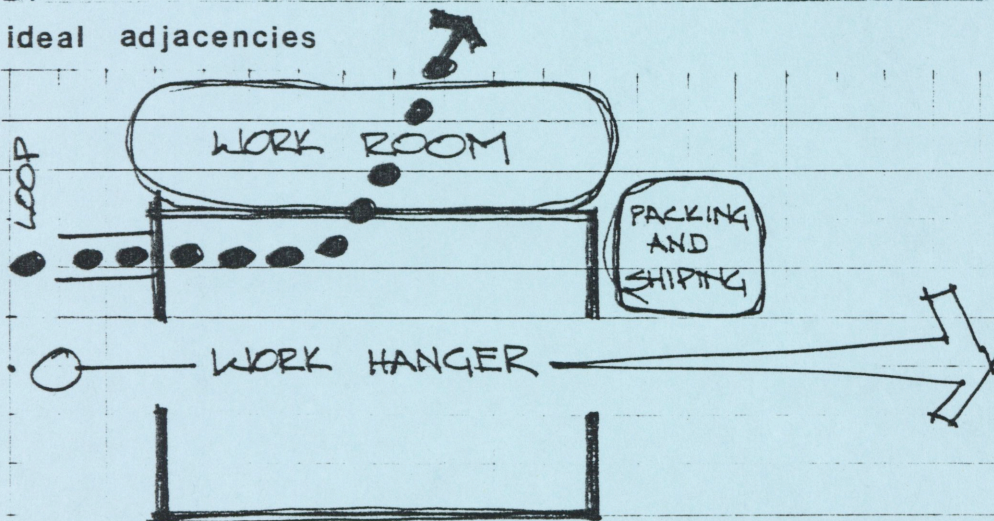
- equipment WORK HANGER CAN BE HOSED DOWN NON SLIP DECK ACCOUSTICS SHOULD BE CONTROLLED WITH HANGING PANELS

- security HIGH

- special requirements WASH DOWN AREAS W/IN WORK HANGER ACCESS TO HOIST.

LOOP AREA

- ideal adjacencies



CONCEPTS

CHANGE LEVEL FOR PROTECTION OF WORK ROOM FROM WET AREAS

ARTIFACTS SUPPORT ROOMS

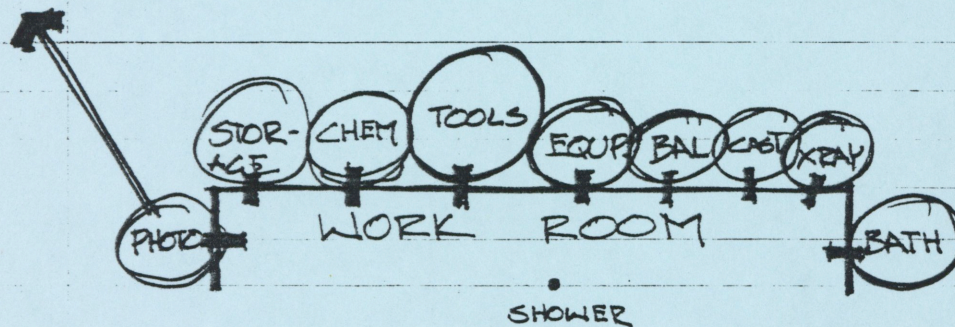
GOALS

PROVIDE SUPPORT TO WORK

FACTS

- activities
BALANCE ROOM 150 # CASTING 475 #
X-RAY 175 # CHEMICAL 300 #
CHEMISTRY 265 # SAFETY SHOWER 60 #
TOOLS 400 # BATHROOMS 180 #
EQUIPMENT 560 # STORAGE 200 #
PHOTO 200 # TOTAL 2965 #
- equipment NEEDS EXTRA MECHANICAL SPACE TO HANDLE ADDITIONAL LOADS. FUNCTIONAL SURFACES GENERAL LIGHTING
- security MEDIUM
- special requirements HIGH POWER LOADS, LEAD WALLS IN X-RAY, ADDITIONAL VENTILATION IN CHEMICAL ROOM.
- ideal adjacencies

DARK ROOM



CONCEPTS

WORK ROOM IS FLEXIBLE AND OPEN AND FEED FROM SUPPORT SPACES

DOCUMENTATION PHOTOGRAPHIC

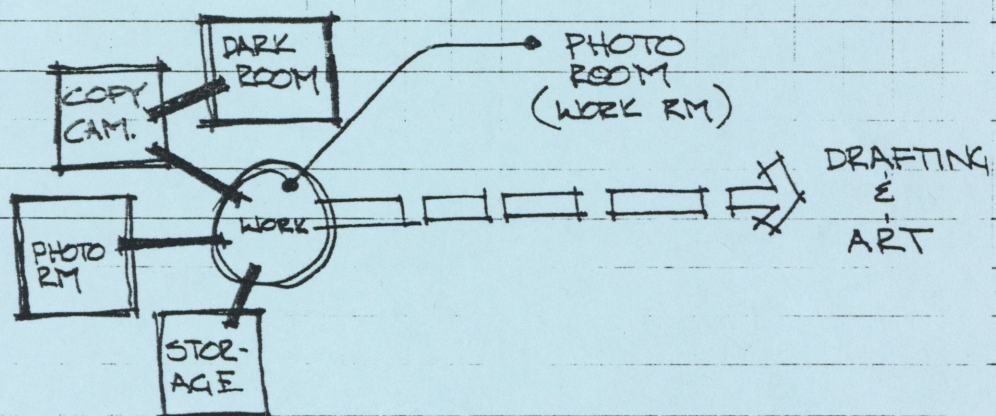
GOALS

PROVIDE ORGANIZED WORKSPACE WITH
RELAXED ATMOSPHERE AND PROVISION FOR
WORKER INTERACTION.

FACTS

- activities

DARK ROOM	250 #	COLD STORAGE	40 #
PHOTO ROOM	180 #	CIRCULATION	100 #
COPY CAMERA	100 #		
MOUNTING & WORK AREA	180 #		
STORAGE	100 #	TOTAL	950 #
- equipment CHEMICAL RESISTIVE FLOORING → DARKROOM &
STORAGE NATURAL LIGHT IN WORK AREA
HUMIDITY AND HVAC CONTROL IMPORTANT IN
DARKROOM & STORAGE.
- security MEDIUM
- special requirements REVOLVING DOOR TO DARKROOM.
ACCESS TO PHOTO RM. IN ARTIFACTS AREA
DUST FILTRATION SYSTEM
- ideal adjacencies



CONCEPTS

SINCE OPEN PLAN IS IMPOSSIBLE ORGANIZATION
IS IMPORTANT TO GIVE SPACES A CLEAN
OPEN FEELING.

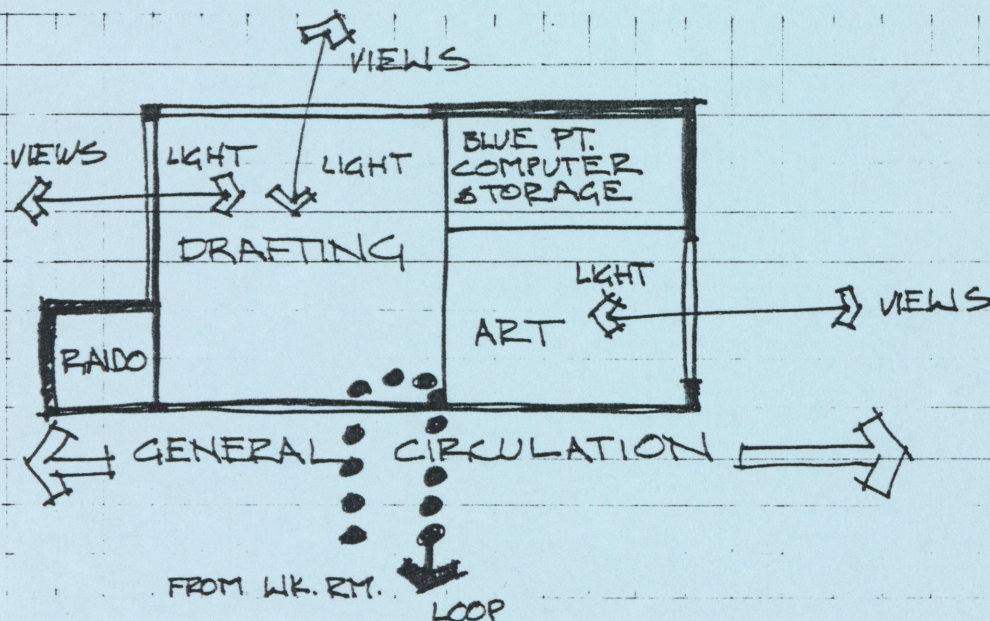
DOCUMENTATION GRAPHIC

GOALS

PROVIDE ORGANIZED WORKSPACE WITH
RELAXED ATMOSPHERE AND PROVISION FOR
WORKER INTERACTION.

FACTS

- activities
DRAFTING RM. 800# RADIO RM. 100#
BLUE PRINT AREA 80# CIRCULATION 600#
ART ROOM 500#
COMPUTER GRAPHICS 380#
STORAGE 300#
TOTAL 2760#
- equipment SOFT FLOOR, QUIET ACOUSTICS
NATURAL LIGHT IN ALL BUT COMPUTER AREA
COMPUTER AREA NEEDS EXTRA COOLING
AND HUMIDITY CONTROL.
- security MEDIUM
- special requirements HALCON FIRE CONTROL. ACCESS
TO RADIO RM. (ARTIST CAN ACTUALLY TALK TO
A DIVER ON SITE UNDERWATER) LOOP AREA
- ideal adjacencies



CONCEPTS

KEEP AREAS OPEN AS MUCH AS POSSIBLE.

DOCUMENTATION WRITTEN

GOALS

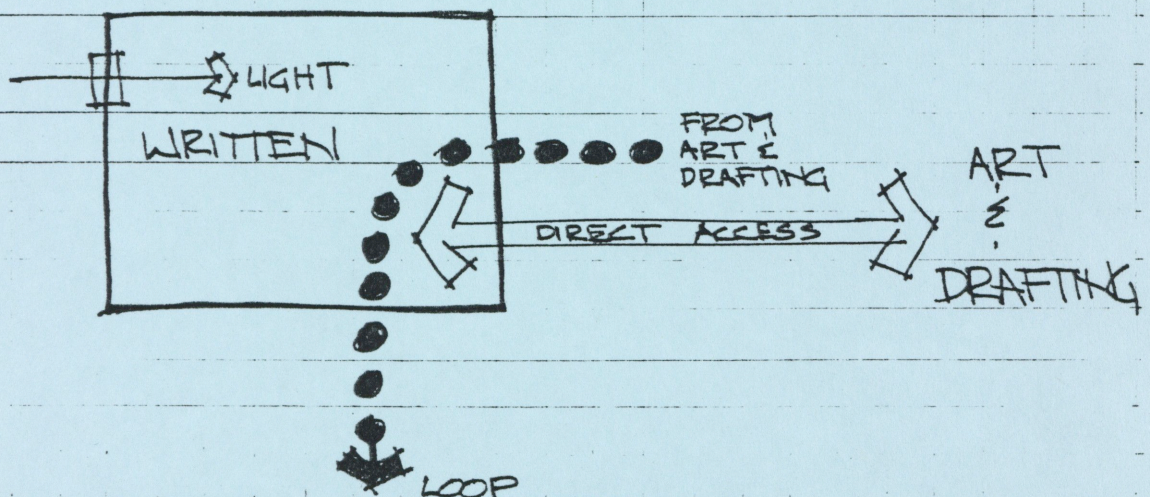
PROVIDE ORGANIZED WORKSPACE WITH RELAXED ATMOSPHERE AND PROVISION FOR WORKER INTERACTION.

FACTS

- activities
 - 4 WORK STATIONS 300 #
 - WORK AREA & LAYOUT 80 #
 - STORAGE 80 #
 - PRINTER & FILES 90 #
 - CIRCULATION 80 # TOTAL 630 #
- equipment SOFT FLOOR QUIET ACOUSTICS NATURAL LIGHT IN WORK AREA, TASK IN WORKSTATIONS
- security MEDIUM
- special requirements

LOOP AREA

- ideal adjacencies



CONCEPTS

KEEP AREAS OPEN AS MUCH AS POSSIBLE.

DOCUMENTATION LIBRARY

GOALS

STORAGE AREA FOR INFORMATION (NON-PUBLIC) SHOULD HAVE EASY ACCESS TO OTHER DOCUMENTATION AREAS.

FACTS

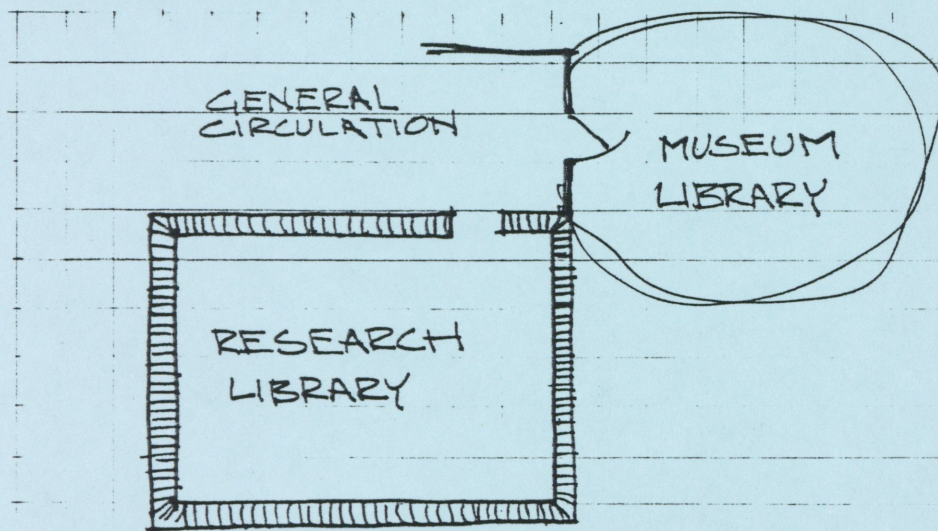
■ activities	STACK	2500 #	SAMPLES	500 #
	CHARTS	220 #	STORAGE & REFILE	100 #
	PHOTOS	170 #	FILES	235 #
	WORK AREA	100 #	CIRCULATION	620 #
	MICRO FILM	120 #		
			TOTAL	4565 #

■ equipment NO NATURAL LIGHT. SPECIAL HUMIDITY CONTROL, SUBTLE GENERAL LIGHTING,

■ security MEDIUM-HIGH

■ special requirements HALCON FIRE CONTROL

■ ideal adjacencies



CONCEPTS

SIMPLY A LARGE STORAGE ROOM.

DOCUMENTATION SUPPORT

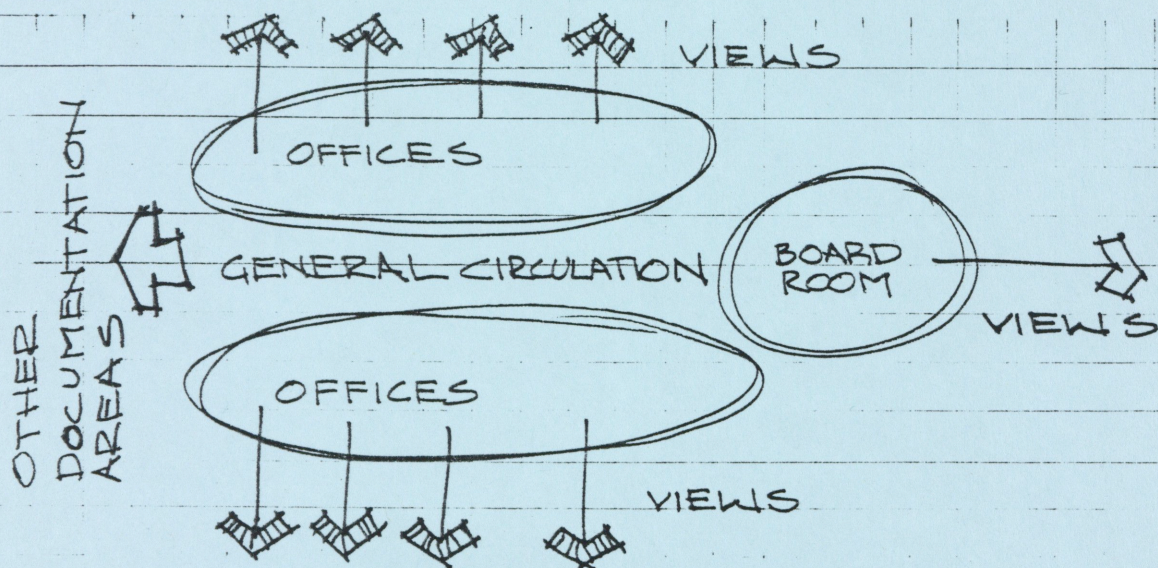
GOALS

GIVE RESEARCH STAFF NEEDED SUPPORT
AREAS

FACTS

- activities

OFFICES	700 #
7 @ 100 EA	
BOARD	420 #
BATH	160 #
TOTAL 1280 #	
- equipment NATURAL LIGHT IN OFFICES AND BOARDROOM.
- security MEDIUM
- special requirements
- ideal adjacencies



CONCEPTS

BY KEEPING SPACES CLUSTERED NEAR
BOARD ROOM INFORMAL GATHERINGS CAN EASILY
TAKE PLACE

INSTRUCTIONAL SPACE

GOALS

PROVIDE FOR CLASSROOMS AND LAB SPACES
TO FURTHER EDUCATIONAL NEEDS.

FACTS

■ activities CLASSROOMS 500 #
LAB SPACE 350 #

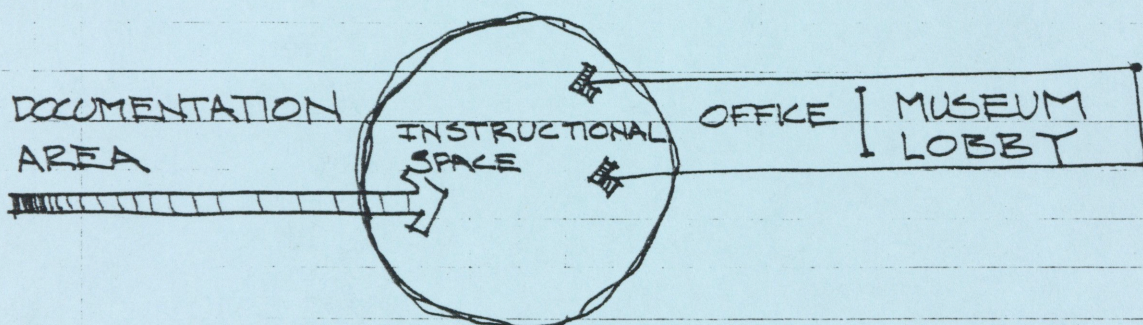
TOTAL 850 #

■ equipment DURABLE SURFACES NATURAL LIGHT

■ security LOW

■ special requirements GAS & AIR JETS FOR LABS

■ ideal adjacencies



CONCEPTS

INSTRUCTIONAL SPACE CAN BENEFIT FROM
DOCUMENTATION AREA

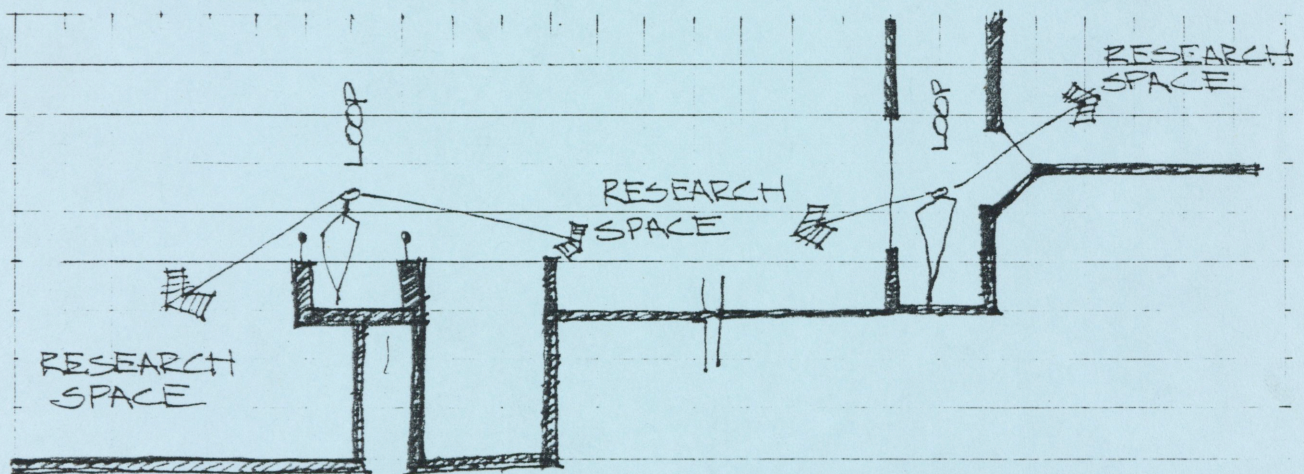
MUSEUM LOOP

GOALS

TO GIVE MUSEUM VISITORS A FIRST HAND LOOK AT THE RESEARCH COMPLEX WITHOUT DISRUPTING ANY OF ITS ACTIVITIES.

FACTS

- activities WALKWAY WITH OBSERVATION POINTS
(ACTUAL DESIGN WILL DETERMINE ACTUAL SQUARE FOOTAGE)
- equipment SOFT FLOORING AND QUIET ACOUSTICS.
WIDELY VARYING LIGHT LEVELS FOR HIGHLIGHTING VARIOUS AREAS
- security HIGH
- special requirements FULLY ENCLOSED OR SEPARATED FROM OBSERVED SPACE FOR SECURITY
EGRESS IMPORTANT
- ideal adjacencies



CONCEPTS

VISITOR SHOULD NOT FEEL CAGED IN WITH CHANGED HEIGHT AND OTHER CAREFULLY USE OF BUFFERS.

GOALS

PROVIDE EMPLOYEES WITH A SPACE TO PUNCH IN", RELAX AND PROVIDE FOR DISCUSSION.

FACTS

- | | | |
|--------------|-------------|------|
| ■ activities | LOUNGING | 225# |
| | COFFEE AREA | 50# |
| | LOCKERS | 130# |

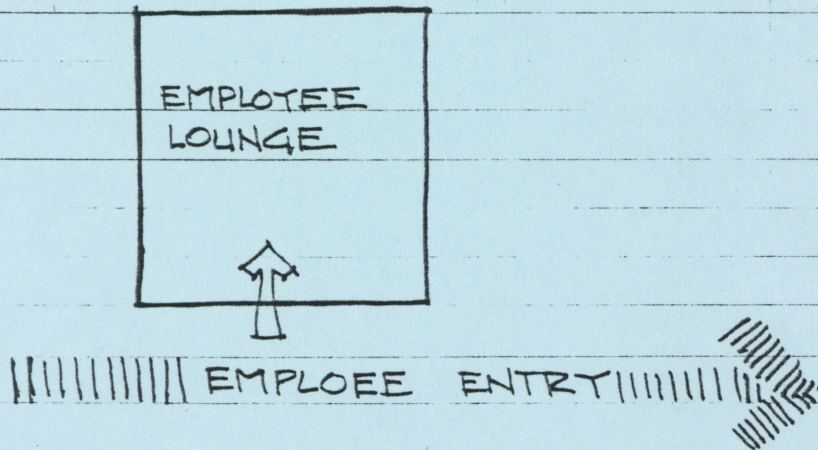
TOTAL 4057

- equipment

- security LOW

- special requirements WET BAR (COFFEE)

- ideal adjacencies



CONCEPTS

SUPPORT

GOALS

PROVIDE SUPPORT SPACE(S) FOR RESEARCH AREA

FACTS

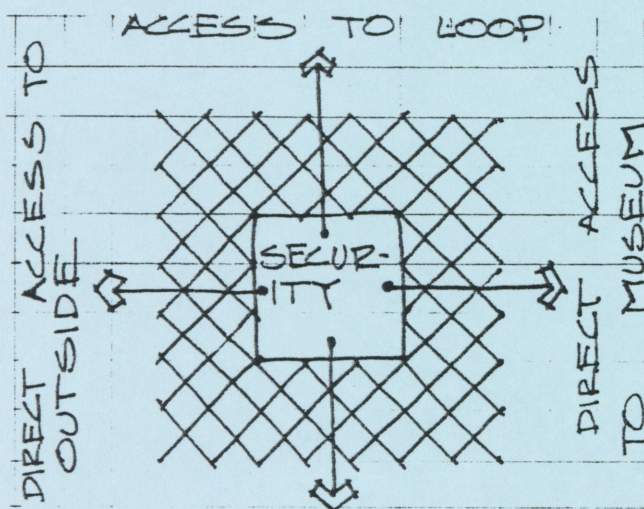
■ activities	MECHANICAL FOR DOCUMENTATION	650 #	SECURE STORAGE	400 #
	MECHANICAL FOR ARTIFACTS	1100 #	STORAGE (SHARED WITH MUSEUM)	6000 #
			GENERAL CIRCULATION	4950 #
	TOTAL	1750 #	SERVICE & LOADING	500 #
	SECURITY OFFICE	220 #		
			TOTAL	13820 #

■ equipment

■ security

■ special requirements

■ ideal adjacencies



SECURITY CENTRAL
TO ALL OF RESEARCH AREA

CONCEPTS

BY KEEPING SECURITY CENTRAL ANY PROBLEM AREA CAN BE CHECKED QUICKLY.

DESIGN

DESIGN

FOR MYSELF DESIGN HAS NEVER BEEN A SET GROUP OF STEPS THAT MUST BE FOLLOWED, BUT MORE A FEELING OR INTUITION THAT SHOULD ALWAYS BE PURSUED. MY FINAL SOLUTION FOR THIS PROJECT WAS NO DIFFERENT. IT WASN'T UNTIL I BROKE FROM MY OWN PROGRAM THAT I WAS ABLE TO ARRIVE AT A SOLUTION.

IN THE ORIGINAL PROGRAM HOUSING, PARKING, RESEARCH AND MUSEUM WERE ALL GOING TO TAKE PLACE ON PIGEON KEY. I REALIZED THE ISLAND WAS UNIQUE ONLY BECAUSE OF THE BRIDGE. THE BRIDGE WAS THE REASON FOR PICKING THE SITE, WHY NOT USE IT. THE FINAL SOLUTION IS MUCH STRONGER AS A RESULT OF FOLLOWING INTUITION AS OPPOSED TO THE PROGRAM.

CASE STUDIES

CASE STUDY #1

COLD SPRING HARBOR LABORATORY
building

LONG ISLAND'S NORTH SHORE
location

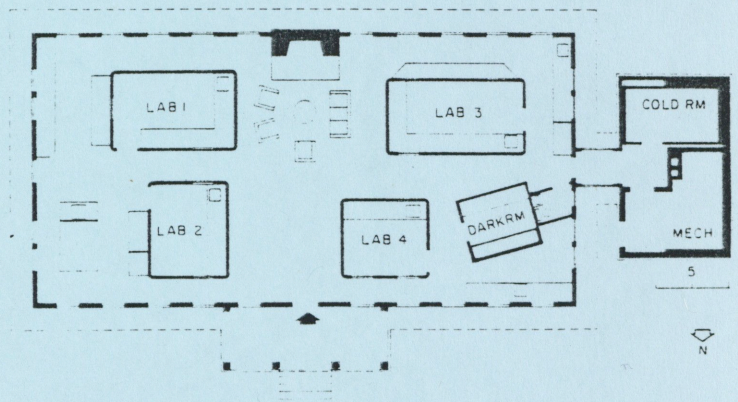
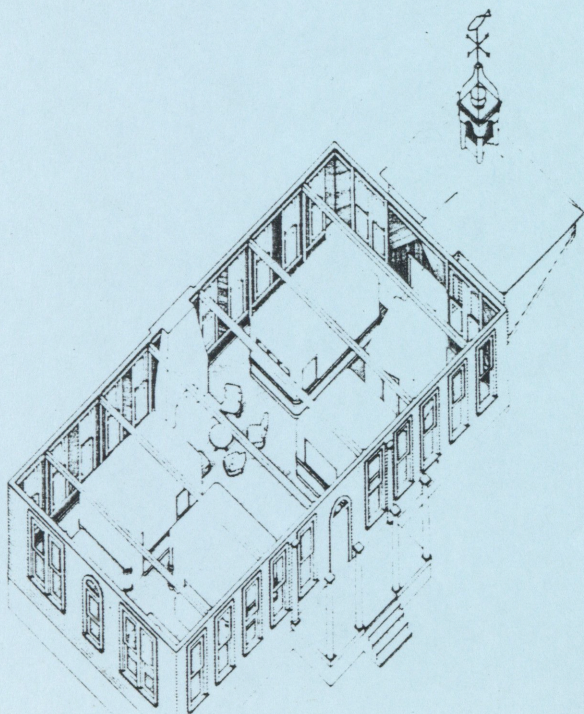
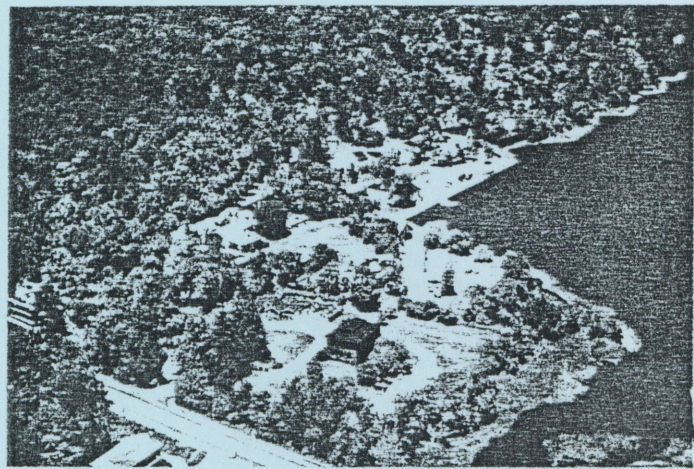
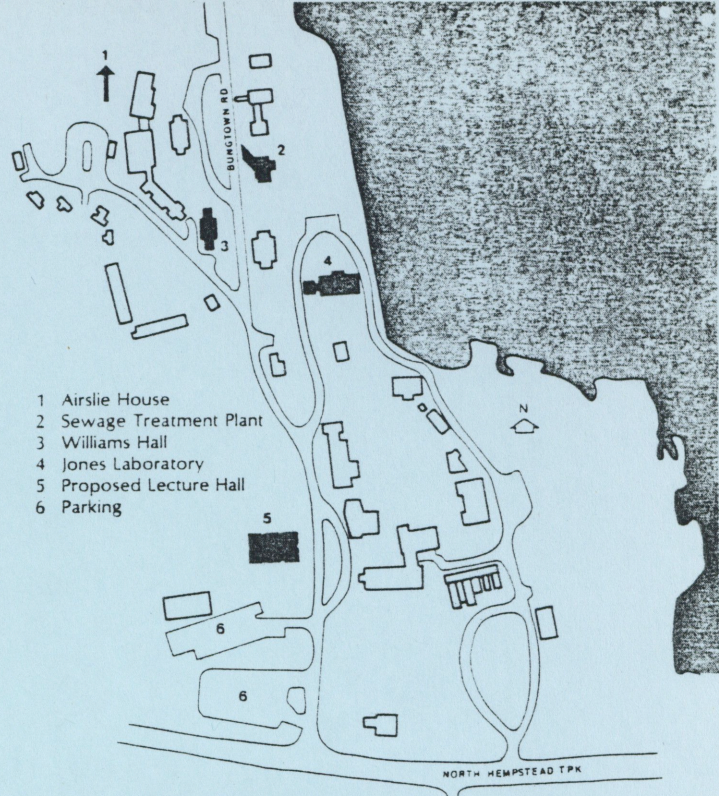
BIOLOGICAL LABORATORY
function

N-A
square footage

MOORE, GROVER, HARPER
architect

CONCEPT, "SCIENTIFIC COMMUNITY"
similarities





CASE STUDY #2

MUSEUM OF SCIENCE & INDUSTRY
building

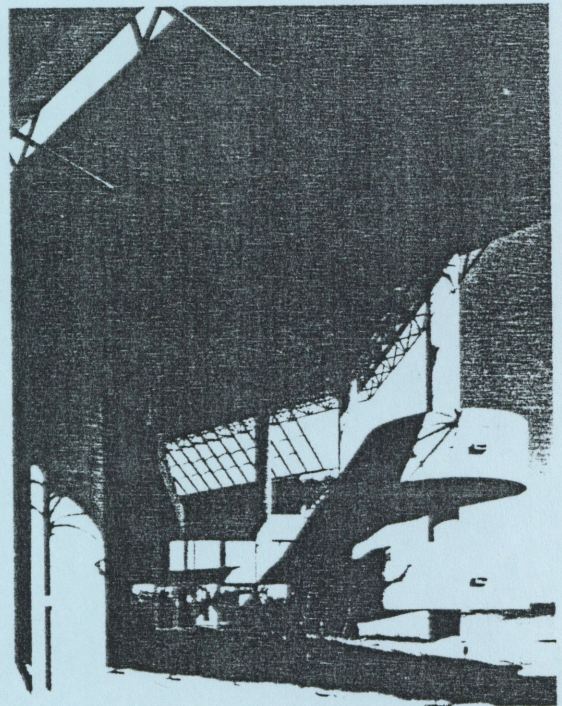
TAMPA, FLORIDA
location

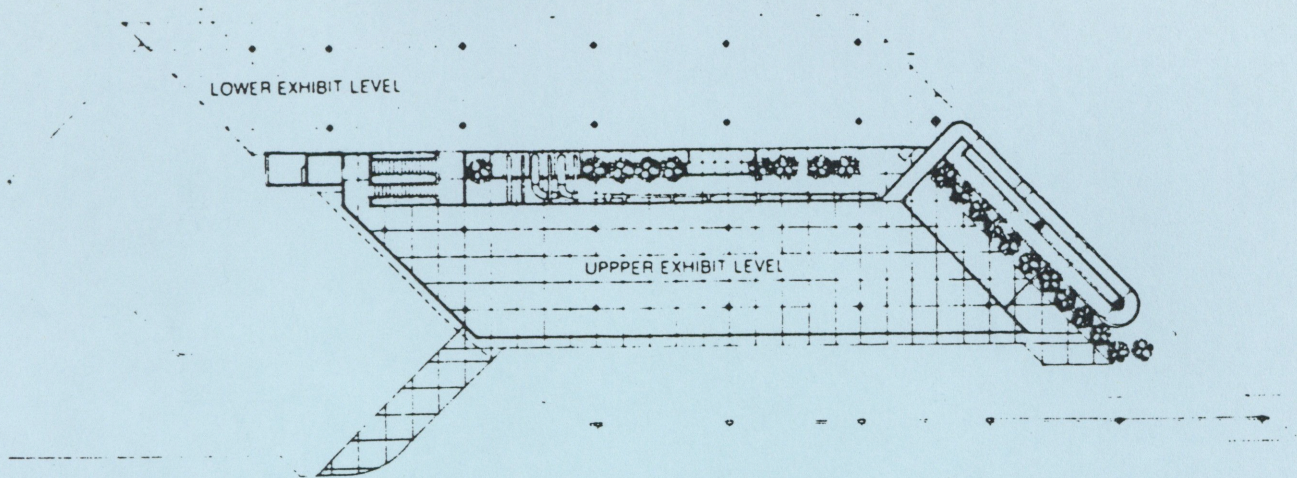
MUSEUM AND EDUCATION
function

60,000 #
square footage

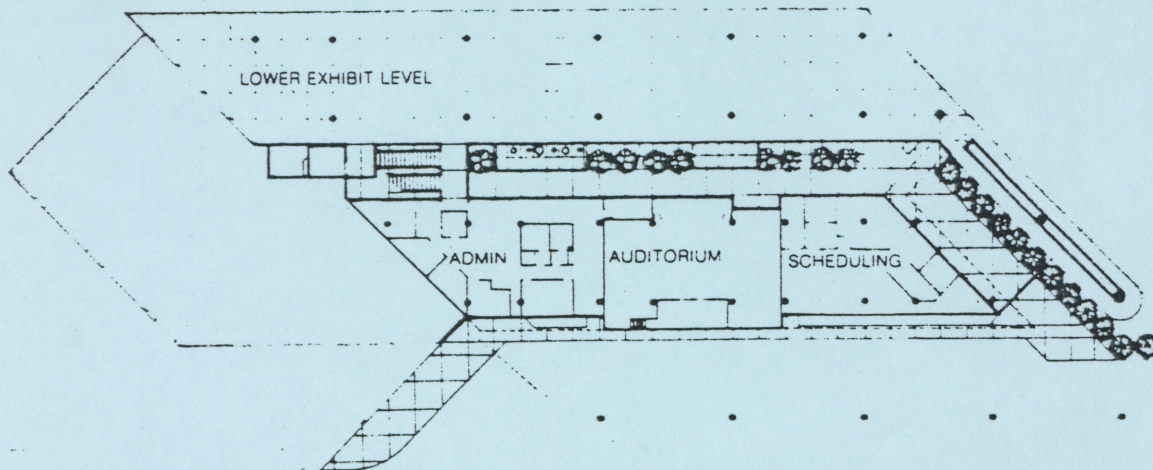
ROWE HOLMES ASSOCIATES
architect

LOCATION, IMAGE, FUNCTION
similarities

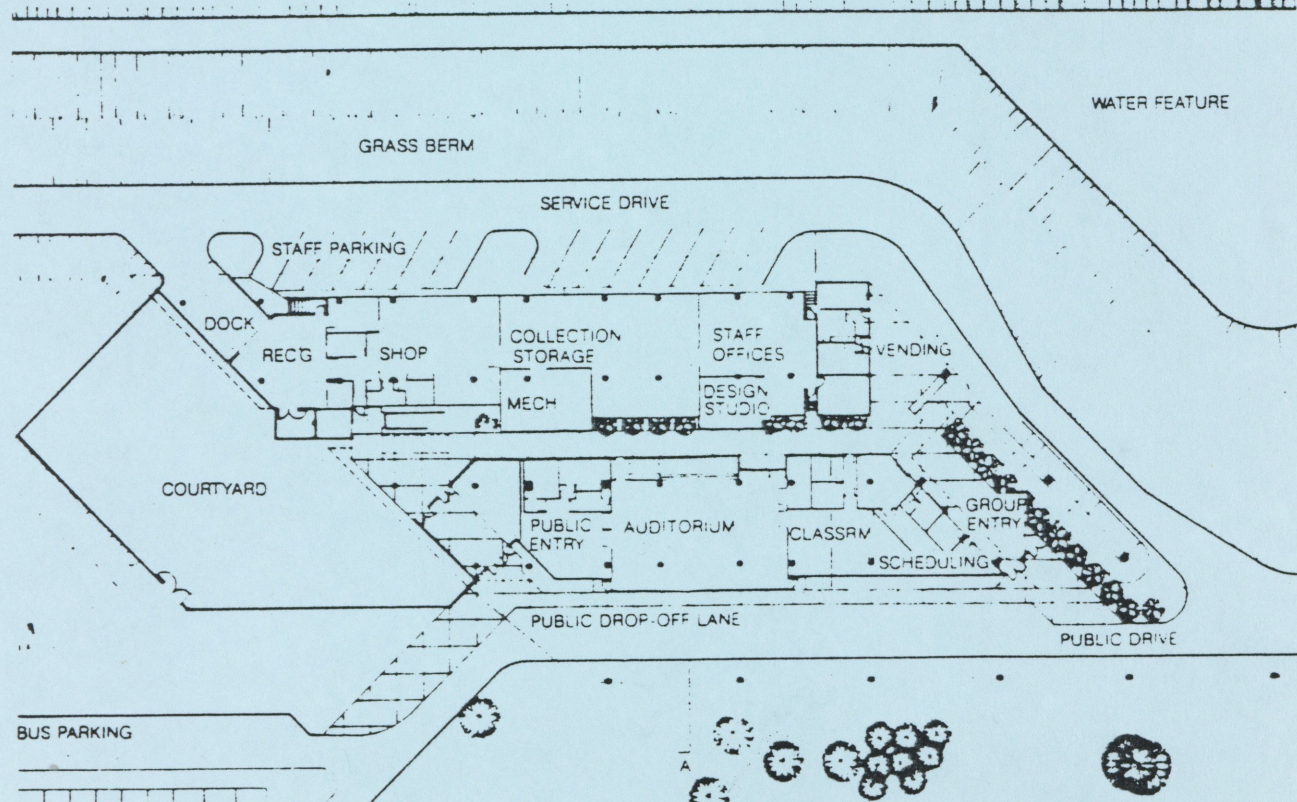


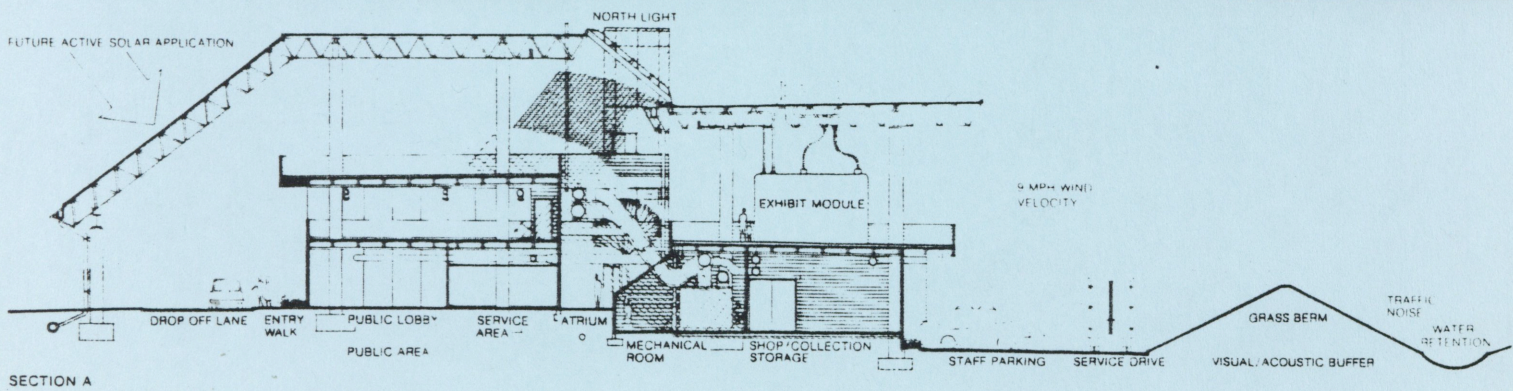
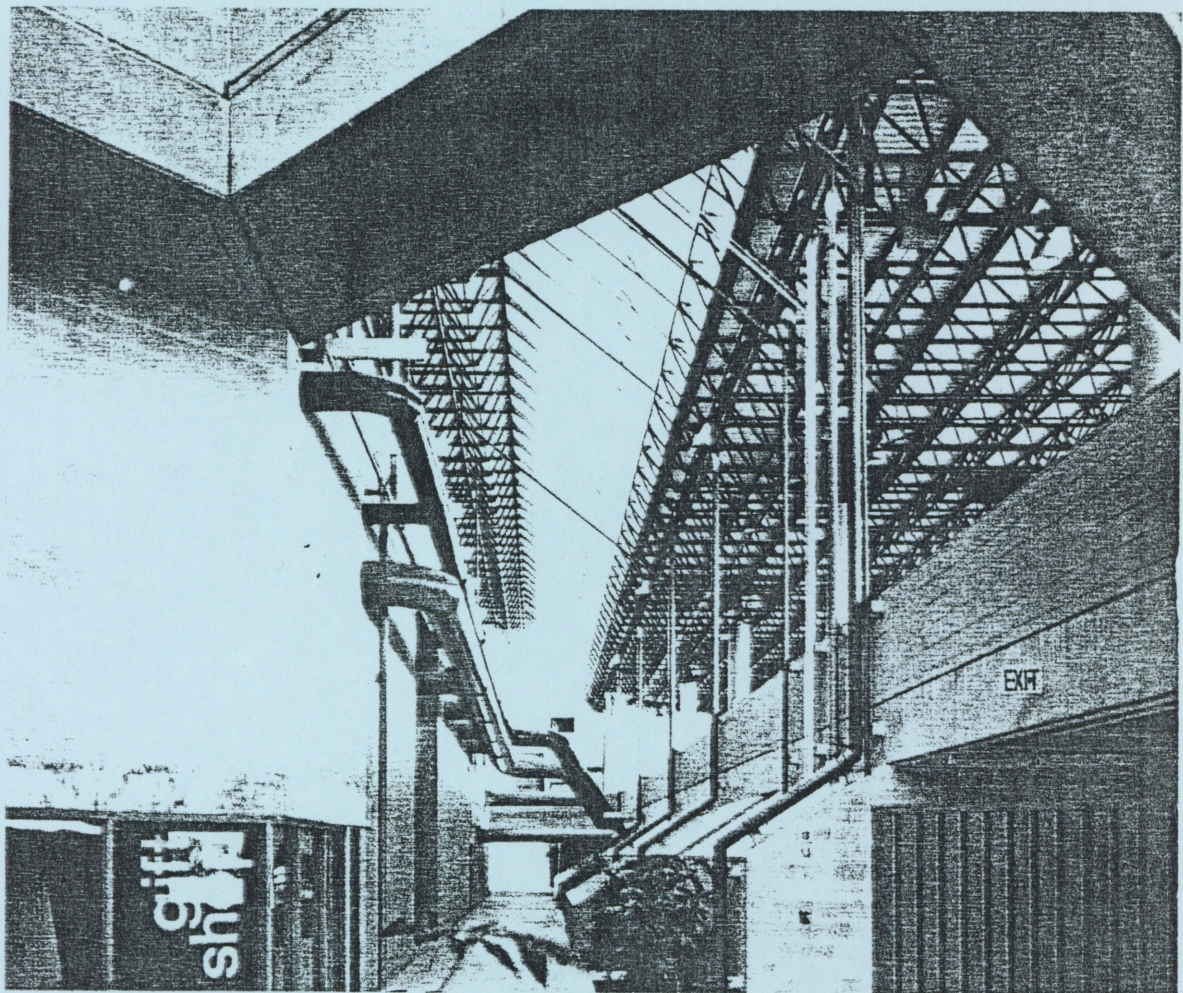
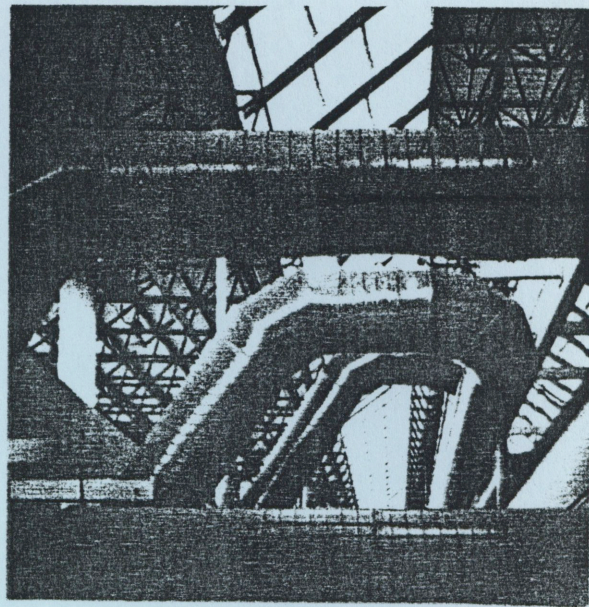


THIRD FLOOR



SECOND FLOOR





CASE STUDY #3

NEW ENGLAND BIOLABS, INC.
building

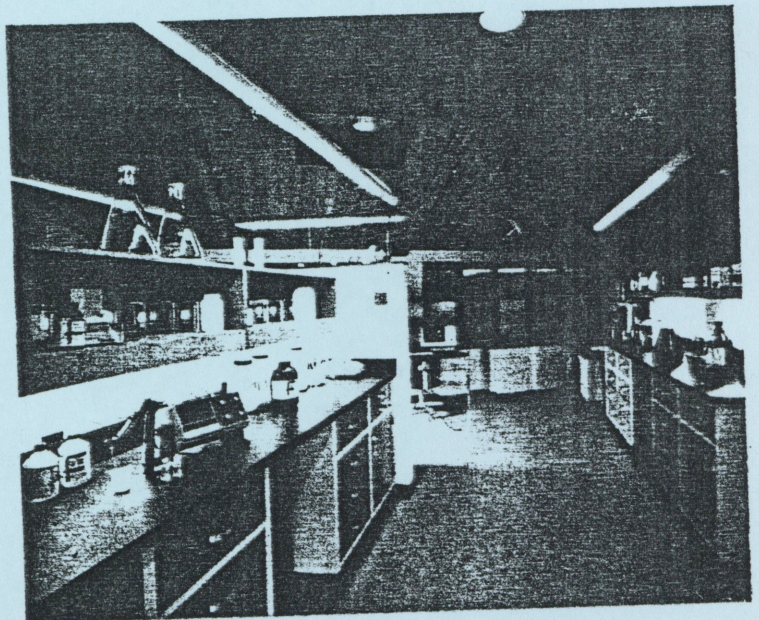
BEVERLY, MASSACHUSETTS
location

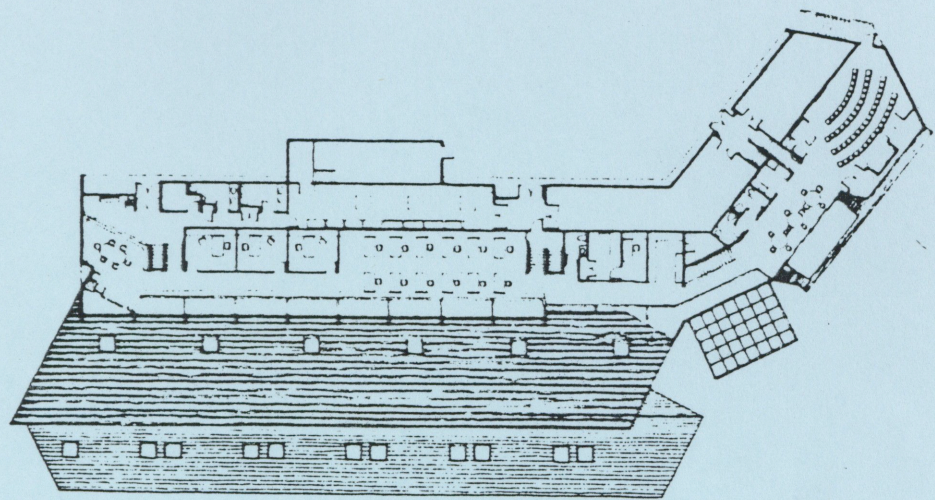
DNA RESEARCH
function

23,110 $\pm$
square footage

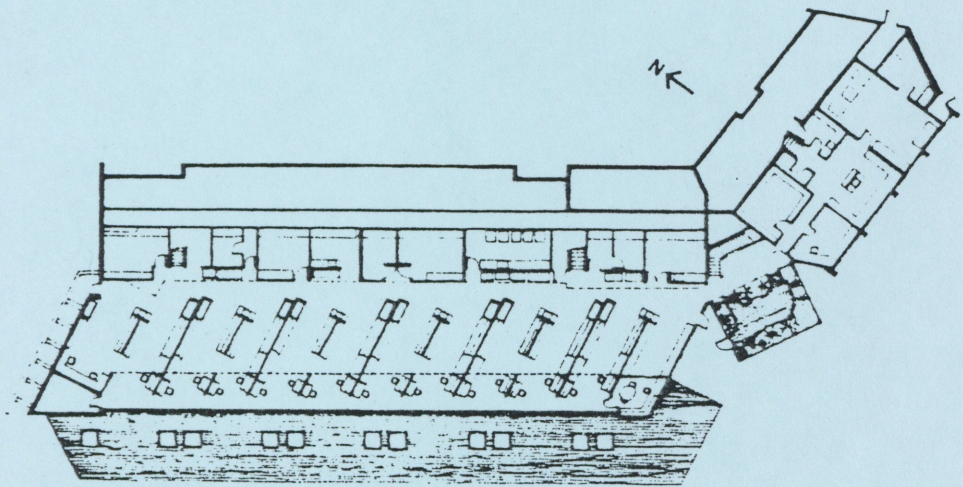
DOUGLAS F. TREES ASSOCIATES
architect

FUNCTION
similarities

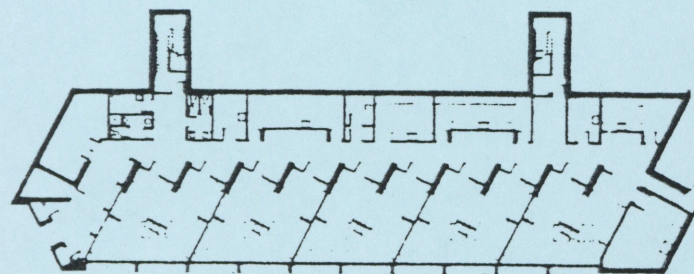




UPPER LEVEL



MAIN LEVEL



LOWER LEVEL

CASE STUDY #4

TAMAYO MUSEUM

building

MEXICO CITY

location

ART MUSEUM

function

50,000 m^2

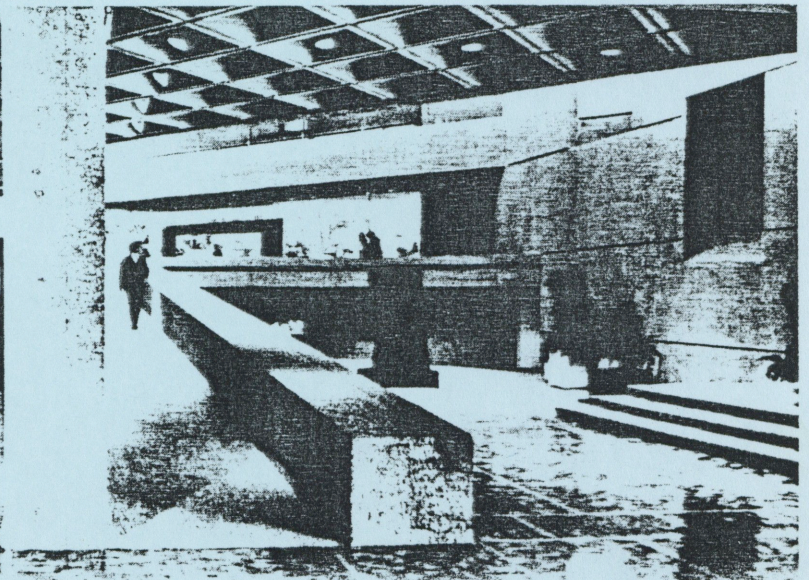
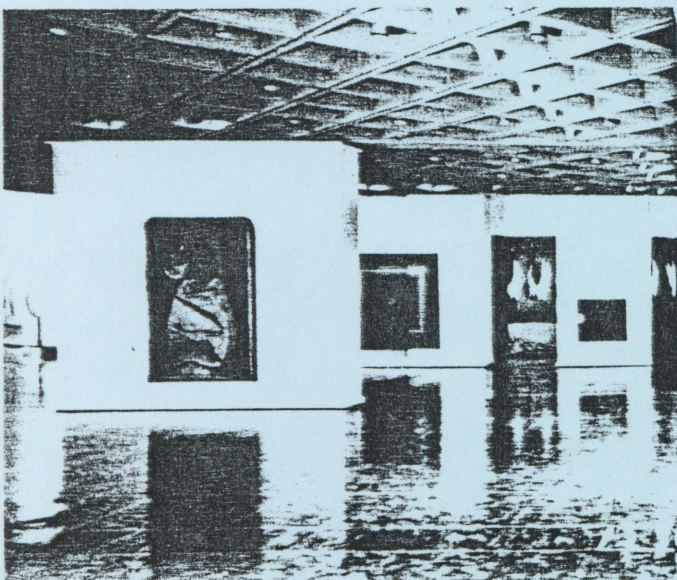
square footage

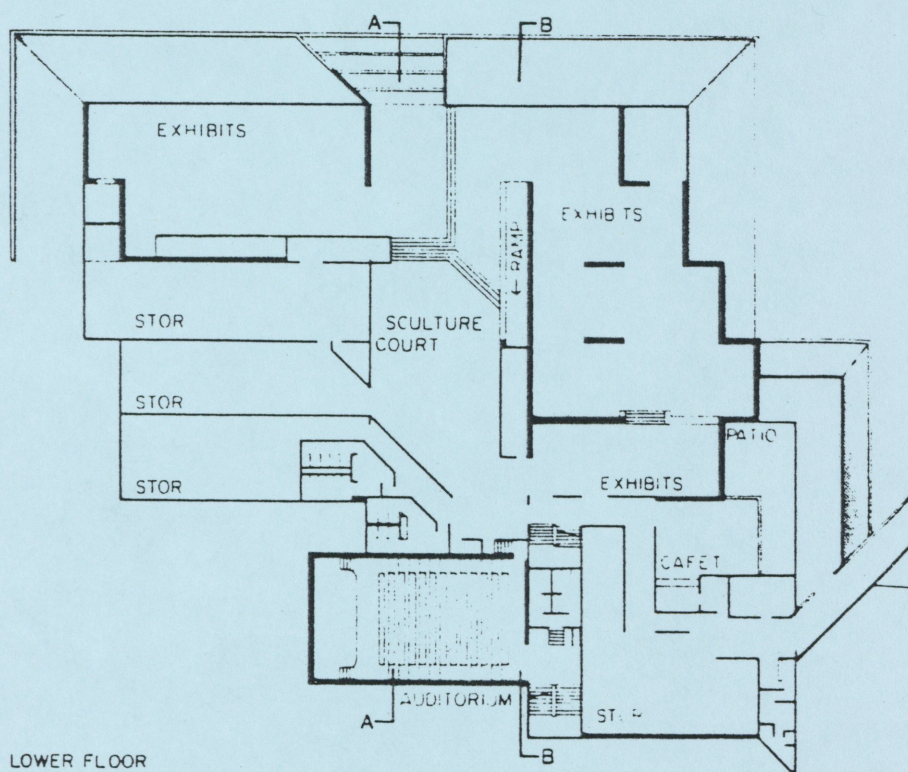
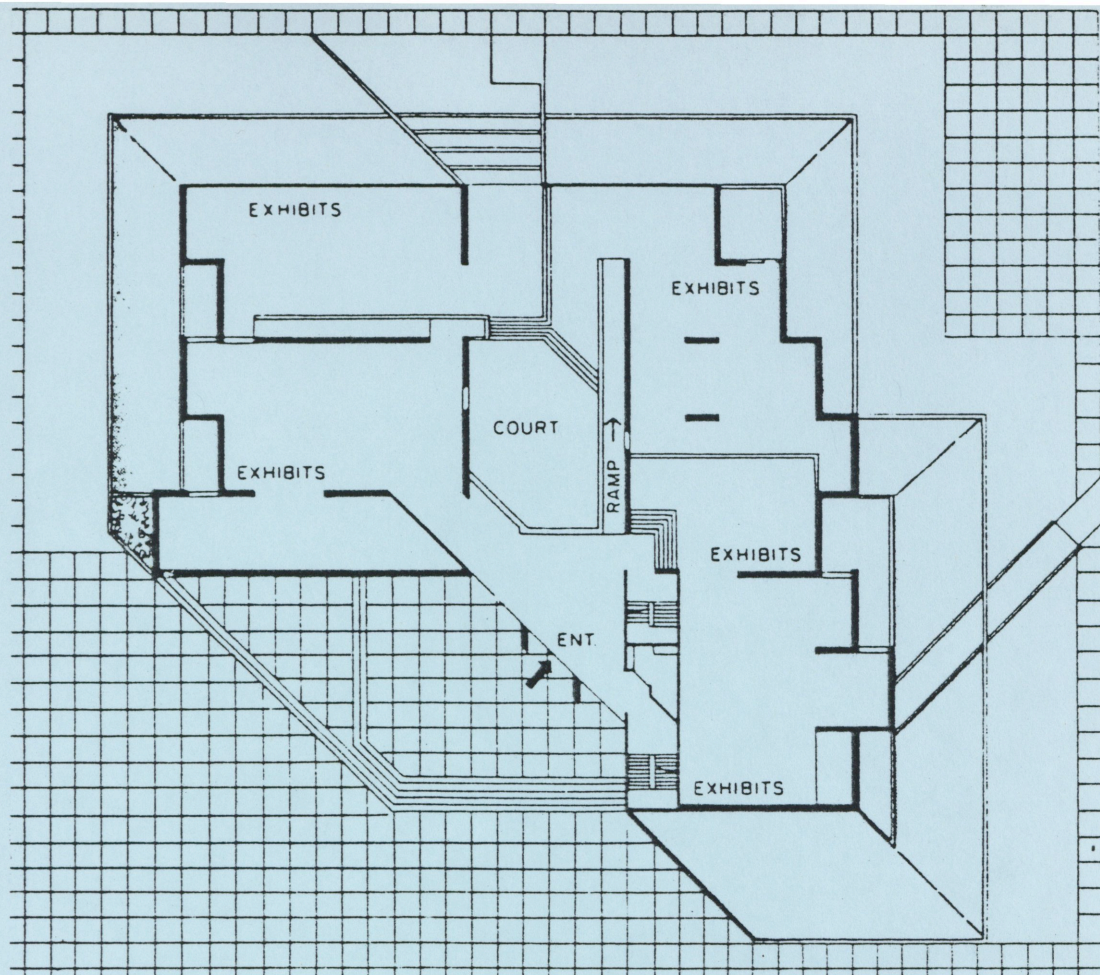
ABRAHAM ZABLUDOVSKY - TEODOR GONZALEZ-LOPES

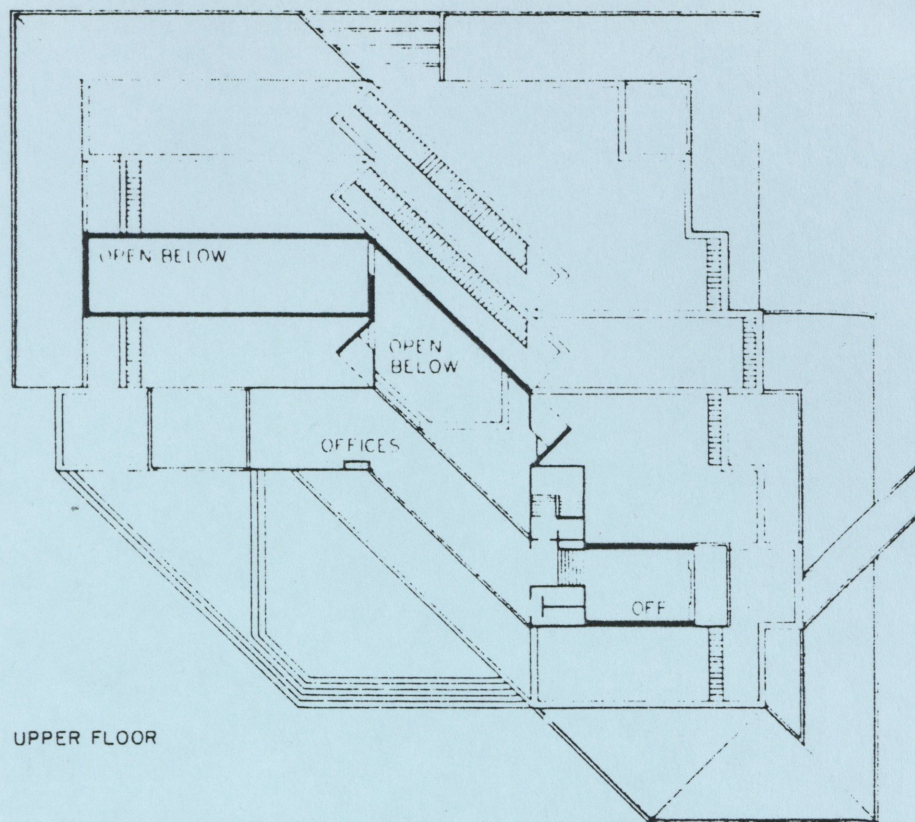
architect

AREA, IMAGE, FUNCTION, CONTROVERSY,

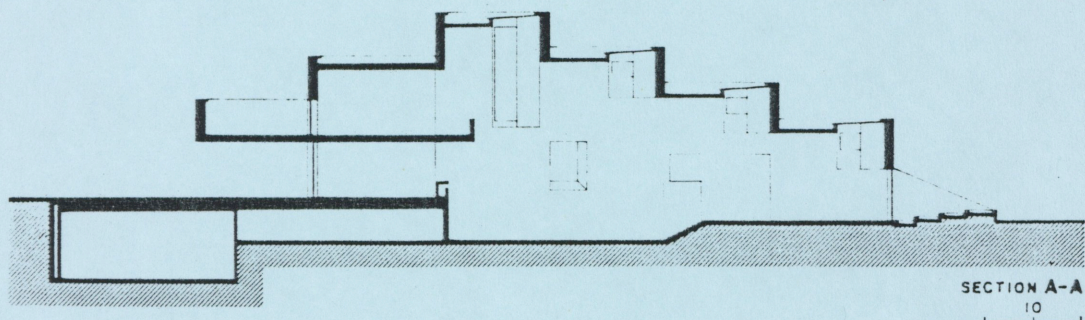
similarities



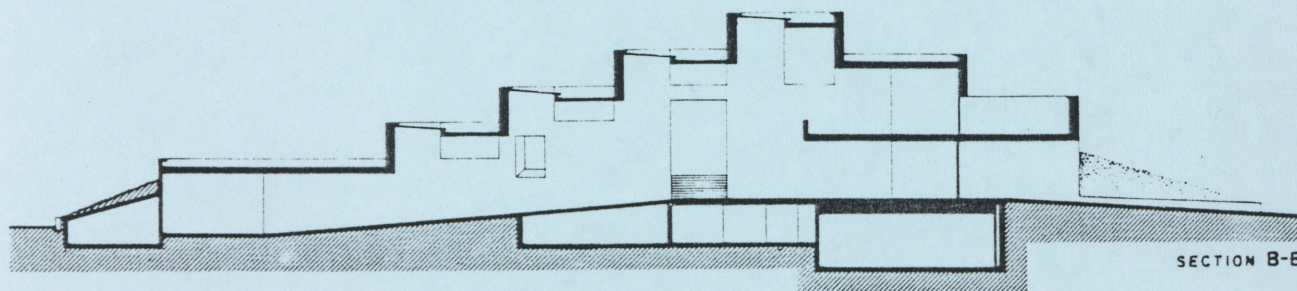




UPPER FLOOR



SECTION A-A
10



SECTION B-B

CASE STUDY #5

CORNING GLASS MUSEUM
building

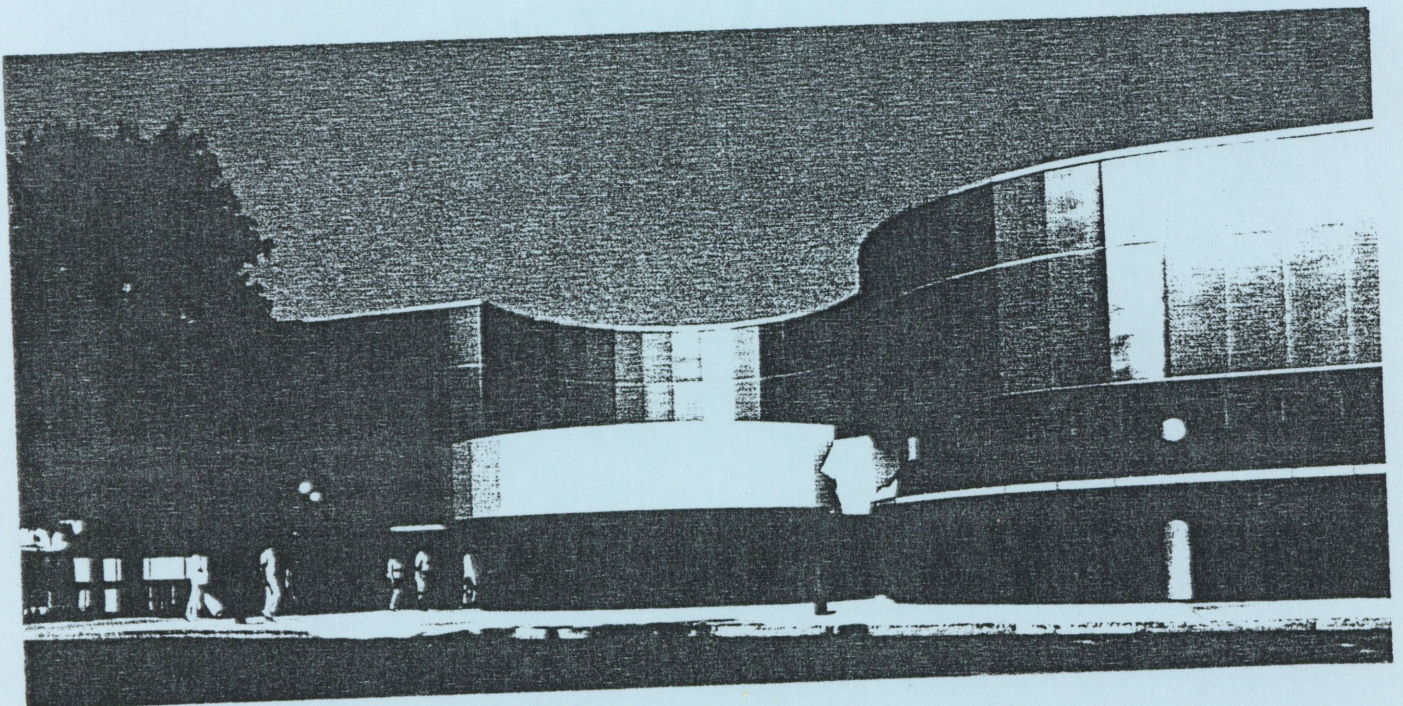
CORNING, NEW YORK
location

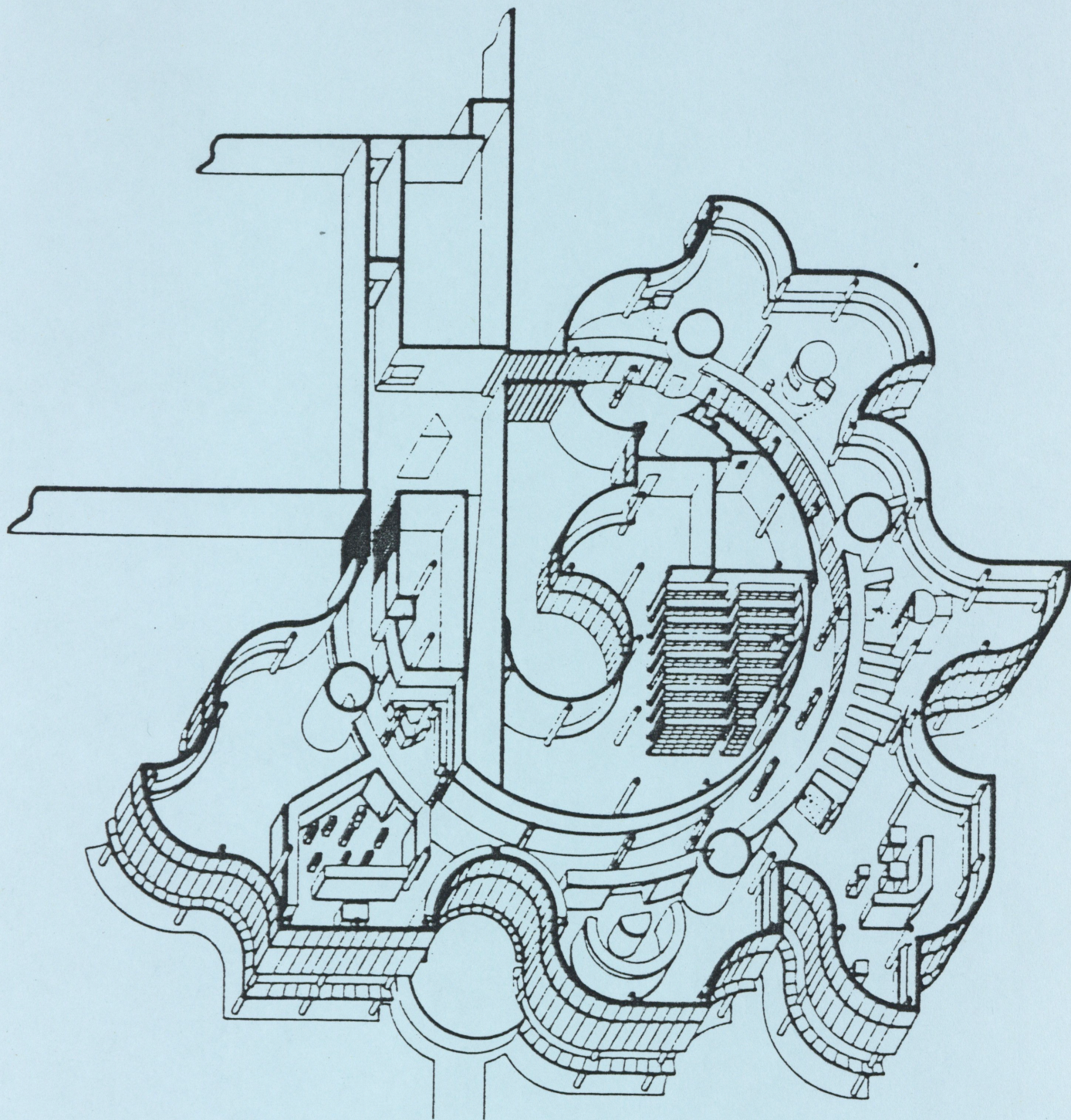
MUSEUM
function

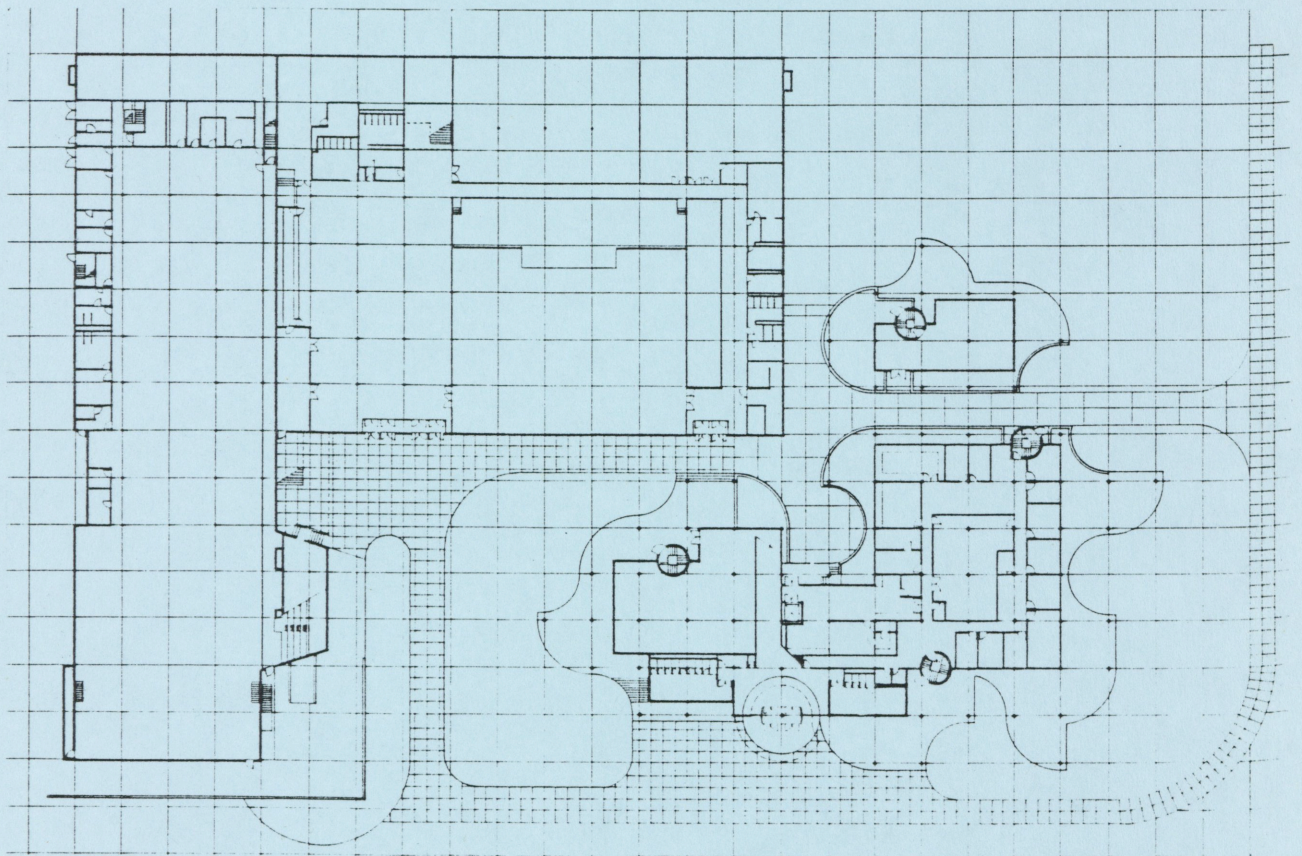
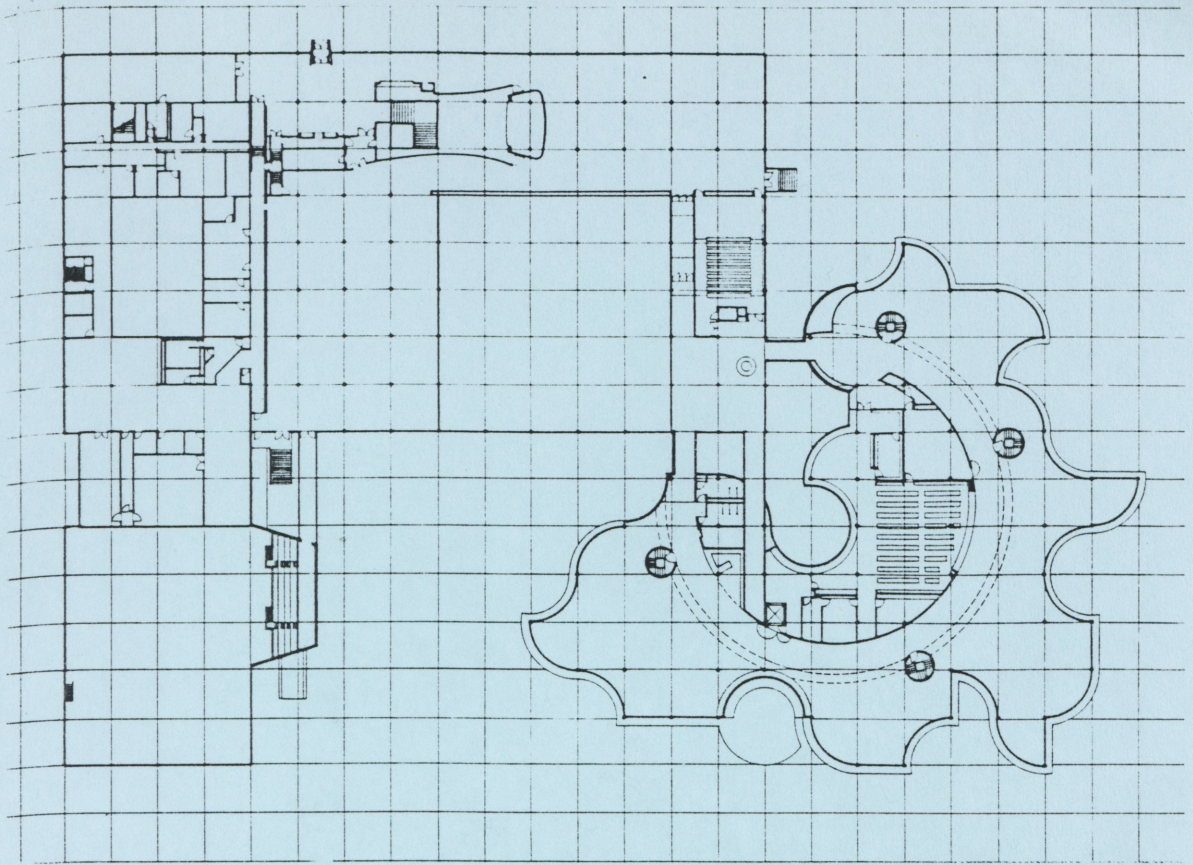
26,200 #
square footage

GUNNAR BIRKERTS
architect

FUNCTION, FLOODING,
similarities







B I B L I O G R A P H Y

FOOTNOTES

¹ PENFIELD, THOMAS. DIRECTORY OF BURIED OR SUNKEN TREASURES AND LOST MINES OF THE UNITED STATES, (TEXAS: TRUE TREASURES PUBLICATIONS, 1971), P. 9

² IBID., P. 55

³ TRUPP, PHILIP. "ANCIENT SHIPWRECKS YIELD BOTH PRIZES AND BITTER CONFLICT," SMITHSONIAN (OCTOBER 1983) P. 84

⁴ NORRIS, FRANCES. "\$400 MILLION TREASURE: A RECORD FIND OFF KEY WEST," MOTOR BOATING AND SAILING (OCTOBER 1985) P. 110

⁵ GREEN, ERNESTENE L., ED. ETHICS AND VALUES IN ARCHAEOLOGY, (NEW YORK: THE FREE PRESS, 1984) P. 136-137

⁶ TRUPP, PHILIP. "ANCIENT SHIPWRECKS YIELD BOTH PRIZES AND BITTER CONFLICT," SMITHSONIAN (OCTOBER 1983) P. 84

⁷ STAR, MARK., MOREAU, ROW., AND FRIDAY, CAROLYN. "TREASURE HUNT: WRECKS TO RICHES," NEWSWEEK (AUGUST 5, 1985) P. 19

⁸ COCHRAN, HAMILTON. PIRATES OF THE SPANISH MAIN (NEW YORK: AMERICAN HERITAGE PRESS, 1961) P. 101

⁹ IBID., P. 101

¹⁰ TRUPP, PHILIP. "ANCIENT SHIPWRECKS YIELD BOTH PRIZES AND BITTER CONFLICT," SMITHSONIAN (OCTOBER 1983) P. 80

¹¹ LYON, EUGENE. THE SEARCH FOR THE ATOCHA. (NEW YORK: HARPER ROW, 1979) P. 66

¹² PLOWDEN, DAVID. BRIDGES THE SPANS OF NORTH AMERICA (NEW YORK: THE VIKING PRESS INC., 1974) P. 300, 307.

¹³ _____, _____. "SHINING AND SINUOUS STRUCTURE" AIA JOURNAL, (MID-MAY 1981) P. 184

¹⁴ _____, _____. TREASURE SALVORS INC., KEY WEST FLORIDA. INTERVIEW, 27 FEBRUARY 1986.

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