



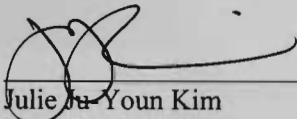
UNIVERSITY OF DETROIT MERCY
GRADUATE SCHOOL
MASTER'S PROJECT

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF MASTER OF ARCHITECTURE

TITLE: **MAKING media: Industrial + Handcraft + Digital**

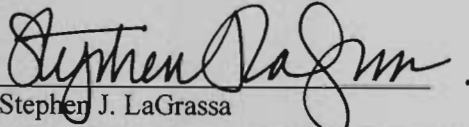
PRESENTED BY: **Eric Hornik**

ACCEPTED BY:



Julie Ju-Youn Kim
Assoc. Professor, Masters Studio Instructor

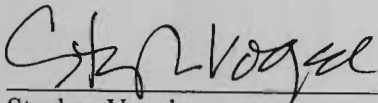
5.06.2005
Date



Stephen J. LaGrassa
Assoc. Dean, Director Masters Program
School of Architecture

5/09/05
Date

APPROVAL:



Stephen Vogel
Dean, School of Architecture

5.09.05
Date



MAKING

MEDIA: HANDCRAFT + INDUSTRIAL + DIGITAL

ERIC HORNIK | MASTERS OF ARCHITECTURE
UNIVERSITY OF DETROIT MERCY | SCHOOL OF ARCHITECTURE
AR 510 / AR 520 | ASSOCIATE PROFESSOR JULIE JU-YOUNG KIM | 2 MAY 2005

TABLE OF CONTENTS



0	TABLE OF CONTENTS	2
1	ABSTRACT	4
	MAKING	5
2	THESIS PAPER	6
	[RE]SCRIPT: RELATIONSHIP BETWEEN TECHNOLOGY, CRAFT, AND BODY	7
3	PRECEDENT ANALYSIS	18
	BLUR BUILDING	19
	LINE FRUSTRATION	23
	PROGRAM. FABRICA, BENNETON RESEARCH CENTER	27
	PROGRAM. IIT STUDENT CENTER	29
	TECTONIC. ALMELO PUBLIC LIBRARY	31
	TECTONIC. EAST STROUDSBURG UNIVERSITY CENTER	33
	TECTONIC. COGNITO FILMS	36
4	PROGRAM	38
	STATEMENT	39
	QUANTITATIVE SUMMARY	40
	SPACE DETAIL SUMMARIES	43
	AXONOMETRIC SPATIAL DIAGRAMS	65
5	SITE ANALYSIS	66
	SITE FACTORS	67
	DOCUMENTATION	68
6	SKETCH PROBLEM	72
	HABITABLE WALL	73
	MEDIATIONS CONSTRUCT	74
7	DESIGN PROCESS	75
	SPRINGBOARD. SECTIONAL STUDIES	76
	SPRINGBOARD. GESTURAL MODELS	77
	SCHEMATIC DESIGN	79
	TECTONIC INVESTIGATIONS	83
	DESIGN DEVELOPMENT	86
8	FINAL PROJECT	90
	DOCUMENTATION	91
9	CONCLUSION	99
	CRITICAL POSITION & BUILDING PROPOSAL	100
10	REFERENCES	102
	ANNOTATED BIBLIOGRAPHY	103

ABSTRACT

1



MAKING

"IN THE SHAPE THAT CHANGE AND WIND GIVE THE CLOUDS, YOU ARE ALREADY INTENT ON RECOGNIZING FIGURES: A SAILING SHIP, A HAND, AN ELEPHANT..."
 —ITALO CALVINO, INVISIBLE CITIES.¹

HOW DO WE RE-PROGRAM OUR INTENT TO TAKE A DIFFERENT APPROACH? ONE SOLUTION SUGGESTS INCORPORATING THE TRADITIONAL MODELS AND ALLOWING FOR A RIGOR OF INVESTIGATION.

AS WE EMBARK ON THE 21ST CENTURY, MARKED WITH EVER-EVOLVING TECHNOLOGIES, WE CAN NO LONGER VIEW HANDCRAFT, INDUSTRIAL, AND DIGITAL MEDIAS AS SEPARATE AND DISTINCT. THEIR RICH INTERSECTION AND INTEGRATION ARE NECESSARY TO THE PROCESSES OF MAKING AND DESIGN. THE INDETERMINACY OF WHERE ONE MEDIA CROSSES OVER TO THE NEXT IS A HYBRID PLACE, WHERE MATERIALS, TOOLS, AND METHODS OF FABRICATION ALIGN. HOW CAN THIS ALIGNMENT AND MERGING HELP US TO BETTER UNDERSTAND CRAFT? ...OR TECHNOLOGY?

CAN TRACES OF OUR HAND, OR OUR BODY, BE EVIDENT IN THE TRANSITION BETWEEN THE IMAGINED AND THE PHYSICAL, OR IDEAS / DESIGNS VERSUS THE BUILT ARTIFACTS? AND MORE IMPORTANTLY, HOW DOES THIS EMERGING ARCHITECTURAL PARADIGM SHAPE THE URBAN ENVIRONMENT AS AN ACT OF BUILDING?

THE THESIS SEEKS TO REVEAL THE SPIRIT OF MAKING. IT REVOLVES AROUND THE IDEA OF A MASTER BUILDER AS ARCHITECT, BUILDER, PRODUCT ENGINEER, AND MATERIALS SCIENTIST. HOW DOES THIS INSPIRE A RICH IMMERSION IN DESIGN THROUGH THE INTERMIXING OF HANDCRAFT, INDUSTRIAL, AND DIGITAL MEDIAS? FURTHERMORE, HOW DOES DETROIT, A CITY RICH IN THE TRADITIONS OF INNOVATION AND PRODUCTION / MANUFACTURING DURING THE INDUSTRIAL REVOLUTION, SERVE AS A HISTORICAL CONTEXT THAT HELPS TO SHAPE AND INFORM THE ENERGY OF BUILDING IN A NEW CENTURY?



¹ ITALO CALVINO, "CITIES AND SIGNS 1," INVISIBLE CITIES, (1972): 14.

2

THESIS PAPER



[RE]SCRIPT:
 RELATIONSHIP BETWEEN TECHNOLOGY, CRAFT, BODY

THIS PREMISE SEEKS TO INVESTIGATE THE POSSIBILITIES OF PROCESS AND PROGRAM THAT INTEGRATE HANDCRAFT, INDUSTRIAL, AND DIGITAL MEDIAS. THE ACT OF MAKING AS A PRECISE OPERATION AMALGAMATED WITH DESIGN HAS OPPORTUNE RESULTS. WHAT ARE THE CONDITIONS AND CIRCUMSTANCES FOR A SUCCESSFUL ENDEAVOR?

THE TERM *HANDCRAFT* MEDIA HAS A VAGUE MEANING. TO SOME, IT IS SIMPLY THINGS RESEMBLING ITEMS THAT COULD HAVE BEEN CRAFTED BEFORE THE INDUSTRIAL REVOLUTION. FOR OTHERS, IT MIGHT REFER TO PRODUCTS CARVED AND/OR CONSTRUCTED OF HAND-GUIDED TOOLS. EITHER MEANING, THOUGH VALID TO SOME EXTENT, SEEMS OUTDATED. WITH THE NUMBER OF ENGINEERED WOODS AND THE PLENTIFUL ASSORTMENT OF POWER TOOLS TODAY, VAST MAJORITIES OF HANDCRAFTED MEDIAS WOULD BE ELIMINATED IF THE DEFINITION WERE SETTLED AT THAT.

MAYBE WILLIAM MORRIS WAS CLOSER TO A WORKING DEFINITION. HIS ADVOCACY FOR THE ARTS AND CRAFTS MOVEMENT WITH VERNACULAR UNDERPINNINGS LED HIM TO DEFINE HANDCRAFT AS "WORK WITHOUT THE DIVISION OF LABOUR."

" 'THERE WAS LITTLE OR NO DIVISION OF LABOUR, AND WHAT MACHINERY WAS USED WAS SIMPLY OF THE NATURE OF A MULTIPLIED TOOL, A HELP TO THE WORKMAN'S HAND AND NOT A SUPPLANTER OF IT. THE WORKMAN WORKED FOR HIMSELF AND NOT FOR ANY CAPITALISTIC EMPLOYER AND HE WAS ACCORDINGLY MASTER OF HIS WORK AND HIS TIME. THIS WAS THE PERIOD OF PURE HANDICRAFT.' IT WILL BE NOTED THAT FOR HIM HANDICRAFT DID NOT EXCLUDE THE USE OF MACHINES AND THAT THE WORD HAS STRONG AND SOCIAL IMPLICATIONS. IT IS NOT A WORD REFERRING TO ANY DEFINABLE TECHNIQUE."¹

AS MORRIS DEFINED IN THE LATTER HALF OF THE 1800'S, HANDCRAFT MAY SEEM TOO NOSTALGIC AND CERTAINLY POLITICAL FOR TODAY'S STANDARDS. AFTER ALL, HANDCRAFT OF THE TWENTY-FIRST CENTURY, ALTHOUGH PARALLELED, IS NOT THE SAME AS HANDCRAFT IN THE MIDDLE OF THE NINETEENTH CENTURY. IT SEEMS FAIR TO KEEP IN MIND THESE PREVIOUSLY MENTIONED DEFINITIONS, BUT TO FOCUS MORE ON HANDCRAFT'S BASIC NOTION OF NOT BEING MASS-PRODUCED. DAVID PYE ADDS THAT IT IS A "WORKMANSHIP OF RISK."²

THE RISK FACTOR AT STAKE HERE REFERS TO THE POSSIBILITY OF VARIANCE. NOT ONLY IS IT NEARLY IMPOSSIBLE TO MAKE TWO IDENTICAL ITEMS BY HAND, THE WOODS OR OTHER MATERIAL USED MIGHT VARY IN THEIR COLOR, TEXTURE, GRAIN, STRENGTH, ETC. IN ADDITION, EVEN WHEN PRECISELY FOLLOWING DRAWN PLANS IN BUILDING SOMETHING, THERE IS A HIGH LIKELIHOOD THAT PARTS WILL BE DIMENSIONALLY ERRONEOUS. THE MORE PARTS AND PIECES USED LEADS TO THE POTENTIAL TO BE EVEN MORE OFF THAN PLANNED. IT IS SIMPLY A TRUTH OF STATISTICS AND PROBABILITY HERE, EVEN WITH HIGHLY CALIBRATED EQUIPMENT AND / OR PARTS. ADDING TO THIS

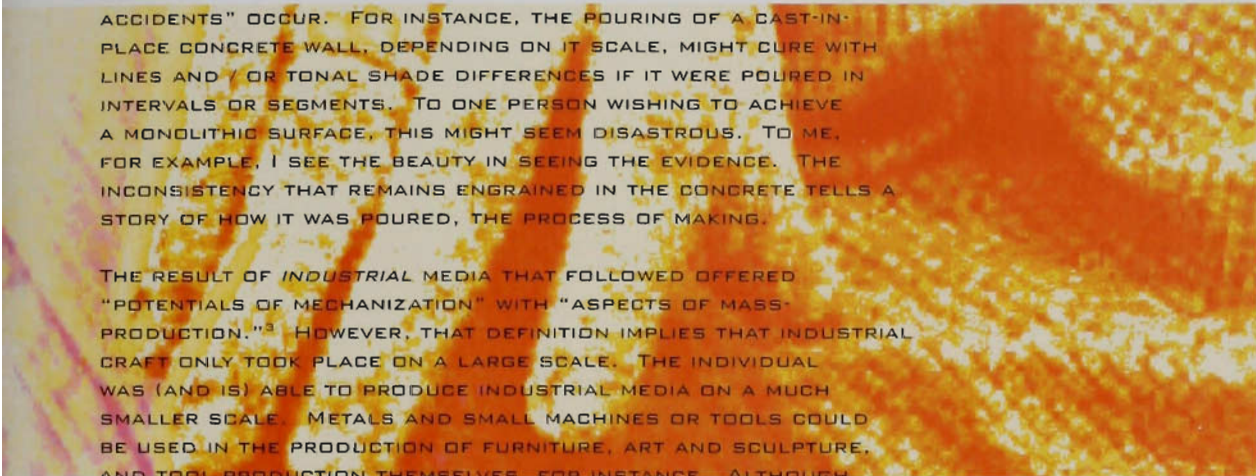
DIGITAL + INDUSTRIAL + HANDCRAFT + MEDIA: MAKING

MIX IS THE IDEA THAT IDEAS AND DESIGNS, BOTH IN THE HEAD AND ON PAPER, ARE NEVER FULLY RESOLVED. THE PROCESS OF MAKING THE ARTIFACT IS A RISKY ONE, IN THAT ONE COULD ENCOUNTER PROBLEMS WITH THE COORDINATION AND ASSEMBLY OF ALL THE PARTS. THIS LAST THOUGHT COMBINED WITH THE PREMISE OF NON-CALIBRATED ITEMS MAKES FOR A "WORKMANSHIP OF RISK," AS DAVID PYE HAS TERMED IT. THOUGH CONTROLLABLE, THE RISK IS NEVER AVOIDABLE.

THE POSSIBILITY OF RISK, THOUGH IT SOUNDS NEGATIVE, CAN ACTUALLY ALLOW FOR OPPORTUNISTIC RESULTS. SOMETIMES "HAPPY ACCIDENTS" OCCUR. FOR INSTANCE, THE POURING OF A CAST-IN-PLACE CONCRETE WALL, DEPENDING ON IT SCALE, MIGHT CURE WITH LINES AND / OR TONAL SHADE DIFFERENCES IF IT WERE POURED IN INTERVALS OR SEGMENTS. TO ONE PERSON WISHING TO ACHIEVE A MONOLITHIC SURFACE, THIS MIGHT SEEM DISASTROUS. TO ME, FOR EXAMPLE, I SEE THE BEAUTY IN SEEING THE EVIDENCE. THE INCONSISTENCY THAT REMAINS ENGRAINED IN THE CONCRETE TELLS A STORY OF HOW IT WAS POURED, THE PROCESS OF MAKING.

THE RESULT OF *INDUSTRIAL* MEDIA THAT FOLLOWED OFFERED "POTENTIALS OF MECHANIZATION" WITH "ASPECTS OF MASS-PRODUCTION."³ HOWEVER, THAT DEFINITION IMPLIES THAT INDUSTRIAL CRAFT ONLY TOOK PLACE ON A LARGE SCALE. THE INDIVIDUAL WAS (AND IS) ABLE TO PRODUCE INDUSTRIAL MEDIA ON A MUCH SMALLER SCALE. METALS AND SMALL MACHINES OR TOOLS COULD BE USED IN THE PRODUCTION OF FURNITURE, ART AND SCULPTURE, AND TOOL PRODUCTION THEMSELVES, FOR INSTANCE. ALTHOUGH, THE FACT OF THE MATTER IS, TODAY'S INDUSTRIAL DESIGN DOES NOT RELY SOLELY ON METALS ANYMORE. AS NEWER MATERIALS COME INTO PLAY, INDUSTRIAL MEDIA IS HARDER AND HARDER TO DEFINE. FOR EXAMPLE, NEWLY DEVELOPED PLASTICS AND POLYMERS ARE GAINING POPULARITY, WOODS AND FABRICS ARE INTEGRATED INTO THE TRADE, AND CONCRETE FORMWORKS HAVE ACHIEVED THE GREATEST COMPLEXITY. THIS SORT OF MEDIA IS NOT LIMITED TO MASS-PRODUCTION EITHER, ESPECIALLY WHEN ONE CONSIDERS THE METAL GUILDS AND CUSTOM FURNITURE WORKSHOPS IN EXISTENCE TODAY. INDUSTRIAL MEDIA, TOO, DOES INVOLVE A GREAT DEAL OF RISK. IN SOME INSTANCES, IT COULD HAVE EVEN MORE RISK THAN HANDCRAFT MEDIA BECAUSE IT TYPICALLY INVOLVES MORE PARTS OR MORE COMPLICATED PIECES COMBINED WITH THE NOTION OF NEWLY DEVELOPED MATERIALS AND METHODS OF MAKING.

DIGITAL MEDIA HAS NOT BEEN AROUND AS LONG AS ITS HANDCRAFT AND INDUSTRIAL PREDECESSORS. THIS IS THE NEWEST MEDIUM; AND IT CHANGES DAILY WITH RESPECT TO EVOLVING COMPUTER TECHNOLOGIES. THE "IT REVOLUTION"⁵ STARTED ONLY 20-25 YEARS AGO, BUT HAS ADVANCED DRAMATICALLY. DIGITAL MEDIA, REFERRING TO A "COMPLETELY IMMATERIAL WORLD OF COMPUTER ALGORITHMS,"⁴ HAS BECOME ALMOST STANDARD TODAY. WITH COMPUTERS, DIGITAL IMAGING AND SOUND EQUIPMENT, AND WIDELY USED SOFTWARE, A WHOLE OTHER REALM HAS BEEN CREATED.



J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
[
]
^
_

"THE DIGITAL REVOLUTION HAS OPENED NEW DOORS BOTH IN OUR ABILITY TO GENERATE DESCRIPTIONS OF BUILDINGS (VIRTUAL BUILDINGS) AND TO COMMUNICATE THIS INFORMATION TO OTHER PEOPLE AND MACHINES THAT WILL MAKE COMPONENTS."⁶

ELECTRONIC INPUT OF FILES AND THE INFORMATION CONTAINED WITHIN STILL INVOLVES RISK. DIGITAL MEDIA, THOUGH HIGHLY DEVELOPED, IS STILL NEW AND, AT TIMES, UNKNOWN DUE TO A LACK OF EXPERIENCE. MISUNDERSTANDING WILL OCCUR WITH BOTH THE PROFICIENT AND NON-PROFICIENT USER. THE COMPUTER CAN ONLY ACT WHEN GIVEN A COMMAND BY ITS OPERATOR (NEGLECTING THE ENTIRELY SEPARATE REALITY OF SOFTWARE VIRUSES). FOR THIS REASON, PROFICIENT AND NON-PROFICIENT USERS ARE INDEED HUMAN AND CAN CAUSE ERRORS. DIGITAL TECHNOLOGY IS NOT A PHYSICAL MEDIUM; AND THIS MEDIA CAN ONLY BE VIEWED IN VIRTUAL SPACE. TAKING THAT INTO CONSIDERATION, THERE IS A HIGH LIKELIHOOD THAT DESIGNS AND IDEAS, WHEN CONVERTED INTO TANGIBLE ARTIFACTS, WILL BE INCOMPLETE. AS PARTS ARE ASSEMBLED FROM DIGITAL DRAWINGS, OR DIGITALLY FABRICATED PIECES ARE PUT TOGETHER, THE CONNECTIONS SHIFT FROM VIRTUAL TO PHYSICAL. AT THIS MOMENT, EVEN THE BIGGEST ADVANCEMENTS IN TECHNOLOGY CANNOT PREDICT ALL RISK AT STAKE.

EACH OF THE THREE MEDIAS IS BECOMING EVER HARDER TO IDENTIFY OR DISTINGUISH. AS PROCESSES AND MATERIALS ARE CONSTANTLY EVOLVING, DEFINITIONS THAT WERE FORMERLY ACCEPTED ARE NO LONGER APPLICABLE. UTILIZED MATERIALS THAT FORMERLY CLASSIFIED THE AREA OF MEDIA ARE BEING APPLIED IN OTHERS. DIGITAL TECHNOLOGY HAS MADE ITS WAY TO HANDCRAFT AND INDUSTRIAL MEDIAS AS ANOTHER TOOL. THERE IS A MIXING OF TWO AND THREE MEDIA AT ONCE. AS WE EMBARK ON THE TWENTY-FIRST CENTURY, MARKED WITH EVER-EVOLVING TECHNOLOGIES, WE CAN NO LONGER VIEW HANDCRAFT, INDUSTRIAL, AND DIGITAL MEDIAS AS SEPARATE AND DISTINCT. THEIR RICH INTERSECTION AND INTEGRATION ARE EVIDENT IN MADE ARTIFACTS. MOREOVER, THE PROCESSES OF MAKING AND DESIGN SEE MORE SIMILARITY THAN DIFFERENCE BETWEEN THE MEDIAS. THE INDETERMINACY OF WHERE ONE MEDIA CROSSES OVER TO THE NEXT IS A HYBRID PLACE, WHERE MATERIALS, TOOLS, AND METHODS OF FABRICATION ALIGN.

GIVEN THE DIRECTION OF THREE OVERLAPPING MEDIAS, WHAT ARE THE POSSIBILITIES WITHIN THIS HYBRID PLACE? CAN THE MEDIA(S) BE REDEFINED TO INCORPORATE A BROADER REPRESENTATION IN THEIR MERGED RELATIONSHIPS? ALSO, HOW CAN THE TOOLS AND KNOWLEDGE OF ONE TRADE INFORM THE ACTIONS OF ANOTHER?

THE DIGITAL IS BECOMING SUBSTANCE; AND IT FEELS MORE TANGIBLE. THE DIGITAL AS 'IMMATERIAL' IS NOT ACCURATELY DEPICTED ANYMORE.

"BECAUSE OF THE SEAMLESS INTERFACE BETWEEN THE DIGITAL AND THE PHYSICAL, THE MARGINS BETWEEN THE REAL AND THE IMAGINED ARE DIFFUSE, ALWAYS EVOLVING AND CHANGING."⁷

WITH THAT THOUGHT, IF THERE TRULY IS A GAP, HOW CAN THE DIGITAL AND THE PHYSICAL MASSAGE EACH OTHER? FURTHERMORE, THE IMAGINED AND THE REAL SPEAK OF THE PROCESS OF DESIGN AND THE PROCESS OF MAKING. TECHNOLOGIES AND DIGITAL ADVANCEMENTS ARE FILLING THE VOIDS BETWEEN IMAGINATION, POSSIBILITY, AND PHYSICAL REALITY.

"A NEW DIGITAL CONTINUUM, A DIRECT LINK FROM DESIGN THROUGH TO CONSTRUCTION, IS ESTABLISHED THROUGH DIGITAL TECHNOLOGIES. THE CONSEQUENCES WILL BE PROFOUND, AS NEW DIGITALLY-DRIVEN PROCESSES OF DESIGN, FABRICATION AND CONSTRUCTION ARE INCREASINGLY CHALLENGING THE HISTORIC RELATIONSHIP BETWEEN ARCHITECTURE AND ITS MEANS OF PRODUCTION."⁸

A PITFALL HAS BEEN DISCOVERED, THOUGH. WITH MOVING FORWARD TOO QUICKLY, CAUGHT IN THE 'DIGITAL CONTINUUM,' THE HUMAN DIMENSION HAS BEEN LOST. SCALE IS NO LONGER TANGIBLE; AND THE LINE ONE MAKES IS REPRESENTED IN VIRTUAL SPACE. WHAT IS THE FEEL OR FORM OF THAT LINE AS ONE TRACES IT WITH THEIR HAND? DOES IT HAVE A SPECIAL WEIGHT OR PRESENCE OVER ANOTHER LINE? ANSWERS TO BOTH THESE QUESTIONS ARE DIFFICULT TO ACHIEVE WHEN USING CAD TECHNOLOGIES OR THREE-DIMENSIONAL MODELING SOFTWARE. MOREOVER, THE TRANSLATION BETWEEN DESIGN AND FABRICATION APPEARS WITHOUT THE LABOR OF AN INDIVIDUAL. WHILE HUMANS ARE RENDERED TRANSPARENT, THE PHYSICAL RESULT AT THE END DOES NOT EMBODY AND RELATE TO THE PRESENCE OF A BODY. HOW CAN TECHNOLOGY, OR THE END PRODUCTS OF THIS TOOL, ENCOMPASS CRAFT AND SCALED DETAILS THAT SIGNAL OF THE HANDS AND HUMAN POETIC OF ITS MAKER / DESIGNER?

"...WE MAY BE SITTING IN A CITY [DETROIT] THAT HAS ASKED THAT QUESTION IN A MAJOR WAY. THAT THE LANDSCAPE HERE HAS EVERYTHING TO DO WITH THAT QUESTION HAVING BEEN ASKED AND HOW DO WE RELATE TO TECHNOLOGY AND MASS PRODUCTION, AND THE NEED FOR THE HUMAN CONDITION? AND, OF COURSE, ARCHITECTURE IS ALWAYS EMBEDDED IN THAT DISCUSSION, I MEAN THAT'S ALWAYS EMBEDDED IN THE DISCUSSION ON ARCHITECTURE."⁹

AS TECHNOLOGIES DEVELOP AND EVOLVE, DIGITAL MEDIA FACES THE SAME POLEMIC THAT HANDCRAFT MEDIA BATTLED AT THE ADVENT OF INDUSTRIAL MEDIA. A SHIFTING POST-WAR WORLD AND MODERN ARCHITECTURE WAS THROWN INTO THE PROCESS OF INDUSTRIAL MASS-PRODUCTION. THE PROCESS OF MAKING LEFT NO TRACE OF THE HAND THAT MADE IT. UNDER THE ECONOMIC / CAPITALISTIC CONDITIONS AT WHICH PRODUCTS WERE PRODUCED, THE SPECIAL QUALITIES OF CRAFTSMANSHIP SEEMED TO FADE AWAY. LET ME CLARIFY, I AM NOT ATTEMPTING TO OPPOSE MASS PRODUCTION, BUT I AM IN OPPOSITION TO A FINAL ENTITY, OR COLLECTION THEREOF, THAT NEGLECTS THE POETICS OF ITS MAKER / DESIGNER OR SEEMS TO ACCEPT POOR TECHNIQUE / CRAFT.

"MACHINE WORK ENGENDERED A SPLIT BETWEEN HAND, MIND, AND EYE IN THE CREATION OF UTILITARIAN OBJECTS, AND STANDARDIZATION BROUGHT WITH IT A LOSS OF VITAL TOUCH AND IMPULSE."¹⁰

BEFORE PROCEEDING ANY FURTHER, *CRAFTSMANSHIP* MUST GET A PROVISIONAL DEFINITION. DAVID PYE, AS HE HAS DEFINED IT, WROTE:

"...SIMPLY WORKMANSHIP USING ANY KIND OF TECHNIQUE OR APPARATUS, IN WHICH THE QUALITY OF THE RESULT IS NOT PREDETERMINED, BUT DEPENDS ON THE JUDGEMENT, DEXTERITY AND CARE WHICH THE MAKER EXERCISES AS HE WORKS. THE ESSENTIAL IDEA IS THAT THE QUALITY OF THE RESULT IS CONTINUALLY AT RISK DURING THE PROCESS OF MAKING..."¹¹

PYE'S RENDERED DEFINITION IS SUMMARIZED WELL, BUT SOMETHING IS MISSING. HE NEGLECTS TO MENTION "PARTNERSHIPS WITH TECHNOLOGY" AND "WORKING AT A PERSONAL SCALE."¹² CONSIDER YET ANOTHER ATTEMPT AT ITS MEANING WITH THIS DEFINITION OF CRAFT.

"CRAFT REMAINS SKILLED WORK APPLIED TOWARD PRACTICAL ENDS. IT IS INDESCRIBABLE TALENT WITH DESCRIBABLE AIMS. IT IS HABITUAL SKILLED PRACTICE WITH PARTICULAR TOOLS, MATERIALS, OR MEDIA, FOR THE PURPOSE OF MAKING INCREASINGLY WELL EXECUTED ARTIFACTS. CRAFT IS THE APPLICATION OF PERSONAL KNOWLEDGE TO THE GIVING OF FORM. IT IS THE CONDITION IN WHICH THE INHERENT QUALITIES AND ECONOMIES OF THE MEDIA ARE ENCOURAGED TO SHAPE BOTH PROCESS AND PRODUCTS. IT IS NOT ABOUT STANDARDIZED ARTIFACTS, HOWEVER. IT IS NOT INDUSTRIAL DESIGN. IT REMAINS ABOUT THE INDIVIDUALLY PREPARED ARTIFACT, WHICH IS NEWLY PRACTICAL DUE TO DIGITAL COMPUTING. CRAFT IS CERTAINLY AN APPLICATION OF SKILL, AND IT YET MAY INVOLVE THE SKILLED HAND."¹³

AS WE CAN SEE, CRAFTSMANSHIP TOO IS HARD TO EXPLICITLY DEFINE, ESPECIALLY AS THE MATERIALS, METHODS, AND TOOLS CHANGE. INNOVATION WITHIN THESE MEDIAS REQUIRES ONE TO REFLECT ON PAST MEANINGS, BUT BE OPEN TO NEW DESCRIPTIONS. CERTAINLY, CRAFTSMANSHIP RELATES TO THE HUMAN DIMENSION. AFFORDANCES AND CONSTRAINTS MUST BE REALIZED THROUGH AN INTERFACE OF CAREFUL WORKMANSHIP, GRANTED ONLY THROUGH RIGOROUS EXPLORATION AND STUDY.

"IN SPEAKING OF 'GOOD MATERIAL' WE ARE PAYING AN UNCONSCIOUS TRIBUTE TO THE ENORMOUS STRENGTH OF THE TRADITIONS OF WORKMANSHIP STILL SHAPING THE WORLD EVEN NOW. WE TALK AS THOUGH GOOD MATERIAL WERE FOUND INSTEAD OF BEING MADE. IT IS GOOD ONLY BECAUSE WORKMANSHIP HAS MADE IT SO."¹⁴

WORKMANSHIP IS PART OF THE ACTIVE PROCESS OF MAKING, NOT DESIGNING. IT IS A PRICELESS FAMILIARITY AND AWARENESS OF ONE'S OWN DEXTERITY IN THE APPLIED TECHNIQUES OF MATERIAL ALTERATIONS. GOOD WORKMANSHIP HAS ALLOWED US THE KNOWLEDGE OF MATERIALS AND METHODS OF CONSTRUCTION, AS WE KNOW THEM TODAY. VERY SKILLED LABORERS OF THE RENAISSANCE TURNED THEIR KNOWLEDGE INTO A MASTERED CRAFT. ACTUALLY, MUCH OF THIS TALENT HAS BEEN LOST, CAUSING US TO SPECULATE HOW THINGS MIGHT HAVE BEEN DONE YEARS AGO; AND IN TURN PRODUCING A BOTCHED JOB. INADVERTENTLY, THE YIELDS OF MAKING HAVE SUFFERED.

"NO ARCHITECT COULD SPECIFY ASHLAR UNTIL A MASON HAD PERFECTED IT AND SHOWN HIM THAT IT COULD BE DONE. DESIGNERS HAVE BEEN ABLE TO EXIST BY EXPLOITING WHAT WORKMEN HAVE EVOLVED OR INVENTED."¹⁵

IN ORDER TO DEMONSTRATE LEARNED WORKMANSHIP AND THE TALENT OF CRAFTSMANSHIP, ONE MUST EXTRACT INFORMATION THROUGH MATERIALS SCIENCE. TAKEN LITERALLY AND METAPHORICALLY, THE SCIENTIFIC QUALITIES OF MATERIALS MUST BE EXPLORED THROUGH EXPERIMENTATION. THE SCIENTIST MUST DISCOVER WHAT IS THE BASIC STRUCTURE OF THE MATERIAL, AND HOW IT BEHAVES UNDER DIFFERENT STRESSES. WHAT TOOLS ARE NECESSARY FOR ITS MANIPULATION? WHAT ARE THE POSSIBILITIES OF EXPLOITATION? THE MASTER BUILDER'S EXISTENCE IS IDENTIFIED AS ARCHITECT + BUILDER + PRODUCT ENGINEER + MATERIALS SCIENTIST.¹⁶ TASKS OF SPECIALIZATION AND INTEGRATION ARE BROUGHT TO THE PLAYING FIELD. BUILDINGS, NOT AS NOUNS, BUT AS A VERB, "INDICATE MORE THAN A PHYSICAL PRESENCE IN SPACE."¹⁷ ONE IS EMPOWERED AS A MAKER BY EMBRACING THE BUILDING AND EXPERIMENTATION PROCESS WITH DESIGN. WHETHER THE TOOLS OF INVESTIGATION ARE DIGITAL OR PHYSICAL, AND THE MATERIALS ARE REAL OR VIRTUAL, THE MASTER BUILDER WILL IMPLORÉ WITH SURETY:

"...A PROCESS-ORIENTED APPROACH TOWARDS ARCHITECTURAL DESIGN, THAT RECOGNIZES THE IMPORTANCE OF STRUCTURAL FORCES AND MATERIAL COMPOSITION."¹⁸

THERE IS AN ONGOING STRUGGLE TO CREATE AN ENVIRONMENT OF HUMAN + MATERIAL INTERACTION OR A PHYSICAL PRESENCE OF THE BODIES INVOLVED IN THE MAKING. THIS IS A TROUBLING CONCEPT INVESTIGATED BY MANY ARCHITECTS FOR SOME TIME. HOWEVER, ANOTHER RED FLAG HAS BEEN RAISED AS DIGITAL COMPONENTS ARE GAINING STANDARDIZED USAGE, AND EXHIBITING NO FINGERPRINTS OF ITS USERS.

"WHAT ARE THE POSSIBILITIES WHEN TECHNOLOGY IS MERGED WITH TECTONICS RESULTING IN A TANGIBLE MEMBRANE THROUGH WHICH WE PERCEIVE?"¹⁹

THE POTENTIAL OF CONSTRUCTION WITH ADVANCING TECHNOLOGY CAN CHARACTERIZE THE *TECTONIC* LANGUAGE OF BUILDING. SCRUPULOUS BUILDING TECTONICS IS EVIDENCE OF CARE AND RESPONSIVENESS

WHILE LEAVING A TRACE OF THE HAND. BUILT ARTIFACTS THAT DISPLAY SENSITIVITY TO FINDINGS OF A THOUGHTFUL AND RIGOROUS INVESTIGATION ARE NOT ARBITRARILY MADE. INNOVATIVE TECTONICS IS THUS AN ACCEPTANCE, AWARENESS, AND MOTIVATOR OF CRAFT. SKINS OF BUILDINGS MUST BEHAVE AS SUCH. IN RELATION TO CENTERS OF MAKING, THE SKIN MUST BE A MEMBRANE EXHIBITING A LEVEL OF POROSITY THAT ALLOWS EXCHANGE. THE EXCHANGE OF MATERIALS, TECHNOLOGIES, IDEAS, AND PRODUCERS CAN DEMONSTRATE A HIGHER QUALITY OF LIFE.

"THE RADICAL TECTONIC DOES NOT ACCEPT THE IDEALIZED CONJUNCTION OF FORM AND PROGRAMME. INSTEAD, IT REFLECTS THE REALITY OF CHANGING TECHNOLOGIES, EVOLVING SOCIAL PATTERNS AND THE INCREASINGLY HIGHBRID CHARACTER OF INSTITUTIONS."²⁰

IN MUCH THE SAME WAY THAT DETROIT IS SCARRED WITH DEPOSITS OF ITS LONG HISTORY AS A PLACE OF MAKING, MADE ARTIFACTS CAN SHOW RESIDUE OF THEIR PAST. LAYERS OF THE PROCESS OF FABRICATION, ESPECIALLY IN THE TRANSLATION FROM DESIGN TO CONSTRUCTION ARE DESIRABLE FEATURES. THE CRAFTED ENTITY CAN EMBODY POETIC IMAGERY THAT SIGNAL THE THOUGHTS OF THE PERSON WHO MADE IT, AND MORE IMPORTANTLY, THE HUMAN SCALE.

THE SITE OF THE THESIS INVESTIGATION IS SITUATED WITHIN THE CITY ALONG THE DETROIT RIVER. THERE IS A LARGE PIER OF LAND AT THE FOOT OF ST. JEAN STREET; AND THE SITE IS ADJACENT TO THE DETROIT EDISON CONNER CREEK PLANT, AN APPARENT INDUSTRIAL COMPLEX DATING BACK TO THE START OF THE 1900'S. THE CANALS OF INDUSTRY REMAIN AS THE BORDERS ON BOTH SIDES OF THE SITE. THE WATERWAY ON THE SIDE FURTHEST FROM THE CONNOR CREEK COMPLEX WAS MODIFIED, BASED ON A 1946 PROPOSAL, TO ACCOMMODATE A YACHT CLUB. WITH IMAGES OF BOTH A MASSIVE POWER PLANT AND LEISURE BOATING ACTIVITY COMBINED WITH THE PARK VIEW OF BELLE ISLE AND ITS WATER PUMPING STATION AT THE NEAREST TIP, HOW DOES A NEW BUILDING FIT INTO THE SCENE?

DETROIT HAS AN "EXTENSIVE INDUSTRIAL BASE"²¹ WITH MUCH CULTURAL AND HISTORICAL MEANING. IT PLAYED A MAJOR ROLE IN THE SHAPING OF DETROIT'S URBAN FABRIC. THE RIVER EDGE CHANGED DRASTICALLY DURING THE LATTER HALF OF THE 1800'S AND THROUGH THE MID-1900'S, WITH YOUNGER CHANGES THAT ARE LESS BOLD. THE DETROIT RIVER SERVED AS THE CATALYST FOR DETROIT INDUSTRY. WITH SHIP ENGINE BUILDING EVOLVING INTO THE AUTOMOBILE ENGINE AND THE HOME OF AUTO PRODUCTION, URBAN INDUSTRY HAS LEFT ITS MARK IN THE CITY, CARVING A PASSAGE INTO DETROIT'S PALIMPSEST. DETROIT'S PHYSICAL PALIMPSEST CONTAINS LAYER UPON LAYER OF HISTORICAL AND SITE-SPECIFIC INFORMATION THAT HAS BEEN ERASED OR REVEALED, NONETHELESS ALTERED. BY 1928, THE HARBOR LINE WAS DICTATED BY COUNTLESS SHIP SLIPS INDICATIVE OF THE MULTIPLE INDUSTRIES INHABITING THE RIVER EDGE WITHIN THE CITY. THE EDGE WAS MOVED OUTWARD 200 FEET, A STEEL SEAWALL ERECTED, AND MOST SLIPS WERE FILLED IN. RESEARCH REVEALS THE HABITUAL ACTS OF CARVING AND INFILL THAT

HELPED TO CREATE THE VISIBLE LANDSCAPE AS WE SEE IT TODAY. ADDITIONALLY, LUMBERYARDS, PRE-DEPRESSION SKYSCRAPERS, FACTORIES, AND MORE CELEBRATE THE CITYSCAPE. HOW CAN A PLACE OF PRODUCTION, RICH WITH TRADITION OF MANUFACTURE, SERVE AS GROUND FOR, WHILE BEGINNING TO INFORM, THE MAKING IN A NEW CENTURY?

IN THE MID-1900'S, MANY SAW THE INDUSTRIAL IMAGE OF DETROIT AS AN EYESORE. A LARGE MAJORITY OF THE INDUSTRY TOOK SERIOUS CLAIM TO THE RIVERFRONT. PARTS, THOUGH, WERE SPOTTED WITH PARKS. CONSEQUENTLY, PROPOSALS AND PLANS ATTEMPTED TO ERASE PLANTS AND FACTORIES FROM THE SCENE TO CREATE ONE LARGE RIVERFRONT PARK AND BOULEVARD, SIMILAR TO WHAT CAN BE SEEN IN WINDSOR OR EVEN CHICAGO AND OTHER URBAN CITIES. PLACES OF INDUSTRY WERE TO REMAIN UNTIL OBSOLETE OR FORCIBLY VACATED. THE ONLY EXCEPTIONS WERE THE SMALL SPACE AROUND THE PARKE-DAVIS PHARMACEUTICAL PLANTS (NOW THE SITE OF STROH'S RIVER PLACE) AND THE LARGE AREA AROUND THE DETROIT EDISON CONNOR CREEK PLANT & SAND LIME PRODUCTS COMPANY. THE CITY AND PLANNERS SAW OPPORTUNITY FOR OTHERS TO LOCATE THERE. ALL THREE BUILDINGS ARE STILL OPERATING TODAY, BUT ONLY THE EDISON PLANT IS IN ITS ORIGINAL USE.

THE VARIOUS BUILDINGS AND LIFESTYLES OF MAKING AND PRODUCTION SERVE AS A BACKDROP TO DETROIT. WHERE AND HOW DOES THE FUSED SPECTRUM OF MEDIA FIT INTO THE INDUSTRIAL URBANISM OF THE CITY? BECAUSE THE LAND AND RIVER CHANGED SO SIGNIFICANTLY AS MULTIPLE PLACES OF PRODUCTION SPANG UP, HOW WILL A NEW SHIFT IN MEDIA / MAKING IMPACT THE RESIDUE OF THE PAST? AS ANOTHER LAYER OF HISTORY IS ADDED (OR REMOVED), WHAT CONDITIONS WILL CHARACTERIZE DETROIT'S URBAN FABRIC?

THE PROCESS OF THE THESIS INVESTIGATION MUST BE OPEN IN NATURE. THE SCHOLARLY LEVEL OF INQUIRY MUST BE OF HIGH CALIBER WITH CARE AND DEDICATION. THEN, THE REST WILL FOLLOW. THE MATERIAL INVESTIGATIONS AND RIGOROUS SPIRIT WILL HOPEFULLY ANSWER THE QUESTIONS POSED AND OPEN THE DOOR TO NEW OPPORTUNITIES OF THE FUTURE.

I STUDIED SEVERAL PRECEDENTS IN MY INVESTIGATION. UPON FURTHER REFLECTION, I REALIZED THAT EACH OF THEM EMPLOYS AN ASPECT OF *THRESHOLD*. HOWEVER, IN ALL THE PROJECTS EXAMINED, THE ARCHITECTS HAVE DRAWN UPON THE IDEA OF AMBIGUITY. I AM ATTEMPTING TO EXPLORE MEDIAS WITH AMBIGUITY OF THEIR DEFINITIONS AND LIMITS. WITH SO MUCH UNCERTAINTY OF THE EXACT PLACE WHERE THE THREE MEDIAS OVERLAP, THE PROJECTS OFFER WAYS OF HANDLING THE ISSUE OF INDISTINCT THRESHOLDS. ADDITIONALLY, THE PRECISE ACT OF MAKING, COMBINED WITH THE WORKMANSHIP OF RISK, AND THE TRANSLATION THAT OCCURS FROM DESIGN TO MANUFACTURE, CAN LEAD TO AMBIGUOUS RESULTS AS A FINISHED PIECE.

THE BLUR BUILDING BY ELIZABETH DILLER AND RICARDO SCOFIDIO PLACES EXPERIENCE AND THE EVENT AT THE FOREGROUND OF

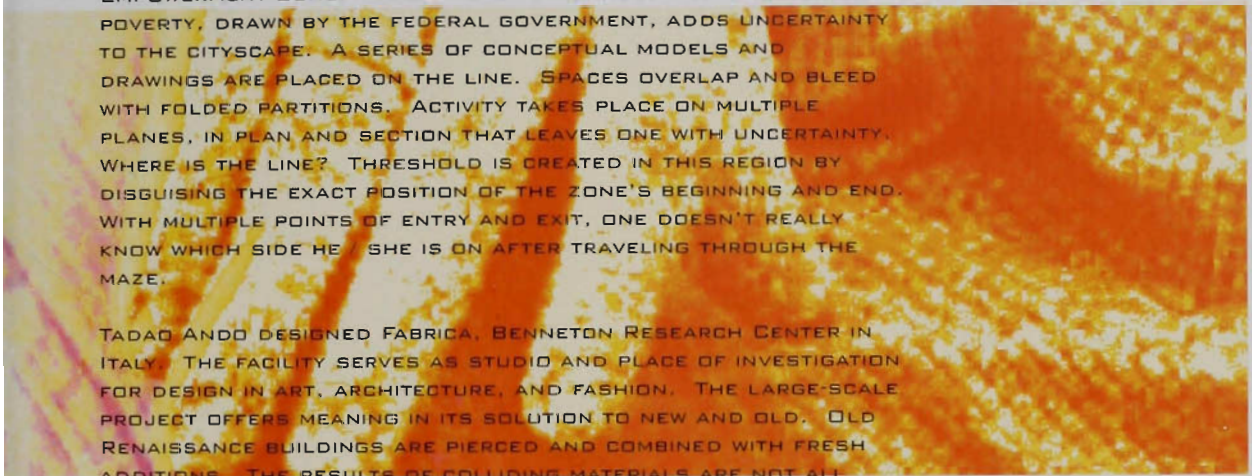
THRESHOLD. WHEN VISITORS ENTER THE GROUNDS, ONLY A BLOBBY MIST IS VISIBLE. WALKING THROUGH THE VESSEL IS LIKE TRANSCENDING TIME AND REALITY. A DENSE SPRAY MAKES THE WALLS ENCLOSING THE EXPOSITION PIECE EXISTENT. THE 'BLUR' THAT RESULTS IS CONSTANTLY SHIFTING, DEPENDING ON WEATHER CONDITIONS. IT LEAVES THE GUESTS WITH THE QUESTION OF WONDERING WHERE THE SKIN OF THE BUILDING LIES, AND WHAT THEY JUST SAW INSIDE THE DISPLAY.

"LINE FRUSTRATION" BY JASON YOUNG IS SITED WITHIN DETROIT'S EMPOWERMENT ZONE. AN ABSTRACT LINE ENCLOSING A REGION OF POVERTY, DRAWN BY THE FEDERAL GOVERNMENT, ADDS UNCERTAINTY TO THE CITYSCAPE. A SERIES OF CONCEPTUAL MODELS AND DRAWINGS ARE PLACED ON THE LINE. SPACES OVERLAP AND BLEED WITH FOLDED PARTITIONS. ACTIVITY TAKES PLACE ON MULTIPLE PLANES, IN PLAN AND SECTION THAT LEAVES ONE WITH UNCERTAINTY. WHERE IS THE LINE? THRESHOLD IS CREATED IN THIS REGION BY DISGUIISING THE EXACT POSITION OF THE ZONE'S BEGINNING AND END. WITH MULTIPLE POINTS OF ENTRY AND EXIT, ONE DOESN'T REALLY KNOW WHICH SIDE HE / SHE IS ON AFTER TRAVELING THROUGH THE MAZE.

TADAO ANDO DESIGNED FABRICA, BENNETON RESEARCH CENTER IN ITALY. THE FACILITY SERVES AS STUDIO AND PLACE OF INVESTIGATION FOR DESIGN IN ART, ARCHITECTURE, AND FASHION. THE LARGE-SCALE PROJECT OFFERS MEANING IN ITS SOLUTION TO NEW AND OLD. OLD RENAISSANCE BUILDINGS ARE PIERCED AND COMBINED WITH FRESH ADDITIONS. THE RESULTS OF COLLIDING MATERIALS ARE NOT ALL THERE IS TO SEE. THE NEWER SPACES HAVE AN UNINTERRUPTED FLOW FROM INTERIOR TO EXTERIOR. ADDITIONALLY, THE NEW SPACES FRAME VIEWS INTO AND ONTO THE OLDER ONES. THE PRESENCES OF THE STUDENTS ARE KNOWN WITH A WIDE SPECTRUM OF EVENTS AT SIGHT.

CHICAGO'S ILLINOIS INSTITUTE OF TECHNOLOGY HAS A NEWLY INNOVATIVE BUILDING ON CAMPUS. THE STUDENT CENTER, DESIGNED BY REM KOOLHAUS' FIRM, PLACES PROGRAM ON THE THRESHOLD. THE STUDENT COMPUTER LAB, STUDENT LOUNGE / RECREATION AREA, DINING HALL, STUDY AREAS, AND WELCOME DESK ARE ORGANIZED IN A CAREFULLY BLENDED MANNER. THE IDEA OF MULTIPLE PROGRAMS OCCURRING IN THE SAME BUILDING, YET MAINTAINING AN OPEN FLOOR PLAN, IS SPECTACULAR. AREAS CARVE INTO THE GROUND AND RESURFACE WHILE ACTIVITY MOVES IN ALL DIRECTIONS. ANOTHER STRENGTH OF THE PROJECT IS THE ABILITY TO INTERACT. BECAUSE OF THE OPENNESS AND INTERSECTING CIRCULATION, ACTIVITIES OF HUMAN PRESENCE CAN TAKE PLACE.

ANOTHER STUDY IS A SKETCH PROBLEM THAT I INVESTIGATED EARLIER IN THE THESIS WORK. THE VERY APPARENT, HALTING BOUNDARY BETWEEN URBAN CITY AND SUBURBIA OCCURS ON THE LINE BETWEEN GROSSE POINTE AND DETROIT. I SEARCHED FOR A WAY OF HAVING A HABITABLE WALL THAT DISGUIISED THE ABSTRACT LINE, WHICH APPEARS TO BE PHYSICAL. THE NOTION OF INHABITATION INVOLVES PEOPLE AND ACTIVITY. IN THIS REGION, EAVESDROPPING AND SPYING ARE POSSIBLE; AND VIEWS BOTH WITHIN THE WALL AND FRAMED TO



D
I
S
T
R
I
B
U
T
I
O
N
S
A
R
E
A
V
A
I
L
A
B
L
E
O
N
L
I
N
E
A
T
T
H
E
A
R
C
H
I
T
E
C
T
U
R
E
P
R
E
S
S
A
N
D
O
N
L
I
N
E
S
E
R
V
I
C
E
S

THE EXTERIOR ARE PERMITTED. ALTHOUGH TWO DISTINCT CITIES ARE SEEN, ONE DOES NOT KNOW WHICH CITY HE/SHE IS STANDING OR RESTING IN.

ADDITIONALLY, I EXPLORED COUNTLESS TECTONIC PRECEDENTS. THE WORK OF KIERAN TIMBERLAKE, MECANOO, AND RANDALL ARCHITECTS WERE SO MEANINGFUL. I DOCUMENTED THE FINISHED CONSTRUCTION OF AREAS WITHIN EACH OF THEIR DESIGNED BUILDINGS.

IN SUMMARY, TECHNOLOGY HAS CAUSED A BLENDING OF HANDCRAFT, INDUSTRIAL, AND DIGITAL CRAFTS. THE PROSPECTS ARE GREAT FOR INNOVATION AND DESIGN IN BUILDING. HOWEVER, THE LACK OF KNOWLEDGE AND AN ETHIC OF CARE HAVE CAUSED THE BUILT ARTIFACTS TO BE DE-HUMANIZING. THERE IS NOT ENOUGH RESPONSE TO THE HUMAN CONDITION AND THE POETIC OF THE BODY. A PROMISING SOLUTION IS ONE THAT ENCOMPASSES CRAFTSMANSHIP. THE POSITION OF MASTER BUILDER WILL ENABLE ONE TO GAIN PURPOSEFUL INFORMATION AND SKILL IN MAKING. WHEN THE TRACES OF THE HAND AND THE RESIDUAL OF PROCESS / INVESTIGATION / MAKING ARE RESOLVED IN THE CORRECT AND THOUGHTFUL QUANTITY, GREAT ARCHITECTURE WILL BE THE RESULT. A CENTER FOR MAKING IN A PLACE OF HISTORIC MAKING MIGHT BE THE NECESSARY TOOL TO BRING ABOUT THIS NECESSARY AND PARADIGMATIC EVOLUTION.

"A BLURRY IMAGE IS TYPICALLY THE FAULT OF A MECHANICAL MALFUNCTION IN A DISPLAY OR REPRODUCTIVE TECHNOLOGY. FOR OUR VISUALLY OBSESSED, HIGH-RESOLUTION, HIGH-DEFINITION CULTURE THAT MEASURES SATISFACTION IN PIXELS PER INCH, BLUR IS UNDERSTOOD AS A LOSS."²²

IN THE CASE HERE, BLURRED THRESHOLDS BETWEEN THREE MEDIAS APPEAR OPPORTUNISTIC.

LET THIS BE A CHALLENGE!

- ¹ DAVID PYE, THE NATURE AND ART OF WORKMANSHIP, (1968): 12.
- ² DAVID PYE, 4.
- ³ WILLIAM J. R. CURTIS, MODERN ARCHITECTURE SINCE 1900, THIRD EDITION, (1982): 22.
- ⁴ NEIL LEACH, DIGITAL TECTONICS, (2004): 4.
- ⁵ FRIEDMAN, THOMAS L., "IT'S A FLAT WORLD, AFTER ALL," THE NEW YORK TIMES (APRIL 3, 2005).
- ⁶ MIKE COOK, "DIGITAL TECTONICS: HISTORICAL PERSPECTIVE - FUTURE PROSPECT," DIGITAL TECTONICS (2004): 45.
- ⁷ JULIE JU-YOUN KIM, "[INVESTIGATIONS IN] ELECTROORGANICLANDSCAPES," DICHOTOMY 15, GROUND, (2004): 80.
- ⁸ BRANKO KOLAREVIC, ARCHITECTURE IN THE DIGITAL AGE: DESIGN AND MANUFACTURING, (2003): 4.
- ⁹ MERRILL ELAM, "ANTICIPATION + MEMORY: GENDER SPACE IDEOLOGIES," DICHOTOMY 15, GROUND, (2004): 97.
- ¹⁰ WILLIAM J. R. CURTIS, 22.
- ¹¹ DAVID PYE, 4.
- ¹² MALCOLM MCCULLOUGH, ABSTRACTED CRAFT: THE PRACTICED DIGITAL HAND, (1996): 21.
- ¹³ MALCOLM MCCULLOUGH, 22.
- ¹⁴ DAVID PYE, 2.
- ¹⁵ DAVID PYE, 2.
- ¹⁶ STEPHEN KIERAN AND JAMES TIMBERLAKE, REFABRICATING ARCHITECTURE: HOW MANUFACTURING METHODOLOGIES ARE POISED TO TRANSFORM BUILDING CONSTRUCTION, (2004): 15.
- ¹⁷ NORMAN TYLER, HISTORIC PRESERVATION: AN INTRODUCTORY TO HISTORY, GUIDELINES, AND ISSUES, (2000): 15.
- ¹⁸ NEIL LEACH, DIGITAL TECTONICS, (2004): 5.
- ¹⁹ JULIE JU-YOUN KIM, 73.
- ²⁰ ANNETTE LECUYER, RADICAL TECTONICS, (2001): 4-5.
- ²¹ JERZY STANISZKAS, ORGANIC URBAN STRUCTURE, (1979).
- ²² ELIZABETH DILLER, "BLUR," ANYTHING, (2003): 133.

PRECEDENT ANALYSIS

3



PRECEDENT STUDY. BLUR BUILDING

ARCHITECT: ELISABETH DILLER + RICARDO SCOFIDIO, NY
 CLIENT: TEAM EXTASIA (ECSTASY)
 LOCATION: LAKE NEUCHATEL IN YVERDON-LES-BAINS,
 SWITZERLAND
 DATE: MAY - OCTOBER 2002
 SIZE: 300 FT W X 200 FT D X 65 FT H + 400 FT L RAMP

TALK: JULY 1998
 CONCEIVED: MID-DECEMBER 1998
 BORN: AUGUST 2001
 ADULTHOOD: MAY 31, 2002
 DEATH: OCTOBER 20, 2002

THE BLUR BUILDING EMPHASIZED THE "MAKING OF NOTHING." ALTHOUGH, THE PROJECT WAS FAR FROM NOTHING, HAVING AN ELABORATE FOG SYSTEM AND STEEL STRUCTURE TO HOVER THE BUILDING AND RAMP ABOVE WATER. IT SERVED AS A LESS-THAN-FIVE-MONTH EXHIBITION OF MEDIA, ARCHITECTURE, AND TECHNOLOGY. ALTHOUGH THE PRODUCT OF THE DESIGN AND THE INTENT OF THE DESIGN DIFFERED, MAINLY IN THE ABANDONMENT OF THE "WATER HOLE" RESTAURANT AND THE TYPE OF MEDIA SPECTACLE, THE EXHIBITION WAS NONETHELESS SUCCESSFUL.

BECAUSE OF THE SCENIC WATERFRONT SETTING, THE TEAM DECIDED THAT LANDSCAPE AND MEDIA ARCHITECTURE WOULD BE A FOCUS TO "DISSOLVE DISTINCTIONS BETWEEN MEDIA AND ARTIFICE." BUILDINGS WERE REQUIRED FOR THE PROGRAM; AND THE TEAM WANTED SPECIAL CARE GIVEN TO THE REED GRASS, AN ENVIRONMENTALLY PROTECTED COMPONENT OF THE LAKE ECOLOGY. THE GROUND CONDITIONS DID NOT ALLOW FOR PILES, SO THE TEAM DESIGNED AROUND THE IDEA OF FLOATING PLATFORMS. THEY CHOSE WATER AND AIR AS THE PRIMARY BUILDING MATERIALS BECAUSE OF THE CONNECTION WITH NATURE AND THE LIGHTNESS OF THE STRUCTURE ON WATER ITSELF.

THE END RESULT WAS A STRUCTURE THAT PUMPED LAKE WATER INTO NOZZLES SPRAYING A DENSE MIST - FOG. THE WATER DROPLETS, ALMOST ATOMIZED, COULD REMAIN SUSPENDED IN THE AIR FOR SOME TIME. A BUILT IN WEATHER STATION COMPARED THE MIST TO THE TEMPERATURE, WIND SPEED, WIND DIRECTION, AND HUMIDITY; AND A COMPUTER ADJUSTED THE NOZZLES ACCORDINGLY TO KEEP THE FOG PRESENT AND VISIBLE IN ALL CONDITIONS. VISITORS COULD STAND IN THE OPEN-AIR PAVILION, OF SORTS, ON DIFFERENT LEVELS, AND EVEN VISIT THE WATER BAR TO PURCHASE BOTTLED WATER FROM DIFFERENT PLACES OF THE WORLD.

THE PROJECT SERVES OF IMPORTANCE TO ME IN THE DEVELOPMENT OF MY THESIS. MAINLY, THE MOST SIGNIFICANT PART IS THE BASIC NOTION OF BLUR, TAKEN TO A HIGH LEVEL OF EXECUTION. THE SKIN OF THE BUILDING, ITS CONNECTION TO THE GROUND AND THE SKY, AND THE INTERPERSONAL SPACE WITHIN COULD ALL BE OBSCURED AND CLOUDED. THE EDGE CONDITION OF THE PLATFORM ITSELF WAS DELINEATED WITH UNDULATING LINES AND A GLASS RAILING.



ADDITIONALLY, THEY HAD NON-PARALLEL SURFACES. THE BOUNDARY OF THE SPACE SEEMED TO FADE AWAY.

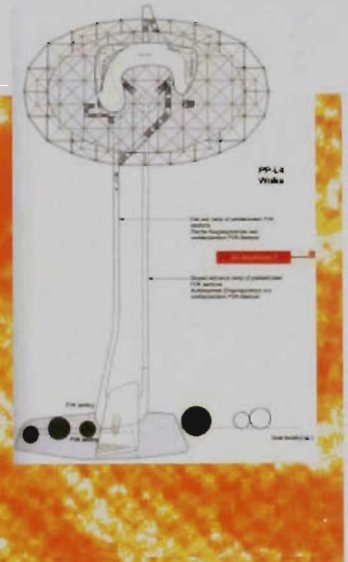
THE EDGE CONDITIONS CREATED BY THE WALLS OF THE RESTAURANT WERE NOT SO APPARENT. AN AQUARIUM SERVED AS THE SKIN SEPARATING THE SPACE FROM THE LAKE. THE CEILING PLANE WAS OPEN TO THE AIR, SO AS TO REALLY FEEL LIKE ONE IS SITTING IN THE MIDDLE OF THE LAKE, SOME 400 FEET FROM SHORE.

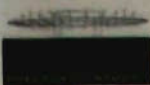
THE CIRCULATION OF THE BUILDING WAS VERY THREE-DIMENSIONAL. VISITORS ENTERED AND EXITED THROUGH A LONG RAMP. THEY THEN PROCEEDED UP THE STAIRS ONTO THE MAIN LEVEL, WHERE THEY COULD WANDER ABOUT AIMLESSLY IN THE FOG. THE FINAL ASCENT OF THEIR VISIT TOOK THEM UP TO THE SKY DECK WITH A TOPOGRAPHICAL FLOOR, WHERE THEY COULD AGAIN WANDER. THEY THEN WENT ALL THE WAY DOWN TO THE EXIT TUNNEL AND RETURNED TO SHORE. IT HAD A SET ROUTE, BUT THE ROUTE WAS UNIQUE FOR EACH GUEST. IN A SENSE, EVEN THE CIRCULATION WAS BLURRED, CERTAINLY DELINEATED.

I THINK THAT THE UNDOULATING PLANES AND EDGES WERE A GOOD START TO THE DELINEATED CIRCULATION. I WAS, HOWEVER, DISAPPOINTED WITH THE USE OF THE STAIRWELLS. I KNOW THEY NEEDED TO BE THERE FOR EGRESS, BUT THEY DID NOT NEED TO BE PART OF THE EXHIBIT. THE STAIR IS A RIGID STRUCTURE TO A SERIES OF BLURRY IDEAS. THE UNDOULATING PLANE OF THE SKY DECK SIGNALS TO ME THAT THE TEAM WAS ALMOST THERE, NEEDING TO TAKE IT ONLY A LITTLE FURTHER.

STRONGLY, THOUGH, THE SKIN WAS SUCCESSFUL. IT DID NOT ONLY OBSCURE ITS EDGE WITH THE SKY; IT ALSO CHANGED DEPENDENT ON WEATHER CONDITIONS. THE COMPUTER TECHNOLOGY ALLOWED THE FOG TO STAY SUSPENDED, BUT IT DID NOT KEEP IT STATIC.

BLUR'S AMBIGUITY IS INTRIGUING TO MY THESIS. I ALREADY MENTIONED THE PATH, ENCLOSURE, AND STATE, WHICH ARE ALL GREAT EXAMPLES. HOWEVER, THE AMBIGUITY OF ITS FEASIBILITY IS EXCITING. THE ADVANCED IDEA REQUIRED EXTENSIVE TESTING AND INVESTIGATIONS, CONSULTATION AND COLLABORATION WITH PROFESSIONALS ON THE TEAM, A SEARCH FOR FUNDING, ETC. ALL THE TIME AND EFFORTS WERE A GAMBLE, NOT TRULY KNOWING IF THE EXHIBIT WAS PHYSICALLY POSSIBLE. ADVANCED TECHNOLOGY WAS DEVELOPED THROUGH INNOVATION OF ITS CREATORS. THE DOCUMENTATION OF THE PROJECT DISPLAYS HOW HANDCRAFT, INDUSTRIAL, AND DIGITAL MEDIAS HAD AN ENORMOUS PART IN THE DESIGN AND MAKING.





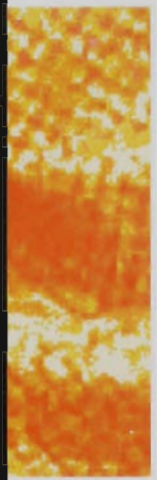
ERIG HORNIK

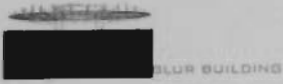
IDENTIFYING EDGES

TENSION

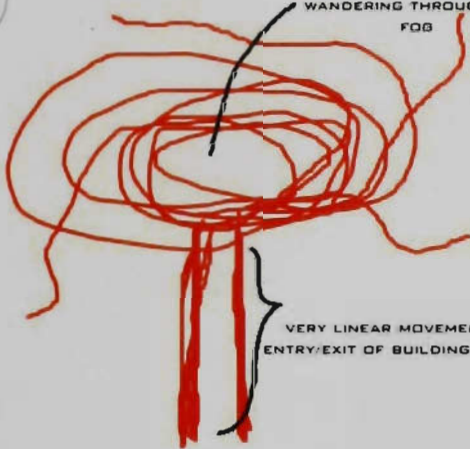
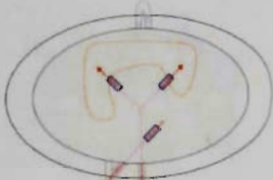
BLUR BUILDING

EDGE CONDITIONS





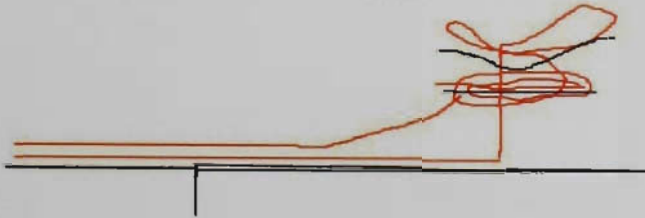
DYNAMIC CIRCULATION, MOVEMENT THROUGH SPACE



VERY DELINEATED MOVEMENT,
WANDERING THROUGH THE
FOG

VERY LINEAR MOVEMENT FOR
ENTRY/EXIT OF BUILDING TO LAND

THE MOVEMENT WITHIN THE BUILDING, NEGLECTING
THE RAMP, IS DELINEAL NOT ONLY IN PLAN, BUT IN
SECTION TOO



PRECEDENT STUDY. LINE FRUSTRATION

ARCHITECT: JASON YOUNG
 CLIENT: COMMUNITY PRODUCTION CENTER
 SITE: DETROIT EMPOWERMENT ZONE
 LIFE: 1994 - PRESENT



LINE FRUSTRATION IS A CONCEPTUAL PROJECT THAT FUSES ARCHITECTURAL IDEAS INTO A POLITICAL AND ECONOMICAL CIRCUMSTANCE. THE EMPOWERMENT ZONE, MAPPED OUT BY THE FEDERAL GOVERNMENT, IS AN AREA OF DETROIT WHERE THE POVERTY LEVEL IS SO LOW, UNDER THE NATIONAL AVERAGE. FOR INSTANCE, THE AVERAGE ANNUAL HOUSEHOLD INCOME IN THIS AREA IS \$9,870. THE GOVERNMENT, AFTER EXTENSIVE STATISTICAL STUDIES, DREW THE LINE OF THE ZONE USING EXISTING STREETS. JASON YOUNG DECIDED TO EXPLORE THE ARCHITECTURAL POSSIBILITIES OF THIS GIVEN EDGE CONDITION. HIS PROJECT LIES IN THE IDEA OF THE "DELINEATION OF THE WORST FROM THE 'JUST AS BAD.'" NOW IF ONE SIDE OF THE STREET RECEIVES FEDERAL TAX CUTS AND AID FOR DEVELOPMENT WHILE THE OTHER SIDE GETS NOTHING, AND BOTH APPEAR TO BE IN THE SAME BAD CONDITION, WON'T THIS LINE DRAWN ON THE MAP START TO BECOME EVIDENT?

I THINK JASON YOUNG PLAYED WITH THAT IDEA AND THE TENSION AND FRUSTRATION THAT EXISTS WHEN ONE STRADDLES THE EDGE. HE DID A SERIES OF LINE DRAWINGS ON A MAP OVER SPECIFIC AREAS OF THE BOUNDARY OF THIS ZONE; AND THEN MADE THREE-DIMENSIONAL MODELS. ONE IN PARTICULAR IS FOR A 'PRODUCTIVITY CENTER,' WHICH I HAVE CHOSEN FOR ANALYSIS.

JASON YOUNG'S INVESTIGATION OF THE INTANGIBLE (OR SOON TO BE VISIBLE) LINE IS OF INTEREST TO ME. HE ABSTRACTED THE LINE ON A MAP BECAUSE IT IS APPARENT HE WANTED THIS TO BE MORE THAN A LINE. THE MOVEMENT WITHIN AND OVER THE LINE IS THEREFORE VERY DE-INEATED IN THREE DIMENSIONS. IT APPEARS THAT THE MOVEMENT IS NOT EASY BECAUSE OF THE POLITICAL AND SOCIAL TENSIONS THAT EXIST. IT IS A "RAT MAZE" OF SORTS.

SPACES OVERLAP IN SECTION OR TURN INTO EACH OTHER IN PLAN, YET THEY ARE VERY RIGID. THIS DE-INEATION IS VERY APPARENT IN PLAN TOO. THE SECTION SHOWS INTERCONNECTED SPACES. THE EMPHASIS PLACED ON UNEASY NAVIGABILITY WITHIN THE PRODUCTIVITY CENTER IS STRONG, AND MAY SERVE AS PURPOSEFUL TO ME AS WHAT NOT TO DO IN ARCHITECTURAL SPACES IF I WANT A SOFT EDGE. IT, HOWEVER, MAY SERVE AS MEANINGFUL IF I WANT TO STRESS THE LINE AND EXPLOIT IT.

THE "ENTRANCES" TO THIS SPACE APPEAR TO BE OPEN IN NUMEROUS PLACES OF THE ZONE. WHAT MIGHT THE EFFECT BE IF THESE OPENING SEEMED TO FLOW ONTO THE ZONE? THEN, FROM THE OTHER DIRECTION, ONE WITHIN A ZONE COULD FLOW TO THE EDGE AND BE CONFRONTED WITH A BARRIER OR TURMOIL UNEXPECTEDLY. I THINK THAT MAY HAVE BEEN MORE EXCITING TO NOT SEE SUCH MOUNTAINOUS TERRAIN LYING AHEAD.

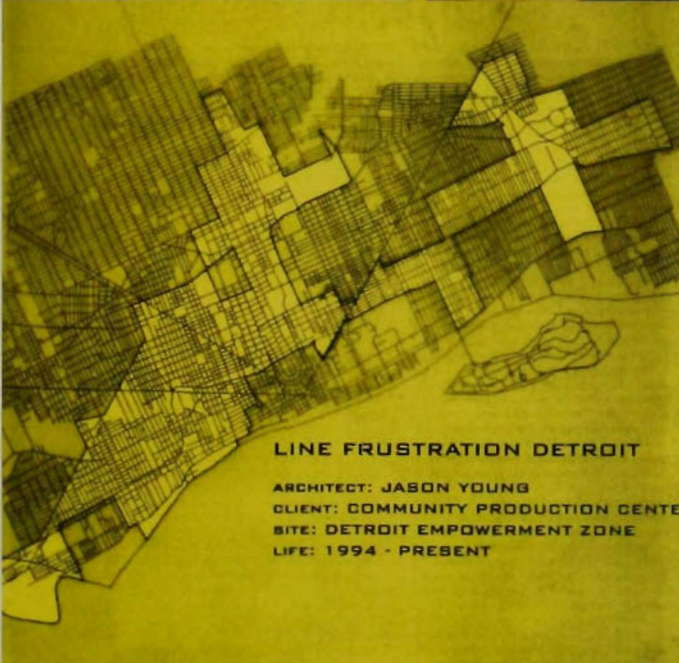
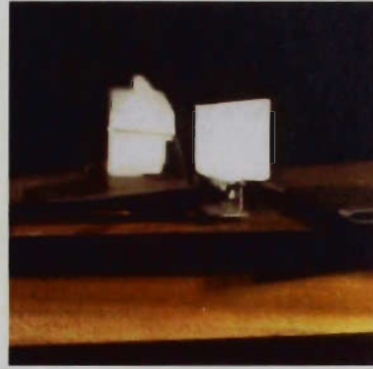


ERIC HORNIK

IDEALHEAT | EDGES

TENSION

PRECEDENT STUDY: LINE FRUSTRATION DETROIT



LINE FRUSTRATION DETROIT

ARCHITECT: JASON YOUNG
CLIENT: COMMUNITY PRODUCTION CENTER
SITE: DETROIT EMPOWERMENT ZONE
LIFE: 1994 - PRESENT





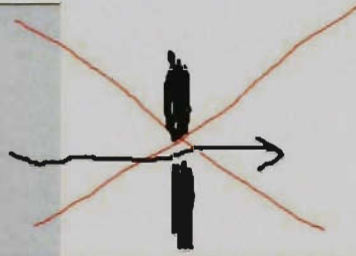
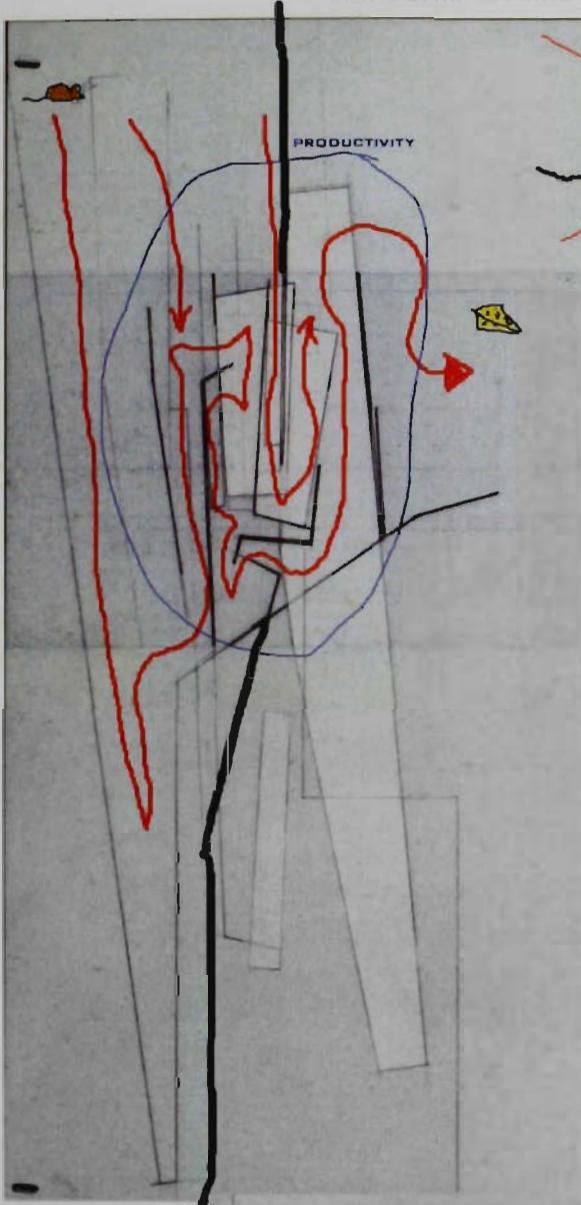
ERIC HORNIG

DELINEATE | EDGES

+ TENSION

PRECEDENT STUDY: LINE FRUSTRATION DETROIT

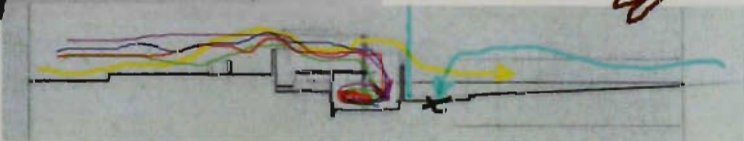
FRUSTRATING CIRCUMSTANCE



TRAVEL + MOVEMENT DELINEATED



MOVEMENT IS WELCOMED ONLY IN ONE DIRECTION, REJECTED IN THE OTHER. HOWEVER, THE PROCESS OF CROSSING THE BOUNDARY IS NOT SO EASY





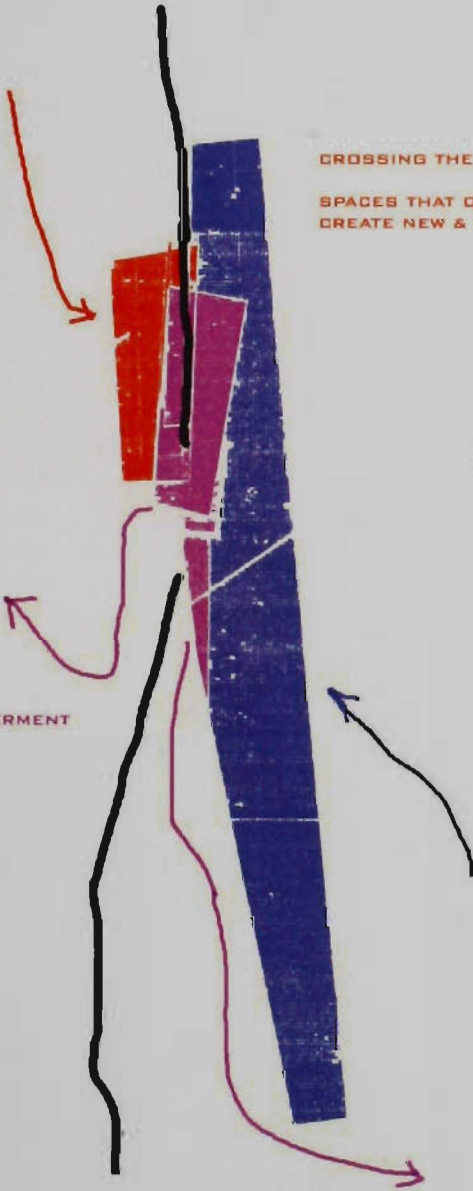
ERIC HORNIK

IDEALTYPE | EDGES

• TENSION

PRECEDENT STUDY: LINE FRUSTRATION DETROIT

COMMINGLE + RELATIONSHIP



CROSSING THE LINE...

SPACES THAT OVERLAP AT THE EDGE CAN
CREATE NEW & EXCITING EXPERIENCES



EMPOWERMENT

PROGRAM PRECEDENT STUDY. FABRICA

BUILDING: 'FABRICA', UNITED COLORS OF BENNETON
RESEARCH CENTRE

LOCATION: TREVISO, ITALY

ARCHITECT: TADAO ANDO

DESIGN: 1992-95

CONSTRUCTION: 1993-96

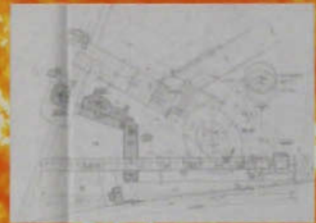
STRUCTURE: REINFORCED CONCRETE

PROGRAM: INTERNATIONAL STUDENT RESEARCH CENTER
FOR ARCHITECTURAL DESIGN,
PHOTOGRAPHY, GRAPHIC ART, IMAGE
MEDIA, AND TEXTILES



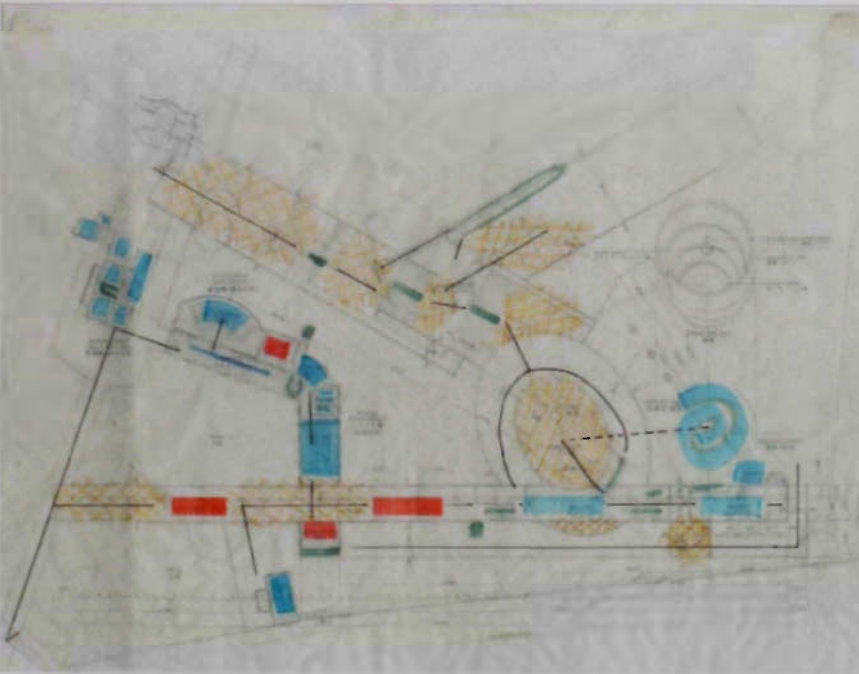
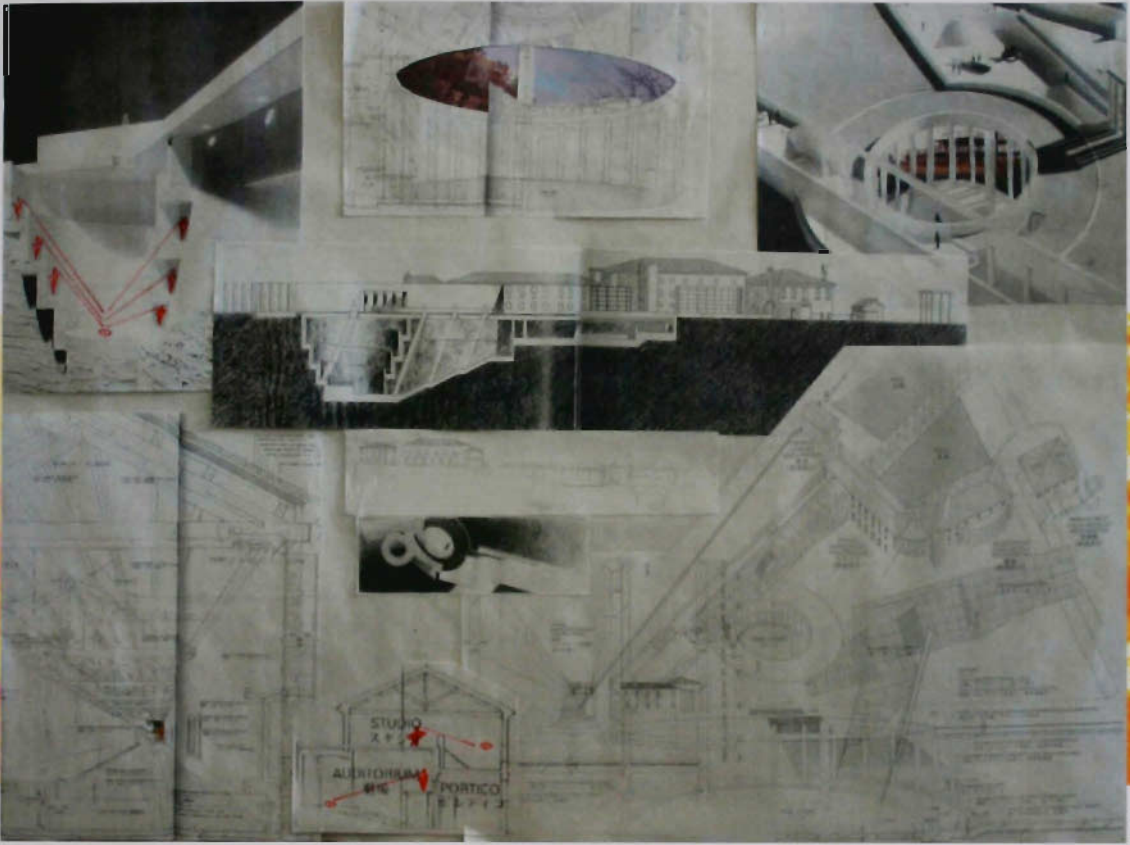
THE SITE FOCUSES ON THE IDEA OF ENGAGING OLD DIALOGUE WITH NEW SPIRIT TO PRODUCE A DYNAMIC CREATIVITY. THE FACILITY UTILIZES A 17TH CENTURY PALLADIAN VILLA. PROGRAMMATICALLY, ALL ROOMS OPEN TO AND FIND INTERCONNECTION TO THE PLENTIFULLY LARGE PLAZAS ON SITE. ONE OF THE COLONNADES PENETRATES THE OLD VILLA. ADDITIONALLY, TWO WIDE, SHALLOW POOLS OFFER REFLECTION OF THE OLD COMBINED WITH THE NEW TO CREATE A NEW LANDSCAPE. THE BUILDINGS (11,000 M² FLOOR AREA) ARE DISPERSED THROUGHOUT THE SITE (51,000 M²).

THE RELATIONSHIPS ARE HARMONIOUS, WHILE THE EXPERIENCE IS TRANSCENDENTAL OF TIME. THE CENTER INTERMIXES DIFFERENT CULTURAL BACKGROUNDS. THEREFORE, THE PROGRAM IS COLLAGED, THE BUILDINGS ARE COLLAGED, AND THE INHABITANTS ARE COLLAGED. EACH ITEM FITS WELL INTO THE CONTEXT, MAKING A DYNAMIC FACILITY.



PROGRAM ELEMENTS:

- ENTRANCE STAGE
- RECEPTION AREA
- LOBBY
- GALLERY
- STUDIO
- +
- LIBRARY
- ARCHIVE
- ENTRANCE AREA (OUTDOORS)
- COURTYARDS
- +
- STUDIO
- TOILETS
- LOUNGE
- PORTICO
- AUDITORIUM
- +
- OFFICES / MANAGEMENT FACILITIES
- +
- CHURCH
- +
- RESTAURANT



PROGRAM PRECEDENT STUDY. IIT STUDENT CENTER

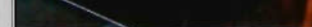
BUILDING: MCCORMICK TRIBUNE CAMPUS CENTER
ARCHITECT: REM KOOLHAAS (OMA)
CLIENT: ILLINOIS INSTITUTE OF TECHNOLOGY
SITE: IIT CAMPUS, CHICAGO, ILLINOIS
DESIGN: AWARDED IN 1998 FROM AN INT'L COMPETITION
DATE: COMPLETED IN 2003
STRUCTURE: STEEL COLUMNS ON MIESIAN GRID
PROGRAM: STUDENT UNION AND FACULTY BUILDING
 FOR DINING HALLS, CONFERENCE CENTER,
 RECREATION, COMPUTER LAB, SCHOOL
 BOOKSTORE, OFFICES, WELCOME CENTER,
 COFFEE SHOP, AND POSTAL / COPY CENTER

THE STUDENT CENTER AT IIT IS AN AMAZINGLY INNOVATIVE BUILDING. IT HOUSES ALL THE COMPONENTS OF A TYPICAL STUDENT UNION, BUT IN A DYNAMIC AND UNCONVENTIONAL WAY.

THE DESIGN TEAM DEvised A WAY FOR THE ELEVATED TRAIN LINE TO GO OVER THE BUILDING WITH THE STRUCTURE TOUCHING. IT IS POSSIBLE WITH A SOUND / VIBRATION INSULATOR MADE OF CONCRETE AND STEEL. WHEN INSIDE, NOT A PEEP IS HEARD FROM THE TRAIN PASSING.

COLOR AND GRAPHICS ADD TO THE ENVIRONMENT, WHICH IS FULL OF CREATIVE STUDENTS. CIRCULATION CROSSES AND OVERLAPS. VIEWS TO OTHER AREAS OF THE BUILDING AND THE EXTERIOR COURTYARDS ARE VISIBLE FROM MOST OF THE SPACES. THE BUILDING ITSELF IS VERY ENGAGING TO THE GROUND; AND THE FUNCTIONS ARE MULTI-LEVELLED WITH CREATIVE STAIRWAYS, LIKE THE RAMP / STAIR PICTURED. THE COMPUTER LAB IS SEPARATED BY A CHANGE IN FLOOR PLANE FROM ONE OF THE ENTRY SPACES. THE CAMPUS ITSELF IS VERY INDUSTRIAL IN APPEARANCE, HAVING BEEN DESIGNED BY MIES VAN DER ROHE. THE EXISTING STRUCTURES APPEAR RUSTY AND REALLY SHOW THEIR AGE. HOWEVER, THIS BUILDING FITS VERY NICELY IN ITS CONTEXT, UTILIZING BOTH INDUSTRIAL MATERIALS AND SOFTER OR NEWER INNOVATIONS, SUCH AS WOOD AND LENTICULAR PANELS. THE PATHS INSIDE THE BUILDING ARE DERIVED FROM THE STUDENT-CREATED PATHS EVIDENT ON THE GROUND BEFORE THE BUILDING'S CONSTRUCTION. VIEWS ARE THEN FRAMED BACK TO THE EXISTING CAMPUS.

THE CONSTRUCTION IS EXPRESSED ON THE EXTERIOR AND INTERIOR. THE GYPSUM BOARD ON THE CEILING IS LEFT UNPAINTED, TO SHOW ITS MUDDIED SEAMS. ADDITIONALLY, THE STEEL SHEATHING FROM THE TRAIN TUBE IS VISIBLE INSIDE THE BUILDING, WHERE IT MILDLY PIERCES THE ROOF. OVERALL, THOUGH, THE BUILDING IS USEFUL TO ME IN ITS FORM, METHOD OF CONSTRUCTION/ ASSEMBLY, AND SPATIAL PLANNING, AND INDUSTRIAL CONTEXT. IT REALLY TAKES HANDCRAFT, INDUSTRIAL, AND DIGITAL DESIGN/ MAKING TO ANOTHER LEVEL. THESE DIFFERENT MEDIA ARE VISIBLE IN THE PROCESSES UTILIZED BY THE ARCHITECTS, ENGINEERS, AND CONSTRUCTION CREW.



DIGITAL
 INDUSTRIAL
 HANDCRAFT
 MEDIA
 MAKING

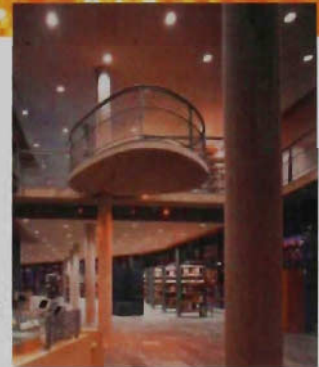
TECTONIC PRECEDENT STUDY. ALMELO LIBRARY

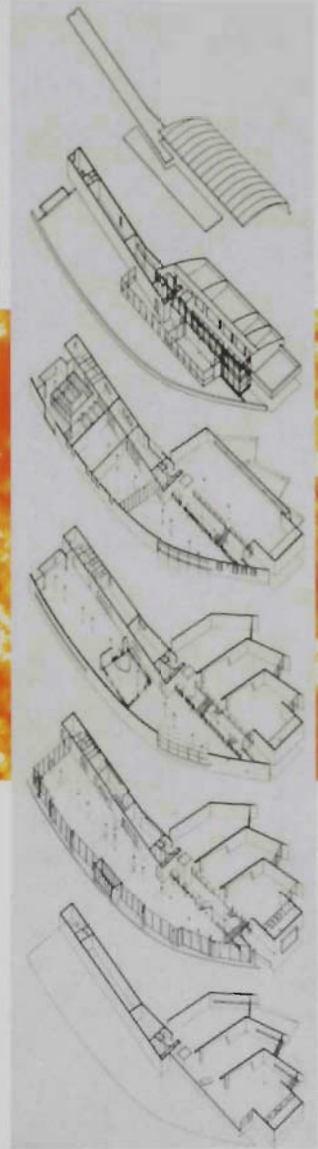
BUILDING: ALMELO PUBLIC LIBRARY
 ARCHITECT: MECANOO
 CLIENT: ALMELO
 SITE: ALMELO, THE NETHERLANDS
 DESIGN: 1991
 DATE: 1994
 STRUCTURE: CONCRETE COLUMNS AND BEARING WALLS

THE ALMELO PUBLIC LIBRARY DEMONSTRATES ARCHITECTURAL TECTONICS WITH A VARYING PALETTE OF MATERIALS AND STRUCTURE / ASSEMBLY. THE BUILDING HOUSES COMMUNICATIONS AND ENTERTAINMENT SPACES WITH A LIBRARY, INFORMATION CENTER, AND READING CAFE. THE VARIANCE IN MATERIALS DEMONSTRATES THE MULTIFUNCTIONAL CHARACTER OF THE BUILDING.

ON THE STREET FACADE, STRUCTURAL CONCRETE WALLS STAGGER PERPENDICULAR TO GLASS CURTAIN WALLS TO CREATE AN OPEN AREA. THE ABOVE FLOORS CURVE BEYOND THE GROUND PLAN, AND ARE CLAD IN COPPER. A BLACK INDUSTRIAL BRICK PENETRATES THE BUILDING IN THE MIDDLE. IT HOUSES THE EGRESS STAIRS. AT THE REAR, CONCRETE BEARING FINNS EXTEND BEYOND THE BUILDING. THEIR MASS IS NOT TO BE TAKEN TOO LITERAL, THOUGH, BECAUSE THEY ARE ELEVATED OFF THE GROUND 11.8 INCHES, AND ARE SUPPORTED BY SLENDER STEEL POSTS. THERE ARE MANY DIFFERENT FORMS, SOME LIGHT, SOME HEAVY, ALL WORKING TOGETHER. THEIR PUNCTURES RANGE FROM TINY PORTHOLES TO LARGE CURTAIN WALLS.

THE IDEA OF THE WALLS EXTENDING BEYOND THE BUILDING IS CONCEPT OF INTEREST TO ME. THEY FORM EXTERIOR SPACES, WHICH I COULD UTILIZE IN CREATING THE EXTERNAL WORK AND CLASSROOM AREAS. ADDITIONALLY, THE MASSIVE CONCRETE IS CONTRASTED BY THE GLASS, AND CLAD CANTILEVERED FLOORS. THE BUILDING ADDRESSES A RADIUS CORNER, FULL CORNER, AND BACK PARKING AREA. THE MULTITUDE OF FACADES AND VIEWS OUTWARD IS SUCCESSFUL FOR THE SITE. BECAUSE I, TOO, AM DEALING WITH THE STREET FACADE AND THE RIVER FACADE ON MY SITE, NOTIONS OF THIS SORT COULD BE EXPLORED FURTHER IN MY THESIS INVESTIGATION.





TECTONIC PRECEDENT STUDY. STROUDSBURG

BUILDING: EAST STROUDSBURG UNIVERSITY CENTER
 ARCHITECT: KIERANTIMBERLAKE
 CLIENT: EAST STROUDSBURG UNIVERSITY
 SITE:
 DESIGN:
 DATE: 1993
 STRUCTURE: ADDITION, GRANITE PANELS ON CMU BACKUP

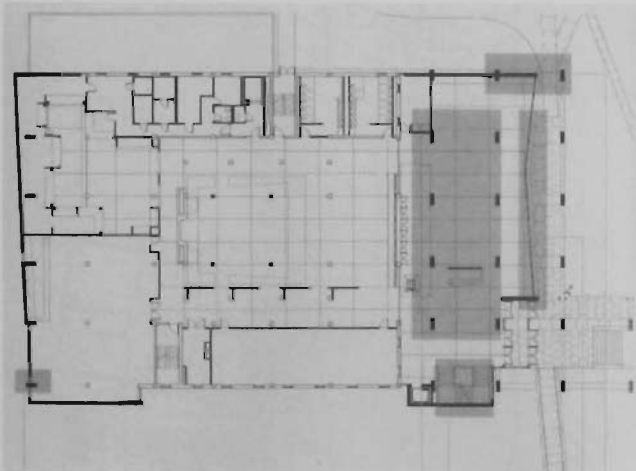


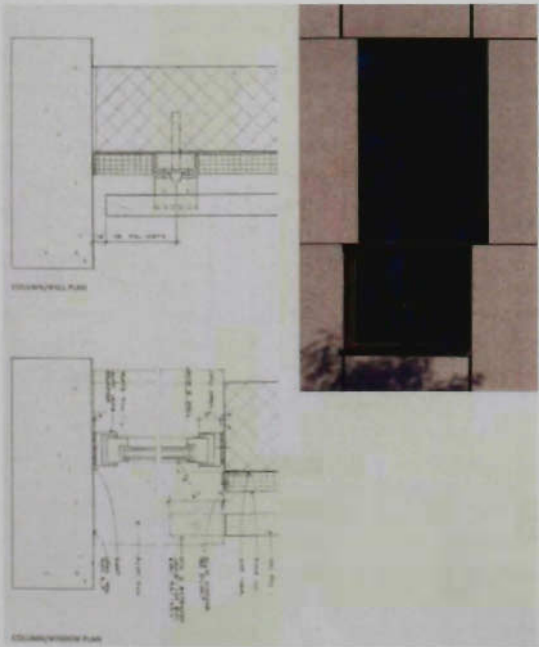
THE ADDITION ON THE STUDENT CENTER AT EAST STROUDSBURG UNIVERSITY HAS EXTREMELY EXCEPTIONAL TECTONIC DETAILS. KIERANTIMBERLAKE IS A FIRM THAT BELIEVES IN USING MATERIALS AND THE PROCESS OF MAKING TO THE FULLEST INNOVATIVE POTENTIAL. THE FIRM USES THE TERM "SLIPPING" AS THE THEME FOR THIS PROJECT. THE FIRM ADDED TO THE NORTH AND SOUTH ELEVATIONS, BRIDGING THE GAP BETWEEN THE ACADEMIC AND RESIDENTIAL AREAS OF CAMPUS. THE PRE-EXISTING STEEL FRAME WITH INTERIOR CONCRETE WALLS AND BRICK EXTERIOR WAS LEFT EXPOSED IN PLACES.

THE LAYERS OF THE WALL ARE APPARENT. A CMU BACKUP WALL WAS COVERED IN RIGID INSULATION AND THEN WRAPPED WITH A MOISTURE BARRIER. THEN, GRANITE PANELS WERE HUNG ON THE EXTERIOR, PROTECTING THE INSULATION AND MOISTURE BARRIER. THE CLADDING SYSTEM UTILIZES THE RAINDSCREEN PRINCIPLE.

THE CONCRETE COLUMNS ARE ALLOWED TO PENETRATE THE EXTERIOR. AS THE GRANITE TURNS THE CORNER, THE EXPOSED STONE EDGES ALTERNATE BY ROW, SO AS NOT TO BIAS EITHER FACADE. AS A RESULT, THE PANELS SLIP PAST EACH OTHER AND MISALIGN AT WINDOWS. THUS, THE PANELS OVERLAP THE WINDOWS, AND ULTIMATELY PROTECT THE JOINT BETWEEN WINDOW AND BACK-UP WALL. THE PANELS AND THEIR JOINTS ARE VISIBLE FROM INSIDE THE BUILDING WHEN LOOKING OUT A WINDOW.

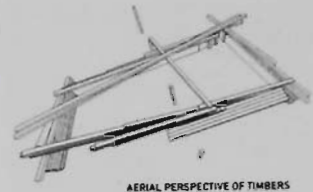
THE BUILDING'S UPPER FLOORS SLIP BEYOND THE GROUND FLOOR, CANTILEVERING OUTWARD. ADDITIONALLY, THE MAIN LEVEL CURTAIN WALL FORM ACTS INDEPENDENT OF THE MASS ABOVE IT.





TECTONIC PRECEDENT STUDY. COGNITO

BUILDING: EXECUTIVE OFFICE AREA IN COGNITO FILMS
 ARCHITECT: RANDALL STOUT ARCHITECTS
 CLIENT: COGNITO FILMS
 SITE: CULVER CITY, CALIFORNIA
 DESIGN:
 DATE: 2002
 STRUCTURE: TIMBER COLUMNS AND FRAMING



AERIAL PERSPECTIVE OF TIMBERS



THE EXECUTIVE OFFICE AREA'S INTERIOR WALL STRUCTURE IS INDEPENDENT OF THE TIMBER FRAMING OF THE BUILDING'S FORMER WAREHOUSE USAGE. THE SPACE, ALREADY RICH IN CHARACTER, WAS TO BE UNIQUE FOR CLIENTS COMING TO THE STUDIO FOR ADVERTISING COMMERCIALS. THE CONFERENCE ROOM, MEDIA ROOM, AND EDITING BAYS' SPACES ARE INDICATED BY LARGE STACKED TIMBERS. THEY VARY IN LENGTH, GIVING THEM THE APPEARANCE THAT THEY ARE SLIPPING PAST EACH OTHER. THEIR MASS INDICATES THE LOAD-BEARING TECTONIC CHARACTER AND FUNCTION. THE STACKS ALSO FORM THE RAMP THAT LOFTS INTO THE STAFF LOUNGE ABOVE THE CONFERENCE AREA. THUS, THEY GUIDE FORM, GUIDE, AND ALTER THE SPACE. THEY ARE TIED TO EACH OTHER WITH 3/4-INCH STEEL BOLTS THROUGH STEEL ANGLES, SPLICE PLATES, AND SADDLES. THE STACKS ARE HELD IN PLACE WITH 3-INCH STEEL PIPE DRILLED SEVEN FEET ON CENTER, AND THEN GLUED ALONG THE ENTIRE LENGTH OF THE SEAM. THEY ARE OF COURSE LEFT UNFINISHED, GIVING A WONDERFUL TEXTURE TO SEE AND TOUCH.



THE TIMBERS, ALTHOUGH COARSE AND SCARRED, STILL OFFER WARMTH TO THE OPEN WAREHOUSE-LIKE SPACE. THEIR MASS IS A GOOD CONTRAST TO THE MUCH LIGHTER STEEL RAILINGS AND SMALLER-MEMBER TIMBER ROOF TRUSSES. THOUGH THESE ARE NEW FROM A LOCAL LA STOCKYARD, THEY COULD HAVE BEEN RECYCLED, WHICH WOULD BE TRULY FASCINATING. I AM DRAWN TO THE IDEA OF RE-USING A STRUCTURAL MATERIAL IN A WAY THAT IS VERY DIFFERENT FROM ITS ORIGINAL INTENT, YET STILL BEING STRUCTURAL.

HARDWOOD TIMBERS WERE TYPICALLY USED IN BUILDINGS THAT SERVED AS PLACES OF MAKING PRIOR TO THE INDUSTRIAL REVOLUTION. MY THESIS CENTERS AROUND THE IDEA OF MAKING IN A WAY THAT LEAVES TRACES OF THE HAND. ADDITIONALLY, THE CITY OF DETROIT HAS NUMEROUS PRE-INDUSTRIAL BUILDINGS WITH TIMBER FRAMING, SOME OF WHICH MIGHT BE SLATED FOR DEMOLITION. NEEDLESS TO SAY, THERE IS MUCH POTENTIAL FOR USING RECYCLED TIMBERS IN MY THESIS BUILDING, WHICH INCORPORATES HANDCRAFT AND INDUSTRIAL MEDIAS.

THE TIMBERS' "LOOSE" ORIENTATION, BEING DIFFERENT SIZES AND APPEARING TO SLIDE PAST ONE ANOTHER, IS ALSO AN IDEAL CONDITION IN MY THESIS INVESTIGATION. THE INDEFINITE EDGE CREATED BY MISALIGNED ROWS ADDS TO THE AMBIGUITY OF THE SPACE, AND CAN BE APPLIED TO MY BUILDING DESIGN AT THE THRESHOLDS OF DIFFERENT SPACES. ADDITIONALLY, AS A WALL, THE STACKED MEMBERS CREATE A THICK EDGE / THRESHOLD WHEN SEEN





4

PROGRAM



PROGRAM STATEMENT

PROJECT IDENTIFICATION

THE PROGRAM I AM INVESTIGATING IS FOCUSED ON THE ACT OF MAKING. MY INVESTIGATION SEEKS TO UNCOVER SUCH A POSSIBILITY THAT UNITES FABRICATION WITH DESIGN, AN EMBODYING PROCESS FOR THE MAKER.

THE ARTIFACT I PROPOSE IS AN EDUCATIONAL AND WORKSHOP FACILITY FOR HANDCRAFT, INDUSTRIAL, AND DIGITAL MEDIAS. INDIVIDUALLY, THESE SEPARATE AND DISTINCT FORMS OF MEDIA EXIST, BUT AN AMBIGUOUS TENSION EXISTS BETWEEN THEM. THEIR JUXTAPOSITION MUST BE BLURRED, SO THAT THE FUTURE OF CRAFT INVOLVES THE HAND, THE MACHINE, AND TECHNOLOGY. MACHINES, TECHNIQUES, AND TECHNOLOGY EVOLVE EACH DAY; BUT IF ONE WERE TO SPECIALIZE IN ONLY ONE OR TWO OF THE THREE MEDIAS, HIS ABILITIES WILL NOT EXHIBIT A WORKMANSHIP FOR TODAY'S NEEDS.

ARTICULATION OF INTENT

MAKING MEDIA: HANDCRAFT + INDUSTRIAL + DIGITAL SEEKS SEVERAL GOALS OF INTERVENTION THROUGH CROSS-CULTURAL AND MULTIDISCIPLINARY INVESTIGATIONS. I INTEND TO UNCOVER LAYERS OF RESIDUE THAT DISPLAY THE CITY'S HISTORICAL SIGNIFICANCE AS A PLACE OF MAKING AND PIONEER IN INDUSTRY. HERE, THE ARCHAEOLOGY OF SITE IS OF PARTICULAR RELEVANCE. THE PROGRAM WILL REFLECT ON THE IDEA OF LANDSCAPE AS PALIMPSEST. THE BUILT / URBAN AND THE NATURAL LANDSCAPES ARE IMPORTANT TO THE BUILDING PROGRAM.

THE BUILDING WILL CREATE OR AMPLIFY MOVEMENT ON SITE HORIZONTALLY AND VERTICALLY, OVER AND WITHIN THE "LINE" OF MEDIA DIVISION. THE INFLICTED TENSIONS BETWEEN MEDIAS AND ARTIFACTS MUST BE IN RECIPROCITY WITH EACH OTHER, MADE INDETERMINATE, AND OVERLAPPED OR EMBEDDED. THE CRITICALITY OF SEAMS WILL BE MADE A PHYSICAL EXPERIENCE- PRECISE AND CONFRONTATIONAL, OR ABSTRACT- BLURRED AND INVITATIONAL.

QUANTITATIVE SUMMARY: EDUCATIONAL CENTER + CRAFT FACILITY

A- DIGITAL CRAFTS [±40 PEOPLE]

A1-COMPUTER LAB [20 PEOPLE @ 24 SF/PERSON] PHOTOGRAPHY, IMAGING, VIDEO EDIT, MUSIC / SOUND EDIT	480 SF
A2-COMPUTER LAB [20 PEOPLE @ 24 SF/PERSON] CAD & OTHER MODELING SOFTWARE	480 SF
A3-PRINT CENTER	80 SF
A4-COPY CENTER	80 SF
A5-STORAGE	60 SF
A6-TOILETS [M(120sf)+F(120sf)]	240 SF
A7-FACULTY OFFICES [4 @ 100sf]	400 SF
 SUB-TOTAL	 1,820 SF
CIRCULATION / STRUCTURE @ 20%	364 SF
TOTAL	2,184 SF

B- HAND / INDUSTRIAL CRAFTS [±34 PEOPLE]

B1-WOODSHOP + WORKSPACE	8,000 SF
B2-METAL SHOP + WORKSPACE	8,000 SF
B3-INTEGRATED TECHNOLOGIES WORKSHOP	3,000 SF
B4-MATERIALS TESTING LABORATORY	1,000 SF
B5-PAINT BOOTH [2 @ 160sf]	320 SF
B6-WELD BOOTH [3 @ 160]	480 SF
B7-SANDBLASTING BOOTH	160 SF
B8-STORAGE	200 SF
B9-INDIVIDUAL STUDIO [4 @ 150sf]	600 SF
B10-CLASS STUDIO [2 x 6 PEOPLE @ 80 SF/PERSON]	960 SF
B11-EQUIPMENT WASHROOM	60 SF
B12-TOOLS RENTAL	200 SF
B13-MACHINERY RENTAL	400 SF
B14-STORAGE LOCKERS	500 SF
B13-FACULTY OFFICE [4 @ 100sf]	400 SF
B14-LOCKER ROOMS + TOILETS [M(1500sf)+F(1500sf)]	3,000 SF
 SUB-TOTAL	 27,280 SF
CIRCULATION / STRUCTURE @ 20%	5,456 SF
TOTAL	32,736 SF

C- ADMINISTRATION (±9 PEOPLE)

C1-TECHNICAL SUPPORT OFFICE (2 PEOPLE @ 100 SF)	200 SF
C2-TECHNICAL STORAGE	100 SF
C3-SECURITY OFFICE	120 SF
C4-PRESIDENT OFFICE	200 SF
C5-SECRETARY OFFICE	100 SF
C6-GENERAL OFFICE (4 PEOPLE @ 60 SF)	200 SF
C7-CONFERENCE ROOM	200 SF
C8-FILE ROOM	100 SF
C9-STORAGE	100 SF
C10-KITCHENETTE	60 SF
C11-TOILET	35 SF
SUB-TOTAL	1,415 SF
CIRCULATION / STRUCTURE @ 20%	283 SF
TOTAL	1,698 SF

D- CLASSROOMS / EDUCATION (±40 PEOPLE)

D1-COMPUTER LAB CLASSROOM (2 @ 300 SF/10 STUDENTS)	600 SF
D3-LECTURE ROOM (2 @ 300 SF/10 STUDENTS)	600 SF
D4-CRITIQUE SPACE	400 SF
D5-CONFERENCE ROOM	200 SF
D6-LIBRARY + RESEARCH + READING AREA	3,000 SF
D7-TOILETS (M(120SF)+F(120SF))	240 SF
SUB-TOTAL	5,040 SF
CIRCULATION / STRUCTURE @ 20%	1,008 SF
TOTAL	6,048 SF

E- GENERAL SPACES

E1-ENTRY VESTIBULE	600 SF
E2-TOILETS (M(120SF)+F(120SF))	240 SF
E3-BREAK ROOM / LOUNGE	1000 SF
E4-GALLERY	1,500 SF
E5-GALLERY RECEPTION AREA	500 SF
E6-BASIC SUPPLIES STORE	3,000 SF
E7-SCHOOL STORE STORAGE	100 SF
E8-SCHOOL STORE OFFICE	100 SF
E9-LAUNDROMAT	200 SF
SUB-TOTAL	7,240 SF
CIRCULATION / STRUCTURE @ 20%	1,448 SF
TOTAL	8,688 SF

F- FACILITY OPERATIONS [±2 PEOPLE]

F1-NETWORK / TELEPHONE / ELECTRICAL ROOM	80 SF
F2-MECHANICAL	1,200 SF
F3-TRASH ROOM	60 SF
F4-RECEIVING	150 SF
F5-JANITOR CLOSET [4 REMOTE @ 15 SF]	60 SF
F6-JANITOR SPACE	80 SF
F7-LONG TERM STORAGE	300 SF
F8-ELEVATOR CONTROL ROOM	100 SF
F9-TOILET	35 SF

SUB-TOTAL	2,065 SF
CIRCULATION / STRUCTURE @ 20%	413 SF
TOTAL	2,478 SF

G- OUTDOOR SPACES

G1-INSTALLATIONS GARDEN
G2-WORK ZONES
G3-CLASSROOM
G4-STOCK YARD + RECEIVING
G5-PARKING

TOTAL 53,832 GSF*
+ OUTDOOR SPACES

* TOTAL GROSS SQUARE FOOTAGE IS THE MINIMUM REQUIRED TO ACCOMMODATE THE PROGRAM SPACES AND CIRCULATION / STRUCTURE.

SPACE DETAIL SUMMARIES

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
DIGITAL COMPUTER LAB 20	20	2	480	960

PURPOSE/FUNCTIONS

PROVIDE PUBLIC SPACE FOR STUDENTS TO WORK WITH AND EXPLORE POSSIBILITIES IN DIGITAL MEDIA.

ACTIVITIES

STUDENTS WILL WORK INDEPENDENTLY WITH COMPUTERS AND OTHER DIGITAL MEDIA TO PRODUCE PRESENTATIONS. THE LAB WILL SERVE AS A TOOL FOR TRANSLATING IDEAS AND INVESTIGATIONS INTO VISIBLE / AUDIBLE REPRESENTATIONS. ONE LAB WILL SERVE PRIMARILY PHOTOGRAPHY, IMAGING, VIDEO EDIT, AND MUSIC / SOUND EDIT. THE OTHER LAB WILL SERVE AS A PLACE TO PRIMARILY UTILIZE 3-D MODELING SOFTWARE.

SPATIAL RELATIONSHIPS

THIS PUBLIC AREA SHOULD BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE WOODSHOP OR GALLERY. BECAUSE OF ITS NATURE, IT MAY BE ADJACENT TO CLASSROOMS, BUT NOT NECESSARILY. ITS HIGH USE AND INTEGRAL PART OF THE OVERALL PROGRAM SUGGEST THAT IT WILL BE EASILY AND QUICKLY ACCESSIBLE FROM MAIN CIRCULATION OR GENERAL SPACES. ITS FUNCTION PERMITS IT TO BE LOCATED ON A PLANE DIFFERENT FROM THE MAIN LEVEL. THE LABS DO NOT NEED ENCLOSURE, BUT PEDESTRIAN MOVEMENT THROUGH SHOULD BE KEPT TO A MINIMUM TO AVOID DISRUPTION.

SPECIAL CONSIDERATIONS

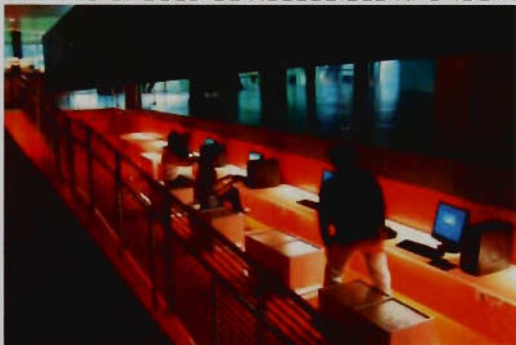
THE TECHNOLOGY WILL NEED TO BE IN A CONTROLLED TEMPERATURE ZONE IN ORDER TO FUNCTION PROPERLY. AN HVAC SYSTEM, SEPARATE FROM THE REST OF THE FACILITY, IS NECESSARY TO JOINTLY SERVICE ALL MULTIPLE COMPUTER SPACES. INDIRECT, DIFFUSED DAYLIGHT IS IDEAL FOR THE ROOM WITH TASK LIGHTING ON EACH WORKSTATION.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE 20 FIXED COMPUTER WORKSTATIONS @ 24 SF/PERSON IN EACH OF THE TWO LABS. A SMALL SPACE FOR A TABLOID LASER PRINTER AND SCANNER IS INSTRUMENTAL TO EACH LAB'S USAGE.

BEHAVIORAL CONSIDERATIONS

THE LAB SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH.



IIT STUDENT CENTER, CHICAGO

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
DIGITAL: PRINT CENTER	1+	1	80	80

PURPOSE/FUNCTIONS

PROVIDE A CHARGEABLE SERVICE FOR STUDENTS TO PRINT / ORGANIZE PRESENTATIONS.

ACTIVITIES

STUDENTS / PUBLIC WILL PLACE AN ORDER WITH A PRINT ATTENDANT, WHO WILL THEN PREPARE THE PRINTED MEDIA ON A VARIETY OF MACHINES. BINDING, COLLATING, AND OTHER SERVICES ARE OFFERED. THE SALE OF PENS, PAPER, BINDERS, AND SIMILAR OFFICE SUPPLIES MIGHT TAKE PLACE.

SPATIAL RELATIONSHIPS

THIS AREA SHOULD BE ADJACENT TO THE COPY CENTER SO THAT THE ATTENDANT MAY ASSIST / SERVICE COPYING (UNATTENDED). IT MUST BE LOCATED IN PROXIMITY TO THE TWO COMPUTER LABS. A STORAGE ROOM MUST ALSO BE ADJACENT FOR PAPER AND MATERIALS SUPPLY.

SPECIAL CONSIDERATIONS

THIS MUST BE A SECURABLE SPACE WITH A SERVICE COUNTER AND DISPLAY AREA.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE A LARGE-FORMAT COLOR PLOTTER, A TABLOID COLOR LASER PRINTER, AND A LARGE-FORMAT COLOR LASER SCANNER. ADDITIONALLY, OTHER SMALL MACHINERY IS REQUIRED.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH SINCE IT IS OPEN TO THE OUTSIDE PUBLIC.



FEDEx/KINKO'S, XAVIER COPY CENTER

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
DIGITAL: COPY CENTER	4	1	80	80

PURPOSE/FUNCTIONS

PROVIDE A CHARGEABLE SERVICE FOR STUDENTS TO COPY ITEMS.

ACTIVITIES

STUDENTS WILL WORK INDEPENDENTLY WITH COPY EQUIPMENT TO PRODUCE PRINTABLE MEDIA.

SPATIAL RELATIONSHIPS

THIS SPACE OFFERS SERVICES OPEN TO THE STUDENTS AND PUBLIC; AND IS OPERATED BY THE PRINT CENTER. IT SHOULD THEREFORE BE ADJACENT WITH ACCESS TO THE STORAGE ROOM FOR PAPER AND INK SUPPLY.

SPECIAL CONSIDERATIONS

THE EQUIPMENT WILL NEED TO BE SERVICED FROM TIME TO TIME, SO IT SHOULD NOT BE HARD TO ACCESS.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE TWO BLACK / WHITE COPIERS, ONE COLOR COPIER, AND A TRANSPARENCY MACHINE, AS WELL AS A WORK / ASSEMBLY SPACE WITH A PAPER CUTTER AND HOLE PUNCH.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH SINCE IT IS OPEN TO THE OUTSIDE PUBLIC.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
HANDCRAFT: WOODSHOP	10	1	3000	3000

PURPOSE/FUNCTIONS

PROVIDE PUBLIC SPACE FOR STUDENTS TO WORK WITH WOOD AND SIMILAR MATERIALS IN HANDCRAFT MEDIA.

ACTIVITIES

STUDENTS WILL WORK INDEPENDENTLY WITH MACHINERY AND TOOLS TO PRODUCE THREE-DIMENSIONAL MEDIA. THE LAB WILL SERVE AS A TOOL FOR TRANSLATING IDEAS AND INVESTIGATIONS INTO TANGIBLE OBJECTS.

SPATIAL RELATIONSHIPS

THIS PUBLIC AREA SHOULD BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE DIGITAL LAB OR GALLERY. BECAUSE OF ITS NATURE, IT MUST BE ADJACENT TO THE METAL SHOP AND STUDIO SPACES. ITS HIGH USE AND INTEGRAL PART OF THE OVERALL PROGRAM SUGGEST THAT IT WILL BE EASILY AND QUICKLY ACCESSIBLE FROM MAIN CIRCULATION OR GENERAL SPACES, BUT SEPARATE DUE TO SOUND. ITS FUNCTION REQUIRES IT TO BE LOCATED ON A GROUND PLANE FOR EASE OF MATERIAL / PRODUCT TRANSPORT. IT MUST BE FULLY ENCLOSED FOR SAFETY, SOUND, AND AIRBORNE MATTER. PROXIMITY TO WASHROOM, LOCKERS, PAINT BOOTHS, AND MATERIALS TESTING LABORATORY IS ADVISABLE.

SPECIAL CONSIDERATIONS

THE WOODSHOP AND OTHER SIMILAR WORKSPACES MUST HAVE A SEPARATE HVAC FROM THE REST OF THE FACILITY WITH PROPER VENTILATION. EXTRA FIRE PROTECTION IS NEEDED IN THIS AREA TOO. IT MUST HAVE DIRECT ACCESS TO THE EXTERIOR AND LOADING ZONES VIA GARAGE DOORS. NATURAL LIGHTING IS A BIG ASSET. HIGH CEILINGS AND GENEROUS PLANNING ARE INSTRUMENTAL.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE A VARIETY OF MACHINES WITH SPACE / GROUND CLEARANCES MEETING OSHA CODES. SAFETY ZONES SHOULD BE CLEARLY MARKED ON THE FLOOR. EQUIPMENT WILL INCLUDE TABLE SAWS, DRILL PRESSES, DISC AND BELT SANDERS, PLANERS, LATHES, MITER SAWS, HEATED PRESSURE PRESSES, AND A VARIETY OF HAND TOOLS. WORKTABLES AND OPEN FLOOR SPACE WILL BE PROVIDED FOR ASSEMBLY AND PRODUCTION.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH AS WELL AS AN EXTERIOR GROUND PLANE AND OTHER HANDCRAFT / INDUSTRIAL WORKSHOPS.



GRAFTON HIGH SCHOOL, WI

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
INDUSTRIAL: METAL SHOP 6		1	2000	2000

PURPOSE/FUNCTIONS

PROVIDE PUBLIC SPACE FOR STUDENTS TO WORK WITH METALS IN INDUSTRIAL MEDIA.

ACTIVITIES

STUDENTS WILL WORK INDEPENDENTLY WITH MACHINERY AND TOOLS TO PRODUCE THREE-DIMENSIONAL MEDIA. THE LAB WILL SERVE AS A TOOL FOR TRANSLATING IDEAS AND INVESTIGATIONS INTO TANGIBLE OBJECTS.

SPATIAL RELATIONSHIPS

THIS PUBLIC AREA SHOULD BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE DIGITAL LAB OR GALLERY. BECAUSE OF ITS NATURE, IT MUST BE ADJACENT TO THE WOODSHOP AND STUDIO SPACES. ITS HIGH USE AND INTEGRAL PART OF THE OVERALL PROGRAM SUGGEST THAT IT WILL BE EASILY AND QUICKLY ACCESSIBLE FROM MAIN CIRCULATION OR GENERAL SPACES, BUT SEPARATE DUE TO SOUND. ITS FUNCTION REQUIRES IT TO BE LOCATED ON A GROUND PLANE FOR EASE OF MATERIAL / PRODUCT TRANSPORT. IT MUST BE FULLY ENCLOSED FOR SAFETY, SOUND, AND AIRBORNE MATTER. PROXIMITY TO WASHROOM, LOCKERS, PAINT BOOTHS, AND MATERIALS TESTING LABORATORY IS ADVISABLE.

SPECIAL CONSIDERATIONS

THE METAL SHOP AND OTHER SIMILAR WORKSPACES MUST HAVE A SEPARATE HVAC FROM THE REST OF THE FACILITY WITH PROPER VENTILATION. EXTRA FIRE PROTECTION IS NEEDED IN THIS AREA TOO. IT MUST HAVE DIRECT ACCESS TO THE EXTERIOR AND LOADING ZONES VIA GARAGE DOORS. NATURAL LIGHTING IS A BIG ASSET. HIGH CEILINGS AND GENEROUS PLANNING ARE INSTRUMENTAL.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE A VARIETY OF MACHINES WITH SPACE / GROUND CLEARANCES MEETING OSHA CODES. SAFETY ZONES SHOULD BE CLEARLY MARKED ON THE FLOOR. EQUIPMENT WILL INCLUDE HEATED PRESSURE PRESSES, DRILL PRESSES, DISC AND BELT GRINDERS, LATHES, MITER SAWS, SOLDERING IRONS, WELD GUNS, AND A VARIETY OF HAND TOOLS. WORKTABLES AND OPEN FLOOR SPACE WILL BE PROVIDED FOR ASSEMBLY AND PRODUCTION.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH AS WELL AS AN EXTERIOR GROUND PLANE AND OTHER HANDCRAFT /INDUSTRIAL WORKSHOPS.



UDM ENGINEERING PIT, DETROIT

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
INDUSTRIAL: TECHNOLOGY 4		1	3000	3000

PURPOSE/FUNCTIONS

PROVIDE PUBLIC SPACE FOR STUDENTS TO WORK WITH A VARIETY OF MATERIAL MEDIA IN INTEGRATED TECHNOLOGIES CONTROLLED BY THE COMPUTER, WORKED BY MACHINERY.

ACTIVITIES

STUDENTS WILL WORK INDEPENDENTLY WITH COMPUTERS AND MACHINERY TO PRODUCE THREE-DIMENSIONAL MEDIA. THE LAB WILL SERVE AS A TOOL FOR TRANSLATING IDEAS AND INVESTIGATIONS INTO TANGIBLE OBJECTS.

SPATIAL RELATIONSHIPS

THIS PUBLIC AREA SHOULD BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE DIGITAL LAB OR GALLERY. BECAUSE OF ITS NATURE, IT SHOULD BE ADJACENT TO THE METAL SHOP AND WOODSHOP, BUT NOT NECESSARILY. ITS HIGH USE AND INTEGRAL PART OF THE OVERALL PROGRAM SUGGEST THAT IT WILL BE EASILY AND QUICKLY ACCESSIBLE FROM MAIN CIRCULATION OR GENERAL SPACES, BUT SEPARATE DUE TO SOUND. ITS FUNCTION REQUIRES IT TO BE LOCATED ON A GROUND PLANE FOR EASE OF MATERIAL / PRODUCT TRANSPORT. IT MUST BE FULLY ENCLOSED FOR SAFETY, SOUND, AND AIRBORNE MATTER. PROXIMITY TO WASHROOM, PAINT BOOTHS, AND MATERIALS TESTING LABORATORY IS ADVISABLE.

SPECIAL CONSIDERATIONS

THE WOODSHOP AND OTHER SIMILAR WORKSPACES MUST HAVE A SEPARATE HVAC FROM THE REST OF THE FACILITY WITH PROPER VENTILATION. EXTRA FIRE PROTECTION IS NEEDED TOO. THIS AREA MUST HAVE DIRECT ACCESS TO THE EXTERIOR AND LOADING ZONES VIA GARAGE DOORS. NATURAL LIGHTING IS A BIG ASSET. HIGH CEILINGS AND GENEROUS PLANNING ARE INSTRUMENTAL. THE SPACE SHOULD BE FLEXIBLE, AS NEW TECHNOLOGIES MAY BE INTRODUCED TO THE PROGRAM.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE A VARIETY OF MACHINES WITH SPACE / GROUND CLEARANCES MEETING OSHA CODES. SAFETY ZONES SHOULD BE CLEARLY MARKED ON THE FLOOR. EQUIPMENT WILL INCLUDE CNC-MILLING MACHINES AND OTHER EVOLVING TECHNOLOGIES. WORKTABLES AND OPEN FLOOR SPACE WILL BE PROVIDED FOR ASSEMBLY AND PRODUCTION.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH AS WELL AS AN EXTERIOR GROUND PLANE AND OTHER HANDCRAFT /INDUSTRIAL WORKSHOPS.



TWIN CITY EDM, MN

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
INDUSTRIAL: MATERIALS TESTING	4	1	1000	1000

PURPOSE/FUNCTIONS

PROVIDE PUBLIC SPACE FOR STUDENTS TO EXPERIMENT WITH WOOD, PLASTICS, AND SIMILAR MATERIALS IN HANDCRAFT OR INDUSTRIAL MEDIA.

ACTIVITIES

STUDENTS WILL WORK INDEPENDENTLY WITH MACHINERY, CHEMICALS, AND TOOLS TO PRODUCE AND/OR TEST THREE-DIMENSIONAL MEDIA. THE LAB WILL SERVE AS A TOOL FOR TRANSLATING IDEAS AND INVESTIGATIONS INTO TANGIBLE OBJECTS.

SPATIAL RELATIONSHIPS

THIS PUBLIC AREA SHOULD BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE DIGITAL LAB OR GALLERY. BECAUSE OF ITS NATURE, IT SHOULD BE ADJACENT TO THE METAL SHOP AND STUDIO SPACES. ITS HIGH USE AND INTEGRAL PART OF THE OVERALL PROGRAM SUGGEST THAT IT WILL BE EASILY AND QUICKLY ACCESSIBLE FROM MAIN CIRCULATION OR GENERAL SPACES, BUT SEPARATE DUE TO SOUND AND CHEMICALS. ITS FUNCTION REQUIRES IT TO BE LOCATED ON A GROUND PLANE FOR EASE OF MATERIAL / PRODUCT TRANSPORT. IT MUST BE FULLY ENCLOSED FOR SAFETY, SOUND, AND AIRBORNE MATTER. PROXIMITY TO WASHROOM, LOCKERS, PAINT BOOTHS, AND INTEGRATED TECHNOLOGIES IS ADVISABLE.

SPECIAL CONSIDERATIONS

THE WOODSHOP AND OTHER SIMILAR WORKSPACES MUST HAVE A SEPARATE HVAC FROM THE REST OF THE FACILITY WITH PROPER VENTILATION. EXTRA FIRE PROTECTION MUST BE CHEMICALLY CONTROLLED. IT MUST HAVE DIRECT ACCESS TO THE EXTERIOR AND LOADING ZONES VIA GARAGE DOORS. NATURAL LIGHTING IS A BIG ASSET. HIGH CEILINGS AND GENEROUS PLANNING ARE INSTRUMENTAL.

EQUIPMENT FURNISHINGS

THERE NEED TO BE A VARIETY OF MACHINES WITH SPACE / GROUND CLEARANCES MEETING OSHA CODES. SAFETY ZONES SHOULD BE CLEARLY MARKED ON THE FLOOR. EQUIPMENT WILL INCLUDE PRESSES, CHEMICAL STATIONS, AND OTHER TESTING MACHINERY. WORKTABLES AND OPEN FLOOR SPACE WILL BE PROVIDED FOR EXPERIMENTATION AND PRODUCTION.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH AS WELL AS AN EXTERIOR GROUND PLANE AND OTHER HANDCRAFT /INDUSTRIAL WORKSHOPS.



KAJIMA CORPORATION

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
INDUSTRIAL: PAINT BOOTH 1	2	2	36	72

PURPOSE/FUNCTIONS

PROVIDE PUBLIC SPACE FOR STUDENTS TO SPRAY PAINT OR POWDER-COAT WOOD AND METALS.

ACTIVITIES

STUDENTS WILL WORK INDEPENDENTLY WITH MACHINERY AND TOOLS TO FINISH THREE-DIMENSIONAL MEDIA. THE BOOTH WILL SERVE AS AN ENVIRONMENTAL TOOL FOR PROJECT COMPLETION.

SPATIAL RELATIONSHIPS

BECAUSE OF ITS NATURE, IT MUST BE ADJACENT TO THE METAL SHOP AND STUDIO SPACES. ITS FUNCTION REQUIRES IT TO BE LOCATED ON A GROUND PLANE FOR EASE OF MATERIAL / PRODUCT TRANSPORT. IT MUST BE FULLY ENCLOSED FOR SAFETY, SOUND, AND AIRBORNE MATTER. PROXIMITY TO WASHROOM, LOCKERS, AND WORKSPACES IS REQUIRED.

SPECIAL CONSIDERATIONS

EACH BOOTH MUST HAVE INDEPENDENT, DIRECT VENTILATION. IT MUST HAVE PROXIMITY TO THE EXTERIOR AND LOADING ZONES VIA GARAGE DOORS. HIGH CEILINGS AND GENEROUS PLANNING ARE INSTRUMENTAL.

EQUIPMENT FURNISHINGS

THERE NEED TO BE A VARIETY OF APPLICATOR MACHINES MEETING OSHA CODES. EQUIPMENT WILL INCLUDE SPRAYERS AND POWDER-COAT MACHINES WITH CHAIN SUSPENSION TRACKS. THE GROUND SHOULD BE KEPT CLEAR.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE FROM A CIRCULATION PATH NEAR THE WORKSHOPS AS WELL AS AN EXTERIOR GROUND PLANE.



CONSUMERS, INC. STEEL FABRICATORS

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
HANDCRAFT: GROUP STUDIO	6	1	480	480

PURPOSE/FUNCTIONS

PROVIDE PRIVATE RENTABLE SPACE FOR UP TO SIX STUDENTS TO WORK WITH WOOD AND SIMILAR MATERIALS IN HANDCRAFT MEDIA.

ACTIVITIES

STUDENTS WILL WORK INDEPENDENTLY WITH MACHINERY AND TOOLS TO PRODUCE THREE-DIMENSIONAL MEDIA. THE STUDIO WILL SERVE AS A RENTABLE WORKSPACE WHERE PROJECTS CAN ALSO BE STORED.

SPATIAL RELATIONSHIPS

THIS SEMI-PRIVATE AREA MIGHT BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE DIGITAL LAB OR GALLERY. BECAUSE OF ITS NATURE, IT MUST BE DIRECTLY CONNECTED TO THE METAL SHOP AND WOODSHOP SPACES. LIKE THE OTHER WORKSHOPS, THE STUDIO MUST BE SEPARATE AND DISTINCT FROM THE BUILDING PROGRAM FOR SOUND REASONS. ITS FUNCTION REQUIRES IT TO BE LOCATED ON A GROUND PLANE FOR EASE OF MATERIAL / PRODUCT TRANSPORT. IT MUST BE FULLY ENCLOSED FOR SAFETY, SOUND, AND AIRBORNE MATTER. PROXIMITY TO WASHROOM, LOCKERS, PAINT BOOTHS, AND MATERIALS TESTING LABORATORY IS ADVISABLE.

SPECIAL CONSIDERATIONS

THE WOODSHOP AND OTHER SIMILAR WORKSPACES MUST HAVE A SEPARATE HVAC FROM THE REST OF THE FACILITY WITH PROPER VENTILATION. EXTRA FIRE PROTECTION IS NEEDED IN THIS AREA TOO. IT MUST HAVE ADJACENT ACCESS TO THE EXTERIOR AND LOADING ZONES VIA GARAGE DOORS. NATURAL LIGHTING IS A BIG ASSET. HIGH CEILINGS AND GENEROUS PLANNING ARE INSTRUMENTAL. THE SPACE MUST BE SECURABLE WHEN NOT IN USE.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE SIX WORKTABLES AND OPEN FLOOR SPACE FOR ASSEMBLY AND PRODUCTION, WITH INDIVIDUAL LOCKERS FOR PERSONAL TOOLS AND INSTRUMENTS STORAGE.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE FROM AN EXTERIOR GROUND PLANE AND ALL HANDCRAFT / INDUSTRIAL WORKSHOPS.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
HANDCRAFT: INDIVIDUAL STUDIO	1	4	100	400

PURPOSE/FUNCTIONS

PROVIDE PRIVATE RENTABLE SPACE FOR ONE TO TWO STUDENTS TO WORK WITH WOOD AND SIMILAR MATERIALS IN HANDCRAFT MEDIA.

ACTIVITIES

STUDENTS WILL WORK INDEPENDENTLY WITH MACHINERY AND TOOLS TO PRODUCE THREE-DIMENSIONAL MEDIA. THE STUDIO WILL SERVE AS A RENTABLE WORKSPACE WHERE PROJECTS CAN ALSO BE STORED.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA MIGHT BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE DIGITAL LAB OR GALLERY. BECAUSE OF ITS NATURE, IT MUST BE DIRECTLY CONNECTED TO THE METAL SHOP AND WOODSHOP SPACES. LIKE THE OTHER WORKSHOPS, THE STUDIO MUST BE SEPARATE AND DISTINCT FROM THE BUILDING PROGRAM FOR SOUND REASONS. ITS FUNCTION REQUIRES IT TO BE LOCATED ON A GROUND PLANE FOR EASE OF MATERIAL / PRODUCT TRANSPORT. IT MUST BE FULLY ENCLOSED FOR SAFETY, SOUND, AND AIRBORNE MATTER. PROXIMITY TO WASHROOM, LOCKERS, PAINT BOOTHS, AND MATERIALS TESTING LABORATORY IS ADVISABLE.

SPECIAL CONSIDERATIONS

THE WOODSHOP AND OTHER SIMILAR WORKSPACES MUST HAVE A SEPARATE HVAC FROM THE REST OF THE FACILITY WITH PROPER VENTILATION. EXTRA FIRE PROTECTION IS NEEDED IN THIS AREA TOO. IT MUST HAVE ADJACENT ACCESS TO THE EXTERIOR AND LOADING ZONES VIA GARAGE DOORS. NATURAL LIGHTING IS A BIG ASSET. HIGH CEILINGS AND GENEROUS PLANNING ARE INSTRUMENTAL. THE SPACE MUST BE SECURABLE WHEN NOT IN USE.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE WORKTABLES AND OPEN FLOOR SPACE FOR ASSEMBLY AND PRODUCTION, WITH CABINETS FOR PERSONAL TOOLS AND INSTRUMENTS STORAGE.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE FROM AN EXTERIOR GROUND PLANE AND ALL HANDCRAFT / INDUSTRIAL WORKSHOPS.



CORNELL UNIVERSITY, ITHACA NY

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
HANDCRAFT: EQUIP. WASHROOM	1	1	60	60

PURPOSE/FUNCTIONS

PROVIDE SPACE FOR ONE TO TWO PEOPLE TO WASH AND LET DRY MACHINERY / TOOLS USED IN PAINTING AND HANDCRAFT/INDUSTRIAL MEDIAS.

ACTIVITIES

STUDENTS WILL WORK INDEPENDENTLY WITH MACHINERY AND TOOLS TO CLEAN EQUIPMENT. THE ROOM WILL ALSO SERVE AS A LOCKABLE SPACE WHERE ITEMS CAN BE STORED WHEN NOT IN USE.

SPATIAL RELATIONSHIPS

THIS STORAGE AREA SHOULD BE NEAR TO WORKSHOP AND STUDIO SPACES. ITS FUNCTION REQUIRES IT TO BE LOCATED ON A GROUND PLANE FOR EASE OF MATERIAL / PRODUCT TRANSPORT. IT MUST BE FULLY ENCLOSED FOR SECURITY AND PREVENTING THE SPREAD OF WATER. PROXIMITY TO WASHROOM, LOCKERS, PAINT BOOTHS, AND MATERIALS TESTING LABORATORY IS ADVISABLE.

SPECIAL CONSIDERATIONS

HIGH CEILINGS AND GENEROUS PLANNING ARE INSTRUMENTAL. THE SPACE MUST BE SECURABLE WHEN NOT IN USE.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE EXTRA FLOOR DRAINS AND DRYING RACKS PLUS OPEN FLOOR SPACE AND POWER WASHING EQUIPMENT.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE FROM ALL HANDCRAFT /INDUSTRIAL WORKSHOPS.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
HANDCRAFT: TOOLS/EQUIP. RENTAL	1	1	600	600

PURPOSE/FUNCTIONS

PROVIDE A CHARGEABLE SERVICE TO STUDENTS AND THE PUBLIC FOR ONE TO LEASE TOOLS AND EQUIPMENT INSTRUMENTAL TO WORKING WITH WOOD AND METAL MATERIALS.

ACTIVITIES

STUDENTS WILL VISIT THE SPACE AND REQUEST THE ITEM AT THE ATTENDED COUNTER. THE RENTAL SPACE WILL SERVE AS THE STORAGE WAREHOUSE FOR THE ITEMS AVAILABLE.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA WILL BE CLOSE TO THE METAL SHOP AND WOODSHOP SPACES. ITS FUNCTION REQUIRES IT TO BE LOCATED ON A GROUND PLANE FOR EASE OF MATERIAL / PRODUCT TRANSPORT. IT MUST BE FULLY ENCLOSED FOR SAFETY AND SECURITY.

SPECIAL CONSIDERATIONS

IT MUST HAVE ADJACENT ACCESS TO THE EXTERIOR AND LOADING ZONES VIA GARAGE DOORS. NATURAL LIGHTING IS A BIG ASSET. HIGH CEILINGS AND GENEROUS PLANNING ARE INSTRUMENTAL. THE SPACE MUST BE SECURABLE WHEN NOT IN USE.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE SHELVING UNITS AND OPEN FLOOR SPACE FOR STORAGE.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE FROM AN EXTERIOR GROUND PLANE AND ALL HANDCRAFT / INDUSTRIAL WORKSHOPS.

J
I
T
A
L
D
I
G
I
T
A
L
I
N
D
U
S
T
R
I
A
L
M
E
D
I
A
:
M
A
K
I
N
G
S
E

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
WORKSHOP: LOCKER ROOM	10	2 (M+F)	600	1200

PURPOSE/FUNCTIONS

PROVIDE PRIVATE SPACE FOR UP TO TEN STUDENTS / FACULTY TO CHANGE AND SHOWER.

ACTIVITIES

PEOPLE MIGHT USE THE SPACE BEFORE AND AFTER USING ONE OF THE WORKSHOPS.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA SHOULD BE NEAR TO ALL WORKSHOP SPACES. IT SHOULD BE ADJACENT TO STUDENT LOCKERS.

SPECIAL CONSIDERATIONS

THE INTERIOR SPACE SHOULD NOT BE VISIBLE FROM ANY PART OF THE BUILDING, BUT ITS LOCATION SHOULD BE EASILY ACCESSIBLE FROM MAIN CIRCULATION AREAS.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE BENCHES AND MINIMUM THREE SHOWERS PLUS A BATHROOM.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE FROM MAIN CIRCULATION AND ALL HANDCRAFT /INDUSTRIAL WORKSHOPS.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
FACULTY: OFFICE	1-2	8	80	640

PURPOSE/FUNCTIONS

PROVIDE PRIVATE OFFICE SPACE FOR ONE TO TWO FACULTY MEMBERS TO WORK AND/OR STORE PROJECTS.

ACTIVITIES

FACULTY WILL CONDUCT STUDENT/TEACHER MEETINGS AND WORK ON TASKS RELATED TO ONE'S JOB.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA MIGHT BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE DIGITAL LAB OR GALLERY. IT MIGHT SERVE AS A LINK BETWEEN THE CLASSROOMS AND WORKSHOPS AREAS, BUT ULTIMATELY WILL WANT SOME PRIVACY AND QUIETNESS. IT EVOKES SOME HIERARCHY SUGGESTING IT MIGHT BE OFF THE MAIN LEVEL.

SPECIAL CONSIDERATIONS

OPERABLE WINDOWS ARE MANDATORY, POSSIBLY THE RIVER OR GARDENS AS A VIEW. THE SPACE MUST BE SECURABLE WHEN NOT IN USE.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE ONE TO TWO DESKS, COMPUTERS, AND CABINETS AND OPEN FLOOR SPACE FOR PERSONAL TOOLS AND INSTRUMENTS STORAGE.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE NEAR TO CLASSROOMS AND ADMINISTRATION.



BIBLIOTEKA UNIWERSYTECKA, WARSAW

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
ADMIN: TECH SUPPORT 2	2	1	160	160

PURPOSE/FUNCTIONS

PROVIDE PRIVATE OFFICE SPACE FOR ONE TO TWO FACULTY MEMBERS TO OPERATE THE BUILDING'S TECHNOLOGY.

ACTIVITIES

TECH TEAM MEMBERS WILL EDUCATE FACULTY AND UPKEEP ALL TECHNOLOGICAL ASPECTS. THE OFFICE WILL SERVE AS A WORKSPACE FOR PROCESSING TECHNOLOGICAL REPAIRS AND IMPROVEMENTS.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA MIGHT BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE DIGITAL LAB OR GALLERY. IT SHOULD BE CLOSE TO THE DIGITAL MEDIA LABS AND ADJACENT TO THE TECHNICAL STORAGE ROOM, BUT ULTIMATELY WILL WANT SOME PRIVACY AND QUIETNESS. IT ALSO SHOULD BE HIERARCHICALLY OFF THE MAIN LEVEL.

SPECIAL CONSIDERATIONS

OPERABLE WINDOWS ARE MANDATORY, POSSIBLY THE RIVER OR GARDENS AS A VIEW. THE SPACE MUST BE SECURABLE WHEN NOT IN USE.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE TWO DESKS, COMPUTERS, AND FILING CABINETS.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE FROM ADMINISTRATION AND DIGITAL MEDIA AREAS.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
ADMIN: TECH STORAGE 2	2	1	160	160

PURPOSE/FUNCTIONS

PROVIDE PRIVATE STORAGE SPACE FOR DIGITAL EQUIPMENT AND COMPUTER TECHNOLOGY.

ACTIVITIES

TECH TEAM MEMBERS WILL UTILIZE THE ROOM AS A STORAGE AND WORKSPACE FOR PROCESSING TECHNOLOGICAL REPAIRS AND IMPROVEMENTS.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA MIGHT BE CLOSE TO THE DIGITAL MEDIA LABS AND ADJACENT TO THE TECHNICAL SUPPORT OFFICE, BUT ULTIMATELY WILL BE SECLUDED.

SPECIAL CONSIDERATIONS

THE SPACE MUST BE SECURABLE WHEN NOT IN USE.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE STORAGE RACKS AND OPEN FLOOR SPACE.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE FROM DIGITAL MEDIA AREAS AND TECHNICAL SUPPORT.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
ADMIN: SECURITY OFFICE	1	1	120	120

PURPOSE/FUNCTIONS

PROVIDE PRIVATE OFFICE SPACE FOR A SECURITY GUARD TO MONITOR THE BUILDING.

ACTIVITIES

THE GUARD WILL MONITOR THE BUILDING VIA COMPUTER AND CAMERA SYSTEMS LOCATED IN THIS SPACE.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA MIGHT BE SECLUDED FROM OTHER OFFICES, BUT IT MUST HAVE A DIRECT LINK TO ONE OF THE MAIN ENTRANCES.

SPECIAL CONSIDERATIONS

OPERABLE WINDOWS ARE MANDATORY, POSSIBLY THE RIVER OR GARDENS AS A VIEW. THE SPACE MUST BE SECURABLE WHEN NOT IN USE.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE A DESK, MULTIPLE COMPUTERS, AND MULTIPLE MONITORS TIED INTO THE BUILDING'S OPERATING SYSTEMS.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE NEAR TO THE MAIN GROUND PLANE AND AT LEAST ONE ENTRANCE.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
ADMIN: PRESIDENT OFFICE	1	1	120	120

PURPOSE/FUNCTIONS

PROVIDE PRIVATE OFFICE SPACE FOR THE PROGRAM PRESIDENT TO WORK AND/OR MEET WITH A FEW PEOPLE.

ACTIVITIES

THE PRESIDENT WILL INHABIT THE OFFICE DAILY, PERFORMING TASKS NECESSARY FOR THE OPERATIONS OF THE PROGRAM.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA MIGHT BE VISIBLE FROM THE OTHER OFFICES, BUT ULTIMATELY REQUIRES PRIVACY AND QUIETNESS. IT SHOULD BE CONNECTED TO THE SECRETARY'S OFFICE. THIS REPRESENTS THE TOP OF HIERARCHY, SUGGESTING IT WILL BE ABOVE ALL OTHER SPACES.

SPECIAL CONSIDERATIONS

OPERABLE WINDOWS ARE MANDATORY, POSSIBLY THE RIVER OR GARDENS AS A VIEW. THE SPACE MUST BE SECURABLE WHEN NOT IN USE. EXTRA COMFORT SHOULD BE CONSIDERED WHEN DESIGNING THE ROOM.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE A DESK, COMPUTER, CABINETS AND SMALL MEETING TABLE.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE WITHIN ADMINISTRATION, SEPARATE FROM ALL OTHER AREAS OF THE BUILDING.



BIBLIOTEKA UNIWERSYTECKA, WARSAW

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
ADMIN: SECRETARY OFFICE	1	1	80	80

PURPOSE/FUNCTIONS

PROVIDE PRIVATE OFFICE SPACE FOR THE SECRETARY TO ASSIST THE PRESIDENT AND STUDENTS / FACULTY.

ACTIVITIES

THE SECRETARY WILL INHABIT THE OFFICE DAILY, PERFORMING TASKS NECESSARY FOR THE OPERATIONS OF THE PROGRAM.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA MUST BE VISIBLE FROM THE MAIN SPACE, BUT ULTIMATELY REQUIRES PRIVACY AND QUIETNESS. IT WILL BE CONNECTED TO THE PRESIDENT'S OFFICE.

SPECIAL CONSIDERATIONS

OPERABLE WINDOWS ARE MANDATORY, POSSIBLY THE RIVER OR GARDENS AS A VIEW. THE SPACE MUST BE SECURABLE WHEN NOT IN USE. EXTRA COMFORT SHOULD BE CONSIDERED WHEN DESIGNING THE ROOM.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE A DESK, COMPUTER, AND SEVERAL CABINETS.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE THE ENTRANCE WITHIN ADMINISTRATION, LINKED TO THE PRESIDENT.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
ADMIN: GENERAL OFFICE	4	1	240	240

PURPOSE/FUNCTIONS

PROVIDE PRIVATE OFFICE SPACE @ 60 SF/PERSON FOR THE OFFICE ASSISTANTS TO WORK ALONGSIDE THE SECRETARY AND PRESIDENT.

ACTIVITIES

THE SUPPORT WILL INHABIT THE OFFICE DAILY, PERFORMING TASKS NECESSARY FOR THE OPERATIONS OF THE PROGRAM.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA MIGHT BE VISIBLE FROM THE MAIN SPACE, BUT ULTIMATELY REQUIRES PRIVACY AND QUIETNESS. IT WILL BE NEAR TO THE PRESIDENT'S OFFICE AND SECRETARY.

SPECIAL CONSIDERATIONS

OPERABLE WINDOWS ARE MANDATORY, POSSIBLY THE RIVER OR GARDENS AS A VIEW. THE SPACE MUST BE SECURABLE WHEN NOT IN USE. EXTRA COMFORT SHOULD BE CONSIDERED WHEN DESIGNING THE ROOM.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE 4 DESKS, COMPUTERS, AND SEVERAL CABINETS.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE LINKED TO THE SECRETARY.



ARCHITECTURAL DESIGN FIRM, PITTSBURGH

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
ADMIN: CONFERENCE ROOM	10	1	200	200

PURPOSE/FUNCTIONS

PROVIDE PRIVATE MEETING SPACE FOR THE FACULTY.

ACTIVITIES

THE SPACE WILL ALLOW PRODUCTIVE BUSINESS MEETINGS, FORMAL AND INFORMAL, TO TAKE PLACE.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA MIGHT BE VISIBLE FROM THE MAIN SPACE, BUT ULTIMATELY REQUIRES PRIVACY AND QUIETNESS. IT WILL BE NEAR TO THE ADMINISTRATION.

SPECIAL CONSIDERATIONS

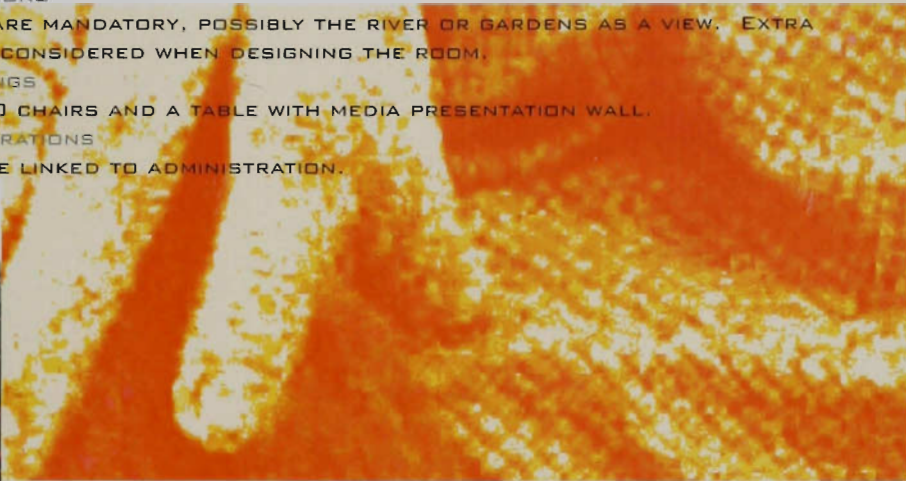
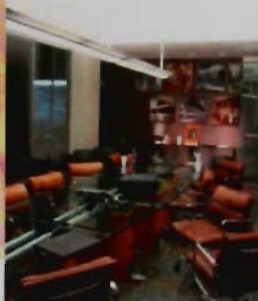
OPERABLE WINDOWS ARE MANDATORY, POSSIBLY THE RIVER OR GARDENS AS A VIEW. EXTRA COMFORT SHOULD BE CONSIDERED WHEN DESIGNING THE ROOM.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE 10 CHAIRS AND A TABLE WITH MEDIA PRESENTATION WALL.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE LINKED TO ADMINISTRATION.



ARCHITECTURAL DESIGN FIRM, PITTSBURGH

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
ADMIN: FILE STORAGE	1	1	60	60

PURPOSE/FUNCTIONS

PROVIDE PRIVATE FILE STORAGE SPACE 60 FOR THE OFFICE ASSISTANTS AND SECRETARY TO WORK ALONGSIDE THE PRESIDENT.

ACTIVITIES

THE SPACE WILL HOUSE STUDENT AND CURRICULAR FILES.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA WILL BE NEAR TO THE OFFICE ASSISTANTS AND SECRETARY.

SPECIAL CONSIDERATIONS

THE SPACE MUST BE SECURABLE WHEN NOT IN USE.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE MULTIPLE FILE CABINETS AND SOME FLAT-FILE STORAGE.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE LINKED TO ADMINISTRATION.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
ADMIN: KITCHENETTE	2	1	60	60

PURPOSE/FUNCTIONS

PROVIDE PRIVATE STORAGE AND PREP SPACE FOR FOOD AND BEVERAGES.

ACTIVITIES

THE SPACE WILL ALLOW FACULTY TO STORE AND COOK LUNCHES AND MEETING SNACKS.

SPATIAL RELATIONSHIPS

THIS PRIVATE AREA REQUIRES PRIVACY AND QUIETNESS. IT WILL BE NEAR TO THE ADMINISTRATION, ESPECIALLY THE CONFERENCE ROOM.

SPECIAL CONSIDERATIONS

OPERABLE WINDOWS ARE MANDATORY, POSSIBLY THE RIVER OR GARDENS AS A VIEW.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE A REFRIGERATOR, MICROWAVE, SMALL STOVE, AND DISHWASHER. COFFEE SERVICE WILL BE PRESENTED HERE.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE LINKED TO ADMINISTRATION.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
EDUCATION: COMPUTER CLASS	10	2	300	600

PURPOSE/FUNCTIONS

PROVIDE CLASSROOM SPACE FOR STUDENTS TO WORK WITH AND EXPLORE POSSIBILITIES IN DIGITAL MEDIA.

ACTIVITIES

STUDENTS WILL WORK UNDER THE DIRECTION OF AN INSTRUCTOR WITH COMPUTERS AND OTHER DIGITAL MEDIA TO PRODUCE PRESENTATIONS. THE LAB WILL SERVE AS A TOOL FOR TRANSLATING IDEAS AND INVESTIGATIONS INTO VISIBLE / AUDIBLE REPRESENTATIONS. ONE LAB WILL SERVE PRIMARILY PHOTOGRAPHY, IMAGING, VIDEO EDIT, AND MUSIC / SOUND EDIT. THE OTHER LAB WILL SERVE AS A PLACE TO PRIMARILY UTILIZE 3-D MODELING SOFTWARE.

SPATIAL RELATIONSHIPS

THIS DOMINANT AREA SHOULD BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE WOODSHOP OR GALLERY. BECAUSE OF ITS NATURE, IT WILL BE ADJACENT TO OTHER CLASSROOM-TYPE SPACES. ITS HIGH USE AND INTEGRAL PART OF THE OVERALL PROGRAM SUGGEST THAT IT WILL BE EASILY AND QUICKLY ACCESSIBLE FROM MAIN CIRCULATION OR GENERAL SPACES. ITS FUNCTION PERMITS IT TO BE LOCATED ON A PLANE DIFFERENT FROM THE MAIN LEVEL. THE LAB NEEDS ENCLOSURE TO AVOID AUDIBLE DISTRACTIONS.

SPECIAL CONSIDERATIONS

THE TECHNOLOGY WILL NEED TO BE IN A CONTROLLED TEMPERATURE ZONE IN ORDER TO FUNCTION PROPERLY. AN HVAC SYSTEM, SEPARATE FROM THE REST OF THE FACILITY, IS NECESSARY TO JOINTLY SERVICE ALL MULTIPLE COMPUTER SPACES. INDIRECT, DIFFUSED DAYLIGHT IS IDEAL FOR THE ROOM WITH TASK LIGHTING ON EACH WORKSTATION.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE 10 FIXED COMPUTER WORKSTATIONS @ 30 SF/PERSON IN EACH OF THE TWO LABS. A SMALL SPACE FOR A TABLOID LASER PRINTER AND SCANNER IS INSTRUMENTAL TO EACH LAB'S USAGE.

BEHAVIORAL CONSIDERATIONS

THE LAB SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
EDUCATION: LECTURE ROOM	10	2	300	600

PURPOSE/FUNCTIONS

PROVIDE CLASSROOM SPACE FOR STUDENTS TO WORK WITH AND EXPLORE POSSIBILITIES IN FABRICATION AND DESIGN.

ACTIVITIES

STUDENTS WILL LEARN UNDER THE DIRECTION OF AN INSTRUCTOR WITH MULTIMEDIA PRESENTATIONS. THE SPACE WILL SERVE AS AN EDUCATIONAL TOOL FOR TRANSLATING IDEAS AND INVESTIGATIONS INTO VISIBLE / AUDIBLE REPRESENTATIONS.

SPATIAL RELATIONSHIPS

THIS AREA SHOULD BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE WOODSHOP OR GALLERY. BECAUSE OF ITS NATURE, IT WILL BE ADJACENT TO OTHER CLASSROOM-TYPE SPACES. ITS HIGH USE AND INTEGRAL PART OF THE OVERALL PROGRAM SUGGEST THAT IT WILL BE EASILY AND QUICKLY ACCESSIBLE FROM MAIN CIRCULATION OR GENERAL SPACES. ITS FUNCTION PERMITS IT TO BE LOCATED ON A PLANE DIFFERENT FROM THE MAIN LEVEL. THE LECTURE ROOM NEEDS ENCLOSURE TO AVOID AUDIBLE DISTRACTIONS.

SPECIAL CONSIDERATIONS

THE ROOM SHOULD BE ORGANIZED IN A STADIUM-SEATING MANNER WITH PLUG-IN STATIONS AT EACH SEAT. INDIRECT, DIFFUSED DAYLIGHT IS IDEAL FOR THE ROOM WITH TASK LIGHTING ON EACH WORKSTATION.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE 10 FIXED WORKSTATIONS @ 30 SF/PERSON IN EACH OF THE TWO LABS. A MULTIMEDIA PRESENTATION WALL IS INSTRUMENTAL TO EACH ROOM'S USAGE.

BEHAVIORAL CONSIDERATIONS

THE LAB SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
EDUCATION: CRITIQUE SPACE	10	1	400	400

PURPOSE/FUNCTIONS

PROVIDE OPEN FLOOR SPACE FOR STUDENTS TO PRESENT WORK PRODUCED DURING FABRICATION AND DESIGN.

ACTIVITIES

STUDENTS WILL DISPLAY WORK AND RECEIVE FEEDBACK AS AN INTEGRAL PART OF THE EDUCATIONAL PROCESS. SMALL EXHIBITS MIGHT TAKE PLACE HERE TOO.

SPATIAL RELATIONSHIPS

THIS AREA SHOULD BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE WOODSHOP OR GALLERY. BECAUSE OF ITS NATURE, IT MIGHT BE ADJACENT TO GALLERY SPACES OR CLASSROOMS. ITS HIGH USE AND INTEGRAL PART OF THE OVERALL PROGRAM SUGGEST THAT IT WILL BE EASILY AND QUICKLY ACCESSIBLE FROM MAIN CIRCULATION OR GENERAL SPACES. ITS FUNCTION SUGGESTS IT TO BE LOCATED ON A MAIN LEVEL. THE CRITIQUE SPACE NEEDS ENCLOSURE TO AVOID AUDIBLE DISTRACTIONS.

SPECIAL CONSIDERATIONS

THE ROOM SHOULD BE AN OPEN FLOOR PLAN WITH WALL-DISPLAY SURFACES. WINDOWS / DAYLIGHT IS IDEAL FOR THE ROOM WITH TASK LIGHTING IN ADJUSTABLE FORMS.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE MOVABLE CHAIRS AND DISPLAY TABLES. A MULTIMEDIA PRESENTATION WALL IS INSTRUMENTAL TO STUDENTS' PRESENTATIONS.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA IN THE CLASSROOMS SECTION.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
EDUCATION: CONFERENCE ROOM 10	1	1	200	200

PURPOSE/FUNCTIONS

PROVIDE PRIVATE MEETING SPACE FOR THE STUDENTS / FACULTY.

ACTIVITIES

THE SPACE WILL ALLOW INFORMAL MEETINGS AND WORK SESSIONS TO TAKE PLACE.

SPATIAL RELATIONSHIPS

THIS AREA MIGHT BE VISIBLE FROM THE MAIN SPACE, BUT ULTIMATELY MUST BE NEAR CLASSROOMS. IT IS ABLE TO BE LOCATED OFF THE MAIN FLOOR, PERHAPS BELOW.

SPECIAL CONSIDERATIONS

OPERABLE WINDOWS ARE MANDATORY, POSSIBLY THE RIVER OR GARDENS AS A VIEW. EXTRA COMFORT SHOULD BE CONSIDERED WHEN DESIGNING THE ROOM.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE 10 CHAIRS AND A TABLE WITH MEDIA PRESENTATION WALL.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE LINKED TO CLASSROOM AREAS.



RENOVATED WAREHOUSE RETAIL, TORONTO

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
EDUCATION: LIBRARY	4	1	440	440

PURPOSE/FUNCTIONS

PROVIDE BOOK STORAGE SPACE FOR STUDENTS TO WORK WITH AND EXPLORE POSSIBILITIES IN VARIOUS MEDIA.

ACTIVITIES

STUDENTS WILL WORK INDEPENDENTLY WITH BOOKS TO INVESTIGATE MATERIALS AND METHODS.

SPATIAL RELATIONSHIPS

THIS DOMINANT AREA SHOULD BE VISIBLE FROM OTHER MAIN ASPECTS OF THE PROGRAM, SUCH AS THE WOODSHOP OR GALLERY. BECAUSE OF ITS NATURE, IT WILL BE ADJACENT TO OTHER CLASSROOM-TYPE SPACES. ITS HIGH USE AND INTEGRAL PART OF THE OVERALL PROGRAM SUGGEST THAT IT WILL BE EASILY AND QUICKLY ACCESSIBLE FROM MAIN CIRCULATION OR GENERAL SPACES. ITS FUNCTION PERMITS IT TO BE LOCATED ON A PLANE DIFFERENT FROM THE MAIN LEVEL. THE LIBRARY NEEDS ENCLOSURE TO AVOID AUDIBLE DISTRACTIONS.

SPECIAL CONSIDERATIONS

THE ROOM IS REQUIRED TO BE MOISTURE-FREE AND OUT OF DIRECT SUNLIGHT FOR MAXIMUM BOOK PROTECTION. VIEWS TO THE EXTERIOR ARE DESIRABLE.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE NUMEROUS SHELVES AND A FEW TABLES TO WORK AT. A COMPUTER WILL BE AVAILABLE FOR CATALOGING.

BEHAVIORAL CONSIDERATIONS

THE LAB SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH.



BIBLIOTEKA UNIERSITECKA, WARSAW

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
GENERAL ENTRY / VESTIBULE	1-20	1	200+	200+

PURPOSE / FUNCTIONS

PROVIDE ACCESSIBLE ENTRY SPACE FOR ALL VISITORS. IT SHOULD ENCOURAGE THE EXPLORATION OF POSSIBILITIES IN FABRICATION AND DESIGN.

ACTIVITIES

THIS THRESHOLD WILL TRANSITION ALL OCCUPANTS FROM INTERIOR TO EXTERIOR, PREPARING THEM FOR THE EDUCATIONAL OR WORKSHOP EXPERIENCE. IT WILL ALSO SERVE AS A BREAKAWAY POINT FOR VARIOUS PROGRAM ELEMENTS.

SPATIAL RELATIONSHIPS

THIS AREA SHOULD BE HIGHLY VISIBLE INTERNALLY AND EXTERNALLY FROM ALL MAIN ASPECTS OF THE PROGRAM, SUCH AS THE WOODSHOP OR GALLERY. BECAUSE OF ITS NATURE, IT MIGHT BE THE IN-BETWEEN SPACE TRANSITIONING ONE FROM DIFFERENT PROGRAM SPACES. ITS HIGH TRAFFIC TRANSLATES TO ITS IMPORTANCE TO THE OVERALL PROGRAM; AND MEANS THAT IT WILL BE EASILY AND QUICKLY ACCESSIBLE FROM MAIN CIRCULATION OR GENERAL SPACES. ITS FUNCTION PERMITS IT TO BE LOCATED ON A GROUND PLANE AT THE MAIN LEVEL. THE SPACE WILL LIKELY BE FILLED WITH ACTIVITY AND HUSTLE & BUSTLE.

SPECIAL CONSIDERATIONS

THE ROOM SHOULD BE ORGANIZED IN AN OPEN FLOOR PLAN. THIS MIGHT BE THE PERFECT PLACE TO FRAME VIEWS OF THE ADJACENT INDUSTRIAL FACTORIES AND RIVERFRONT. DRAMATIC DAYLIGHT IS IDEAL FOR THE AREA.

EQUIPMENT/FURNISHINGS

BENCHES AND DISPLAYS MIGHT BE INSTALLED WITHIN THE AREA.

BEHAVIORAL CONSIDERATIONS

THE ENTRY AREA WILL BE EXTREMELY ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH.



SCHOOL OF MANAGEMENT, CASE WESTERN, CLEVELAND

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
GENERAL: BREAK ROOM/LOUNGE	6	1	200	200

PURPOSE/FUNCTIONS

PROVIDE PUBLIC SPACE FOR WORK OR RELAXATION FOR THE STUDENTS / FACULTY.

ACTIVITIES

THE SPACE WILL ALLOW INDIVIDUAL WORK SESSIONS TO TAKE PLACE AND SOCIAL EXPERIENCES.

SPATIAL RELATIONSHIPS

THIS AREA SHOULD BE VISIBLE FROM THE MAIN SPACE, IF NOT CONNECTED TO THE ENTRY AREA.

IT CAN BE LOCATED OFF THE MAIN FLOOR, PERHAPS BELOW.

SPECIAL CONSIDERATIONS

DAYLIGHT / WINDOWS ARE MANDATORY, POSSIBLY THE RIVER OR GARDENS AS A VIEW. EXTRA COMFORT AND DURABILITY / FLEXIBILITY SHOULD BE CONSIDERED WHEN DESIGNING THE ROOM.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE MIN. 6 COMFORTABLE CHAIRS AND 2 TABLES. VENDING MACHINES MIGHT BE LOCATED OFF OF THIS SPACE.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE LINKED TO MAIN CIRCULATION AREAS AND NEAR RESTROOM FACILITIES.



IIT STUDENT CENTER, CHICAGO

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
GENERAL: GALLERY	30	1	1000	1000

PURPOSE/FUNCTIONS

PROVIDE PUBLIC SPACE FOR THE DISPLAY / EXHIBITION OF STUDENT WORK.

ACTIVITIES

THE SPACE WILL ALLOW PUBLIC GATHERINGS AND SOCIAL EXPERIENCES CELEBRATING THE PRODUCTS OF FABRICATION AND DESIGN.

SPATIAL RELATIONSHIPS

THIS AREA SHOULD BE VISIBLE FROM THE MAIN SPACE, IF NOT CONNECTED TO THE ENTRY AREA.

IT SHOULD BE LOCATED ON THE MAIN FLOOR, FOR EASE OF MATERIAL / PRODUCT TRANSPORT.

IT MUST BE ADJACENT TO THE RECEPTION AREA AND A STORAGE SPACE. IT SHOULD BE LINKED

SOMEHOW TO THE EXTERIOR INSTALLATIONS GARDEN.

SPECIAL CONSIDERATIONS

DAYLIGHT / WINDOWS ARE MANDATORY, WITH THE GARDENS AS A VIEW. FLEXIBILITY SHOULD BE CONSIDERED WHEN DESIGNING THE ROOM SO THAT IT MAY ACCOMMODATE ALL TYPES OF DISPLAYS.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE A VARIETY OF MOVEABLE WALL-DISPLAY PARTITIONS AND DISPLAY TABLES.

TASK LIGHTING SHOULD BE USED TO CREATE DRAMATIC EFFECTS ON THE OBJECTS ON DISPLAY

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE LINKED TO MAIN CIRCULATION AREAS AND OUTDOOR SPACES, AND NEAR RESTROOM FACILITIES.

DIGITAL + INDUSTRIAL + MODULAR + COORDINATE + MEDIA + ORGANIZATION

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
GENERAL: GALLERY RECEPTION	30	1	400	400

PURPOSE/FUNCTIONS

PROVIDE PUBLIC SPACE FOR THE DISPLAY / EXHIBITION OF STUDENT WORK.

ACTIVITIES

THE SPACE WILL ALLOW PUBLIC GATHERINGS AND SOCIAL EXPERIENCES CELEBRATING THE PRODUCTS OF FABRICATION AND DESIGN.

SPATIAL RELATIONSHIPS

THIS AREA SHOULD BE VISIBLE FROM THE MAIN SPACE, IF NOT CONNECTED TO THE ENTRY AREA. IT MUST BE LINKED TO THE GALLERY. IT SHOULD BE LINKED SOMEHOW TO THE EXTERIOR INSTALLATIONS GARDEN TOO.

SPECIAL CONSIDERATIONS

DAYLIGHT / WINDOWS ARE MANDATORY, WITH THE GARDENS AS A VIEW. FLEXIBILITY SHOULD BE CONSIDERED WHEN DESIGNING THE ROOM SO THAT IT MAY ACCOMMODATE ALL TYPES OF DISPLAYS.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE A VARIETY OF MOVEABLE WALL-DISPLAY PARTITIONS AND DISPLAY TABLES. TASK LIGHTING SHOULD BE USED TO CREATE DRAMATIC EFFECTS ON THE OBJECTS ON DISPLAY

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE LINKED TO MAIN CIRCULATION AREAS AND OUTDOOR SPACES, AND VERY NEAR TO RESTROOM FACILITIES.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
GENERAL: SCHOOL STORE	6	1	600	600

PURPOSE/FUNCTIONS

PROVIDE A CHARGEABLE CONVENIENCE SERVICE FOR STUDENTS.

ACTIVITIES

STUDENTS / PUBLIC CAN PURCHASE BASIC ART SUPPLIES / TOOLS AND SNACKS OR GET PRODUCT KNOWLEDGE.

SPATIAL RELATIONSHIPS

THIS AREA SHOULD BE ADJACENT TO THE PRINT / COPY CENTER SO THAT SIMILAR FUNCTIONS ARE GROUPED. IT MUST BE LOCATED IN PROXIMITY TO THE ENTRANCE. A STORAGE ROOM MUST ALSO BE ADJACENT FOR MATERIALS SUPPLY.

SPECIAL CONSIDERATIONS

THIS MUST BE A SECURABLE SPACE WITH A SERVICE COUNTER AND DISPLAY AREAS.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE SHELVING / DISPLAY UNITS AND A SERVICE COUNTER.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE AND IDENTIFIABLE FROM A MAIN AREA OR CIRCULATION PATH SINCE IT IS OPEN TO THE OUTSIDE PUBLIC.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
GENERAL: STORE STORAGE	1	1	60	60

PURPOSE/FUNCTIONS

PROVIDE PRIVATE STORAGE SPACE FOR THE SCHOOL STORE.

ACTIVITIES

STORE PERSONNEL CAN UTILIZE SPACE FOR THE STORAGE AND UNPACKING OF ART SUPPLIES / TOOLS AND SNACKS.

SPATIAL RELATIONSHIPS

THIS AREA SHOULD BE LINKED TO THE STORE.

SPECIAL CONSIDERATIONS

THIS MUST BE A SECURABLE SPACE.

EQUIPMENT/FURNISHINGS

THERE NEED TO BE SHELVING / DISPLAY UNITS.

BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE ACCESSIBLE FROM DELIVERY POINTS ON THE EXTERIOR.

SPACE NAME	CAPACITY	NO. UNITS	NSF/UNIT	TOTAL NET AREA
OUTDOOR: GARDEN	30+	1	1000+	1000+

PURPOSE/FUNCTIONS

PROVIDE PUBLIC SPACE FOR THE DISPLAY / EXHIBITION OF STUDENT WORK AND INSTALLATIONS.

ACTIVITIES

THE SPACE WILL ALLOW PUBLIC GATHERINGS AND SOCIAL EXPERIENCES CELEBRATING THE PRODUCTS OF FABRICATION AND DESIGN.

SPATIAL RELATIONSHIPS

THIS AREA SHOULD BE CONNECTED TO THE GALLERY, AND ADJACENT TO THE RECEPTION AREA. IT SHOULD BE LINKED SOMEHOW TO MAIN PROGRAM ELEMENTS.

SPECIAL CONSIDERATIONS

THE GARDENS MIGHT CAPTURE A VIEW OF THE RIVER OR EXISTING INDUSTRY. FLEXIBILITY SHOULD BE CONSIDERED WHEN DESIGNING THE SPACE SO THAT IT MAY ACCOMMODATE ALL TYPES OF DISPLAYS.

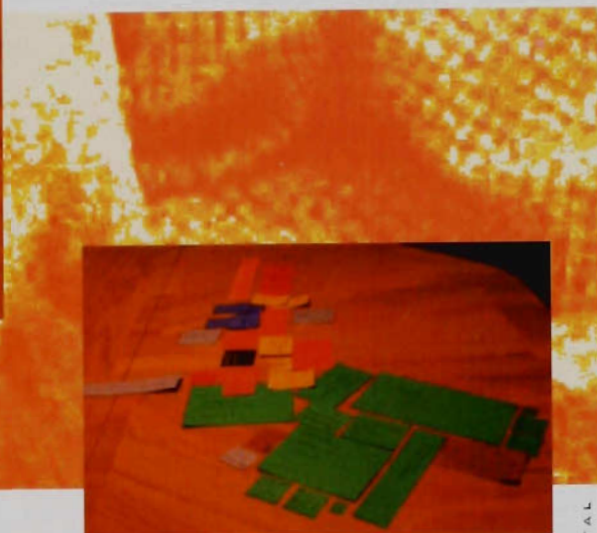
EQUIPMENT/FURNISHINGS

THERE NEED TO BE OUTDOOR SEATING, PLANTINGS, AND LANDSCAPE ELEMENTS.

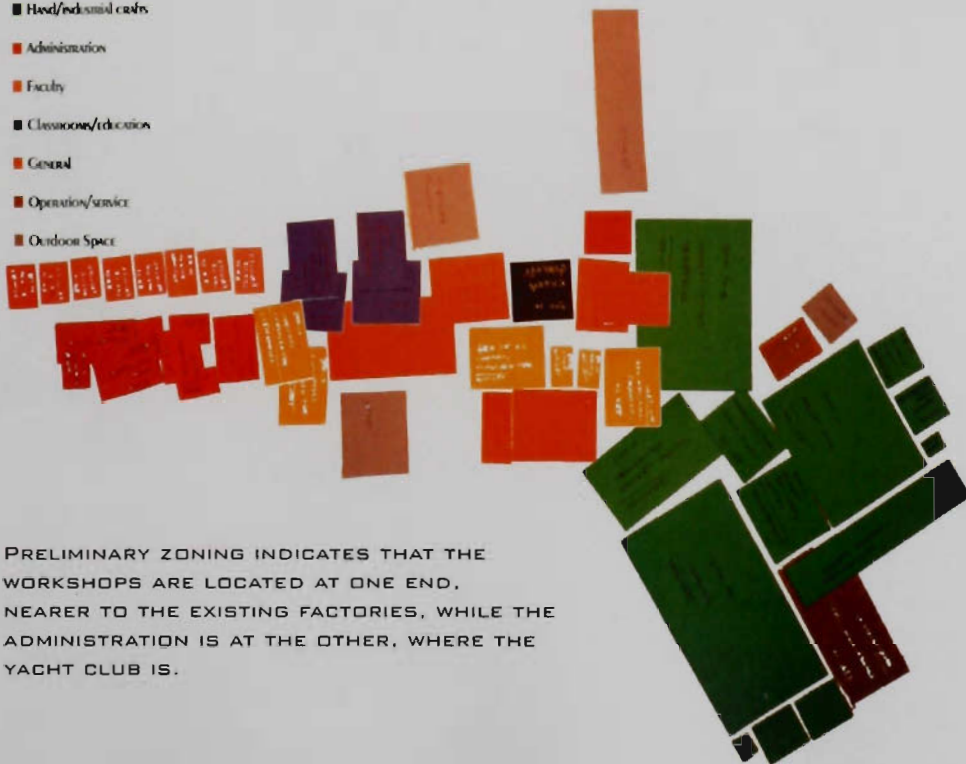
BEHAVIORAL CONSIDERATIONS

THE SPACE SHOULD BE LINKED TO MAIN CIRCULATION AREAS AND THE INDOOR GALLERY, AND NEAR RESTROOM FACILITIES.

AXONOMETRIC SPATIAL DIAGRAMS



- Digital
- Hand/industrial crafts
- Administration
- Faculty
- Classroom/education
- General
- Operation/service
- Outdoor Space



PRELIMINARY ZONING INDICATES THAT THE WORKSHOPS ARE LOCATED AT ONE END, NEARER TO THE EXISTING FACTORIES, WHILE THE ADMINISTRATION IS AT THE OTHER, WHERE THE YACHT CLUB IS.

5

SITE ANALYSIS



SITE FACTORS

THE SITE I HAVE SELECTED IS IN DETROIT ALONG THE RIVER. ACROSS FROM BELLE ISLE'S EASTERN TIP IS A BOAT LAUNCH, OPERATED BY THE DNR. THE SITE IS ACCESSIBLE FROM JEFFERSON BY FOLLOWING ST. JEAN STREET TOWARDS THE RIVER. WHERE THE STREET ENDS, MY SITE BEGINS.

ON SITE, THE DETROIT EDISON CONNER CREEK PLANT IS HIGHLY VISIBLE AND NEIGHBORS THE SITE. IT IS AN INDUSTRIAL ENERGY COMPLEX DATING BACK TO THE 1900'S. THE SITE IS ACTUALLY BORDERED BY WATER ON THREE SIDES. OBVIOUSLY THE DETROIT RIVER OCCUPIES ONE EDGE, AND THE STREET SCENE THE OTHER. THE REMAINING TWO SIDES HAVE CANALS. ONE HAS BEEN EXPANDED AND NOW SERVES AS A BOAT AND YACHT CLUB TODAY. THE OTHER TERMINATES JUST BARELY OFF THE SITE, AND DIVIDES THE EDISON COMPLEX FROM THE ST. JEAN BOAT LAUNCH AREA. WITH THAT, WATER ALSO COMES INTO A PART OF THE SITE FOR THE BOAT LAUNCH. THE PARAMETERS OF THE SITE ARE NOT MERELY PROPERTY LINES, BUT PHYSICAL EDGES THAT CREATE THE BOUNDARY.

WHERE THE RIVER'S EDGE MEETS THE CITY IS A ZONE THAT HAS BEEN MODIFIED DRASTICALLY SINCE THE LATTER HALF OF THE 1800'S. I HAVE ALLUDED TO THIS IN THE THESIS PAPER, SO I WILL NOT REPEAT THE HISTORICAL TALE AGAIN. HOWEVER, IT IS EXTREMELY INTERESTING HOW MUCH INDUSTRY HAS ACTUALLY HAD A ROLE IN THIS ALTERATION.



1900



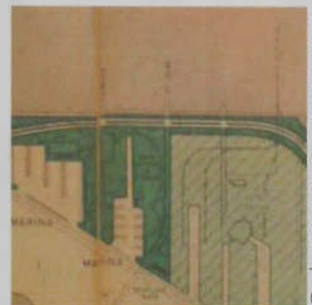
1923



LAYERS OF CHANGE OVER TIME



1955



1964

DIGITAL + INDUSTRIAL + HANDCRAFT + MAKING MEDIA

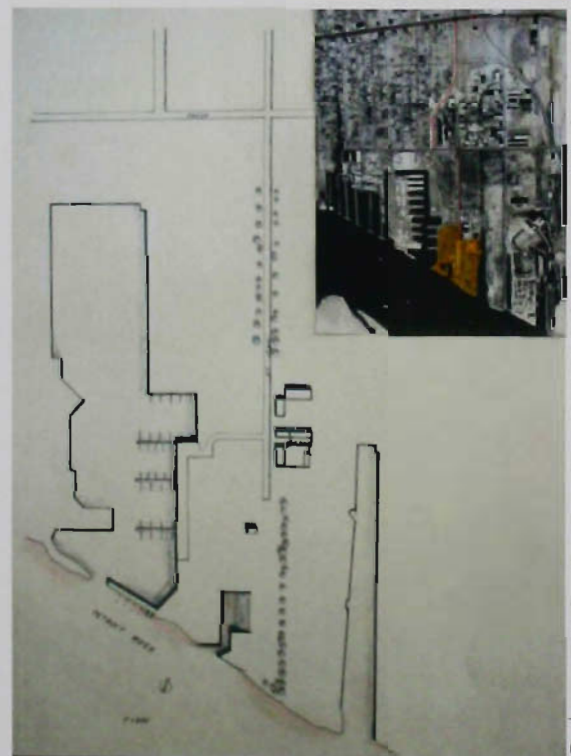
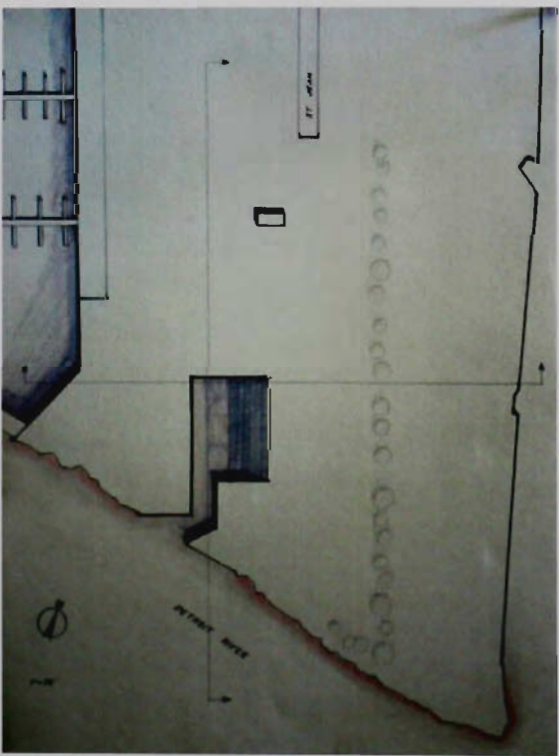
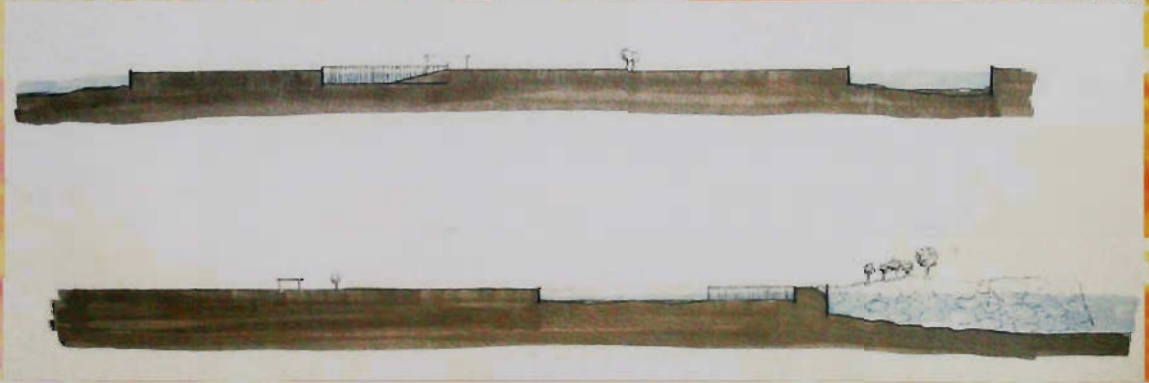
MAP
SECTIONS
PLAN / CONTEXT



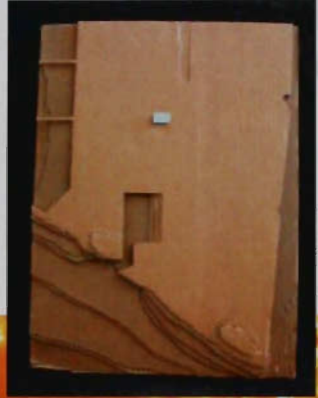
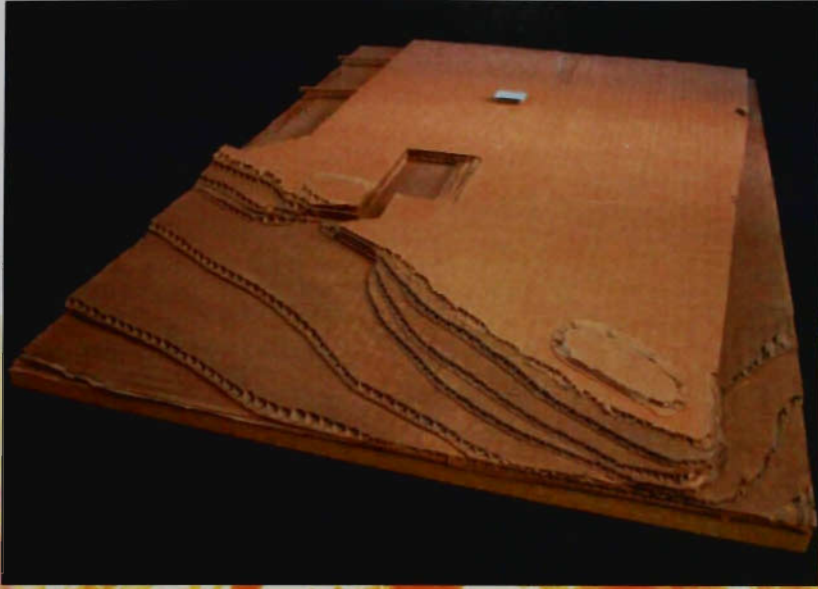
DOCUMENTATION



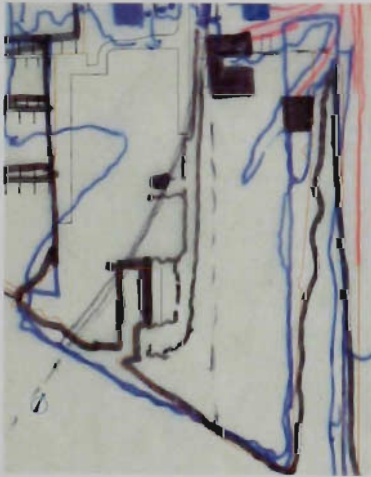
2003



68 | MAKING MEDIA: HANDCRAFT + INDUSTRIAL + DIGITAL



SITE MODEL
REPRESENTATIONAL DIAGRAMS





PANORAMIC VIEWS
OF SITE





PANDRAMIC VIEWS
LOOKING INTO SITE,
FROM BELLE ISLE

SKETCH PROBLEM

6



THE HABITABLE WALL

THE EDGE OF DETROIT AT GROSSE POINTE IS QUITE A CONDITION. THE TRAVELER IS IMMEDIATELY CONFRONTED WITH THE DIFFERENCES OF MUNICIPALITIES. LIKE HITTING A WALL, AND IN SOME INSTANCES THAT IS THE EXACT CASE, THE CHANGE IS OVERWHELMING. CAN THE TENSION THAT EXISTS BE RESOLVED; OR AT THE LEAST, CAN THE DRAMATIC CHANGE BE SOFTENED?

THE HABITABLE WALL IS CORRELATIONAL TO THE SUBJECTIVITY OF THE SPACE. VISITORS CAN EAVESDROP, SPY, AND SENSE THE PRESENCE OF A SOCIAL INVITATION. WITHIN THE LAYERS OF THE WALL, THE MICRO SCALE OF THE FOLD INVITES ONE TO INHABIT WHILE OVERHEARING OR OVERLOOKING ONTO OTHERS. AS ONE MOVES FROM ONE SIDE TO THE OTHER OF THE WALL, THE EVENT OF PASSING IS SPECIAL. THE MACRO SCALE OF THE DIVIDE IS TURNED INTO THE MICRO EXPERIENCES OF THOSE CROSSING THE CITY LINE. THE POETICS OF SPACE AND SOCIAL INTERACTION HELP TO EASE THE CROSSING FROM ONE SIDE TO THE OTHER.

ALSO, THE VIEWS OUT FRAMED BY THE PROTRUDING PLATFORMS, HELP TO EXPLOIT THE NOTICEABLE DIFFERENCES. IN ONE SENSE, THE ORGANIC FORMS OF THE WALL CONSTRUCT DELINEATE THE LINE. ON THE OTHER HAND, THE VIEWS OF EXPLOITATION HAVE AMPLIFIED THE DIVIDE BETWEEN GROSSE POINTE AND DETROIT. MORE IMPORTANTLY, THOUGH, IS THE STATE OF BEING BETWEEN THE DIVIDE, WITHIN THE WALL, ON THE LINE.



DIGITAL + INDUSTRIAL + ARCHITECTURE + MEDIA + MARKING



TWO DIFFERENT ABANDONED ATTEMPTS FOR A MODEL INVESTIGATE LINES OF SEPARATION AND CONNECT.



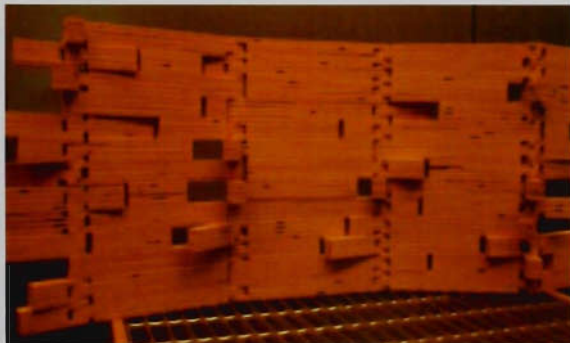
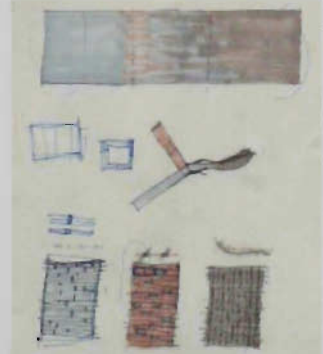
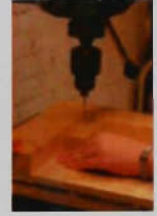
MEDIATIONS: A TRAVELING EXHIBITION
 ACSA EAST CENTRAL REGION COLLABORATIVE PROJECT

TECHNOLOGY | CRAFT | INVENTION: MANIPULATIONS + TRANSLATIONS

THE WALL CONSTRUCTS WERE DONE FOR A SEMINAR COURSE AND COLLABORATIVE PROJECT AT THE UNIVERSITY OF DETROIT MERCY. I MADE THE SMALLER WALL, AND WORKED WITH JANA CEPHAS AND LYDIA SHELLEY ON THE LARGER ONE WITH SEVERAL PARTS. THE PROCESS OF MAKING WAS VERY RELEVANT TO MY THESIS INVESTIGATION. IN THE TRANSLATION FROM DESIGN TO FABRICATION, THERE IS TRULY A GAP. THINGS THAT WERE THOUGHT TO HAVE BEEN RESOLVED ON PAPER ARE NOT; AND OTHER THINGS THAT ARE TOO DIFFICULT TO PERCEIVE WITHOUT WORKING THREE-DIMENSIONALLY ARE LEFT TO BE TESTED WITH TRUE SCALE AND MATERIALS.

THE TWO WALL/ VESSEL/ CONTAINER CONSTRUCTS USED PLYWOOD AS THE BUILDING MATERIAL. THIS IS NORMALLY USED AS A SURFACE VENEER, SO WE EXPLORED ITS POTENTIAL AS AN EDGE IN BEARING. STACKS OF ACRYLIC PLEXIGLASS WERE ALSO USED, SHOWING OFF THE EDGE, NOT THE SURFACE. THE TECTONICS THAT RESULTED AND THE MOVEABLE PIECES WERE A TRUE ADVENTURE IN MAKING. AS I MENTIONED, NUMEROUS AMOUNTS OF TESTING THE FEASIBILITY HAD TO BE DONE. ONCE THE FINAL FABRICATION PROCESS BEGAN, IT WAS A LONG ONE. MAKING THE SWITCH FROM 3/8" PLYWOOD, USED FOR A MOCK-UP VERSION, TO 3/4" PLYWOOD STILL ENCOUNTERED ISSUES THAT WERE UNEXPECTED. THE VARIABILITY OF THE SHEET THICKNESS WAS A PROBLEM. ONE WOULD THINK THAT A WOOD PRODUCT ENGINEERED UNDER CLOSE QUALITY SUPERVISION WOULD BE RELATIVELY STANDARD. HOWEVER, THAT WAS NOT THE CASE. DIFFERENT PIECES VARIED AS MUCH AS A WHOLE PLY (ABOUT 1/16"). THIS CERTAINLY WAS FRUSTRATING, ESPECIALLY SINCE ALL THE PIECES WERE CUT AND DRILLED SO PRECISELY. JIGS WERE MADE FOR CUTTING, DRILLING, AND GLUE/ ASSEMBLY.

ONE THING UNACCOUNTED FOR WAS THE TOLERANCE THAT THE PLYWOOD SHEETS WERE MANUFACTURED UNDER. THAT ASIDE, THOUGH, THE PROJECT TRULY ENCOMPASSED ALL THREE FORMS OF MEDIA I AM EXPLORING IN THE THESIS. THE END PRODUCT DOES SHOW THE TRACE OF THE HAND, BUT IT ADDS BEAUTIFUL CHARACTER TO THE WALL, EVEN WITH ITS IMPERFECTIONS. THE PIECES SERVE AS AN EXAMPLE OF THE WONDERFUL POSSIBILITIES ONE CAN ENCOUNTER WHEN UNDERTAKING THE ROLE OF DESIGNER AND MAKER.



7

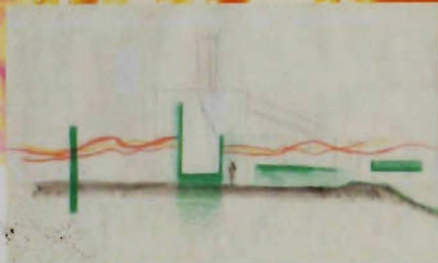
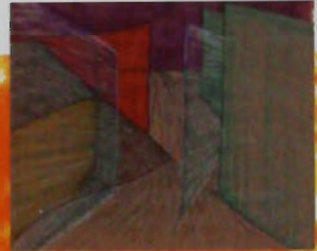
DESIGN PROCESS



SPRINGBOARD. SECTIONAL STUDIES

EARLY STUDIES LOOKED AT THE SECTION ON SITE. I MADE LOOSE SKETCHES ON PAPER AND IN MODEL FORM THAT PROPOSED ALTERATIONS TO THE GIVEN GROUND CONDITIONS. BECAUSE THE SITE'S HISTORY HAS BEEN WRITTEN WITH MULTIPLE LAYERS AND CUT & FILL METHODS, THE STUDIES ARE NOT MEANT TO SIMPLY GRADE THE LAND. THE SKETCHES SUGGEST AREAS THAT ARE CARVED AND EXCAVATED, HAVING A DEEPER PRESENCE TO THE SITE. THEY MUST FULLY INTERACT WITH THE LANDSCAPE IN ORDER TO BE LEGITIMATELY SITUATED WITHIN THE INDUSTRIAL SITE IN A NEW GENERATION OF TECHNOLOGY AND MAKING. YET, OTHERS SEEM TO FLOAT, INDICATING A LIGHTER QUALITY AND HIGHER ORDER. PERHAPS THESE MOVES SHOW THE UNFORESEEN OPPORTUNITIES WITHIN THE TECHNOLOGICAL FIELD. THESE STUDIES USE A VARIETY OF COLOR SAMPLINGS THAT ENFORCE THE IDEA OF INTERTWINED PROGRAM SPACES AND RECIPROCITY IN THE MEDIA OF MAKING.

SECTIONS TAKEN PERPENDICULAR TO THE RIVER ATTEMPTED TO EXTEND OUTWARD WHILE FRAMING VIEWS OF THE EXISTING INDUSTRIAL COMPLEX. THE TREE LINE SUGGESTS A VIBRANT CANOPY OVER THE BUILDING(S).



SECTIONS TAKEN PARALLEL TO THE RIVER ENDEAVOR TO FLOW ACROSS THE SITE, CONNECTING THE INDUSTRIAL COMPLEX WITH THE DESIGNED FACILITY, AND THEN TRANSITIONING OVER TO THE YACHT CLUB. THE STUDIES SUGGEST THAT THE BUILDING WILL FULLY ENGAGE THE ENTIRE SITE, BLEEDING RIGHT TO THE NAUTICAL EDGES OF THE RIVER AND THE CANALS. THE FINAL SET OF STUDIES INDICATES THE CLUSTER OF ACTIVITIES AND PROGRAM AREAS THAT THE PROJECT MIGHT ENCOUNTER. VARIOUS AREAS OPERATE ON MULTIPLE LEVELS WITH AN APPEALING COMPLEXITY.

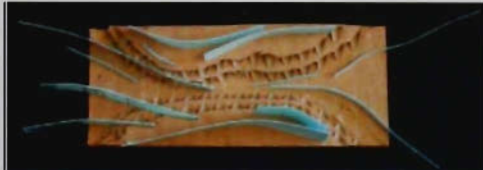


SPRINGBOARD. GESTURAL MODELS

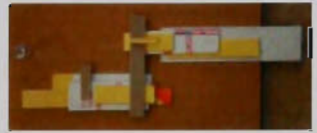
I BEGAN MAKING GESTURAL MODELS ON THE SITE, LOOKING AT HOW THE SECTIONS COULD BEGIN TO TRANSLATE TO MARKS IN PLAN. BUT FIRST, I TOOK INSPIRATION FROM "HIEROGLYPHICS" CREATED USING WORDS THAT KEPT APPEARING IN MY SKETCHBOOK. THEY WERE TRANSLATED TO DRAWINGS OVER THE AERIAL SITE PHOTOS AND USED IN THE MODELS. ALTHOUGH, I WAS NOT IN ANY WAY ATTEMPTING TO CREATE BUILDING OR FLOOR PLANS. I FOUND IT DIFFICULT TO ENGAGE THE GROUND PLANE AND LANDSCAPE IN A MEANINGFUL WAY. I WANTED THE STUDIES TO IMPLY MOVEMENT FROM DIFFERENT PROGRAM AREAS. SOME OF THE EARLIER STUDIES EVEN ATTEMPTED AN INVERSE OF THE SITE, AS A METHOD OF SEEING THINGS DIFFERENTLY.



ULTIMATELY, I WAS NOT PLEASED, AS THE MODELS WERE STILL LACKING SOMETHING. I REFERRED BACK TO THE DRAWING USED IN THE SKETCH PROBLEM "THE HABITABLE WALL." I THEN MADE A MODEL WITH THOSE QUALITIES, AND CONVERTED IT INTO A FULLER FORM. IT APPEARS MORE SUCCESSFUL, AND NOW FURTHER STUDIES CAN BE DONE WHICH ARE MORE SIGNIFICANT IN HOW THE GROUND IS ALTERED BY THE BUILDING.



SHOW HERE IS A THREE-DIMENSIONAL VIEW OF THE SITE (AS SEEN FROM BELLE ISLE) WITH A GESTURAL BUILDING IN PLACE.



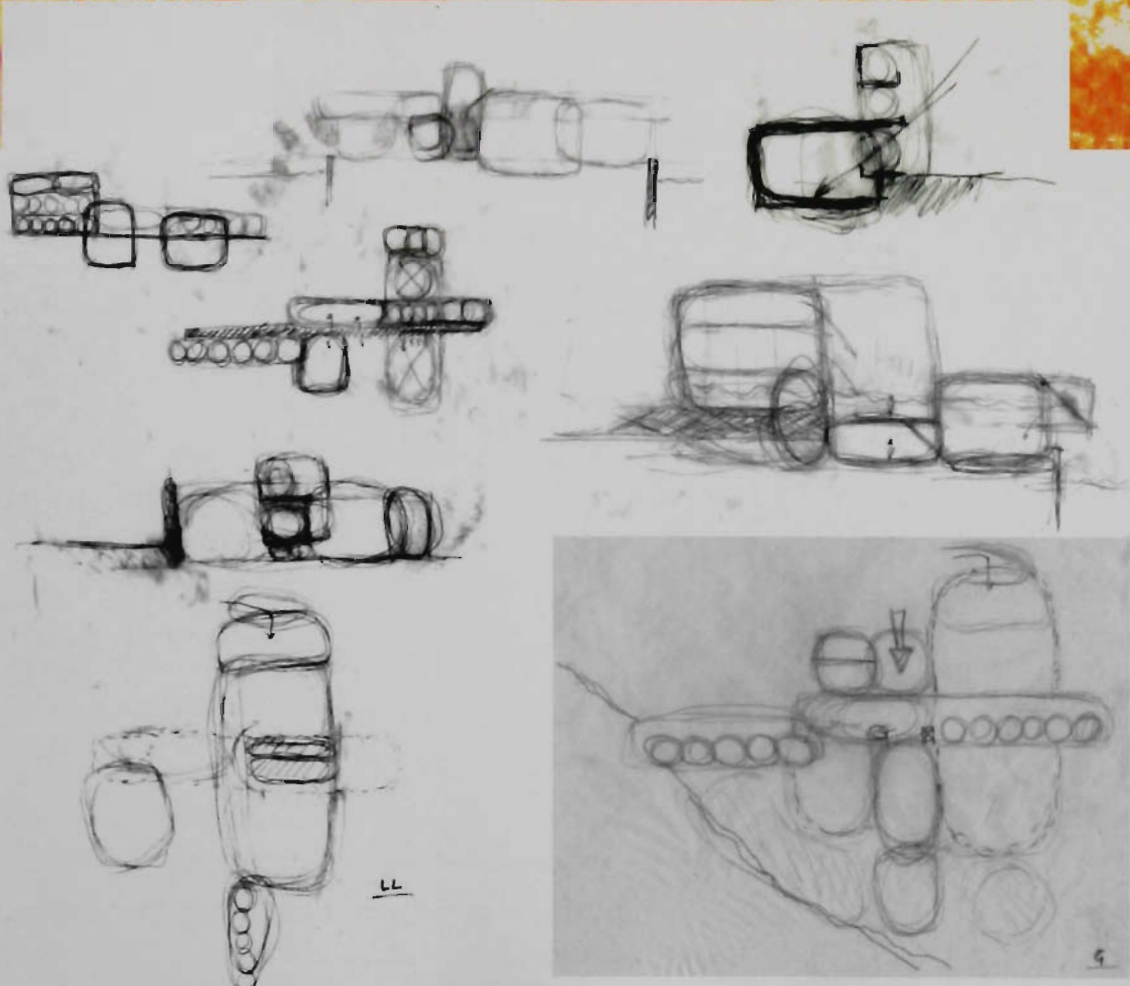
A "LIGHT BAR" IS USED FOR HORIZONTAL CIRCULATION BETWEEN DIFFERENT PROGRAM AREAS. THE CONCEPT ALLOWS FOR LIGHT TO ENTER THROUGH THE CURTAIN WALL GLAZING, AS WELL AS PERMITTING VISUAL ACCESS BELOW TO THE PROGRAM FUNCTIONS ONCE INSIDE THE AREA THAT THE PERSON IS PASSING THROUGH.



SCHEMATIC DESIGN

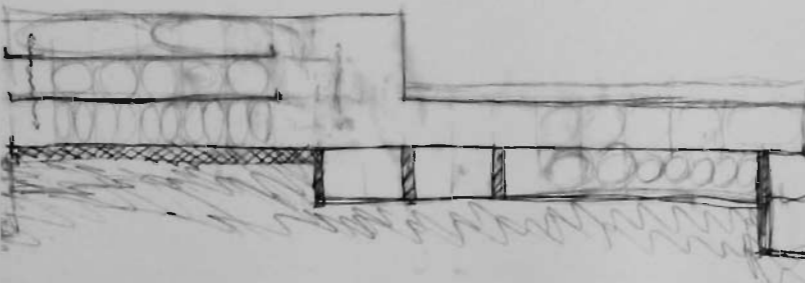
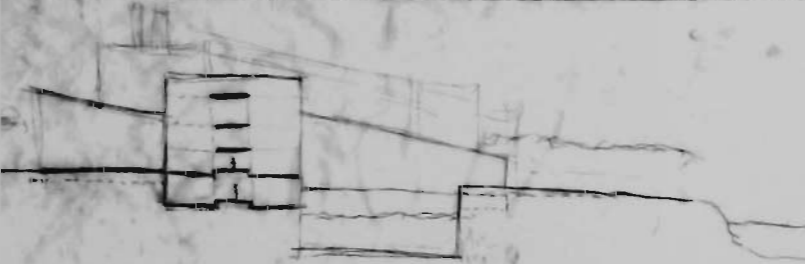
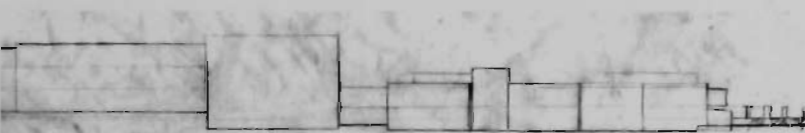
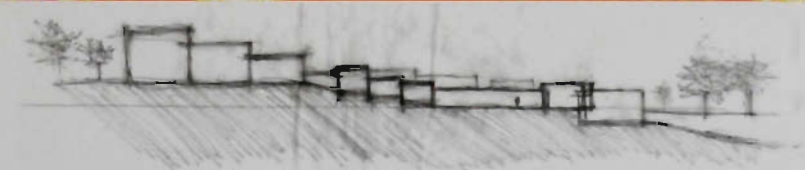
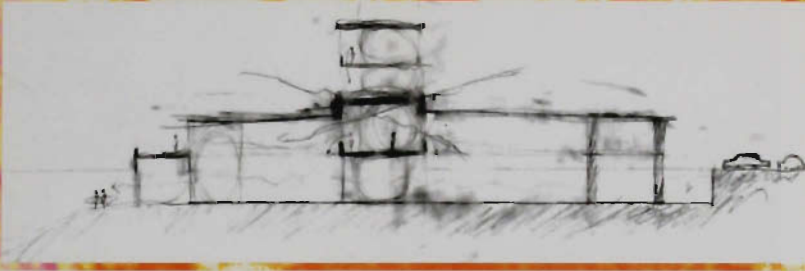
I BEGAN THE SCHEMATIC DESIGN PHASE BY RE-EXAMINING THE SPATIAL ZONING OF DIFFERENT PROGRAM AREAS. LOOKING AT WHAT ELEMENTS HAD TO BE NEXT TO EACH OTHER, SUCH AS THE WOODSHOP AND THE METALSHOP, AND WHAT SHOULD / COULD BE SEPARATED, I MADE SOME NEW SKETCHES. UNLIKE THE PREVIOUS ZONING DONE IN THE PROGRAMMING PHASE, THESE NEW STUDIES SOUGHT TO REALLY INVOLVE THE IDEAS PURSUED IN THE SPRINGBOARD DESIGN AND EMBEDDED IN THE THESIS PAPER.

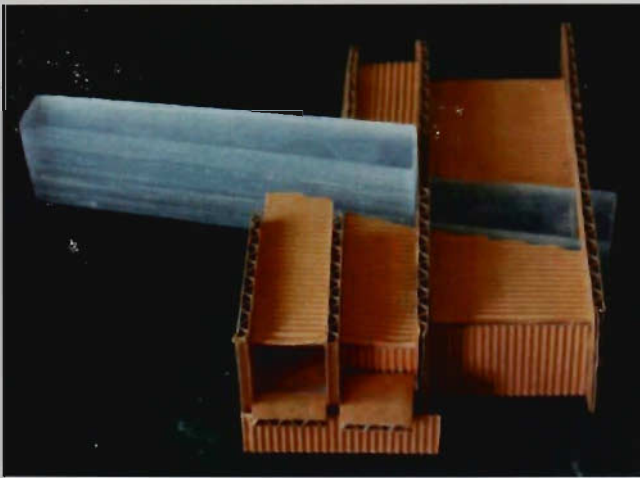
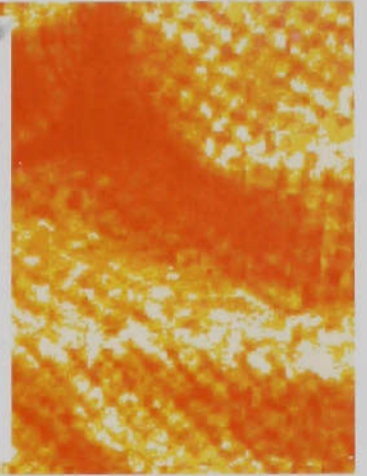
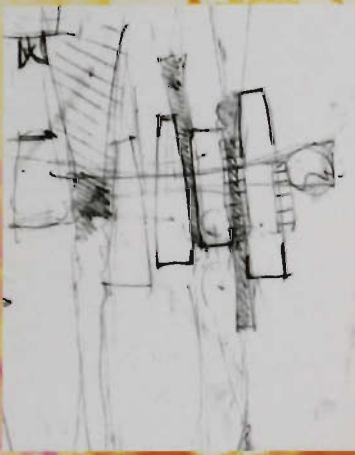
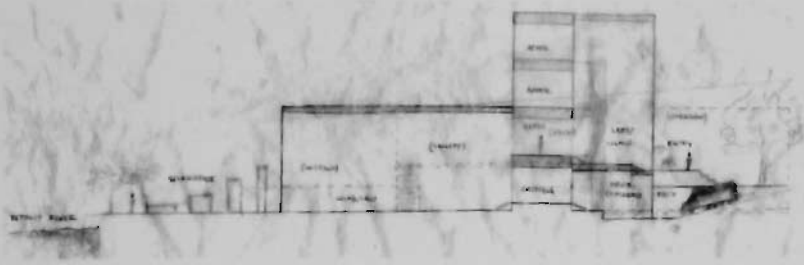
FOR ME, THE CHALLENGE WAS CONSISTENTLY TELLING MYSELF THAT LEARNING AND MAKING GO HAND-IN-HAND. THEY ARE NOT SEPARATE PROCESSES, BUT CYCLICAL. THE EARLIER ZONING SKETCHES SHOWED THEM AS LINEAR, AND ULTIMATELY SEPARATE COURSES. BASED ON MY RESEARCH AND THE SPIRIT OF MY THESIS, THE POLEMIC WAS RE-PROGRAMMING THE WAY WE SEE THINGS. PEOPLE LEARN BEST THROUGH A HANDS-ON APPROACH. ADDITIONALLY, IT IS DIFFICULT TO LEARN METHODS AND PROCESSES OF MAKING WITHOUT ACTUALLY SEEING THEM. AS A RESULT, CLASSROOMS WERE THEN PURSUED WITH THEIR LOCATION INSIDE THE WORKSHOPS, OR DIRECTLY OVERLOOKING THEM.

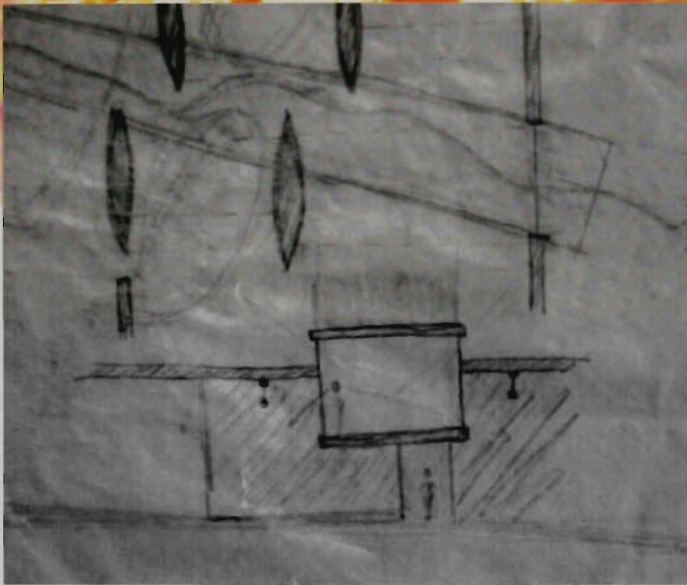
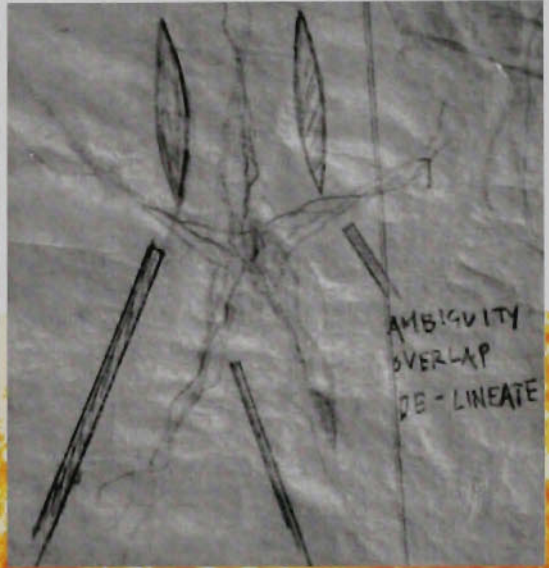
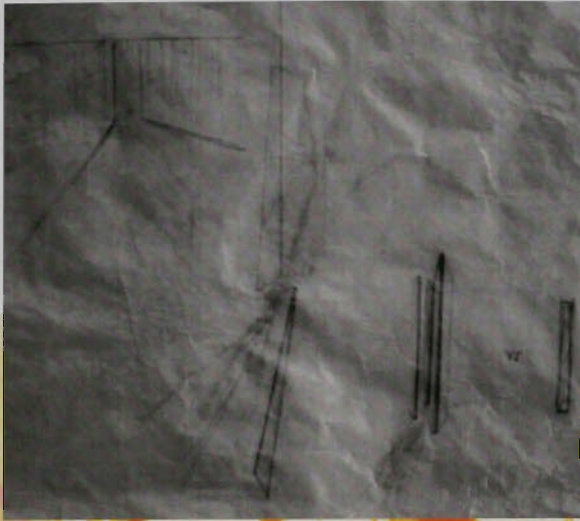


AFTER USING BUBBLE DIAGRAMS, I SWITCHED TO A MORE DEFINITIVE SKETCH OF THE BUILDING'S PLANS AND SECTIONS. THE LOWER LEVEL CONTAINS THE WORKSHOPS WITH CLASSROOMS AND STUDIOS, STORAGE, AND MECHANICAL FACILITIES. THE MAIN FLOOR HOUSES COMPUTER CLASSROOMS, A LIBRARY AND RESEARCH AREA, THE GALLERY SPACE, AND THE PRIMARY ENTRANCE. OFFICES ALSO OCCUPY THE FIRST THROUGH THIRD FLOORS. THE SPACES TRANSLATED INTO CONCRETE AREAS AND FUNCTIONS. ADDITIONALLY, I STARTED TO DRAW IN SCALE.

THE MAIN CIRCULATION SPACE CONNECTING THE GALLERY, CLASSROOMS, ENTRY, LOUNGE, OFFICES, ETC. BECAME A "LIGHT BAR." IT ALLOWS DAYLIGHT TO ENTER THE MAIN SPACES THROUGH THE CURTAIN WALL. PLUS, THE BAR BECAME A ZONE THAT SLICES RIGHT INTO THE WORKSHOP SPACE. BELOW, IT FORMS A SPATIAL ZONE THAT ALLOWS TRANSITION AND THRESHOLD BETWEEN TWO OF THE WORKSHOPS. THE BAR RUNS SORT OF PERPENDICULARLY TO THOSE SPACES, THEREBY EXTENDING ACROSS THE SITE PARALLEL TO THE RIVER.



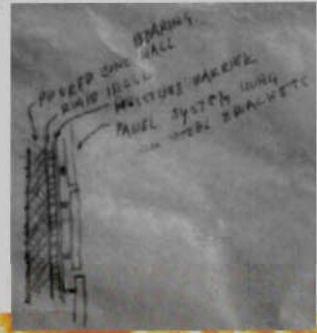




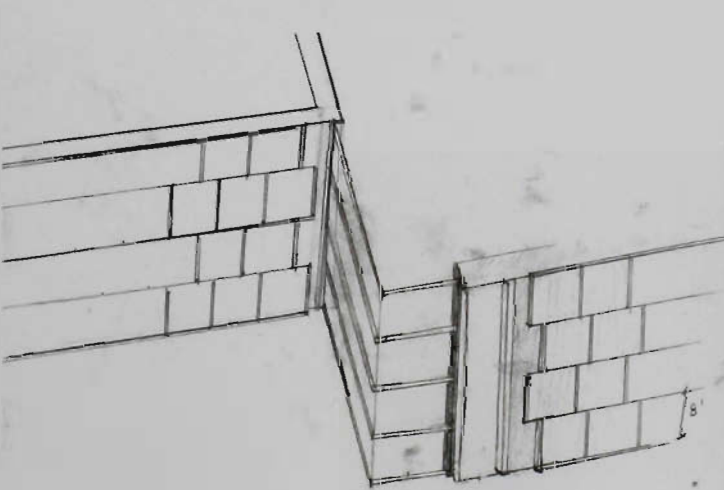
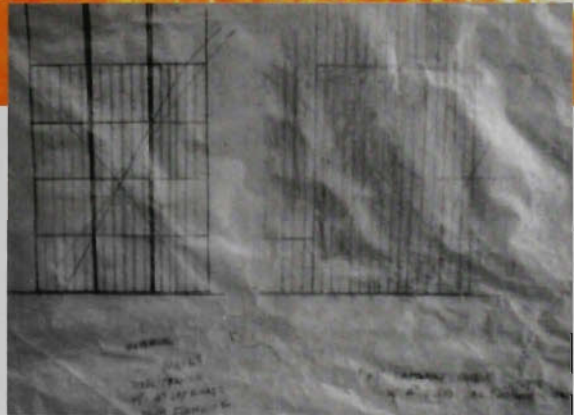
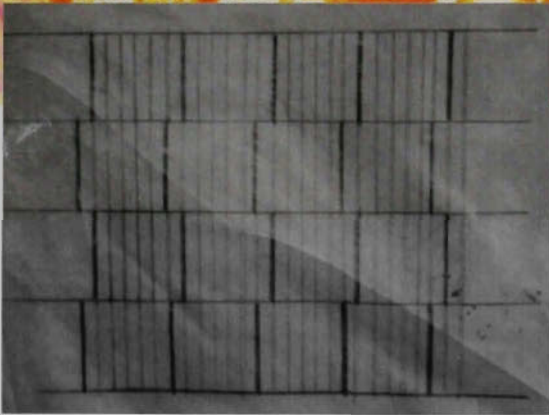
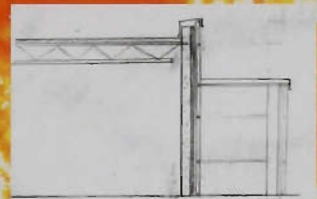
I DREW UP SOME SKETCHES OF MICRO CONDITIONS THAT COULD OCCUR IN PLAN OR SECTION, PLAYING WITH THE IDEAS EXPLORED IN THE HIEROGLYPHICS.

TECTONIC INVESTIGATIONS

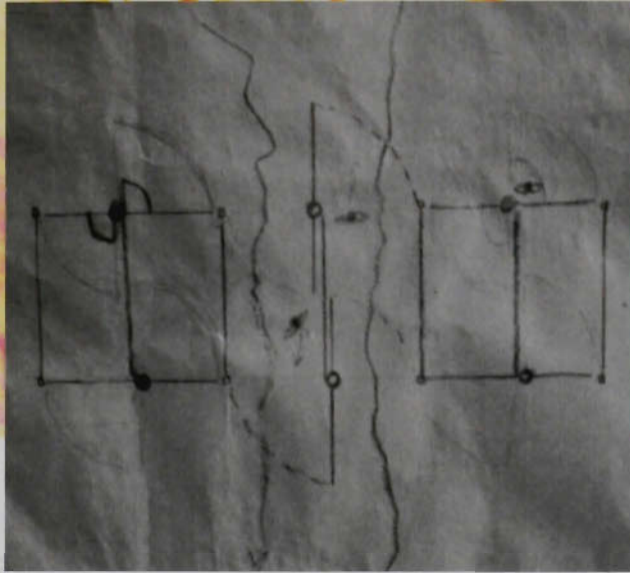
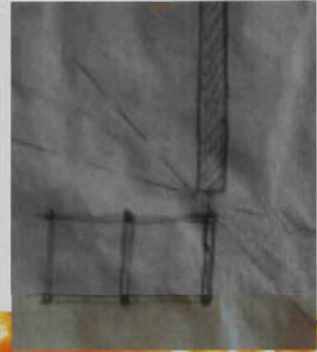
BECAUSE THE THESIS CENTERS ON THE IDEA OF MAKING, A FULL-SCALE WALL CONSTRUCT IS ESSENTIAL TO THE EXPLORATION AND RETESTING IN THE DESIGN PHASE. AGAIN, THE TRACE OF THE HAND IS AT THE FOREGROUND OF MY INVESTIGATION. I TRIED TO FOCUS ON UTILIZING THE THREE DIFFERENT MEDIAS IN CONJUNCTION WITH ONE ANOTHER.



THE FIRST CONSTRUCT IS LOAD-BEARING CONCRETE CAST ON-SITE. THE INTERIOR FORMWORK IS MADE OF 4" TONGUE AND GROOVE BOARDS, ARRANGED IN 4' X 8' PANELS THAT APPEAR TO SLIDE PAST EACH OTHER VERTICALLY. ONCE CURED, THE FORMWORK IS REMOVED AND SET INTO 4' X 8' STEEL FRAMES. THESE ARE MOUNTED TO THE EXTERIOR WITH STEEL BRACKETS AND EXPANSION ANCHORS TO PROTECT THE RIGID INSULATION AND MOISTURE BARRIER. THE ROWS ARE ALLOWED TO SLIP PAST EACH OTHER AND EXTEND BEYOND THE WINDOW FRAMES SLIGHTLY. THE 4' X 8' DIMENSION CONVERTS A LONG, MASSIVE WALL INTO A SCALE RELATED TO A HUMAN. THE 4' X 8' DIMENSION IS A MANAGEABLE SIZE & WEIGHT FOR THE PEOPLE INVOLVED IN THE FABRICATION PROCESS. THE TEXTURE ON THE CONCRETE IS EVIDENCE OF THE LABOR THAT WAS UTILIZED IN SETTING UP THE FORMWORK. ADDITIONALLY, THE RUB OF METHODS AND MATERIALS FROM HANDCRAFT AND INDUSTRIAL CRAFT IS PRESENT.



ANOTHER EXPLORATION LOOKS AT THE IMPACT OF A SPATIAL IDEA THAT RESULTS FROM THE TECTONIC. THE WELDING AND PAINT BOOTHS UTILIZE A DOUBLE REVOLVING DOOR SYSTEM. THE WALL, MADE OF CORRUGATED STEEL SANDWICHING INSULATION, IS WELDED TO A STEEL TUBE. THE TUBE IS SLIPPED OVER A STRUCTURAL TUBE. SINCE THE BOOTHS WILL NOT BE UTILIZED 100% OF THE TIME, THEY ARE ABLE TO OPEN TO THE EXTERIOR AND GET CLOSED WHEN THE BOOTHS ARE IN USE. THE OPEN BOOTHS ALLOW LIGHT AND FRESH AIR TO ENTER THE WORKSHOP SPACE. THE WORK AREA DIRECTLY IN FRONT OF THE BOOTHS FLOWS TO THE EXTERIOR AND SPILLS ONTO THE OUTSIDE WORKSPACE. THE REVOLVING SYSTEM CHANGES A ROOM INTO A VISIBLE THRESHOLD.

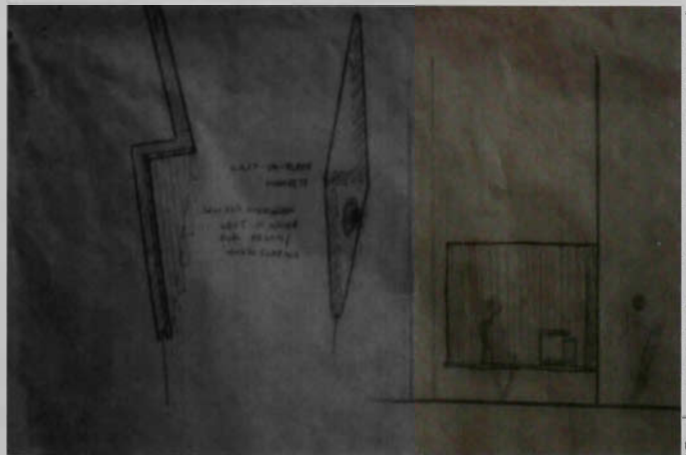
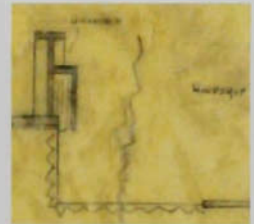


THERE ARE PRE-FABRICATED PANELS IN THE CURTAIN WALL SYSTEM, USING BOTH TRANSPARENT AND TRANSLUCENT GLAZING. THE PANELS APPEAR TO SLIP PAST EACH OTHER VERTICALLY, IN MUCH THE SAME WAY THAT SLIPPAGE OCCURS IN THE CONCRETE FORMWORK AND THE PROTECTIVE EXTERIOR PANELS.



DIGITALLY MANUFACTURED VERTICAL LOUVERS PROTECT THE GLAZING AT THE THRESHOLD ZONES PIERCING THROUGH THE BUILDING. THE LOUVERS' FUNCTION IS TO CONTROL THE CLERESTORY LIGHTING IN THE WORKSHOP AND STUDIO SPACES. THE OPENINGS FACE NORTH FOR THE BEST DAY LIT CONDITIONS.

THE GLAZING WALLS AT THE THRESHOLD ZONES OF THE WORKSHOPS ARE ALLOWED TO FOLD UP AND DISAPPEAR INTO THE WALL. THE WORKSPACES ARE THEN OPEN COMPLETELY TO THE EXTERIOR, ALLOWING ACTIVITY AND FRESH AIR TO FLOW PAST THE BUILDING EDGE. THE GLAZING PANELS ARE PROTECTED FROM POSSIBLE DAMAGE WHEN STORED WITHIN A SECTION OF THE CONCRETE WALL.



DESIGN DEVELOPMENT

THE DESIGN PROGRESSED TO FULL FLOOR PLANS AND ADDITIONAL SECTIONAL STUDIES WHICH FACILITATED THE MAKING OF THE ARCHITECTURE. I ALSO SKETCHED SOME INTERIOR AND EXTERIOR PERSPECTIVES AT SPECIFIC MOMENTS. FOR INSTANCE, THE ARCHITECTURE SERVES AS A DIVIDER IN THE STUDIO SPACE, SPLITTING THE WOOD AND METALSHOPS. THEY ARE LINKED VISUALLY, BUT FOR PRAGMATIC REASONS SHOULD HAVE SOME SEPARATION.

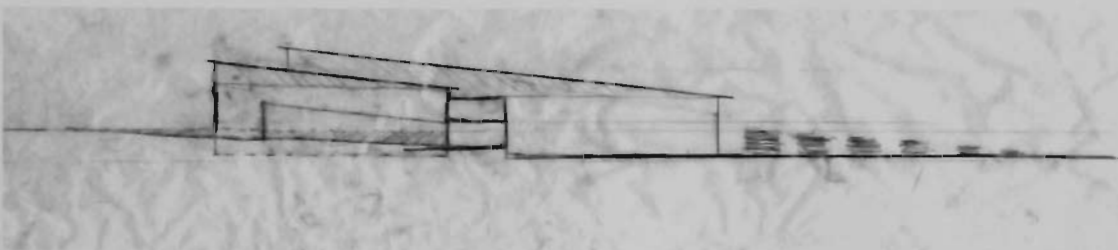
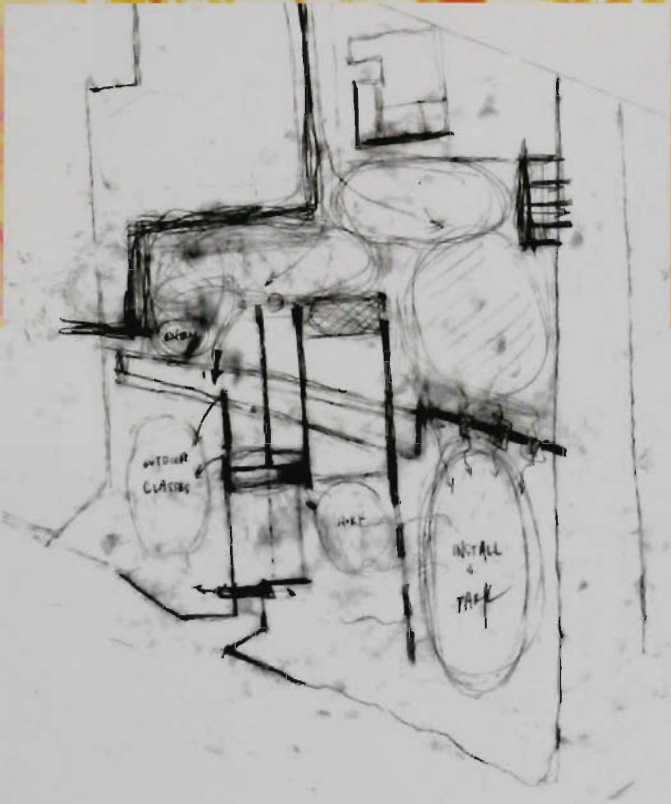


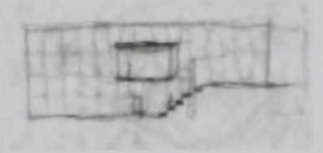
THRESHOLDS ARE CREATED WHERE ONE WORKSHOP RUBS AGAINST THE NEXT. THE GAPS THAT APPEAR WHEN THE BAR EMERGES FROM THE WORKSHOPS CREATE SIGHT LINES TOWARD THE RIVER, AS ALREADY MENTIONED. HOWEVER, THE STREET SIDE HAS A MORE DRAMATIC RESPONSE. THE LINES CARVE AWAY THE SITE. THE RESULT IS A POINT THAT SINKS INTO THE GROUND AND EXPANDING OUTWARD. THE SPACES THEN HAVE STAIRS AND RAMPS TO REACH THE BELOW-GRADE WORKSPACES. AT THE RIVER SIDE, THE LAND IS EXCAVATED TO ALLOW THOSE AREAS TO SPILL OUTSIDE. AGAIN, THIS IS FOR FRESH AIR, LIGHT, AND THE INDETERMINACY OF EXTERIOR / INTERIOR WORKSHOPS. SOME OF THE EXCAVATED LAND IS USED IN A CUT AND FILL METHOD. THE FLOOR LEVEL OF THE BAR IS EIGHT FEET ABOVE GRADE TO ACCOMMODATE ITS ABILITY TO VIEW ONTO THE WORKSHOPS BELOW. AT THE ADMINISTRATIVE END, THERE IS NO LOWER LEVEL BELOW. SO, SOME OF THE EXCAVATED LAND IS RAMMED IN PLACE TO SUPPORT THE FOOTINGS FOR THE THREE FLOOR OFFICES.

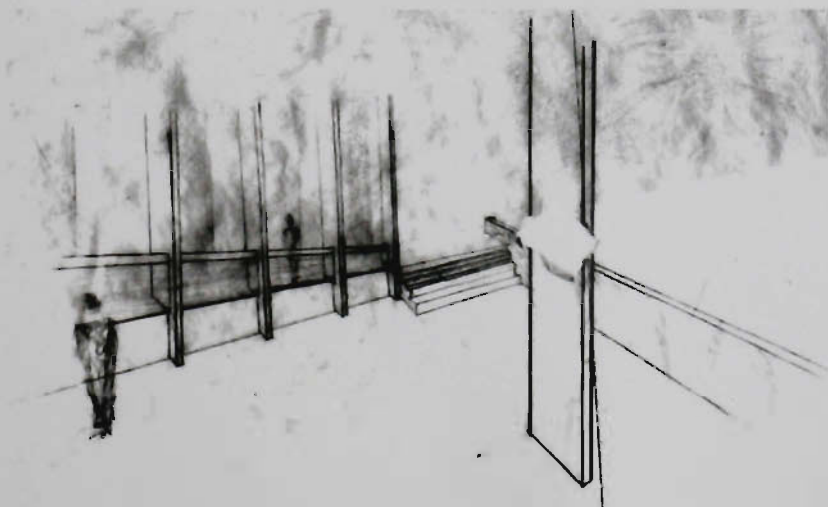
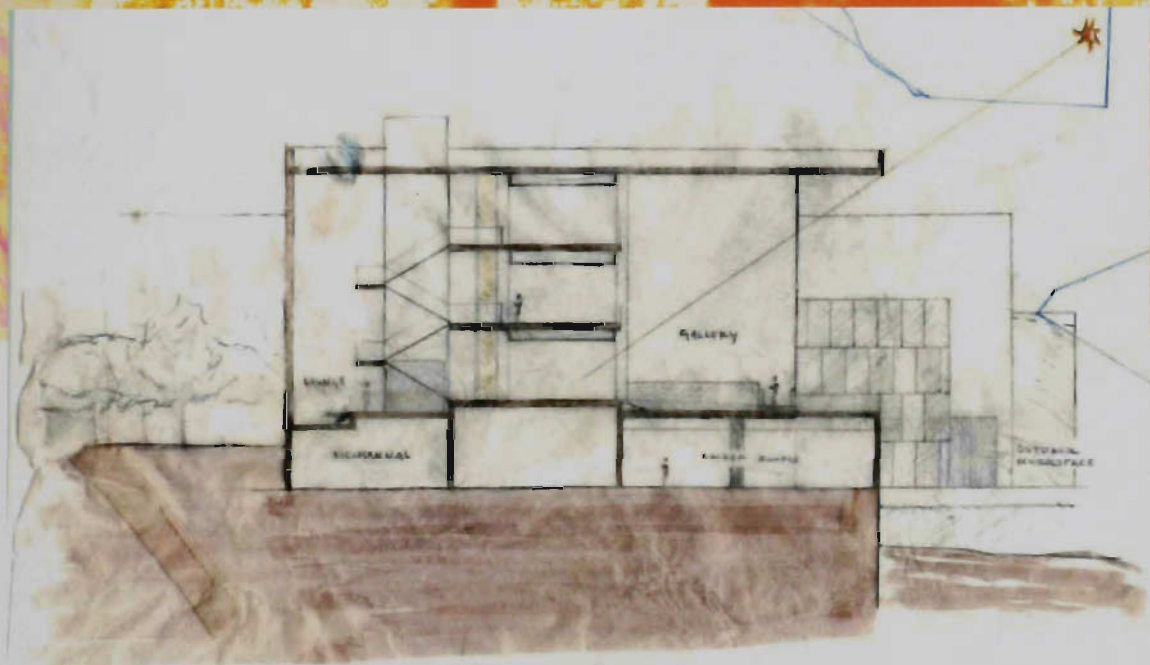
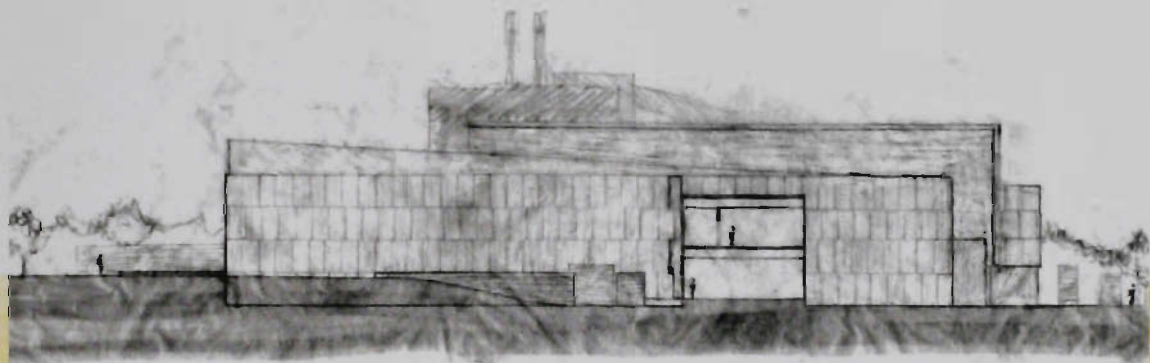
ESSENTIALLY, HANDCRAFT, INDUSTRIAL, AND DIGITAL MEDIAS ARE NOT DISTINCT FROM EACH OTHER, BUT INTEGRATED. IN MUCH THE SAME WAY, LEARNING AND MAKING ARE NOT SEPARATE. THESE CONCEPTS ARE SUPPORTED THROUGH THE INTERMIXED SPACES AND LEVELS WITHIN THE BUILDING. THE FLEXIBILITY OF THE FACILITY CAN ACCOMMODATE CHANGING TECHNOLOGIES. THE FLOOR PLAN IS SPECIFIC TO THE NEEDS OF TODAY, BUT OPEN ENOUGH TO VARY THE



ALSO, THE SITE SERVES AS A THRESHOLD BETWEEN RECREATION AND INDUSTRY, INDUSTRY AND WATER. WITH AN OUTDOOR INSTALLATION GARDEN AND EXTERIOR WORKSHOP AREAS, THE SITE AND BUILDING ITSELF ADD TO THE AMBIGUITY OF WHERE INDUSTRY ENDS AND RECREATION BEGINS. THE BUILDING PROGRAM HELPS TO SOFTEN THE EDGE. CURRENTLY, THE RIVER IS EITHER INHABITABLE / RECREATIONAL OR INDUSTRIAL. WITH A LONG HISTORY OF MAKING ON THE RIVERFRONT, AND THE EFFECTS IT HAD IN SHAPING THE CITY BOTH PHYSICALLY AND METAPHORICALLY, IT SEEMS TO BE AN INJUSTICE TO BE ONE OR THE OTHER. MAKING IS ESSENTIALLY THE WAY OF LIFE FOR THE CITY OVER THE LAST CENTURY. BY INTEGRATING RECREATION AND INDUSTRY ON THE SITE, THERE IS NO LONGER A CLEAR DIVIDE. THIS CONCEPT THEN SUPPORTS THE IDEA OF RELOCATING THE BOAT LAUNCH ON SITE TO THE EXISTING CANAL NEXT TO THE INDUSTRY WITH AN ADDED PARK AT THE BOAT LAUNCH, EXTENDING TOWARD THE RIVER LIKE THE OLD RIBBON FARMS.



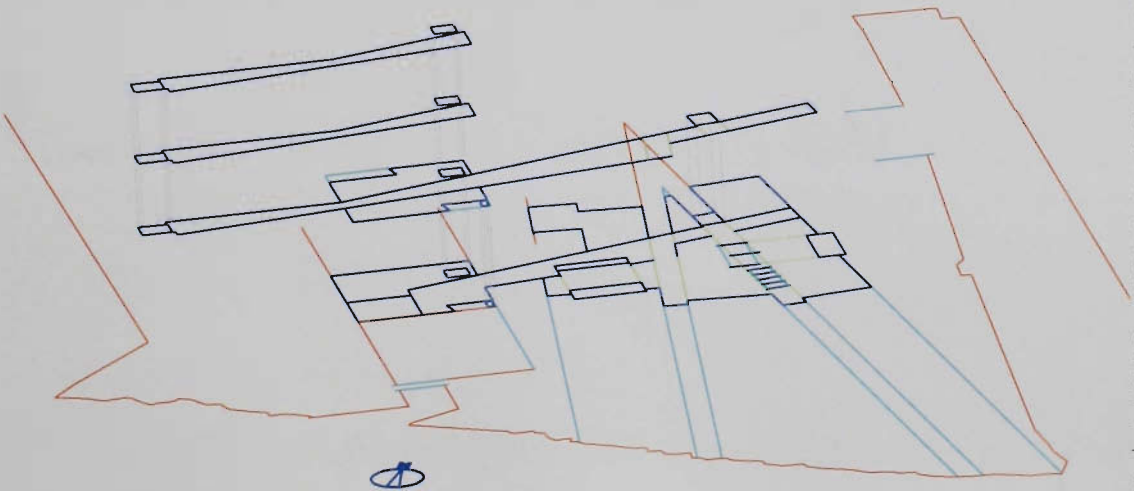
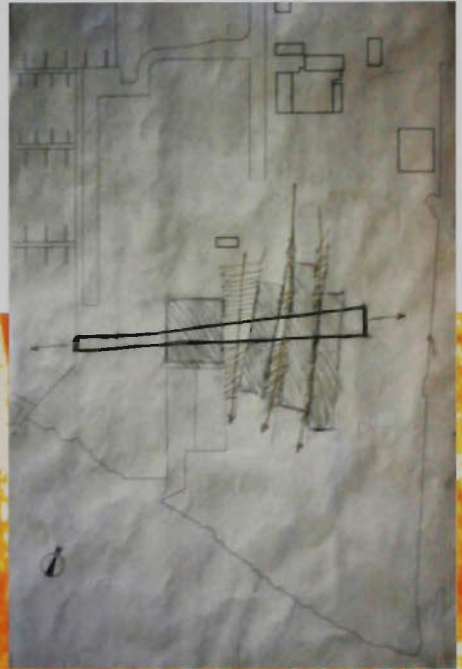
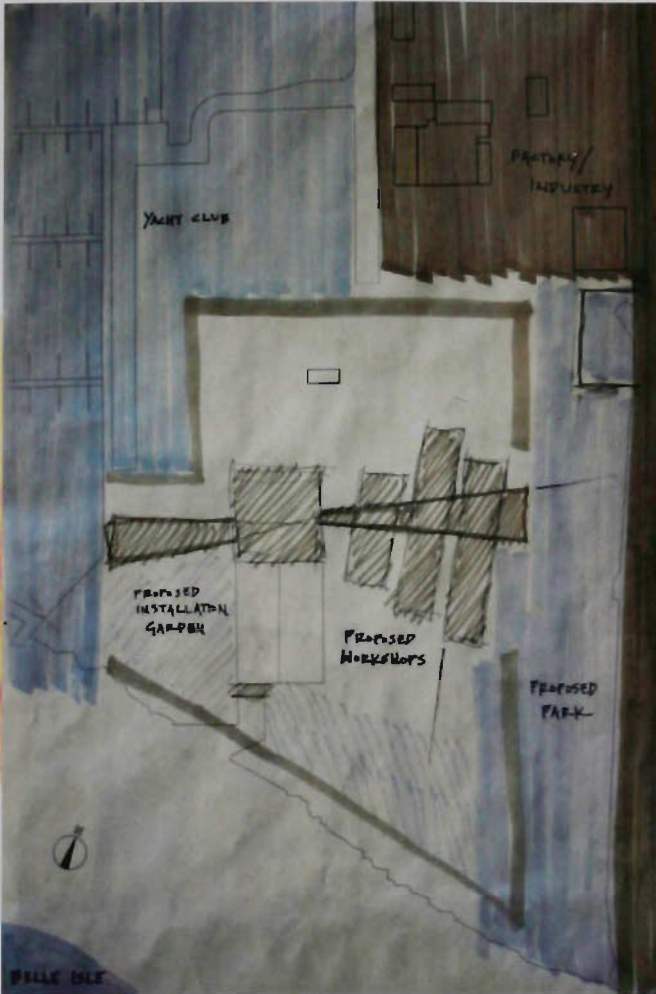


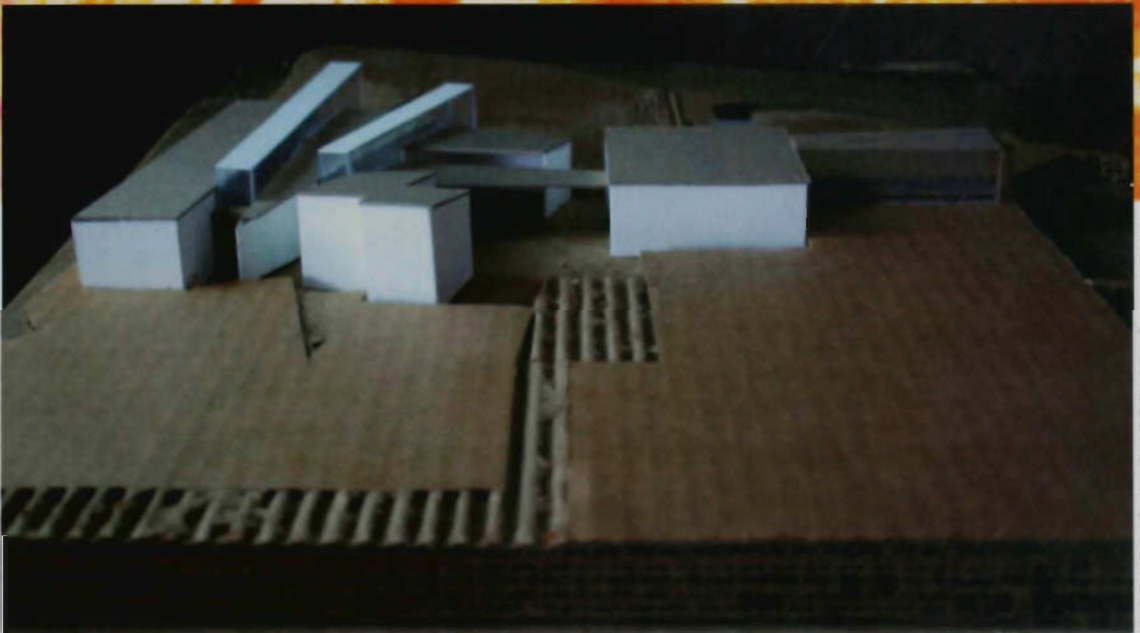
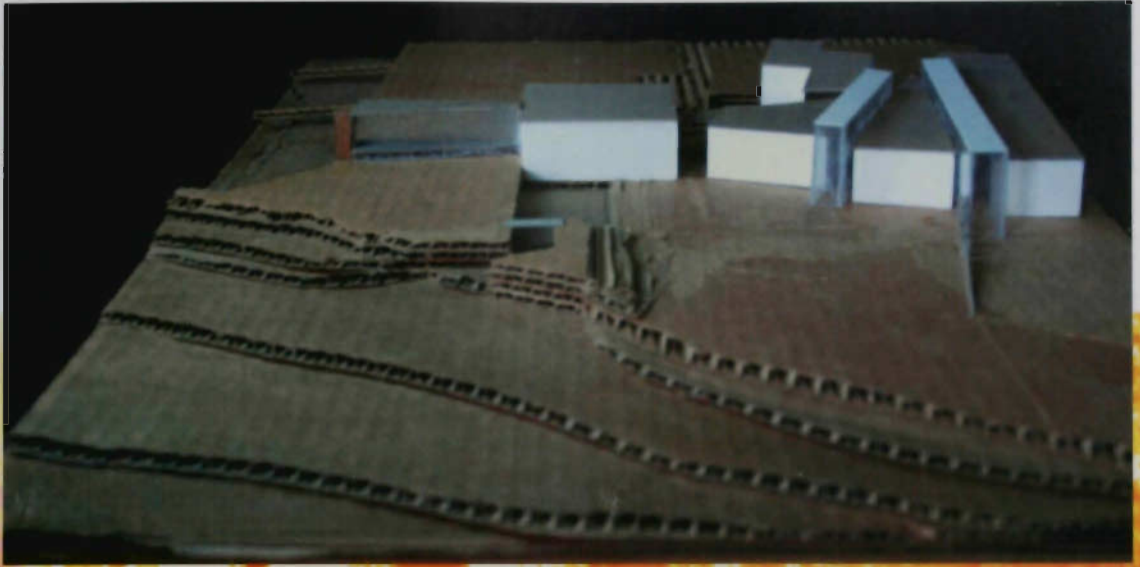


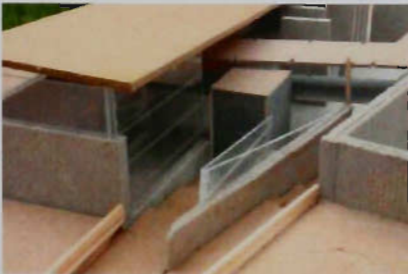
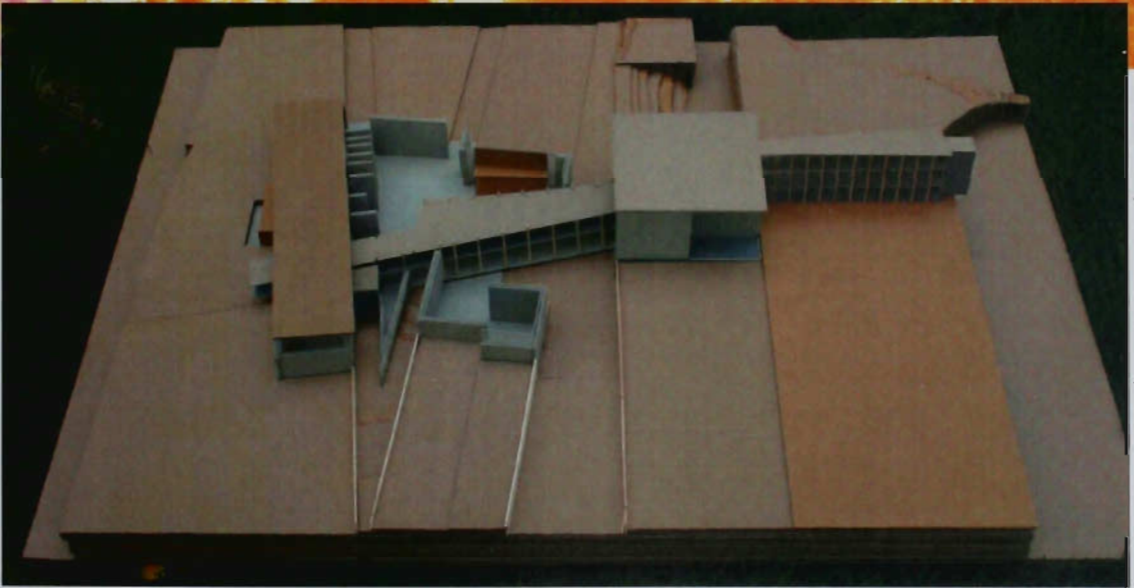
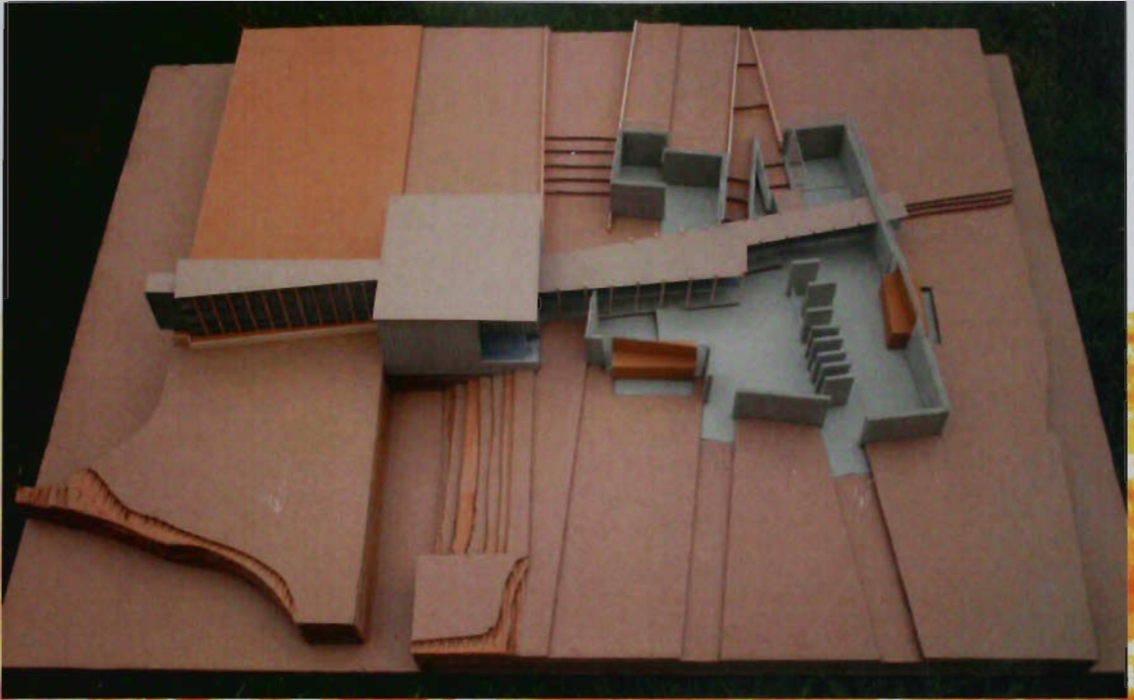
8

FINAL PROJECT

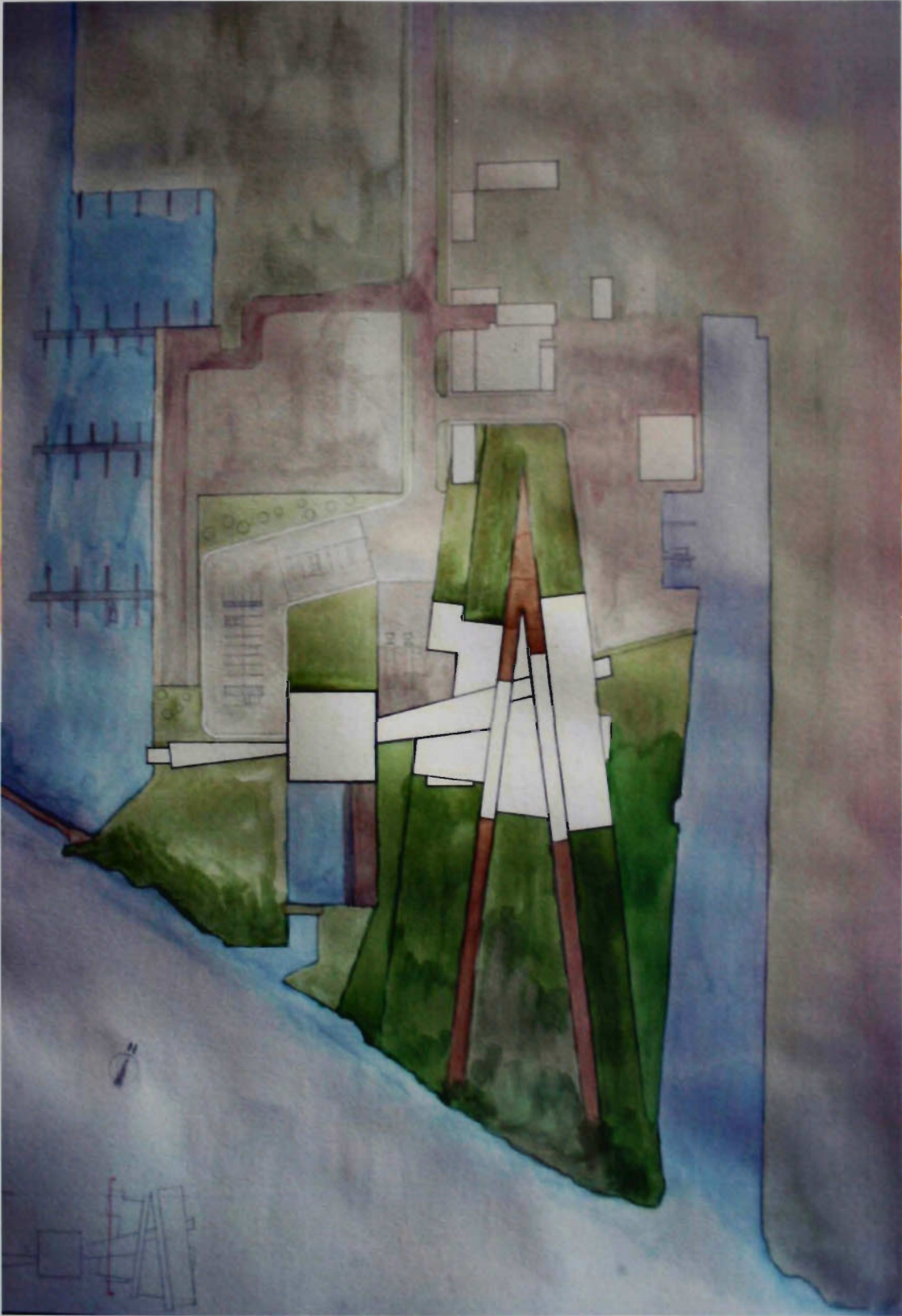




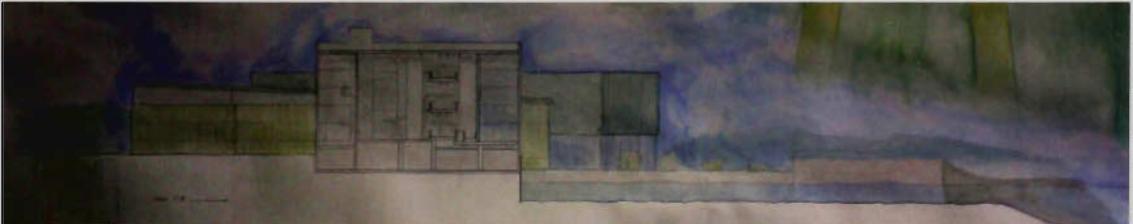
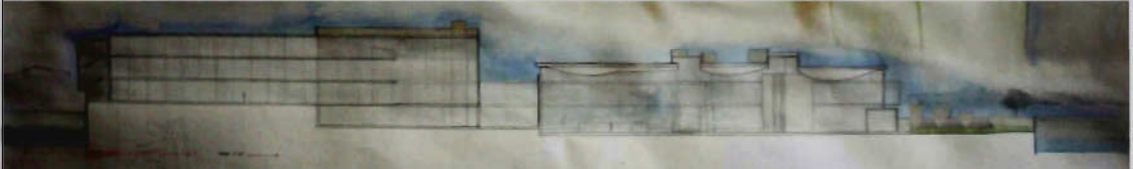
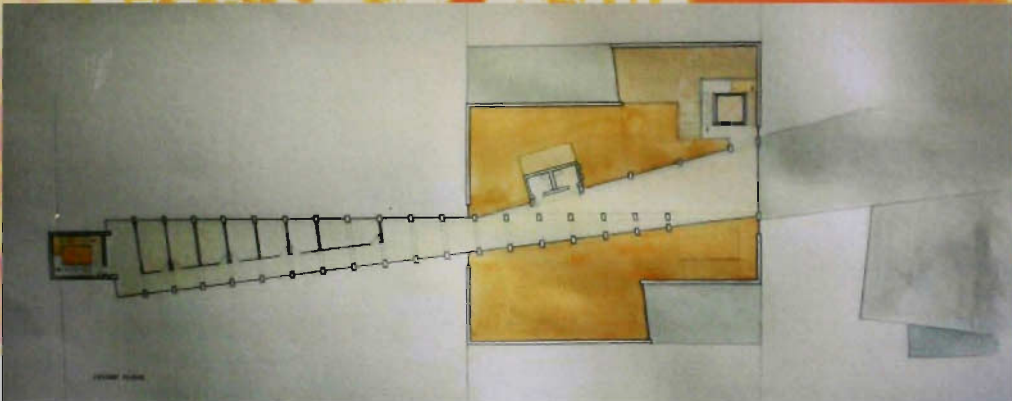
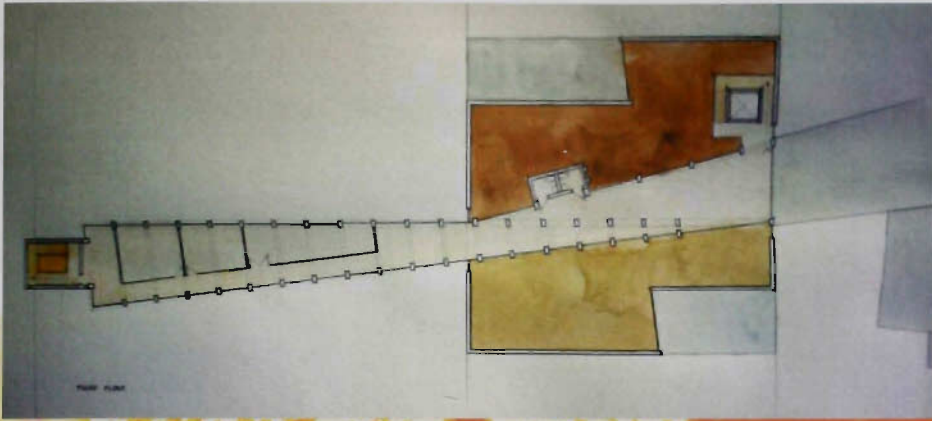


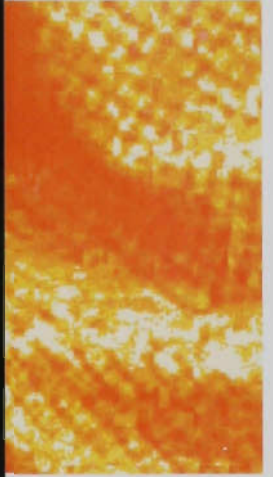












9

CONCLUSION



CRITICAL POSITION AND BUILDING PROPOSAL

MY THESIS SEEKS TO REVEAL THE SPIRIT OF MAKING. IT REVOLVES AROUND THE IDEA OF MASTER BUILDER AS ARCHITECT, BUILDER, PRODUCT ENGINEER, AND MATERIALS SCIENTIST. AS THERE IS A GAP IN THE TRANSLATION FROM DESIGN TO MAKING WITH/ AMBIGUITY AND UNPREDICTABILITY, CAN THE TRACE OF HAND OR BODY BE EVIDENT IN THE TRANSITION BETWEEN THE IMAGINED AND THE BUILT ARTIFACT?

MY SITE ALONG THE DETROIT RIVER SERVES AS A PALIMPSEST THAT IS HISTORICALLY A PLACE OF MAKING. WITH THE NUMEROUS AMOUNT OF CHANGE THAT HAS OCCURRED TO THE RIVER'S EDGE OVER THE LAST CENTURY, IT IS TIME FOR A NEW MARK IN A NEW GENERATION OF TECHNOLOGY AND METHODS OF MAKING. BECAUSE OF THE CUT AND FILL METHODS PRACTICED ON THIS SITE FOR A CENTURY, I TOO EXPLORED THIS IN A WAY THAT COULD INFORM HOW THE ARCHITECTURE EMERGES FROM THE GROUND. THRESHOLDS FROM THE PROGRAM EXTEND INTO THE LANDSCAPE. I RELOCATED THE BOAT LAUNCH TO THE INDUSTRIAL SIDE OF THE SITE AND PROPOSED A PARK TO BE ADDED THERE AND EXTEND UP TO THE RIVER. THE INDETERMINACY OF THE PARKS' EDGE WITH EXTERIOR WORKSHOPS CONTINUES THE PROGRAM THEME TO THE EXTERIOR. THIS IDEA FURTHER ENFORCES THE TENSION OF RECREATION AND INDUSTRY ON THE RIVER'S EDGE.

THE IDEAS OF EDGE, THRESHOLD, SLIPPAGE, RECIPROCIITY, ETC. WERE WORDS AND CONCEPTS THAT WERE CONTINUALLY USED IN MY SKETCHBOOK. I TRANSLATED THEM INTO GESTURAL SKETCHES: AND BEGAN TO QUESTION WHERE & HOW THESE RELATED, BOTH IN PLAN & SECTION, AS WELL AS ARCHITECTURAL & PROGRAMMATIC ELEMENTS. NOT ONLY DO THEY SERVE AS INFLUENTIAL STUDIES TO THE ARCHITECTURE, BUT ALSO THEY SPEAK OF THE SHIFTS AND EVOLUTIONARY STEPS WITHIN THE DIFFERENT MODES OF MAKING. EACH METHOD / MODE IS NOT DISTINCT, BUT INTEGRATED AND INFLUENCED BY EACH OTHER. THE RUB AND RECIPROCIITY IF MAKING IS DEMONSTRATED BY THESE STUDIES. THEY WERE THEN INTRODUCED TO THE PROGRAM WHERE THERE IS NO LONGER A CLEAR DISTINCTION BETWEEN DIFFERENT MEDIAS OR LEARNING AND MAKING. THE PROGRAM IS A WORKSHOP AND EDUCATIONAL FACILITY FOR HANDCRAFT, INDUSTRIAL, AND DIGITAL MEDIAS. WITHIN IT RESIDES A NON-LINEAR FABRICATION PROCESS RICH WITH/ OVERLAP, AMBIGUITY, TESTING AND RETESTING, RESEARCH AND INNOVATION.

MY TECTONIC STUDIES PLACED THE TRACE OF THE HAND AND THE ACT OF MAKING AT THE FOREGROUND. THE OVERALL CONCEPT OF THE BUILDING IS A LIGHT BAR (ADMINISTRATION & SOME CLASSROOMS) THAT PIERCES THROUGH DIFFERENT FUNCTIONS OF MAKING. ONE IS ABLE TO BE IN THE WORKSHOP AND SEE THE PROCESSES WHILE STILL HAVING THE CLEANLINESS OR QUIETNESS FOR LECTURES. THE AREAS BETWEEN THE STUDIO SPACES BECOME INTEGRAL THRESHOLDS TO THE WOODSHOP AND METAL SHOPS, AS DOES THE STAIRWELL BETWEEN THE CONTROLS LAB AND INTEGRATED TECHNOLOGY AND MATERIALS TESTING LAB. THE THRESHOLD IS A VISIBLE AND PHYSICAL LINK OF THE DIFFERENT FUNCTIONS. IT ALSO SIGNALS THAT THE SPACES ARE NOT TO BE COMPLETELY SEPARATE, BUT DIFFERENTIATED FOR

PRAGMATIC REASONING. THE THRESHOLDS EXTEND BEYOND THE BUILDING INTO THE SITE RE-WRITING THE PALIMPSEST WITH IDEAS EXPLORED IN THE HIEROGLYPHICS / RUBBINGS.

THE TALLER TOWER HOUSES ADMINISTRATIVE AND FACULTY OFFICES. THE MAIN ENTRY SPACE IS OPEN TO THE LIGHT BAR AND LOUNGE AND GALLERY SPACES. THE REMAINING PART OF THE BAR SERVES CLASSROOMS AND A LIBRARY / RESEARCH AREA THAT OVERLOOK THE WORKSHOPS BELOW. THIS CORRIDOR ALSO PRODUCES SIGHT LINES TO THE EXISTING INDUSTRY FROM THE LEARNING SIDE, AND TO THE YACHT CLUB / DOWNTOWN FROM THE ADMINISTRATIVE END. VIEWS OF THE RIVER, BELLE ISLE, AND CANADA'S INDUSTRY, COMBINED WITH THE EDISON COMPLEX IN THE FOREGROUND, CAN BE SEEN FROM THE LOWER LEVEL AND EXTERIOR WORKSPACES.

THE LOWER LEVEL IS EXCAVATED COMPLETELY ON THE RIVER SIDE TO ALLOW FRESH AIR AND OUTDOOR WORKSPACE. RAMPS AND STAIRS IN THE LANDSCAPE EXTENDING FROM THE THRESHOLD ZONES ALLOW ACCESS FROM THE STREET SIDE TO THE LOWER LEVEL. THIS IS ALSO DEMONSTRATED IN THE SITE CONCEPT RUBBING AS WELL AS THE MODELS. THE RETAINAGE WALLS AND OUTDOOR DIVIDERS ARE CONSTRUCTED OF RECYCLED TIMBERS, STACKED IN BEARING AND TIED TOGETHER.

AS THE WORKBOOTH OR TOOLS / MACHINE RENTAL SHOP ARE SLID INTO THE BUILDING FORM, THE INTERNAL SPACES REFLECT THIS. THE ACCESS RAMP TO THE SHOP IS PUSHED INTO THE HALLWAY AND THE STUDIOS RUB PAST EACH OTHER. THEIR PRESENCE IS KNOWN.

THROUGH MY INVESTIGATION AND SUPPLEMENTAL STUDIES IN THE PLYWOOD PROJECT AND THE 3-D FURNITURE STUDIO, I TRULY REALIZED THE IMPACT OF HOW INDUSTRIAL, HANDCRAFT, AND DIGITAL MEDIAS ARE NOT TRULY DISTINCT FROM EACH OTHER, BUT INTEGRATED. LEARNING IS NOT SEPARATE FROM THE ACT OF MAKING. MY BUILDING'S DESIGN HAS A TRACE OF THE HAND IN MAKING AND THE BUILT ARTIFACT WHILE UTILIZING SOME PREMANUFACTURED ELEMENTS AND EMBRACING TECHNOLOGIES IN THEIR FABRICATION.

I CHALLENGED THE ASSUMPTIONS THAT LEARNING AND MAKING ARE SEPARATE AND LINEAR. THE BUILDING'S PROGRAMMATIC ARRANGEMENT, AND HOW IT EMERGES FROM THE LANDSCAPE, AS WELL AS THE ARCHITECTURAL TECTONICS, ENFORCES THE RICH NON-LINEAR AND INDETERMINATE PROCESS OF MAKING. IT IS MY HOPE THAT THE ARCHITECTURE INSPIRES CREATIVITY AND INNOVATION IN HANDCRAFT, INDUSTRIAL, AND DIGITAL MEDIAS.

FUTURE STUDIES WOULD ALLOW ME TO PRODUCE MORE OF THE FULL-SCALE WALL SECTIONS. ADDITIONALLY, AS NEWER TECHNOLOGY EMERGES, I COULD USE THAT CUTTING EDGE TO PRODUCE INNOVATIVE ARCHITECTURE THAT EMBRACES THE MULTIMEDIA APPROACH. WITH ADDED RESEARCH TO NEW EQUIPMENT AND MACHINERY THAT MIGHT BE USED IN THIS FACILITY, THE INTERIOR LAYOUTS WITHIN THE WORKSHOPS COULD BECOME MORE DETAILED AND TAILORED.

10

REFERENCES



ANNOTATED BIBLIOGRAPHY

AMIDON, JANE. RADICAL LANDSCAPES: REINVENTING OUTDOOR SPACE. NEW YORK: THAMES & HUDSON, 2001.

OFFERS ONE PREVIOUSLY USED PRECEDENT STUDY CALLED JELLYFISH, A BUILDING ENGAGING LAND AND WATER AT WATER'S EDGE.

ARCHIBALD, ROBERT R. A PLACE TO REMEMBER. : ALTA MIRA PRESS, 1999.

QUOTES TAKEN WITH REGARD TO PLACE MEMORY AND ATTACHMENT.

BAIST, G. WM. BAIST'S PROPERTY ATLAS. PHILADELPHIA: SURVEYOR & MAP PUBLISHER, 1923.

IMAGE TAKEN FOR RIVER / LAND CHANGES OVER TIME SPECIFIC TO MY SITE.

BAIST, G. WM. BAIST'S PROPERTY ATLAS. PHILADELPHIA: SURVEYOR & MAP PUBLISHER, 1955.

IMAGE TAKEN FOR RIVER / LAND CHANGES OVER TIME SPECIFIC TO MY SITE.

CALVINO, ITALO. INVISIBLE CITIES. SAN DIEGO: HARCOURT BRACE JOVANOVIĆ, INC., 1972.

ARCHITECTURAL NOTIONS TO CONSIDER IN PROGRAMMING AND INTENT.

CURTIS, WILLIAM J. R. MODERN ARCHITECTURE SINCE 1900, THIRD EDITION. LONDON: PHAIDON PRESS LIMITED, 1982.

PROVIDES INSIGHT ON THE ARTS & CRAFTS AND INDUSTRIAL MODERNISM MOVEMENTS.

DASKALAKIS, GEORGIA, CHARLES WALDHEIM, AND JASON YOUNG, ED. STALKING DETROIT. BARCELONA: ACTAR, 2001.

LINE FRUSTRATION BY JASON YOUNG, PRECEDENT STUDY OF DETROIT'S EMPOWERMENT ZONE.

DALCO, FRANCESCO. TADAO ANDO: COMPLETE WORKS. LONDON: PHAIDON PRESS LIMITED, 1994.

IMAGES AND RESEARCH FOR 'FABRICA' PRECEDENT STUDY.

DAVIDSON, CYNTHIA, ED. ANYTHING. CAMBRIDGE: MIT PRESS, 2001.

INFORMATION ON "BLUR" BY ELIZABETH DILLER.

DICHOTOMY. DICHOTOMY 15: GROUND. DETROIT: SCHOOL OF ARCHITECTURE, UNIVERSITY OF DETROIT, 2004.

USEFUL ESSAYS / INTERVIEWS ON THE TOPICS OF TECHNOLOGY AND MAKING.

DILLER, ELIZABETH AND RICARDO SCOFIDIO. BLUR: THE MAKING OF NOTHING. NEW YORK: HARRY N. ABRAMS, INC., 2002.

THE BLUR BUILDING'S DOCUMENTATION IS AN EXTREMELY VALUABLE RESOURCE FOR MY FIRST PRECEDENT STUDY.

DORRIAN, MARK, AND GILLIAN ROSE, ED. DETERRITORIALISATIONS... REVISIONING LANDSCAPES AND POLITICS. LONDON: BLACK DOG PUBLISHING LIMITED, 2003.

THE PREFACE OFFERS HELP IN DEFINING THE MEANING OF LANDSCAPE.

FITCH, JAMES MARSTON. HISTORIC PRESERVATION: CURATORIAL MANAGEMENT OF THE BUILT WORLD. CHARLOTTESVILLE: UNIVERSITY PRESS OF VIRGINIA, 1990.

QUOTES TAKEN ON URBAN MEMORY.

FUTAGAWA, YUKIO, ED. GLOBAL ARCHITECTURE, DOCUMENT EXTRA 01: TADA0 ANDO. TOKYO: A. D. A. EDITA, 1995.

IMAGES FOR 'FABRICA' PRECEDENT STUDY.

FUTAGAWA, YUKIO, ED. TADA0 ANDO: DETAILS 2. TOKYO: A. D. A. EDITA, 1997.

IMAGES AND RESEARCH FOR 'FABRICA' PRECEDENT STUDY.

HAYDEN, DELORES. THE POWER OF PLACE: URBAN LANDSCAPES AS PUBLIC HISTORY. CAMBRIDGE: MIT PRESS, 1996.

QUOTES TAKEN WITH REGARD TO PLACE MEMORY AND ATTACHMENT.

HOLL, STEPHEN. EDGE OF A CITY. NEW YORK: PRINCETON ARCHITECTURAL PRESS, INC. AND PAMPHLET ARCHITECTURE, 1991.

QUOTES ON EDGE PHILOSOPHY AND POSSIBLE IMAGES.

ILLINOIS INSTITUTE OF TECHNOLOGY. THE MCCORMICK TRIBUNE CAMPUS CENTER. INFORMATIONAL BROCHURE.

FLOOR PLANS AND PHOTOS FOR A PRECEDENT STUDY.

INGRAHAM, CATHERINE. ARCHITECTURE AND THE BURDENS OF LINEARITY. NEW HAVEN: YALE UNIVERSITY PRESS, 1998.

QUOTATIONS AND PHILOSOPHY OF LINES IN ARCHITECTURE.

JERDE PARTNERSHIP INTERNATIONAL, THE. YOU ARE HERE. LONDON: PHAIDON PRESS LIMITED, 1999.

THIS OFFERS AN IN-DEPTH LOOK AT SOME OF THE FIRM'S LARGE-SCALE URBAN PROJECTS AT WATER'S EDGE.

SHEILA KENNEDY, "ANTICIPATION + MEMORY: GENDER SPACE IDEOLOGIES," DICHOTOMY 15: GROUND, (2004): 97.

QUOTE TAKEN ON THE HUMAN DIMENSION IN ARCHITECTURE.

KIERAN, STEPHEN, AND JAMES TIMBERLAKE. MANUAL: THE ARCHITECTURE OF KIERAN/TIMBERLAKE. NEW YORK: PRINCETON ARCHITECTURAL PRESS, 2002.

CONTAINS A TECTONIC PRECEDENT FOR EAST STROUDSBURG UNIVERSITY.

LEACH, NEIL, DAVID TURNBULL, AND CHRIS WILLIAMS, ED. DIGITAL TECTONICS. GREAT BRITAIN: WILEY-ACADEMY, 2004.

A COLLECTION OF ESSAYS FOCUSING ON DIGITAL MEDIUM.

LECUYER, ANNETTE. RADICAL TECTONICS. NEW YORK: THAMES & HUDSON, 2001.

QUOTES TAKEN FOR A WORKING DEFINITION AND CONTAINS A TECTONIC PRECEDENT FOR ALMELO PUBLIC LIBRARY BY MECANOO.

LYNCH, KEVIN. THE IMAGE OF THE CITY. CAMBRIDGE: MIT PRESS, 1960.

QUOTES ABOUT URBANISM.

NESBITT, KATE, ED. THEORIZING A NEW AGENDA FOR ARCHITECTURE.

MARCO FRASCARI'S "TELL-THE-TALE-DETAIL" OFFERS INSIGHT ON TECHNOLOGY, CRAFT, AND DETAILS.

PARE, RICHARD. TADAO ANDO: THE COLOURS OF LIGHT. LONDON: PHAIDON PRESS LIMITED, 1996.

IMAGES FOR 'FABRICA' PRECEDENT STUDY.

PEARSON, MIKE AND MICHAEL SHANKS. THEATRE/ARCHAEOLOGY. LONDON: ROUTLEDGE, 2001.

INFORMATION ON SITE ARCHAEOLOGY THAT CAN BE APPLIED TO SITE RESEARCH.

PYE, DAVID. THE NATURE AND ART OF WORKMANSHIP. LONDON: CAMBRIDGE UNIVERSITY PRESS, 1968.

VERY USEFUL BOOK FOR QUOTES AND DEFINITIONS REGARDING CRAFT, WORKMANSHIP, ETC.

STANISZKAS, JERZY. ORGANIC URBAN STRUCTURE. DETROIT: SCHOOL OF ARCHITECTURE, UNIVERSITY OF DETROIT, 1979.

A DOCUMENTATION OF AN URBAN RIVERFRONT DESIGN PROPOSAL IN DOWNTOWN DETROIT. IT OFFERS STATISTICAL DATA AND A PRECEDENT STUDY.

STOUT, RANDALL. ENVIRONMENTAL ALCHEMY: RANDALL STOUT ARCHITECTS. NEW YORK: EDIZIONI PRESS, 2004.

CONTAINS INFORMATION ON A TECTONIC PRECEDENT STUDY FOR COGNITO FILM.

TUNG, ANTHONY. PRESERVING THE WORLD'S GREAT CITIES: THE DESTRUCTION AND RENEWAL OF THE HISTORIC METROPOLIS. NEW YORK: THREE RIVERS PRESS, 2001.

URBAN QUOTES WITH THE AFFECTS OF NEW TECHNOLOGY AND MODERNISM.

TYLER, NORMAN. HISTORIC PRESERVATION: AN INTRODUCTORY TO HISTORY, GUIDELINES, AND ISSUES. 2ND ED.: W. W. NORTON & COMPANY, 2000.

QUOTES ABOUT URBANISM AND THE PAST.

