a thesis
by Lisa A. Kolber

a search for an honest aesthetic
and an exploration in manners of working

Ball State University College of Architecture and Planning
This Thesis Document is submitted in partial fulfillment of the course requirements for Architectural Thesis ARCH 406 and the requirements for the degree: Bachelor of Architecture.

Building type:
A series of projects that culminates with a bed and breakfast inn located in downtown Louisville, Kentucky.

Thesis Committee Chair: Arthur Schaller
Thesis Committee Member: Andrew Seager

Copyright 1988 by Lisa Kolber and Ball State University and Planning. 100 pages.

All rights reserved. No part of this work covered by the copyright hereon may be reproduced or used in any form or by any means- graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems- without the permission of the author or the publisher.

Published by the College of Architecture and Planning,
Ball State University
Muncie, Indiana 47306
a thesis
by Lisa A. Kolber

a search for an honest aesthetic
and an exploration in manners of working

Ball State University College of Architecture and Planning
Acknowledgements:

I wish to dedicate this book to my parents, to my father, whom I hold responsible for getting me into this, and to my mother whose support and encouragement got me through.

Special thanks also go to a few professors and classmates who forced me to open my eyes every once in a while whether I wanted to or not.

And very special thanks to Eric Inglert.
Abstract

Beginnings
Notes from the proposal

Light Machine #2
An exploration of process

Three Manners of Working
Emotionally expressive, the material study, functionally expressive

An Integration of Approaches
Bed and breakfast inn

Conclusion

Table of Contents
"Seeing is forgetting the name of the thing that one sees."

Paul Valery

This thesis began with an inquiry into the design process. It is not so much about theory as it is about coming to know myself and my own design process better. What follows is a journey through a series of projects tied together by their exploration of perception, process, and the translation of their conceptual ideas into tangible things.

Beginning with the idea of inspiration, I found that some of the most powerful objects in our environment are also the most familiar and, because of that, the least noticed. My interest began with objects such as television sets, light bulbs, grain elevators, steel bridges, and the Indiana landscape (also a man-made thing) and led to a fascination for the materials and connections from which these things are constructed. These utilitarian objects possess a powerful image in both a sculptural and cultural sense, a quality often overlooked due to the banal stereotype assigned to them. Perhaps it is precisely that reason that I believe these things require a second glance.

In these pages are contained five projects acting as a medium in which to explore the previously mentioned issues. Beginning with a process exploration starting with a light bulb and culminating in a bed and breakfast inn set in downtown Louisville, the projects take their
inspiration from a series of utilitarian objects and materials and question the process of translation from idea to tangible product through perception and communication.
Beginnings

notes from the proposal
"It would be possible, I think, to write a history of Western architecture that would have little to do with either style or signification, concentrating instead of the manner of working."

Robin Evans

In search of an honest aesthetic ...

I am interested in the evolution of concepts because I believe that the process determines the product. At the root of my thesis is the exploration of the design process which I described initially through four ideas: observation, perception, approach, and drawing.

Observation here is related to the idea of inspiration and requires an extension of vision. Because we grow up with certain things around us, they may become too familiar and we may stop seeing them. Instead we often perceive the label given to them without recognizing their impact or essence. Yet their familiarity is an indication of their importance to us and potential as creative inspiration. So observation here refers to the ability to view things freshly, hoping to see beyond stereotypes and labels.

Perception is based on how one observes the object and is often dependent upon point of view. If labels cause one to see the name
than the object, then altering one's point of view may allow the thing to be seen in a new and thought provoking way. It is not too different from the artist who turns his painting upside down to see his work from a fresh perspective.

Approach refers to the design (thought) process itself, of which observation and perception are a part. It dictates the path that leads to the end product or design.

Drawing is a significant tool through which the design is created and perceived. Unlike the arts of painting and sculpture, architecture is of a scale that it must be explored vicariously through the medium of drawing (or model) and because of this, there is an unusually strong relationship between the two. This relationship has varied greatly through the history of both. As a simple example, the Bueax Arts described architecture through plans, sections, and elevations. The Bauhaus, however, utilized axonometrics and models, emphasizing planes and volumes. This relationship plays a critical role in the design process based on premise that the way in which one approaches a problem significantly determines its outcome.
Light Machine #2

an exploration of process
This was my first in a series of projects. The process explored here is based on an inductive, instead of a deductive approach. Rather than start with the whole (that I don't actually know) and work down to the detail (that I do know), I began with the detail and let it grow into the whole. This is supported by the premise that by working without a preconceived end, the method lends itself to the freedom of exploration and serendipity, to find things along the way, and be liberated from a predetermined end that might stunt or force the design.

I will not call it a lamp because I did not begin with the idea of a lamp. Instead I began with a light bulb, a detail. My question was, if you begin with a detail and follow it, where will it lead you?

Inspiration is important in that it guides beginning. I believe that inspiration is a matter of taste. It is very personal. One is either inspired by something, or not. Some of the most powerful objects in our environment are also the most familiar, and because of that, the least noticed. I have become inspired by the familiar things around me, simple utilitarian objects that have a powerful image in both a sculptural and cultural sense. My interest began with objects such as the television and the light bulb but has come to include some of the more striking elements of the Indiana landscape. These pieces include grain elevators, barns, utility poles, railroad imagery, bridges, factories, the flat landscape itself, and the utilitarian materials from which these things
are constructed. The unpretentiousness and sculptural constructivist qualities of these functional objects are easily overlooked due to the banal stereotype assigned to the things. For this reason, I believe these objects require a second glance.

I find the most striking quality of these things is the honesty inherent in their straightforwardness and lack of pretensions. Unlike the majority of the structures that we live in, these objects have nothing to hide. Their structure and systems are their aesthetic, exposed and expressed, without deliberate decoration. The honesty contained here is that of celebrated connections and truth in materials. Even the aging process adds rather than subtracts from the character of these objects.

These cultural objects are vernacular and utilitarian things that are not necessarily buildings, although some are. However, they all have certain architectonic qualities in that they raise issues that apply to an architectural context. These issues concern composition, sculptural quality, and use of materials and connections to name a few.

At the same time that I began the investigation with the light bulb, I also began collecting images of some of those cultural objects that intrigue me. I kept the two studies independent of each other. But what happened is that I became interested in the pieces and parts of those things related to the light bulb, the wires, outlets, switches, sockets, in essence, the aesthetic of the utilitarian components. There was no need
for decoration that hid the mechanics of the thing, the mechanics are an aesthetic in themselves.

From this concept originated the initial sketches; following the idea came a refinement through material studies. I took a trip to the hardware store. But instead of simply buying what I had come for, I found many more objects of inspiration. It was from these materials that the project actually took shape.

I now had my sources and was somewhat surprised when I discovered the coherence of what had taken shape. The sketches based on the light bulb, the materials to build it, and the images of the cultural objects all pointed to a definite trend in my thinking: fascination with an aesthetic created by utilitarian objects. I united the two studies and began to look more closely at my collected objects. However, I tried to avoid blatant borrowing of forms.

Working through rough sketches, essence drawings, and experiments with the materials, the first variation of the project was constructed. What the light bulb had led to was a bright and chaotic mass of wire, tubing, and light bulbs.

Titled Light Machine #2 since its earliest sketch, this thing is admittedly not quite architecture. But it does have architectonic implications; the issues that I worked with do apply to architecture. These issues are an aesthetic system and its inspirational roots,
materials, connections of those materials, the role of drawing, and of course the process of design.

The aesthetic of simple materials and structure represents a concept that has occupied many architects. Mies Van der Rohe manipulated the I-beam as both structure and ornament. Frank Gehry, in his early work, utilized stereotypically crude utilitarian materials such as corrugated metal, astroturf, and plywood as finish materials, expanding their use and meaning. Norman Foster, in structures like the Hong Kong Bank also manipulates the aesthetic use of bold structure. However, a contradiction comes into play here. Is such an aesthetic, that of mass produced, simple pieces, of any value when it proselytizes its function for pure ornament resulting in inefficiency that contradicts its original nature? The beauty of these utilitarian objects is their lack of pretensions, their straight-forwardness, their honesty. Such an aesthetic immediately becomes hypocritical when literally copied. They are inspiration; it is only their integrity, expression of construction, and sculptural quality inherent in that that is meant to be borrowed. (This is not meant to exclude the playful and idiosyncratic which also play a role in vernacular utilitarianism).

Returning to Light Machine #2, is it an honest aesthetic? To be truthful, I doubt it. Although the materials are used in an unusual way, expanding them from the merely functional to an aesthetic also, they are
Light duty switch for lighting fixtures, table and floor lamps, small appliances and small portable tools.

INSTALL:
1. UNPLUG LAMP OR APPLIANCE, or turn off power at fuse or circuit-breaker if permanently-installed fixture.
2. Remove assembly nut on old switch-shaft busign, remove switch and release wires.
3. Connect new switch to wires on line side of circuit (usually black or red or ungrooved, rounder wire of flat-cord pair), and to wires to center contact of lamp socket (usually brass-colored terminal screw).
4. Insulate all wire connections securely, as with electrical tape or wire connectors.
5. Mount switch and tighten assembly nut securely.

WIRING DIAGRAM:

Following these instructions correctly will maintain the polarity of a correctly wired system.

Letco Manufacturing Co., Inc., Little Neck, New York 11362
Made in U.S.A.
overused. The aesthetic begins to dominate in an uncomfortable way.

However, the principles used to create the project reappear in its second variation, Light Machine #2: the Birthday Present, in a more refined way. This project initially had nothing to do with the investigation. Conceived as a gift and crudely scribbled onto a page of notes, it was intended only as a simplified version of the first. However, it illustrates the stated concepts far better than the original.

More streamlined than the original, the chaos of wire has been replaced with a dominating plexiglass structure that happens to bow, in balance with the tension wires needed to support it. From the plexiglass hang two bulbs mechanically fastened with eyebolts. A weight and pulley allow a slight variation in the composition of lights, while the wires are coiled to allow for their shifting shapes due to the displacement of the weight. Through its comparative simplicity, this second variation achieves a greater equilibrium between the mechanics and aesthetics of the materials. There is less extraneous material in this one, clarifying the roles of the components, allowing the thing to achieve more of an elegance.

These "gizmos," as they were christened by a visitor, are playful experiments that investigate the more serious architectonic questions, mentioned previously, concerning materials and aesthetics. Much of their significance derives from these questions and their applicability to
architecture. The concept of process, where an idea comes from and how it develops, materials and how they are put together, and the notion of integrity and character are all fundamental issues related to architecture.
Three Manners of Working
emotionally expressive, the material study, functionally expressive
The next phase of this investigation is dedicated to utilizing what has been learned about the issues of perception, process, and inspiration and examining them further, at a larger and more architectural scale. It is not a revisitation of the modern movement that I am exploring but a reaction to the false gables and facades of the post modern one. The previously mentioned objects have a similar character of monumentality and grandness as "modern" and "post modern" architecture but consist of a vernacular closer to home and a directness of common materials and unpretentious construction. It is inspiration for architecture that I find within these objects and not a prototype for facades. The question, then, is how can these ideas be translated into architecture without betraying the inspiring principles? How does one "design" an honest aesthetic?

I have been exploring these queries through the study of connections and materials, including "vulgar" ones such as plywoods and corrugated metal. Through the extension of the stereotypical roles of materials, they can be transformed into something beyond their normal character and woven into a dialogue about the nature of construction in relation to space, mood, and emotion. All materials contain expressive qualities that engage these ephemeral perceptions. They contain a clarity as well as an ambiguity of their own that need not be created through false facades or deceptive minimalism, that speak of
an integrity based on expressive "honesty."

It could be said that a building consists of numerous details and connections held together by an overriding theme or concept. Too often, buildings are overwhelmed by concepts which subordinate the detailing of connections and materials to an afterthought. However, the qualities of texture, light, sound, warmth and other ephemeral sensations created by materials are as, and often more, important to the human senses and creation of space than an historic allusion or abstract planning geometries. The use of materials and their connections in creating an expressive architecture is based on this relationship between tangible construction and the more ephemeral aspects of light, atmosphere, and emotion.

The following three projects each investigate a specific approach to materials, their qualities, and the process of manipulating and communicating them. The first, "Room for a Clock", is an emotionally expressive approach. It explores the qualities of light and time through a formal and materialistic minimalism. "The Material Study" tackles a divergent approach that concerns itself with a constructive emphasis on form and structure, materials and connections. The third approach is described as functionally expressive. It is explored through a piece titled "The Bathroom" and seeks a cooperation of issues through the simple function of a bathroom/steamroom whose character is created through
the exposure of technical systems.

"Room for a Clock" began with a series of drawings based on perception. Starting with an abstraction of landscape, the drawings progress through variations upon that theme to a door, a hallway, a living room. The function of the room is to house a single computer and its operator. This token function was chosen because of its aspect of displacing the occupant from the external world into his or her own thoughts. The room is intended as an orientation device for the occupant when he or she leaves the inner world of the computer where the sense of time is lost, to return to the external world. Because of the minimalism of the space, emphasis is placed on the variation of natural light as the day progresses and acts as a clock to one who is familiar with the room. The minimalistic simplicity of the room is created through a smooth cast concrete shell in which there is little variation in materials or connections.
"The Material Study" began with a series of sketches exploring form. It emphasizes the relationship of structure and skin composed by formal concerns without a specific human function. A simple piece, it is an excursion in geometry and the material detailing needed to hold it together. Its tall columns are concrete and support the walls, or skin, and roof. Much of its detailing, including the materials of corrugated metal, diagonal cable bracing, and roof trusses is derived from the industrial shop building. The ends of the building are comprised of another skin-type material, plywood. Used in dimensions of four feet by four, the plywood size is derived from the standard eight by four foot size in which it is available. It is supported by an interior grid structure of the same dimensions.
sections
"The Bathroom" was inspired by plumbing fixtures. Designed through a series of detail images, its functional "guts" are housed within a simple shell of concrete block. In addition to materials and function, it explores the idea that spatial form is often not as important to the participant as the furniture and fixtures that it houses. In this piece, the fixtures, copper plumbing pipes, and water heater create the formal composition. Above these is the narrow metal balcony for lounging when the steam is turned on. The sink and the tub are also broken down into their component pieces of a creamic bowl supported by a metal structure.
2.2.88 "the bathroom"

there is a flat floor

and a copper pipe

water hot and cold

three fixtures
Fixtures for the fixtures

and...

and...

morning
evening

the same the stairs

hard surfaces -
echoes -
reflections -
imprison reality -
in two dimensions
An Integration of Approaches

a bed and breakfast inn
The final project, a bed and breakfast inn, was developed through a combination of the three approaches introduced in the previous projects: the emotionally expressive, functionally expressive, and material study. The specificity of the functions and the small scale of the building type appealed to me as a challenging program through which to test the application of my material palette. I also liked the residential-like functions which demand a degree of comfort but on a semi-public scale. A bed and breakfast inn provides a wide range of spaces as well as the need for a strict spatial sequence.

Because of my familiarity with the city and its character, I chose a site in downtown Louisville, Kentucky. I wanted to build in a place that I knew and had a feeling for. Its idiosyncrasies within a larger traditionalism were appealing. The traditional cast iron and brick facades provides a contextual challenge. But layered within that are cues created by idiosynchrasies in the form of alleys with their dynamic spaces and informal massing, fire escapes added to facades, and years of small vernacular additions to the existing structures. In this realm already existed precedents of inspirational materials and forms.

I began this final project with an existing building which acts as the proverbial found object, a place to begin which is similar to the role of the light bulb played in the first piece. The existing building is used as a self-contained shell to be incorporated into a still life of additions
connected to the shell by a series of punctures in the skin of the original. The original context of this building was a wall of early 20th century facades. Today the building sits on a plain of parking lots as an object in space. Because of this, the building's role has changed from a facade to a three dimensional object. This became another factor which guided the project's development.

Intrigued by the alleys in the neighboring blocks, I am inspired by their loose massing, fire escapes, revealed plumbing and exhaust systems, and mysterious atmosphere. I am especially interested in the spatial qualities of a long, tall, narrow space punctured and punctuated by all manner of eccentric "left-overs."

The three methods of exploring the project can be seen in the development and presentation of the design. The emotionally and functional expressive approaches are primarily depicted through loose, atmospheric drawings. The material study, however, was explored through a working model and its details through hard-line drawings.

A list of necessary rooms and functions was made up but the programming itself was planned through a detailed variation of the bubble diagram. Also an alternative to the typical cramped hotel double which offers little privacy was designed by creating an alcove off the main space to contain a second bed.

The existing building which acts as an artifact or unique thing is
incorporated into the new pieces through puncturing and adding to it. Within the existing building, its original skin and bones are dominant, including the brick bearing walls and wooden floors and joists. The added pieces are not intended to mimic the original but to take cues from it. Bearing walls running parallel to the existing building are added, providing the vertical structure to support the horizontal floors and roof. The remaining vertical walls need only complete the protective building shell and support themselves, thereby acting as skins.

Because bed and breakfast inns tend to be characterized by nostalgia inherent in the usually antiquated buildings that house them, I attempted to extend the presence of the existing building as much as possible. This was accomplished by incorporating an existing outside wall into the new adjacent entry space. This new piece is inspired by the alleys. On one side, the existing wall supports the main stairs which are in the spirit of a fire escape. The opposing side of the space is formed by one of the added masonry walls which helps contain the individual rooms. A glass shell protects the entry space from the weather but allows a focused view through it.
Conclusion
"I was soon struck by what seemed at the time the peculiar disadvantage under which architects labor, never working directly with the object of their thought, always working at it through some intervening medium, almost always the drawing, while painters and sculptors, who might spend some time on preliminary sketches and maquettes, all ended working on the thing itself, which naturally, absorbed most of their effort.... The sketch and maquette are much closer to painting and sculpture than a drawing is to a building, and the process of development-the formulation-is rarely brought to a conclusion within these preliminary studies."

Robin Evans

This thesis attempts to begin to explore these ideas by investigating several approaches of describing architectural issues vicariously. The ephemeral aspects of architecture cannot be ignored, nor can the tangible materials, joints, and forms that create them. After nine months of investigation, I do not know of one method that can describe space in all of its manifestations. Instead I realize that, for my own purposes, a combination is necessary. Especially important are the beginnings. Inspiration can come from anywhere, and in this case, I chose my backyard. I still love grain elevators and yearn to instill in my designs the same wonder that they fill me with.

The thesis does not stop here. It continues in the form of material studies on the scale of furniture, sculpture, and hopefully buildings. It continues with the fascination for the familiar things in my environment, their documentation, and experimentation with their principles. And it continues in drawings and models and whatever medium necessary to continue the effort to see with fresh eyes and communicate the emotions that I feel.