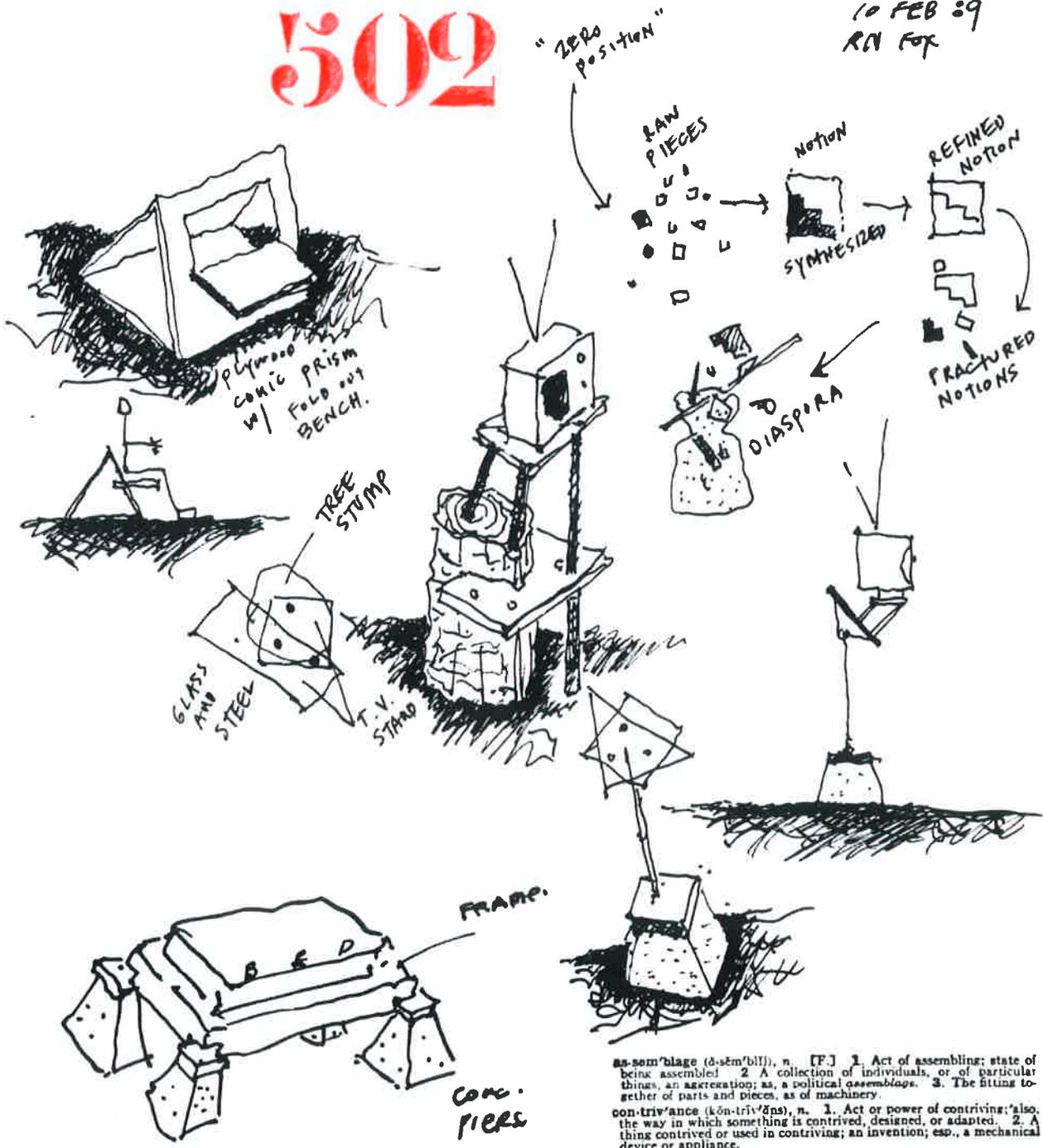


# MIA 502

10 FEB 89  
RM FOX



as-semblage (d-sēm'blī), n. [F.] 1 Act of assembling; state of being assembled. 2 A collection of individuals, or of particular things, an asseration; as, a political *assemblage*. 3 The fitting together of parts and pieces, as of machinery.

con-triv'ance (kōn-triv'āns), n. 1. Act or power of contriving; also, the way in which something is contrived, designed, or adapted. 2. A thing contrived or used in contriving; an invention; esp., a mechanical device or appliance.

# STUFF

**Week 1.** Introduction & Overview

DESCRIPTOR		LEVEL 1 NOT ACCEPTABLE	LEVEL 2 ACCEPTABLE	LEVEL 3 COMPETENT	LEVEL 4 OUTSTANDING	LEVEL 5 EXEMPLARY	SCORE
<b>D 1</b>	<b>DESIGN THEMES / SYNTHESIS</b>						
10 pts	Thematically Memorable Thematic Integration / Clarity Novel / Imaginative OR (5 pts)	Synthesis is limited or poor, unclear goals; Design is forgettable, unimaginative, cliché, or unengaging; incoherent; lacks originality; Designer's personal interpretation fits idiosyncratic design bias	Poor synthesis occasionally linked to goals that may be unclear; under-whelming engagement; shows minimal imagination, or is an obvious solution; mostly coherent; some original aspects; Designer attempts to base ideas and solutions on evidence & research	Good synthesis clearly linked to adequately stated goals; minimally evokes emotional responses in viewer; adequate engagement; Demonstrates adequate imagination; work is generally coherent; results are suggestive; Generally bases design on evidence & tries to eliminate designer bias	Superior synthesis clearly linked to well-stated goals; deliberately engages emotions well; novel solution well presented; internally coherent; fresh and exciting results; clearly bases solutions and design choices on evidence well understood;	Exemplary synthesis insightfully linked to articulate and concise goals; strongly engages emotional responses; highly memorable work; shows high degree of novelty in approach and/or solution; well-conceived, internally coherent	
<b>D 2</b>	<b>CRITICAL REFLECTION</b>						
5 pts	Understanding of Context Conceptual Clarity Comprehension of Concepts & Issues Rigoroussness	Fails to provide adequate context; does not grasp information; inadequate reflection on issues and themes; argumentation is difficult to identify, or is seriously flawed; fails to make valid inferences; misunderstands or misinterprets key concepts, principles or theories; has not read original research; unable to answer questions	Uncomfortable with context of the problem; or confusing statement of context; Identifiable argumentation but is flawed in some significant way; Occasional invalid inferences; Marginal grasps of key concepts, principles or theories; Acknowledges research but has little grasp of its ramifications; Answers only rudimentary questions	Adequately understands context; At ease with required content, but does not elaborate; Argumentation is clearly identifiable, and mostly sound; Valid inferences are routine; Understands relevant concepts, principles, theories or philosophies; Has read and internalized relevant research	Clear context provided in a concise and articulate way; Knowledge of content is demonstrated; Occasional elaborations and explanations; sound argumentation; Valid and well-justified inferences; superior comprehension of concepts, principles, theories and philosophies; Work enables greater rigor in the field of design	Superior grasp of context; Mastery of content is plainly evident; Freely and willingly offers elaborations, connections and explanations; sound and reasonable argumentation; Valid and insightful inferences; Comprehensive understanding of concepts, principles, theories and philosophies; Exemplifies highest levels of rigor in the field	
<b>D 3</b>	<b>ORGANIZATION</b>						
5 pts	Preparation Logical Sequence Attention to Detail	Stippy or minimal preparation; Audience cannot understand presentation because it lacks logical sequence; Fails to pay attention to detail	More preparation would help sequence or attention to detail; Audience has difficulty understanding presentation because its sequence is fractured or incomplete; Minimal attention to detail	Preparation demonstrated but marginally competent; Sequence is logical and is easy to follow; Attention to detail is adequate, but would benefit from elaboration	Designer is clearly prepared; Sequence is logical and interesting; Attention to detail is superior	Excellent level of preparation is evident; Insightful and provocative sequence; Remarkable attention to detail	
<b>D 4</b>	<b>COMMUNICATION</b>						
5 pts	Articulate Expression Audience Engagement Demeanor	Speaker mumbles, is inarticulate or hard to hear; Incorrect pronunciation of words & terms; Writing does not flow well, is not clear or concise; Graphics are poor or grossly underdeveloped	Difficulty staying engaged in presentation because speaker is monotone, or uses minimal inflection; Some words or terms are occasionally mispronounced; Writing flows adequately, but grammar and sentence construction need refinement; Graphics are passable, but need vast improvement	Clear voice, occasional inflection for emphasis; Most words and terms are correctly pronounced; Writing is clear, concise, and direct but uneventful; Graphics could use improvement but support verbal and written statements;	Clear voice, voice inflection is precise and well-placed; Words and terms are all pronounced correctly; Well-written, clear, concise, and insightful; Graphics are well-conceived and executed, and clearly support verbal and written statements	Clear voice, voice inflection and cadence are well-placed and engaging; Writing is exemplary, engaging and very persuasive; Graphics are excellently conceived and executed	
<b>D 5</b>	<b>LEVEL OF CONTRIBUTION</b>						
5 pts	(Academic & Professional) Relevance / Applicability Originality Develops New Knowledge	Work is non-contributory or irrelevant; Does not display original thinking; Fails to advance the field, has little or no applicability	Work is minimally contributory; Somewhat relevant; Minimal display of original thinking; Offers sparse advancement of the field or has limited applicability	Work makes a timely or relevant contribution but not both; Original thinking is displayed over a limited range of the work; Advances field in a few areas, and has adequate applicability	Timely and relevant contributions; Work demonstrates original thinking; Clear evidence of strong advancement of the field; highly contributory; Strongly suggests direction of future work	Timely and relevant contributions, and the work offers new and useful insights; Well developed original work; New knowledge concisely and articulately presented; Work has broad applicability and advances the field in meaningful ways; Direction of future work in the field is clear	

**Interior Designers Institute  
MIA Program**

**SUGGESTIONS FOR ACADEMIC WRITING**

**§ 1 General Issues**

Academic Writing is undertaken by scholars for scholars, and uses current knowledge about a topic to develop *new* ideas, theories or viewpoints about the topic.

An Explanatory Paper: The aim of this type of writing is to summarize, explain and evaluate an idea, theory, event or someone else's view. You must do more than describe a state of affairs. Rather, you must present evidence that supports your interpretation.

An Argumentative Paper: The aim of this type of writing is to convince your readers that some idea, claim or view is the correct one. You must do more than merely summarize your opinions. The writing is the product of careful research and thoughtful consideration. You must defend your views by offering evidence and reasons for holding them. Note: Many writers in design-based disciplines wrongly hold that reason-giving is unnecessary or pointless.

Thesis Statement: In the MLA Handbook for Writers of Research Papers, 6<sup>th</sup> Ed, Joseph Gibaldi writes,

“A thesis statement is a single sentence that formulates both your topic and your point of view. It is an answer to the central question or problem you have raised.”  
(Gibaldi 2003, 56)

**§ 2 Substantive Issues**

Purpose: Announce the purpose of your paper early on; usually within the first few sentences.

e.g.: “My main objective in this paper is to explain...”  
“I offer two reasons in support of x...”

The Speaker: Help your reader identify when you are putting forth the view or position *you* think is the correct one,

e.g.: “I believe the best design method is ...”  
“My view on modernism is...”

and when you are summarizing *someone else's* views.

e.g.: “In Hadid's view modernity is the only choice.”  
“Even if we agree with the Prince of Wales that traditional design is better...”

Use Examples: Illustrate your important points with examples.

Accuracy & Charity: Academic writing demands precision. You must accurately present, characterize, and explain the views and ideas of others. A major weakness in student writing is misrepresenting someone else's view. Charity does not mean “seeing both sides” of a debate. It means that you are presenting someone else's views, no matter how confusing they might seem, in the most “charitable light,” that is, in the way they make the most sense – whether or not you concur.

Modesty: Do not try to do too much. Make a small point that contributes to the discussion on the issue. Make your points clearly. Be straightforward in presenting your arguments, reasons, evidence and conclusions.

Originality: You must show that you can think critically about the topics and issues you are writing about. Some independent thinking is expected – even if it is modest. Try and say something interesting about the topics and issues.

**§ 3 Style and Format Issues**

Page Setup: Typical setup requirements include: double-spaced; 12 pt Times New Roman, Garamond, or Arial font; 1” top/bottom and 1” left/right margins; page numbers. The most common format for electronic submission is MS Word .doc format, but others may be acceptable. Professors *often* have specific requirements – check with them if you are in doubt.

Style Guides: Most of the professors at IDI have adopted the style guidelines contained in the MLA Handbook for Writers of Research Papers; 8<sup>th</sup> Edition. Common basics include: i) when you refer to a person for the first time use first and last name. Thereafter, use only the last name; ii) for quotes

longer than 25 words use indented single-space block style [omit quotation marks]; iii) for emphasis use *italics*, not **bold** or underline.

Quotes & Citations: When you quote or borrow someone else's words, you *must* give them credit. Follow the footnote or endnote citation style in the MLA style guide.

Prose Style: Be concise. Explain things in bite-sized pieces. Make each sentence do some useful work; delete the *lazy* ones.

Impersonal Tone: Many academic disciplines strongly discourage writing in the first person. Typically, academic writing should *lessen* the sense of the author's personal emotional involvement in the topic. Writing should demonstrate an unbiased presentation of the topic.

First Person: However, when writing about your *own* views it is perfectly acceptable to write in the first person and you are encouraged to do so; these are your ideas.

e.g. "I believe that Louis Kahn is a genius."  
"My view on early California architecture differs from Esther McCoy's in the following way..."

Write in the active voice; it is more direct, engaging, forceful and effective. In active voice the subject of the sentence performs the verb's action.

e.g. "I always design in accordance with the code."  
"Adolf Loos' view is that ornament is crime."

Note: Speak about someone else's views in the present tense *even if* they are deceased.

Technical Terms: The meaning of specialized or technical terms must be explained upon first usage. General terms such as "floor plan," and "design principle," and "rhythm" do not require explanation. Whereas, depending on the audience you are addressing, terms such as 'wayfinding', 'parti' and 'spatial transparency' may require a few words of explanation or clarification. Avoid jargon and buzz-words; they are often ambiguous and impress no one.

Avoid using the indefinite 'you'. Do not write...  
e.g. "What you ought to do in life is get a good job."  
"When you get a job you realize life is complex."

Use the word 'you' only as a second-person pronoun.

Slang Expressions: such as "going green," ought to be avoided where possible, but if used should be set in quote marks.

Words to be vigilant about:

Absolutes – e.g. Always, never, only, solely

Universals – e.g. All, none

Superlatives – e.g. greatest, most, least

Avoid contractions: just *don't* do it; 'cannot' is one word.

'Like' indicates preference or resemblance:

e.g. "I like ice cream."

Use 'such as' when you intend to enumerate examples.

# Research 101

## Part I: Research-Based Practice

### Description

This Web site tutorial is an introduction to research methods and how you might use research in design practice. As you work through the material, you will see (1) why and how research is, and can be, used in the design process, plus (2) how research findings can be interpreted into design criteria. Both of these approaches will benefit your practice. Three parts comprise the tutorial:

**Part I.** Why should I, as a practitioner care about research methods?

**Part II.** What is the common vocabulary in research-based practice and academic research?

**Part III.** What methods might serve as core methods for the design process in your firm, as well as help you understand the quality of a research method that produced new knowledge that you might use in designing places?

### Why should I continue reading? Why should I take this tutorial?

Knowledge of research methods is useful in any business, and the practice of design is ever evolving. Currently, changes seem embedded in our “information society.” Clients want information in addition to design. They want to know the substance of decisions, the “why” behind what you designed. While the design community has long held that programming is design research, researchers maintain that design research in its academic interpretation complements not only programming but other stages of the design process as

well. Think of the two as partners where programming interpretations are site specific and design research adds a universal understanding of the issues and problems addressed in the project.

When these processes merge, new energy and new knowledge come to a project. Design research enhances your credibility as a reflective planner/designer. Design research provides you with new ways to tell the story and sell your designs. Equally, clients and users see new value in such a service. The design itself emerges in a new light when you weigh the universal and theoretical explanation with the specific, individual case.

This tutorial does not attempt to explain everything there is to know about design research. We simply want you to understand the context and opportunity available to you when choosing to use research. We want to “demystify” research and arrive at commonly held definitions of research and have you become more skilled and comfortable in using research methods in all phases of the design process.

### Tutorial Objectives

1. To develop an understanding of the context for design research in design practice.
2. To develop a vocabulary of research terms to aid in the understanding of research articles and InformeDesign’s Research Summaries.
3. To develop an understanding of the relationship between research methods and their applicability to practice.



### The Best Way to Use this Tutorial

First, read each section. Second, reflect upon your own practice and work. Think of a project that you recently completed and ask yourself the following questions:

- *What knowledge did I need to solve the problems in this project?*
- *What was paramount to the client? What was paramount to our design team? What was paramount to the site?*
- *Did I use or provide substantive information as well as produce a great design?*
- *What other resources and information did I use to answer the questions I had?*
- *Did I consider the source of that information or the quality of how my sources got their information?*
- *At any point, was I stuck, and could I have used additional information to point me in a new direction?*
- *At any point, did I need a reality check—a way of testing my ideas against knowledge about the topic that others have found?*

Next, re-read the section. Finally, take an issue that you dealt with in the project and go into Informedesign's Research Summaries to read other research and see the design criteria that were transformed from the work. Does this work support your solution? Are the articles clearer to you because you read the tutorial? We hope you find the tutorial not only interesting, but that it will assist you to better utilize the research presented on Informedesign's Web site database.

### Prerequisite

A curious mind and interest in design are necessary!

## Part I. Research-Based Practice, OR Why should a design practitioner care about research methods?

Six key observations over our years in the field provide answers to this question and a basis for seeing research as an opportunity. Each item demonstrates to us that design practitioners are, or need to be, increasingly interested in “research-based” practice.

- Growth in scope of practice—new profit centers and services.
- Broader understanding of the client and concern for the user.
- Need to be informed.
- Practitioners' views of design and the hybrid model of reflective practice.
- A balance between research and design.
- Translating design research findings into design criteria.

### A. Growth in scope of practice—new profit centers and services.

Within the past several years, designers have experienced “doing business differently.” This is not a new statement, but a reality and often interpreted as coming from the influence of technology and the computer. Firms are seeing different scheduling, different collaborators, different information access, and new opportunities for being creative in their delivery of services.

Other social and knowledge developments contribute as well. For example, all the research on design methods that started in the 1960s brought the opportunity to expand services to include the design process as well as designing the facility. One firm might do a master planning/feasibility study for a client, while another firm gets the bid to design and construct. The profit centers of the firms



have expanded. At the same time, the expectations of the client have grown.

In research, the knowledge of a systems approach to environmental design is well established, requiring collaboration and a team approach. This brings experts from several fields together and their shared knowledge, vocabulary, and skills develop potential changes in the scope of projects that are awarded.

Finally, the expectation of continuing education for professionals places practitioners in learning and teaching roles throughout their careers. It suggests that the designer is not just a consumer of information, but becomes an inquirer. The client, like-wise, places a new expectation on the designer to be knowledgeable, to be current, and to be able to deliver. A climate is created that provides an opportunity to reflect; to find new facts, models and ideas; to renew oneself; and to teach the client about the substance of the design. This offers a healthy environment of open dialogue and fresh discovery for clients and designers alike.

### **B. Broader understanding of the client and concern for the user.**

As previously stated, the interest in the view of the client and user has become the norm. Whether this is a function of the consumer movement, the development of business strategies such as strategic planning, management by objectives, or new market research, the reality exists that competition demands that you determine your practice niche and understand the needs, mission, and values of clients. In turn, practitioners become more clinical, e.g., need to see symptoms of problems; need to listen; need to observe and test; and need to

diagnose, evaluate, and provide resolutions.



Such a model further suggests that practitioners may be an initiator of issues to be researched, or they might act upon research findings that are already published. Diagnosis has a built-in expectation that one reflects upon known facts, research findings, interventions, and prevention treatments to predict a better solution.

### **C. Need to be informed.**

As mentioned in the rationale for this tutorial, our society is no longer an industrial society, but is an informational society. Society, its businesses, institutions, associations, and citizens have both knowledge of the world (a global view) as well as an understanding of the local experience. You might think of this as reading both the New York Times and the local newspaper, or as listening to MSNBC news on a topic and then seeing what someone puts on their own Web site concerning the matter. With these technology networks, barriers to information break down, and individuals may move across disciplinary lines to share and learn information.

You can see this happening all around us. New design hybrids and new knowledge integration opportunities are occurring. Even higher education is changing



from a shaft of specialized knowledge to a matrix that has depth and relationships across areas of knowledge. The liberal arts approach plus a thorough professional knowledge is becoming even more necessary to understand our world. For example, chemical engineering is now chemical and biological engineering. An engineer in that field needs to see the biological and chemical relationships together.

#### D. Practitioners' views of design and the hybrid model of reflective practice.

New hybrids (as mentioned above) are occurring in architecture, interior design, and related areas. The term “research-based” practice is being used by many design practitioners. Some writers and practitioners make reference to evidenced-based practice, or scholarly practice, or practice-based research. What is apparent in all of these terms is the desire to close the gap between research and practice, to see practice as a contributing partner to research about

the field, and to have a level of discussion and reflection that moves practice from a vocational skill model to a skill/knowledge model where choices and directions reflect theory and researchable findings.

#### E. A balance between research and design.

This hybrid brings about a balance among use of research, use of professional experience, and use of creativity. Knowing more about research will help you know when and how to use research in your practice. It can be used in all stages of a project: pre-design, programming, schematic design, design develop-

ment, and even construction documents and contract administration. However, research is more beneficial in the earlier stages so your initial design solution can be based on evidence.

Research, according to researchers, is systematic discovery of knowledge or a systematic inquiry. Researchers and educators often limit their use of research literature to articles that appear in refereed journals, research reports from foundations, or conference proceedings that are based on physical or social scientific research.

Design practitioners define research in a more applied way, the acquisition of information that assists in the development of a design solution. They use many different sources of information including manufacturers' data, representatives' knowledge, practitioner periodicals, or professional organization studies. A problem that can occur with the practitioners' use of these information sources is that they can have product bias, incomplete analysis, or inappropriate data collection methods.

Design researchers try to avoid these issues by following prescribed data collection and analysis methods, basing their inquiry on theory, and reporting the results objectively in scholarly journals. Yet, this research is often inaccessible to design practitioners and written in a language that is unfriendly to them. Also, the findings are seldom translated into design criteria, which would allow practitioners to apply them in a design problem as evidence-based design solutions.



### E. Translating design research findings into design criteria.

There are some research studies from academic sources that do take findings and interpret them into design criteria. The intent of this work speaks to the need in the field to “make the research work” for you. In addition, there is a number of methods and an increased acceptance in higher education of community-based research, often termed “action research.” Many times, there has been a desire to take research and get it into the hands of those who can make a difference in our social settings, but the vehicles for doing so were unclear. Informedesign provides such a vehicle. It is built upon the premise that the field wants solid, theory-based research, while the field also wants the information in a form that speaks to practice. The time for translation has arrived. Informedesign provides this translation of scholarly research findings into practitioner-friendly Research Summaries.

Continue this three-part tutorial and reacquaint yourself with the research vocabulary used by researchers. This will help you understand the research methods used in the Research Summaries and see for yourself the value added to your design practice by being a user of Informedesign.

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Page 3 photo: Sol Skog, University of Minnesota

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For additional references and vocabulary words, go to the Informedesign *Glossary of Terms*. References to research-related books can be found under the *Glossary of Terms* under the *Reference List* link.



**Informedesign**<sup>SM</sup>  
Where Research Informs Design

### The Mission

The Mission of Informedesign is to facilitate interior designers' use of current, research-based information as a decision-making tool in the design process, thereby integrating research and practice.

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American Society of Interior Designers

# Research 101

## Part II: Research Vocabulary

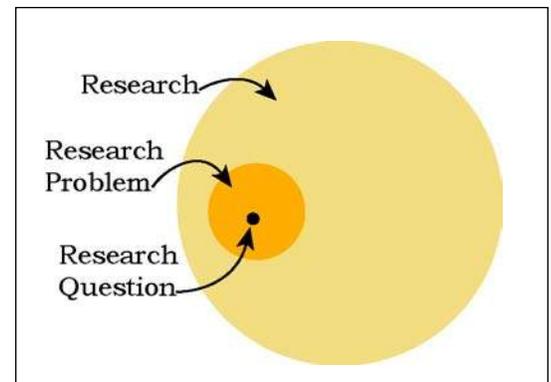
The following terms about research are sometimes interpreted in different ways. We recommend using the definitions included here to reach a basic understanding of research terms. There are two case studies included to help you apply the vocabulary.

**Research** is a systematic, diligent inquiry or examination of some field of knowledge undertaken to establish fact or principles; it involves collecting and analyzing data. Research differs between design practitioners and design researchers. Practitioners generally use research techniques or methods during pre-design when programming a space and during schematic and design development. For example, you collect data from the users about how a space is used, you inform yourself about the characteristics of the user group, and you identify performance criteria for a product or material. In comparison, design researchers use research techniques or methods to answer general or specific questions that are not related to a specific project or space. They are looking for answers about designed environments and human behavior that relate to a particular problem. The goal of formal, scientific research conducted by researchers is to build theory that predicts a reaction, relationship, or other phenomena when found in different situations. The goal of applied research conducted by practitioners is to build up their knowledge about a specific design project.

A **research problem** focuses on the issue or set of relationships that a researcher would like to study. For example, a

researcher might be interested in the issue of health care design for the elderly or the relationship between elderly wellness and the presence of daylight in their living spaces.

A **research question** is a specific question about a part of the research problem that will be studied. A researcher might have several questions about the problem. For example, the previous research problem might lead to the following research questions: Does the presence of daylight in elderly peoples' rooms affect their recovery time from an illness? Does a view to the outdoors affect patients' recovery time? These are specific questions that result from interest in a research problem and can be answered through systematic inquiry.



When researchers are about to begin working with a research problem, they look for a **theory** to guide their work. A theory is a set of interrelated ideas or a set of relationships. It provides a system or filter for planning and conducting research and then, for making sense of its findings.

You have heard of the Theory of Evolution or the Global Warming Theory.



Closer to home, you know about Design Theory (the application of design principles to design elements). Take this a bit further and think about what we know about Design Theory: research has been undertaken to determine how people behave when balance (a design principle) is applied to color (a design element). Research found that people feel calmer in an environment where color is sym-

metrically placed and balanced. Through research, new knowledge was developed and added to Design Theory, thereby giving designers criteria for practice. Theories can help us understand or predict how people will behave in designed environments. See Figure 1 for examples of several theories we can use in design practice.

Figure 1. Theories Useful for Design and Human Behavior Research

### Diffusion of Innovation

**Description:** The process by which new ideas are gradually communicated over time through a social system. The rate of adoption of an innovation follows an S-shaped curve when plotted on a cumulative basis over time (Rogers, 1995).

**Application:** Used to identify early adopters or innovators of new technologies or ideas in design practice (CAD or sustainable design). Characteristics of adopters/innovators can be determined and educational experiences can be developed to increase use of the innovation or to educate those who are not adopters. Clients could be identified who would accept innovative design solutions.

### Environmental Preference Theory

**Description:** People process environmental information to increase their chances of "survival" and to improve their welfare. People need to make sense of, and acquire additional information about, their environment to better predict what might occur and plan their actions accordingly (Kaplan & Kaplan, 1982).

**Application:** Certain interior design attributes add to people's preference for an environment. For example, certain amounts of complexity, mystery, coherence, or legibility are necessary for comfort, function, and stimulation. However, too much complexity can over-stimulate and confuse people, causing decreased preference.

### Human Ecosystem Theory

**Description:** People interact with one another and with their environments, specifically the social, designed, and natural environments. People affect their environments and environments influence how people behave (Guerin, 1992).

**Application:** Useful in identifying all of the components that affect how a designed environment will be used. Can help determine how environments (social, designed, or natural) influence human behavior.

### Maslow's Hierarchy of Human Needs

**Description:** Humans have a "hierarchy of needs" ranging from lower-level needs for survival and safety to higher-level needs for intellectual achievement and self-fulfillment. Lower level needs (survival, safety, belonging, and self-esteem) must be met before the higher-level needs (intellectual achievement, aesthetic appreciation, and self-actualization) can be addressed. People's behavior at a particular moment is usually determined by their strongest need (Thompson, 2002; Woolfolk, 2004).

**Application:** Prompts designers to look at the whole person and the interrelation of physical, emotional, and spiritual needs. For example; a child who is not fed before going to school may not respond to a beautiful interior designed with an emphasis toward the promotion of learning. If an office is in a "bad" part of town and employees fear for their safety, they may be more concerned with their security and less with their productivity, no matter how functional or supportive their work environment.

### Narrative Theory

**Description:** A process used to identify meaning for people within an interior design (Ganoë, 1999). Personal meaning is expressed through written narratives providing an avenue for discussion. Narrative helps determine the relationship between a space and people, as well as what spaces mean to people.

**Application:** Used to demonstrate how people's experiences are connected to the interior environment. Development and use of design criteria are determined through a verbal or written narrative. Clients can relate their understanding and feelings about an interior space, which the designer can use to develop meaning for them through the design solution. Provides a way of identifying "meanings of places" for clients. Can be used with people from diverse backgrounds to uncover how meaning varies across different populations and how meaning may change over time.

### Place Attachment Theory

**Description:** Affective experiences, personal feelings, and emotions associated with a place are central to people's ability to attach meaning to environments and are based on subjective personal preference (Altman, 1992).

**Application:** Can be used to identify design features that are meaningful - these features can be incorporated into a design solution, providing a more functional and emotionally fulfilling environment for the user.



A theory is made up of **constructs**, **propositions**, and **assumptions** that researchers use to guide their inquiry, and designers can use to guide their design decisions. Constructs are the components of a theory. For example, in Color Theory the constructs are hue, value, and chroma. The propositions of a theory are the facts or rules established. Again, in Color Theory, one proposition is that warm, dark, and bright hues advance. This has been established through research. An assumption is a position that cannot be proven or disproven, but is assumed and must be met to explore and use the theory. For example, in Color Theory, an assumption is that color is a mixture of light, which no one disputes.

Once research is completed, researchers determine if their findings agree or conflict with the theory's propositions. This, then, is how researchers can add to or develop theory, providing other researchers with more information about how people may behave in an environment.

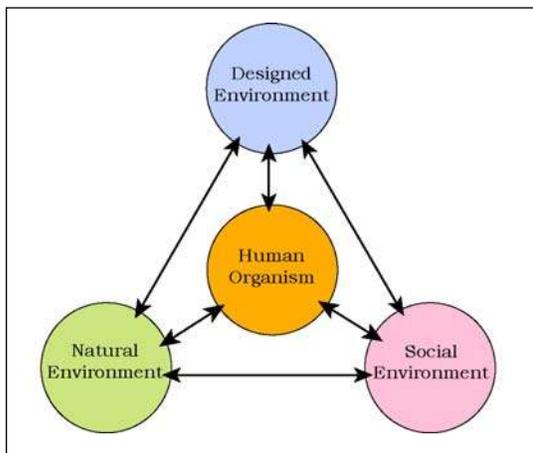


Figure 2. A Model of the Human Ecosystem Theory

shown in Figure 2, depicts the interaction among all the constructs of the theory: human organism, natural environ-

ment, designed environment, and social environment.

An **hypothesis** is a statement that suggests the relationship(s) among the theory's constructs. It is the researcher's best "guess" about the outcome of research based on existing literature, research, or theory. It can be said that every design solution is a hypothesis or a prediction by the designer that the design solution will work. The more "guessing" that can be taken out of the hypothesis, the more likely the design solution will be functional, meaningful, long-lasting, and aesthetically pleasing. Researchers test hypotheses to form new knowledge about a theory.

**Limitations** are factors that potentially reduce a study's validity and initial scope. For example, a design organization wants to determine their members' opinions on adding a member benefit, so they send out a questionnaire to the membership via E-mail. A limitation to the study is that the only members who have a chance to respond are those who have E-mail, causing a potentially biased set of opinions.

**Delimitations** are factors and issues not of concern to the research. In the previous example, the organization wanted to know only about a specific member benefit, they did not want members' opinions on membership credentials. Credentials would be a delimitation. It is always important to know what is not included in the scope of research.

**Variables** are properties or characteristics in the research question that can take on different values. There is usually an Independent Variable(s), the property that is changed or manipulated to deter-



mine the effects on the Dependent Variable, which is the property that is affected by the change of an independent. For example, number of assignments and class size could be Independent Variables that affect student learning, the Dependent Variable. A study could be conducted with a class size of 20 and a class size of 100 to determine if the class size affects learning (based on mean grades).

There are often **Extraneous or Confounding Variables** in research. These are other variables that may influence the effect of the independent variable on the dependent variable. These variables need to be controlled, or they need to remain constant. In the previous example, an extraneous variable that could be controlled was that each class had the same teacher.

A **Control Variable** is a property or characteristic that is held constant to determine the relationship between two other variables.

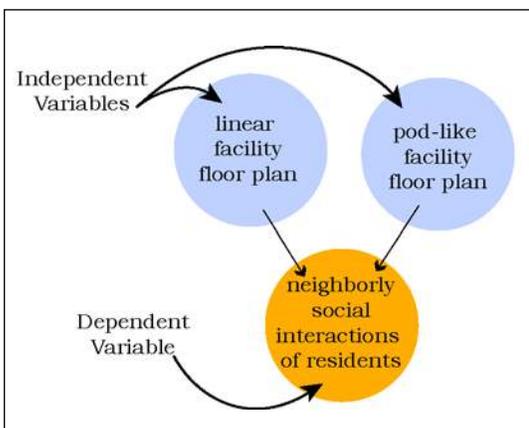


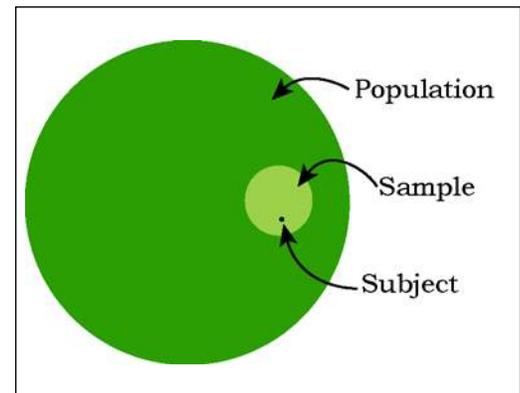
Figure 3. Different Types of Variables (from Case 2)

**Population** is an aggregate or an entire group of people, events, or things that are being studied. Some examples are all women in the US, all college freshmen at state-assisted universities, all college freshmen, or all residential upholstery samples.

A **Sample** is a subgroup of the population that is measured in the research. For example, 1,000 women in the US who constitute a sample of the entire population (of US women) if certain

parameters are met, that is, if those 1,000 women are representative of the entire population.

A **Subject** is a single member of a sample. A subject is one woman of the 1,000 women in the sample.



**Sample Selection** is important because it will influence the outcome of the research, and how the research findings can be applied. If a sample truly represents the population, the research findings can be generalized to the entire population. In other words, if the research finds that 55% of a sample of 1,000 US women (subjects) are married, it can be generalized that 55% of US women are married. There are several recognized sample selection methods.

First, there is **Random Selection**, which means that each member of a population has an equal and independent chance of being selected for a sample. Random selection is used to create a sample that reflects the demographic characteristics (such as age, income, and social status) of the population. For example, a random sample can be created by selecting every 20th woman in the phone book.

Another way to select a sample is by **Matched Selection**. In this selection method, subjects in two or more groups are matched based on similar character-



istics, such as age, gender, residency, or other property. Matched Selection is used to reduce the chance of errors resulting from conditions that previous research indicates are likely to influence the results.

In **Convenience Selection**, subjects are selected based on availability, not on random inclusion. The results of studies using convenience samples cannot necessarily be projected to the wider population.

**Raw data** are the individual measurements and numbers collected from research subjects.

**Descriptive Statistics** are used to summarize large sets of raw data, describe the sample under consideration, and are not intended to infer results to the larger population. Percentages, means, medians, and modes are examples of descriptive statistics.

**Inferential Statistics** are used to analyze data obtained from a sample of subjects with the intent of generalizing (or inferring) the results to the larger population from which the sample was drawn. Inferential statistical methods include *t*-test, chi-square, analysis of variance, and many other statistical methods. For definitions of these specific statistical methods please see the Informedesign Web site Glossary of Terms.

Often, **Statistical Significance** is used to evaluate if relationships observed between variables resulted not just by chance. Prior to conducting statistical analyses, researchers preset significance levels (often called alpha levels), which are numerical values. Exceeding or meeting the significance levels means that the results were highly unlikely and not due

to chance.

**Reliability** refers to the repeatability of findings, and whether the findings may be replicated. Instruments and procedures should produce the same results when applied to similar samples in similar situations, or on a second occasion. If the research methods used were reliable, the same results would be produced each time.

There are two ways to increase reliability. First, research instruments (questionnaires, surveys, etc.) must be written clearly and unambiguously so the meaning of a question or item is universal. Jargon must be avoided and unfamiliar terminology should be defined. Second, the number of questions or items in a questionnaire that measure a variable can be increased.

Now, let's put this new research vocabulary to work and apply the vocabulary to two case studies. The examples are drawn from work of Amy Milani, Ph.D. (Case 1) and Melinda Graves, M.S. (Case 2). These abbreviated examples provide a glimpse of how to apply research vocabulary.

### Case 1: Midwesterner Designing in the Southwest

A design firm from the Midwest is hired by a client in Arizona to design a complex of residential and commercial spaces. The client wants the facilities to use vernacular design components since both tourists and local residents will live, work, and play in the spaces. The lead designer wants to avoid creating spaces that use stereotypical Southwest design features. The lead designer wants to create a meaningful architectural interior for the client that reflects the unique geographical and cultural identity of the Southwest.

### The Designer's General Questions that Initiated Research

The lead designer wonders what meanings users



assign to regional interior features. What and how might visual design communicate regionalism, and are metaphors involved? In what manner will regional designs be meaningful if individuals are tourists or locals? Is there a difference? How might the design solution be authentic, employing vernacular (shape and color abstracted from the landscape), rather than plastic (a border of repeated coyotes and cacti design elements)?

The lead designer begins a search for information on regionalism, using metaphor in design concepts, environmental cueing, and Southwest design. He finds a study that fits these initial issues, and examines what the researcher questioned and found.

### The Study Used to Answer the Designer's Questions

In the research study, the researcher looked at vernacular design in the Southwest and found Rapaport's (1990) theory on environmental cueing helpful. Rapaport researched how a person's ability to decode meaning from the built environment depends upon the interplay of the display rules (how the architectural, interior, and furniture/accessories features are arranged) and comprehension rules (how the person interprets these features and arrangements). Based on Rapaport's theory and other published research, the following research questions were posed:

1. What display rules (how the architectural, interior, and furniture/accessories features are arranged) aid people in differentiating among Most, Moderate, and Least Southwestern interiors?
2. How do people evaluate and describe the differences among Most, Moderate, and Least Southwestern interiors?
3. How does the knowledge and residency of subjects influence their ability to comprehend Southwestern interior attributes?
4. How do physical, visual, or material metaphors; conceptual metaphors; and combined metaphors differ as they are found in Southwestern interiors? Are some more frequently identified than others?

### Hypotheses

- People's display rules will aid in identifying environmental differences and categorizing Southwestern interiors.
- Albuquerque residents will identify more, and different, attributes than Chicago residents.

### Assumptions

- Visual metaphors are communication vehicles, and their meaning may vary among people.
- Visual metaphors provide an expression of a feeling and communicate meaning related to the image of a region.
- Visual metaphors are formed by physical interior design features.

### Delimitation

- A photo sample of interiors, not the interiors themselves, were used to provide a consistent experience for the subjects.

### Limitations

- The subjects' interpretations are based on other cultural variables.
- Only women were included in the sample.

### Independent Variable

- Most, Moderate, and Least Southwest interiors, determined by the viewer's interpretation.

### Dependent Variables

- Features (the display rules) that aid subjects in comprehending and giving meaning to the interiors.

### Control Variables

- The photo sample of interiors.
- The order and manner of asking questions.
- Subjects were divided into groups having High and Low Southwest knowledge and those from the region and from outside the region.

### Populations

- Interiors found in the Southwest.
- People living in the Southwest and people who might visit the Southwest, but live in the Chicago.

### Sample

- Interiors from the Southwest, photographed and grouped. The photographs of Southwest interiors were a convenience sample because they were purposefully selected based on availability and proximity to the researchers.
- Two groups of women, one from the Southwest and one from Chicago, were matched as subjects based on education, community participation, age, and other qualities. These subjects (women) comprise a matched sample. However, these women were also recruited for the research via a random selection, through the phone book. Thus, this sample is matched, as well as a random sample.



### Data Collection and Analysis

- Raw data were collected via a questionnaire. Responses were either coded to numbers from categorical data (“yes” answer equals a 1 and a “no” answer equals a 2) or were numerical scores given to specific questions (How many times have you visited the Southwest?).
- Means, frequencies, and modes were calculated. For example, the mean (or average) number of times subjects from Chicago visited the Southwest was 1.2.
- An example of inferential statistics used in the study are *t*-tests. This statistical method was used to determine if there were statistically significant differences between the mean (average) interpretation scores of tourists and the mean scores of local residents on the evaluation of Southwest interior features. The *t*-tests found that there was not a difference. From the inferential statistics (*t*-tests) the researchers can generalize to the larger populations (people living in the Southwest and people who might visit the Southwest but live in the Chicago) that there are not any differences between how Southwest interior features are interpreted.

### Reliability Testing

The research instruments (questionnaires and surveys) used to collect data were analyzed for jargon. They were pre-tested, and questions with different wording were tested to determine the best wording for each item. Further, the reliability of the study could be determined by repeating the research to see if similar findings result.

### Translation to Design Criteria

The lead designer from the Midwest firm can use the findings from this study in designing the residential and commercial complexes. The study answered several of the designer’s questions. For example, the findings suggest that the Southwest interiors will be interpreted the same whether they are perceived by locals or visitors.

### Case 2: Assisted-Living Facility Design

A designer that specializes in assisted-living facilities read literature that theorizes that a clustered, pod-like floor plan is best for creating social interaction among residents. Yet, many of the facilities that he designs are renovations set up in a linear plan. In addition, the designer wants to apply a “neighborhood” concept to enhance the residents’ interactions rather than rely on a “room” concept.

### The Designer’s General Questions that Initiated Research

How might the design of an assisted-living facility support neighborly social interactions among residents given published, existing design guidelines and performance standards? If the design guidelines are implemented in different ways, will different patterns of neighborly interactions occur? Four accepted design criteria exist: residential character and imagery, linking and connecting spaces, clustering of spaces, and options for socialization and observation; might the designer use similar criteria for evaluating the spaces?

The designer searched for additional information and found some helpful articles. Based on research methods used by the designer’s firm, the firm decides to complete their own study of two local facilities in addition to a survey of available literature. The firm hires two graduate students from the local university to collect information using several research strategies.

### Research Questions

Given the guidelines (framework) for designing assisted-living facilities, the following research questions emerged.

1. How do design criteria for assisted-living facilities relate to the observed, natural occurrence of neighborly, social interactions among residents?
2. If design criteria are implemented differently in two cases, what relationships are observed when type, frequency, timing, and setting of neighborly interactions are considered?
3. What interior design components (lighting, color, materials, space) have been used in each facility to meet the four major design criteria?
4. What spaces in the facility do staff members perceive as having the highest level of neighborly, social interactions?

### Hypothesis

- Resident social interactions are influenced by a combination of factors and relationships, not just floor plan type (cluster or linear).

### Assumptions

- In any neighborhood, there will be people with different socialization patterns.
- In an assisted-living facility the concept of a “neighborhood” is important for both interior and exterior spaces.



**Delimitation**

- The study is only looking at the physical space.

**Limitation**

- The research is only applicable to assisted-living facilities of similar size.

**Independent Variable**

- A cluster, pod-like floor plan and a linear floor plan.

**Dependent Variable**

- Social interactions of residents will be indicators of “neighborliness.”

**Control Variables**

- The programmatic mission and services offered in the two facilities were the same.
- The square footage and number of residents in the two facilities were similar.

**Population**

- All assisted-living facilities in the US of similar size to the sample.

**Sample**

- Two assisted-living facilities were selected from a larger pool of assisted-living facilities and matched based on characteristics, except spatial layout (the independent variable).
- As with the female subjects in Case 1, these subjects were also matched. Similarly, the two facilities were selected from the larger pool based on convenience, such as the facilities' willingness to work with the researchers and the facilities' proximity to the researchers. Therefore, these subjects comprise a convenience sample and a matched sample.

**Data Collection and Analysis**

- Raw data were collected through questionnaires, interviews, and participant observations. For example, counts of the number of times that residents visited with each other in a given area of the floor plan were documented.
- The mean number of social interactions per day observed in the common areas of the linear floor plan facility was 10.6, while the mean number for the pod-like floor plan facility was 15.1.
- Inferential statistical methods included chi-square tests. These tests were performed to determine differences in the number of neighborly, social interactions among residents between the types of

spaces in the sample facilities. The inferential statistics concluded that there was a statistical significance between the two types of assisted-living floor plans (linear and pod-like). The researchers could then generalize these findings to the entire population (similar assisted-living facilities in the US), stating that pod-like floor plans facilitated neighborly, social interactions among residents more than linear floor plans.

**Conclusion**

Now that you've read through Part II of Research 101, put your new research vocabulary to use. Go to Informedesign, find a Research Summary to your liking and see if you can determine the Research Question and Hypothesis. The Research Question is usually found in the Design Issue, which summarizes the “what” and “why” of the research. Can you figure out what Research Problem the researchers were concerned with? Then take a look at the Research Method. Can you determine the population that the researchers were studying? How was the sample selected – was the sample matched, random, or based on convenience? Keep looking at the Research Method to discern if the researchers tested the significance of their findings. What sort of statistical methods (descriptive, inferential, or other) did they use? If significance was tested can you pick out the findings from the Key Concepts or Design Criteria?

If you're still feeling a little confused don't worry. Part III of Research 101 will introduce you to different types of Research Methods. There are a variety of tools and methods that researchers employ to collect a wide variety of data.



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Where Research Informs Design

## The Mission

The Mission of Informedesign is to facilitate interior designers' use of current, research-based information as a decision-making tool in the design process, thereby integrating research and practice.

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# Research 101

## Part III: Research Methods

As stated in Part I, research has different interpretations and connotations for different people. To sort these out, consider the goals of research as building truths, which may be tested, but must stand up over time. The work of researchers occurs through **research methods**, the means by which a person gives order to answering questions and testing responses. Research methods lie along a continuum from formal to informal.

There are many formal systematic methods. These methods are common among researchers and can be explained or replicated by another researcher. It is similar to having a method that you use in your design process that you could share with another designer, who could apply your method in the same way on a different project. At the other end of the research method continuum is informal inquiry that brings understanding of a problem often brought together from precedence. You are not exactly aware of what you did to come up with the reality, you “just know.” The understanding wouldn’t necessarily be based upon theory or conceptual frameworks of others, nor could you easily explain your process for someone else to be able to repeat it.

Another comparison that helps articulate research methods is seeing methods along a continuum of scientific to artistic/humanistic based strategies. **Scientific methods**, long thought to be the only valid research approach, have an assumption of “proof” that explains a phenomenon. Often these methods are mathematical and statistical in nature. **Social science methods** grow from this

root, while focusing on social issues. At the other end of the continuum are **humanistic-based methods** (again having a long history that you might find in history, cultural studies, and philosophy). There still is a systematic approach that could be explained and used by another researcher, but the underlying questions and understandings grow from the experiential, using analysis and philosophical argument to reach theoretical and conceptual explanations.

Some might ask, “Isn’t the difference along this continuum a matter of using quantitative methods and analysis or using qualitative methods and analysis?” Keep in mind that design researchers might use both, and in fact might use multiple methods for one project. The key issue is the **research question**. Are you asking a numbers/quantity question (how many, how much, who does most/least, etc.)? Or, are you asking about the quality or even variations of the experience.

In a **quantitative** approach, you test a relationship by determining how many/how much of one variable is related to another, often ending in the ability to “support” or “disprove” the relationship. In **qualitative** research, your questions might relate to people’s meanings, attitudes, values, beliefs, or an exploration of a situation where the researcher would then build a better understanding and complete quantitative inquiries later. Qualitative research is often used to explore an issue and gain a better understanding of it, rather than to test or “support” a relationship. When you read research reports, the



more important questions to ask are:

- *Can I depend upon this research, whether quantitative or qualitative methods have been used? Does the research speak “true” to me?*
- *Is there a good fit of the nature of the topic, the questions asked, and the methods used to seek answers that may be interpreted in some way to help me solve a design problem?*
- *Will the research help me predict from these findings to something else? How reliable are the methods?*

These questions have to do with the strategies or processes for finding out answers to your inquiry (the research questions) and evaluation of those strategies or processes. Additionally, how does interior design research fit into this? What methods are most useful for interior design practice?

Interior design is by nature interdisciplinary, that is, designers use several disciplinary perspectives when solving a design problem. Sociology, psychology, design, history, business, building science, anthropology, material culture studies, ergonomics, architecture, etc. are needed to determine your perspective at the time you are setting up your research.

- *Is it holistic? Is it about social/psychological factors and environments?*
- *Is it about ergonomics and technical/physical needs?*
- *Is it about market trends? Is it about historical precedence and meaning?*
- *Is it about the politics of groups in a place?*

Your perspective gives clues to the types of questions that you ask and the accepted methods to get explanations.

In this Informedesign tutorial, we are dedicated to human-environment perspectives of design for practice. The central issue is about humans interacting with their interior environments, and what we know about different issues of environment/behavior relationships. Some issues may be spatial, technical, physical and sensory (visual, auditory, tactile), social, cultural, or psychological. Some issues may be focused on skill, on humans and human groups, on artifacts, or on environment, yet we assume that humans and settings are always involved. This is the basis of an environment and human behavior (E & B) perspective.

In taking this view, we know that design firms have similar interests, and they might use a combination of methods to discover new information for design projects—both quantitative and qualitative methods. They have added research services to better predict long-term solutions and to improve the process by which work is completed. Equally, designers need to be able to read about a research study conducted by the industry or by a university and know that the method is solid and the results from it are objective, valid, unbiased.

An overview of the common methods used in design research and practice—using an E & B perspective and the previous vocabulary, will help you evaluate research findings and use them to benefit your design project.

In Part III of this tutorial, we present several research methods. Since this is an introduction and a primer on research, we caution against the expectation that you will have a full, detailed coverage of the many research methods used today.



Simply think about the research method as being a strategy that you will use to collect data related to design issues that you face. More importantly, think about these research methods as you read InformeDesign's Research Summaries and consider the validity of a particular study and its results. Once you have a better idea of what drives these methods, you can begin to question or confirm the results of research studies, making you an informed consumer of research.

Many books have been written that offer detailed strategies about the scope of many research methods, and you may want to search them out later. One of the best references on research methods that relate to design practitioners is *A Practical Guide to Behavioral Research* by B. Sommer and R. Sommer (2001). It has excellent examples that are tied to design. All the methods cited are useful in design practice and are often used in human behavior research. The five methods being reviewed are:

- A. Observation
- D. Survey
- C. Experiment or Quasi-Experiment
- D. Case Study
- E. Visual and Content Analysis

The various strategies offered by these methods present opportunities for different types questions and ways of gathering of information. They also present differences that relate to analyzing the information gathered. Design researchers might use statistical analysis, descriptive analysis, linguistic-content analysis, or other techniques to build conceptual understandings that may be used for your design situation and practice.

Don't stop now—it's easier than it

sounds, and more importantly, it makes sense! You already use several of these methods in your daily practice, but we're going to take a closer look at each one and view an example of how each method is used in design research and practice.

### Research Method A: Observation

Observation occurs when an observer (usually the researcher or trained observers) systematically plans and implements viewing of people and their behaviors or viewing how an environment is used.

Observation is:

- Looking and watching in a systematic way.
- Non-verbal. Little, if any, verbal interaction occurs between the observer and the observed.
- Inexpensive in material cost (there are not hundreds of questionnaires to print and mail), but expensive in time cost (the observer spends many hours observing).
- Used to determine what people do (their activities, behaviors) in public places or how an environment is actually being used.
- Often used in conjunction with other methods, such as a follow-up to a survey of office employees or prior to a survey to locate critical areas that then serve as points of questioning users of the spaces (Sommer & Sommer, 2001).

Observation can answer these kinds of questions:

- How do environments create opportunities or obstacles for people such as a place to informally talk, view entertainment together, or prohibit communication?
- How do people manipulate or change



their surroundings to meet their needs?

- What takes place in particular settings?

There are three approaches used when observing:

- a). Behavioral Observation
- b). Behavioral Mapping
- c). Trace Observation

#### a). Behavioral Observation

There are three types of behavioral observation:

- **Casual Observation** occurs without predetermined categories or a systematic scoring system; it is a quick visual inspection of activities or the space. For example, you might go to visit a friend in the hospital and have difficulty finding an elevator to take you to the right floor. After several attempts, you go back to the information desk to ask for better directions. This could build into your future research or could be used for developing good questions for a more systematic approach. Attending and listening to your first impressions can help to develop systematic observation categories in future work.
- **Systematic Observation** answers a specific research question by systematically planning the observation and recording of data. It can be repeated by other researchers. A scoring system must be developed, usually by casual observation. Several observers can be used but they must be trained to understand the behaviors in the same way. This increases the reliability (agreement) of the observers.
- **Participant Observation** occurs when the observer becomes part of the envi-

ronment and people being studied. There are risks to this type of observation such as the observer can become biased by accidental involvement in people's activities. This can change people's behaviors, so it is done infrequently.

(For example in Part II; Case 2 of this tutorial, participant observations were completed and compared to literature to arrive at the most critical areas of the facilities that needed to be studied further and to build the interview questionnaire for the staff.)

#### b). Behavioral Mapping

The second type of observation is Behavioral Mapping. To use behavioral mapping, think about taking a set of plans with you to a site, sitting down, and noting on the plans people, their activities, and the location or where these activities occur. The plan becomes your map, an actual chart of an area on which people's locations and activities are indicated. Notations are made during observations or later from notes made while observing. This map shows how people actually use the space, which could be different from the original intent, what is actually seen and is evident; occurring over several days and many times of the day.

Behavioral maps can be place-centered or person-centered.

- **place-centered maps** refer to how people use a specific space. This type of mapping can be unobtrusive and is good for public spaces. Observers watch the actions in a particular behavior setting and record them on diagrams or plans.
- **person-centered maps** are drawn to study people's tasks, activities, and



movement throughout the space. The goal is to learn about a group of individuals whose activities are charted throughout the day. It is done on only a few individuals at a time. It can be obtrusive.

An example comes from Case 2 of Part II of the tutorial, where students were hired to go to the assisted-living facility at different times during the day and record “neighborly” activity in different places, counting numbers of people, and interior/architectural features.

### c). Trace Observation

The third type of observation involves observing physical traces. This means you systematically look at interior environments for evidence of earlier activity or other indicators that people were there and interacted with one another or with the environment. This method is used to see how people actually use a space. This type of research is critical to the designer because it gives you an opportunity to know what often goes unsaid by clients and users. There are two types of traces that are measured, erosion and accretion.

- **Erosion traces** are shown by deterioration or wear that provides a look at the usage pattern. The physical environment has been worn down such as an indentation on a step where everyone has put their foot over time, or the upholstery on only one chair in a seating arrangement is badly worn and you realize that that chair is the only one with a view to the outdoors. Both situations beg the question, what does this mean?
- **Accretion traces** are a build-up of a residue or an interaction. These traces are added to the environment and show how the user has changed an

environment (Sommer & Sommer, 2001). For example, people may move chairs closer together in a study area so they can interact as a group, or may leave trash on the floor if there are no waste cans.

Use of trace measures has several advantages:

- There is no observer when the people use the space so it’s unobtrusive.
- The observer can look at the space anytime and over many days.
- The observer can return to the space to see the trace again or to show others.
- The trace can be documented through photographs or video.
- It is an inexpensive and easy method to yield interesting information.
- It is a good way to explore a research problem (Sommer & Sommer, 2001).

Use of trace measures also has several disadvantages:

- The researcher can read too much into a trace. One visit may see a one-time-only occurrence; therefore, the visit must be repeated to confirm the use initiating the trace.
- It yields a tremendous amount of data, which can delay you in your quest for answers

An example of this type of research is often seen when an architect/designer is working with wayfinding issues in a facility. When you see handmade, taped-up signs directing people to a spot, you know there is a problem with signage. Equally you know how the workers in the space view circulation and the best way to find something/someplace from their viewpoint. Another example might be when you hear from the CEO about the firm’s organizational structure being



“open,” but you see personnel barricaded in their work spaces. The barricades provide a physical trace suggesting you need to continue to gather information. You might ask about the concept of territoriality and whether it might be an explanation rather than the organizational hierarchy and leadership.

### Research Method B: Survey

Survey research is a systematic method for studying behavior that cannot be observed or experimented on directly. Data are gathered about people’s beliefs, attitudes, values, and behaviors. Surveys usually require larger numbers to give accurate meaning to the results. There are two instruments frequently used to collect these data, the interview and the questionnaire (Sommer & Sommer, 2001).



An **interview** is like having a conversation or discussion based on questions you want answered. It is used to assess emotions, attitudes, beliefs, opinions, and characteristics of the person(s) being interviewed. It reveals both **direct** and **indirect** data. **Direct data** are responses that subjects provide to direct questions, they are spoken responses. **Indirect data** are the less obvious or hidden information conveyed by gestures, body language, or a lack of eye contact. In an interview, interviewers can follow-up on half-answered questions; they can probe for deeper responses. An interview can be used to develop objective questions or closed-ended questions for a questionnaire.

There are two types of interview formats

followed. A **structured (focused) interview** means that the questions are developed ahead of time with some opportunity to ask pre-planned, open-ended, probing questions. This way, there are few variations, and the questions are asked in a specific order. As with observers, the interviewers are trained on how to ask the questions, and how to probe the subject for depth (Sommer & Sommer, 2001).

An **unstructured interview** can be used to explore alternative opinions, attitudes, or beliefs. It can help to identify new types of information and define areas of importance that might not have been thought of ahead of time. It allows the subject to contribute more.

A **questionnaire** is a series of written questions on a topic about which the subjects’ opinions are sought (Sommer & Sommer, 2001). It can be **self-administered**, that is, when people answer a questionnaire they have received in the mail or at some event. Or, it can be an **interviewer-administered** questionnaire, which occurs when people are asked questions by an interviewer and people answer the questions openly. The most difficult aspect about a questionnaire is its construction and the interpretation of the results.

To develop a questionnaire, you must know the content of the questions and what format the questions should take. The content contains questions that address what you really want to know. Questions can be formatted in two different ways, or a combination of both ways, open-ended questions and closed-ended questions.



**Open-ended questions** are used when all possible answers to a question are not known. They can help to identify possible answers for a closed-ended questionnaire. This way, the researchers avoid suggesting answers and instead get the answers in the subject's own words. However, the range of possible answers can be broad and the data collected are unwieldy. Responses can be categorized for ease of analysis (Sommer & Sommer, 2001).

**Close-ended questions** are used when the possible responses are known, and when the sample is large. Often these responses can be computer scored and responses from several groups of individuals can be compared.

In Part II, Case 1 of this tutorial, written questionnaires were mailed to participants in the study to determine their knowledge levels of Southwestern design. In Case 2, interviews were conducted with staff of the assisted-living facilities to provide answers to questions about residents' patterns of social interaction in certain places in the facility.

### Research Method C: Experiment

Experiments are used to test hypotheses. The purpose is to determine the effect of the independent variable upon the dependent variable. All other influential variables must be either eliminated or their effect controlled.

One well-known type of experiment is the **pre-test/treatment/post-test**. In this experiment, the base knowledge of the subject is tested or documented in a pre-test prior to the experiment or treatment. Next, the treatment is performed and the knowledge is documented/tested again using the same instrument (test). This is

used to test the effect the treatment (independent variable) has on the knowledge learned (dependent variable). If all other variables are controlled, the difference between the pre-test responses and post-test responses is due to the treatment.

An example that you might find interesting relates to your days in higher education. You walked into your color class the first day and immediately were handed a "test" about color definitions, color theory, and color application. You were told to simply take the test, it would not be part of your course grade. Then, you and your classmates were divided into two groups for the duration of the course.

Each group had the same teacher, but one group (Control Group) was presented lecture material only with many visual images of color, theory, and application (Treatment 1). The other group (Treatment Group) was presented the same lecture material and visual images (Treatment 1) and had many small assignments (Treatment 2) that related to the course content. At the end of the course, all subjects (students) in both groups took the same test that all of you took on the first day of class. Your score on the second test was then compared to your score on the first test. Assuming the second score was higher, your learning could be attributed to the treatment, i.e., presentation of course content.

It would be hypothesized that the scores will be higher for both groups after Treatment 1 and that the scores of the Treatment Group, who also received Treatment 2, would be higher than those of the Control Group. The point was to determine the influence of the assignments.



### Research Method D: Case Study

The case study is an in-depth investigation of a single instance involving an individual, group, or entire community. Case study method emphasizes the individuality and uniqueness of the participants and the setting. Comparative case studies can also be conducted, where the researcher looks for variables or characteristics in common between the two cases versus those that are different (Sommer & Sommer, 2001).

As you are aware, Part II, Case 2 was a comparative case study. In Case 2 (assisted living), the researcher collected information on the sites' residential and institutional characteristics, use of key public areas, the residents' neighborly activities, timing of activities related to area, and the staff's answers to questions. The researcher then developed a template and coding method to analyze and relate the data collected to draw conclusions related to theories and design directives.

A case study method might also be useful if a firm wants to do a **Post-Occupancy Evaluation (POE)**. Interviews, surveys, and observations are strategies that might be used within a case study. Further, given the objectives and research that went into the project, the same could

be used to assess the effectiveness of the design. There are many design researchers who advocate this type of practice to better inform the design process and future projects, by bringing the knowledge gained during previous work quickly back to the firm.



### Research Method E: Visual and Content Analysis

Visual and content analysis systematically describes the form and content of written, visual, or spoken material (Sommer & Sommer, 2001). The intent of these methods and analyses are to find patterns that may be based in written or visual language. The content that appears in documents, television, records, and periodicals can be quantified for analysis of trends, issues of concern, or other purposes. It also has been used with architectural documents from sets of historical type buildings. Researchers identify the categories that they are searching for, i.e., what words, phrases, or visual images appear in print, repeatedly. An example would be for designers to review the Board of Education's meeting minutes to determine how often safety and security are mentioned. This could give you insight into a real concern that may be mentioned by the client but not expressed to the degree appropriate to the rest of the clients and users.

Content or visual analysis are often found in material culture studies of our field or in studies where researchers are seeking to document trends or examine environmental conditions of a group. For example, photographic studies in the early 20th-century documented children laborers in manufacturing and industrial settings. The content analysis provided categories of work conditions that were interpreted for the public. The specificity of conditions became the basis for policy changes and laws for the protection of children.



## Conclusion

You have just completed an introduction and overview of research vocabulary and methods that are used in design research and design practice. Consider how research can contribute to each phase of your design process. In Informedesign's Research Summaries, you can use the Key Concepts to add to your knowledge on a subject and strengthen the programming phase of your projects. You can use evidence-based design criteria to improve the quality of your design solutions. Now, you can read Informedesign's Research Summaries and easily understand the Research Methods section of each Research Summary. Note the sample size, the demographics of the subjects—are the subjects representative of the whole population? Identify the methods used to collect the data; did the method used answer the research question? Look at the limitations that the author identified; can you identify some additional ones? See the commentary by Informedesign staff for further discussion of the attributes of the research.

You'll enjoy reading about research and using research as a truly informed consumer of research. As you continue your quest about research and continue your design practice, keep the vocabulary and the methods in mind. Through your

practice, you too can contribute new knowledge to our profession and help build the body of knowledge.

## Additional Sources:

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**Informedesign**<sup>SM</sup>  
Where Research Informs Design

## The Mission

The Mission of Informedesign is to facilitate interior designers' use of current, research-based information as a decision-making tool in the design process, thereby integrating research and practice.

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Page 27

ASID

American Society of Interior Designers

**BOX 4.3 RESOURCES TO HELP INITIATE RESEARCH AND COLLECT INFORMATION**

(Also see Appendix J: Helpful Resources)

**ORGANIZATIONS****American Academy of Healthcare Interior Designers (AAHID)**

AAHID is a nonprofit, organization that board-certifies interior designers in the United States and Canada who specialize in healthcare—including acute care, ambulatory care, and residential care facility design. Led by a volunteer board of directors, they are constantly striving to improve our certification process, study materials, and exam. They depend on the experience and expertise of those in the field to maintain the highest standards of professionalism, integrity, and competence ([www.aahid.org](http://www.aahid.org)).

**American Society of Interior Designers (ASID)**

ASID is the largest organization of professional interior designers in the world. ASID is a community of people driven by a common love for design and committed to the belief that interior design, as a service to people, is a powerful, multifaceted profession that can positively change people's lives. Through education, knowledge sharing, advocacy, community building, and outreach, the society strives to advance the interior design profession and, in the process, to demonstrate and celebrate the power of design to positively change people's lives. A list of schools with ASID student chapters can be obtained from the national headquarters ([www.asid.org](http://www.asid.org)).

**Building Green**

Articles, reviews, and news from Environmental Building News (EBN) are integrated with product listings from the GreenSpec products directory and project case studies from the High-Performance Buildings Database ([www.buildinggreen.com](http://www.buildinggreen.com)).

**Council for Interior Design Accreditation**

CIDA leads the interior design profession to excellence by setting standards and accrediting academic programs. CIDA sets standards for post-secondary interior design education, evaluates college and university interior design programs, and publishes a list of accredited programs that meet the standard ([www.accredit-id.org](http://www.accredit-id.org)).

**InformeDesign**

InformeDesign transforms research into an easy-to-read, easy-to-use format for architects, graphic designers, housing specialists, interior designers, landscape architects, urban designers and planners, and the public. It contains a database of RESEARCH SUMMARIES about design and human behavior research, accessible through either a full-text search or by using the topics listed within the three main categories, "Space," "Issues," or "Occupants." InformeDesign was co-created by Denise Guerin, PhD, and Caren Martin, PhD, at the University of Minnesota, in the Department of Design, Housing, and Apparel ([www.informedesign.org](http://www.informedesign.org)).

**International Furnishings and Design Association (IFDA)**

IFDA is the only all-industry association whose members provide services and products to the furnishings and design industry, and it is the driving force through its programs and services to enhance the professionalism and stature of the industry worldwide ([www.ifda.com](http://www.ifda.com)).

Interior Designers of Canada (IDC). IDC is the national advocacy association for the interior design profession. As the national advocacy body, IDC represents more than 5,500 members, including fully qualified interior designers, Intern members (who have yet to pass their exams), students, educators and retired members. In addition, they have as members over 300 manufacturers and suppliers who provide products and services for interior design projects and firms ([www.interiordesigncanada.org](http://www.interiordesigncanada.org)).

**International Interior Design Association (IIDA)**

IIDA is an internationally recognized organization representing design education and professional interior designers practicing in commercial, education and research, facility planning and design, government, healthcare, hospitality, residential, and retail design ([www.iida.org](http://www.iida.org)).

**National Council for Interior Design Qualification (NCIDQ)**

This organization serves to identify to the public those interior designers who have met the minimum standards for professional practice by passing the NCIDQ examination. The Council maintains the most advanced examining procedures, and to update continually the examination to reflect expanding professional knowledge and design development techniques ([www.ncidq.org](http://www.ncidq.org)).

**Network of the Hospitality Industry (NEWH)**

NEWH is the premier networking resource for the hospitality industry, providing scholarships, education, leadership development, recognition of excellence, and business development opportunities. It's about scholarship, education, and business networking. Members of NEWH, Inc. are professionals actively engaged in development, management/operations, architecture, communications, design, distribution, education, manufacturing, production, purchasing, and sales of the hospitality, foodservice, senior living, and related industries. They sponsor scholarships and actively promote the education of eligible students aspiring to enter these industries, as well as encouraging cooperation and exchange of information among those engaged in all aspects of these industries (<http://newh.org>).

**United States Access Board ADA Research Reports**

A key mission of the board is developing and maintaining accessibility guidelines and standards under several different laws, including the Americans with Disabilities Act (ADA). This includes design requirements for facilities in the private and public sectors, transportation vehicles, telecommunications equipment, and federal electronic and information technology. Most Board research projects are designed to develop information for its use in writing or updating these design criteria. The board also funds the development of technical assistance and training materials useful to its audience, including designers, specifiers, and consumers. Such materials offer guidance on accessible design, compliance with board guidelines, and best practices

AS ID  
IIDA > "Knowledge center  
on their  
NEEDS ITES

### United States Green Building Council (USGBC)

This nonprofit organization is committed to expanding sustainable building practices. USGBC is composed of more than 13,500 organizations from across the building industry that are working to advance structures that are environmentally responsible, profitable, and healthy places to live and work. Members include building owners and end users, real estate developers, facility managers, architects, designers, engineers, general contractors, subcontractors, product and building system manufacturers, government agencies, and nonprofits ([www.usgbc.org](http://www.usgbc.org)).

### WELL Building Standard®

WELL is a performance-based system for measuring, certifying, and monitoring features of the built environment that impact human health and well-being, through air, water, nourishment, light, fitness, comfort and mind. WELL is grounded in a body of medical research that explores the connection between the buildings where we spend more than 90 percent of our time, and the health and wellness impacts on us as occupants. WELL Certified™ spaces development can help create a built environment that improves the nutrition, fitness, mood, sleep patterns, and performance of its occupants. ([www.wellcertified.com/well](http://www.wellcertified.com/well))

### DATABASES

Access to the databases typically is not free. Check with your library, as most have institutional memberships.

#### Applied Science & Technology Index

This index references articles from 1983 to present in journals, magazines, and trade publications in engineering, technology, and construction management; a good database for searches on construction topics.

#### Architectural Index

Online coverage indexing articles from major architectural periodicals are available in this database for 1982 to 1988; print versions of the index are available from 1950 to present.

#### Art Full Text

This bibliographic database indexes and abstracts articles from art periodicals, yearbooks, and museum bulletins published throughout the world.

#### Avery Index to Architectural Periodicals

This database offers a comprehensive listing of journal articles on architecture and design, including bibliographic descriptions on subjects such as the history and practice of architecture, landscape architecture, city planning, historic preservation, and interior design and decoration.

#### DAAI

Design and Applied Arts Index is the leading source of abstracts and bibliographic records for articles, news items, and reviews published in design and applied arts periodicals from 1973 to present. An indispensable tool for students,

researchers, and practitioners worldwide, DAAI covers both new designers and the development of design and the applied arts since the mid-nineteenth century, surveying disciplines including ceramics, glass, jewelry, wood, metalsmithing, graphic design, fashion and clothing, textiles, furniture, interior design, architecture, computer-aided design, Web design, computer-generated graphics, animation, product design, industrial design, garden design, and landscape architecture. As of November 2007, DAAI contains more than 177,193 records, with around 1,200 new records added in each monthly update.

#### InformeDesign

Interior designers, architects, graphic designers, and landscape architects—use more than 2,400 research summaries to inform their design solutions—explore new design/human behavior topics in Implications—engage in research-based design—learn from tutorials, white papers, and Web casts ([www.informedesign.org/Home](http://www.informedesign.org/Home)).

#### MADCAD

This database provides building codes, knowledge-based design solutions, and guidelines to meet the codes. It also provides cross-referenced collections of building, electrical, mechanical, plumbing, fire, and maintenance codes from BOCA, SBCCI, ICBO, ICC, and NFPA, as well as access to comprehensive state and local codes ([www.madcad.com/index.php](http://www.madcad.com/index.php)).

#### ProQuest

UMI Dissertation Publishing ProQuest has been publishing dissertations and theses since 1938. In that time, they have published more than 1 million graduate works from graduate schools around the world. ProQuest has more than 700 active university publishing partners and publishes more than 70,000 new graduate works each year ([www.proquest.com/products\\_umi/dissertations/](http://www.proquest.com/products_umi/dissertations/)).

### PUBLICATIONS

#### DesignIntelligence

DesignIntelligence is the Design Futures Council's bimonthly report on the future and the repository of timely articles, original research, and industry news. Design leaders rely on DesignIntelligence to deliver insight about emerging trends and management practices, allowing them to make their organization a better-managed, more financially successful enterprise ([www.di.net](http://www.di.net)).

#### The Journal of Interior Design (JID)

This is a scholarly, refereed publication dedicated to issues related to the design of the interior environment ([www.journalofinteriordesign.org](http://www.journalofinteriordesign.org)).

### APPLICATIONS

#### SimplyMap

An internet mapping application that lets users create professional-quality thematic maps and reports using United States demographic, business, and marketing data. Data sources include the U.S. Census and Census projections.

**Week 2.** Interdisciplinary Thinking

**INTERIOR DESIGNERS INSTITUTE**  
Master of Interior Architecture Program  
December 29, 2017

**R. Fox's 22.5 FRAGMENTS about Interior Architecture :**

How I stopped obsessing about bricks and started focusing on people.

**A Caveat:**

My graduate degree is in philosophy. I concentrated on philosophical aesthetics and the philosophy of interpretation. So, I, 1) read a lot of books, periodicals, journals, and news articles; 2) ask lots of annoying questions—frequently, and, 3) will thus nudge you (or prod, as the case may be) to reflect critically about interior architecture (and design generally) in ways that may seem unfamiliar, uncomfortable or annoyingly intellectual.

1. **Candid OR Kind?**

This is a false choice. While we ought to strive to be candid without being cruel, and strive to be kind without being disingenuous, we ought to avoid the trap of believing that candid and kind are mutually exclusive – they are not. Accept criticism and practice solidarity.

Charlotte Kasl, *If the Buddha Got Married*

Kerry Patterson, *Crucial Conversations: Tools for Talking when Stakes are High*

Sherrie Vavrichek, *The Guide to Compassionate Assertiveness*

2. **Of Rocket Engines & Boat Anchors.**

We are all creatures with habits. Some propel us forward; some hold us back.

Separate the rocket engines from the boat anchors. Genuine growth requires the courage to embrace our strengths, face our fears, and “do it differently next time”. Prepare your own Manifesto for Growth.

Brendan Burchard, *High Performance Habits*

Steven Covey, *Seven Habits of Highly Effective People*

Steven Covey, *The 8<sup>th</sup> Habit*

Kathryn D. Cramer, *Change the Way You See Everything*

Charles Duhigg, *The Power of Habit*

Heidi Grant Halvorson, *9 Things Successful People Do Differently*

3. **Time Travel & the Limbic System.**

Guilt can't change the past, so accept what has already happened. Anxiety won't make the future more certain or less risky. In times of uncertainty our mental-emotional control defaults to the limbic system where fear and anxiety rule. Calming our amygdala requires deliberate daily practice. Focus on what you can control; accept what you cannot.

David Richo, *When the Past is Present*

David Richo, *Shadow Dance*

4. **"I love the color purple!"**  
 Who Cares? Yes, design is fun and personally rewarding, and it's hard to believe we actually get paid to do this job, but ultimately it's not about *you*. So, get out of your own head. Constantly spelunking the depths of our personal 'likes' and elective affinities on social media confines us ever more rigidly within a cocoon of artificial self-definition.  
     Seth Godin, *Tribes*  
     Seth Godin, *All Marketers are Story Tellers*  
     Jim Signorelli, *Story Branding*  
     Deyan Sudjic, *The Language of Objects*
  
5. **Value ALL Stakeholders.**  
 Collaboration is the wave of the future. Get on board or get left behind. Every stakeholder is a potential source of value, which is to say, that each has a way to illuminate a path forward towards a better future. Celebrate life-affirming insights and practices of a human-centered worldview. Have you seen those tee-shirts that say "The Future is Female"? Marginalized and minority voices also know what it takes to get the job done properly—so listen.  
     John Gerzema, *The Athena Doctrine*  
     Twyla Tharp, *The Collaborative Habit: life Lessons for Working Together*
  
6. **Find Common Ground.**  
 Know your audience. Learn the dynamics of group behavior. Search out common motivations. Build consensus where possible. Don't force some to agree with you; your impatience will cause others to cling more doggedly to their own positions. Before anyone is going to embrace your view, they have to abandon or suspend their own (perhaps only temporarily).  
     Steven R. Covey, *Third Way*  
     Chirs McGoff, *Primes: How any Group can Solve any Problem*
  
7. **Align, Align, Align.**  
 We become what we think about. Strive to align your beliefs and actions. What are you going to do when some, most or all your beliefs turn out to be false? Cognitive dissonance is corrosive. Identify and resolve contradictory beliefs you hold. In the process, be solution-oriented and accept your own fallibility. Walk the talk. No matter what else it may be, failure is always an opportunity for growth. Often the world is an inscrutable place where there is no necessary connection between what humans want and what *is* the case. Redefine rejection so it's not about you, it's about your proposal.  
     Charlotte Kasl, *If the Buddha got Stuck*
  
8. **Evidence matters.**  
 There is a world outside your head; inhabit it wisely. Ignorance is not an answer. Smart researchers know that they too are all susceptible to confirmation bias. While we ought not embrace nor reject what we do not adequately comprehend, charitably representing the views of others does not require us to suffer fools.  
     DAK Kopec, *Environmental Psychology for Design*  
     DAK Kopec, *Evidence Based Design, 2<sup>nd</sup> Ed.*

9. **Correlation is NOT Causality.** (and vice versa)  
Statistical tools both describe and predict the phenomena they are about. Discover their power. When researching people and places, understand your variables: independent, dependent, contingent. May your samples be random and your population be sufficient. Statistically speaking, consistency builds confidence. Far too many of our decisions are based on bogus inference from insufficient data, or simple extrapolations from personal experience. Legitimate scientific hypotheses have the potential to be disproven. That is, they may be falsified. Learn to separate valid inference from invalid—it will change your life.  
Earl Fontainelle, *Logic: the Ancient Art of Reason*  
Karl Popper, *The Logic of Scientific Discovery*  
Ronald & Thomas Wonnacott, *Statistics*
10. **Design is a process of decision-making.**  
Every project involves hundreds of major decisions and thousands of micro decisions. Pay attention to *how* you decide. It matters to your own success, to the success of your clients, and to the well-being of people who inhabit your design. Human flourishing is something we can choose and something we can achieve.  
Nancy Duarte, *Illuminate*  
Chip & Dan Heath, *Decisive: How to Make Better Choices in Life and Work*  
Mikael Krogerus, *The Decision Book: 50 Models for Strategic Thinking*  
Peter G. Rowe, *Design Thinking*  
Jennifer Shirvani, *Ego vs. EQ*  
Barbara Trautlein, *Change Intelligence*
11. **Say “NO” to Sloppy.**  
Most of the justification our profession offers for its design decisions is lazy. More often than not, it is rooted in either the proclaimer’s personal preferences or simple expediency. The subject-object (mind-world) distinction can be blurry at times, but it is a genuine distinction. While your design intuitions matter, avoid substituting your own ‘truth’ for everyone else’s. The human capacity for rationalization is boundless. That said, justification need not be a ‘buzz-kill’—engaged dialogue can be fun. Saying “I think/believe *x*, for these reasons,” actually helps foster an impartial space for dialogue more so than, “Speaking as an *x*, your position disturbs/offends me.”  
Stanley Fish, *Winning Arguments*  
Jay Heinrichs, *Thank You for Arguing*  
Madsen Pirie, *How to Win Every Argument*
12. **Get attributions right.**  
Our media-frenzied world thrives falsely on re-tweets, ###s, “likes”, yelps, and lots and lots of other second-hand testimonials from potentially dubious sources. Stop eating the menu, and start experiencing the cuisine for yourself. Know who your sources are, and be very clear about *why* you trust them. Respect other people’s intellectual property; they’ll respect yours.  
Umberto Eco, *How to Write a Thesis*  
Joseph Gibaldi, *MLA Handbook for Writers of Research Papers, 8<sup>th</sup> Ed*  
Kate L. Turabian, *A Manual for Writers: Chicago Style for Students and Researchers*  
Carter Wiseman, *Writing Architecture*

13. **Slogans are cheap.** Fashion a few pennies more.  
“Less is more.” [Ludwig Mies van der Rohe; 1886-1969]  
“Less is a bore.” [Robert Venturi; 1925- ]  
“I am a whore.” [Philip Johnson; 1906-2005]  
“Yes is more.” [Bjarke Ingels; 1974- ]

Today’s rosy rallying cry becomes tomorrow’s sour cliché’. When dogma becomes detached from social-material reality, and everyone forgets why the design slogan was important in the first place, it becomes rigid and formulaic—and ultimately useless. Avoid them. They are a trap, and a poor substitute for genuine understanding. The same is true of design ‘trends’. You *cannot* solve a problem you do not genuinely understand. Learn from the past; don’t be a sucker for platitudes.

Charles Jencks, *Theories and Manifestos of Contemporary Architecture*

Jonathan Glancy, *What’s so Great about the Eiffel Tower?*

Elizabeth Wilhide, *Design: The Whole Story*

14. **It’s Circular.**

Our experience, history, rituals, and values are *shaped* by architecture; which in turn *reflects* our experience, history, rituals, and values. Human belief and the physical setting are in constant dialogue. Architecture not only serves as a theatrical backdrop for our rituals and events, but it also has the capacity to memorialize and shape those very same rituals thus collapsing back into ritual itself.

Christpoher Alexandeer, *The Timeless Way of Building*

**Graeme Brooker, *Adaptation Strategies for Interior Architecture & Design***

Sarah Williams Goldhagen, *Welcome to Your World*

Peter Blundell Jones, *Architecture & Ritual: How Buildings Shape Culture*

Robert McCarter, *The Space Within: Interior Experience as the Origin of Architecture*

Rowan Moore, *Why We Build*

Amos Rappaport, *House, Form & Culture*

15. **Brandscapes.**

In the 21<sup>st</sup> century, we live in a designed world where everything we encounter—products, services, architecture, even other people’s experiences—is branded. With the rise of the experience economy we are now tempted to consume branded sensations. Economic inequality, grievance politics and gentrification have brought about a crisis of authenticity, further straining the already tenuous alliance between art and commerce. Creating an authentic interior architecture that reflects genuinely held values requires enormous discernment under these conditions. Create wisely.

Richard Florida, *The Rise of the Creative Class*

Jeffrey Hollender, *The Responsibility Revolution*

Naomi Kline, *No Logo*

Anna Klingman, *Brandscapes*

Gaston Legorburo & Darren McColl, *Storyscaping*

16. **A Picture is Worth 1,000 Words.**

Visual acuity, the art of seeing carefully, is an acquired skill. Practice it. Pay attention. Notice details, nuance. Spend time translating written data into visual data. Sharpen your analytical skills using visually-rich tools. Become a visual thinker who uses diagrams, sketches, doodles, gestures, images, objects, models and 'word-pictures' to express ideas in the most visual way possible.

Rudolf Arnheim, *Visual Thinking*

Paul Laseau, *Graphic Thinking for Architects & Designers*

Ellen Lupton, *Graphic thinking: Beyond Brainstorming*

Edward Tufte, *Envisioning Information*

David Sibbet, *Visual Leaders*

Susan M. Weinschenk, *100 Things Every Presenter Needs to Know About People*

17. **Theory isn't Just for Eggheads.**

Learn to master the language of architecture. To paraphrase Socrates, "The unexamined *theory* isn't worth using." Complacency and inattention give rise to complicity. Possessing the skills of critical reflection needed to ask the right questions does not happen by accident.

Andrew Ballantyne, *Architecture: A Very Short Introduction*

Colin Davies, *Thinking about Architecture*

Paul-Alan Johnson, *The Theory of Architecture*

Alexandra Lange, *Writing About Architecture*

David Smith-Capon, *The Vitruvian Fallacy, Vol. 1 & Le Corbusier's Legacy, Vol. 2*

Krista Sykes, *Essential Writings from Vitruvius to the Present*

18. **Change is Inevitable.**

For ancient Greek philosophers such as Heraclitus of Ephesus, everything is in constant flux. Giving sense to his expression, 'You cannot step into the same river twice,' we might view the world as an ever-changing flow, but we might also regard ourselves as entities forever changing, forever becoming who we are. More to the point, architecture and interiors themselves are agents of change, because the natural, built, and social worlds are altered by the creation of new works.

Tim Brown, *Change by Design*

Tim Harford, *Fifty Inventions That Shaped The Modern Economy*

NBBJ, *Change Design*

Bruce Mau, *Massive Change.*

19. **Humans are Story-tellers.**

Architecture is a vehicle for story-telling, myth-making, and sense-making. Many of our cherished certainties and comforting illusions persist *only* in virtue their constant retelling, whether in word or in stone. It is in this sense that 'Form follows fiction'.

Roland Barthes, *Mythologies*

Joseph Campbell, *Myths to Live By*

George Lakoff, *Metaphors We Live By*

Bernard Tschumi, *Architecture & Disjunction*

20 **Inhabiting Places.**

A good place is more than the sum of its physical parts—more than its physical setting. Human action and intention are central to the vitality of a vibrant place. The meanings we ascribe to a place operate as the third leg of the stool.

Frank Ching, *Form, Space and Order*

William Pena, *Problem Seeking, 5<sup>th</sup> Edition*

Simon Unwinn, *Analysing Architecture, 4<sup>th</sup> Ed.*

Simon Unwinn, *10 Most Influential Buildings in History*

Simon Unwinn, *25 Buildings Every Architect Should Understand*

21. **Interpret and Flourish.**

Human beings flourish by interpreting sensory stimuli, bodily sensation, empirical evidence, testimony from others, and abstract data. As a species we make sense of the world around us and decide our next course of action by interpreting and explaining the information we have. Responsibility for discerning meaning rests solely with each of us. We create our own purpose and essence.

Michael Krausz, *Is There a Single right Interpretation?*

Michael Krausz, *Interpretation and Its Objects*

Michael Krausz, *Interpretation and Transformation*

Michael Krausz, *Oneness and the Displacement of Self*

David Richo, *Five Things We Cannot Change*

Leslie Stevenson, *Twelve Theories of Human Nature*

22. **Trust makes everything easier.**

Relationships built on trust endure. They outlast those based on expedience, convenience, transactional immediacy, or crisis. When you sincerely seek to help others first, then you can stop *selling* what you've got to offer (your design), and start buying the customer's perspective. Understand your customer's reasons for buying, and focus on the buying process—not the selling process.

Jeffrey Gitomer, *The Sales Bible*

Steven M.R. Covey, *The Speed of Trust*

David Richo, *Daring to Trust*

22.5 **There is NO Shallow End.**

This is true of Olympic swimming pools, philosophy, architecture, sales, and leadership. Being a responsible academic and an informed professional requires your time, commitment, and focus. Bring your 'A-Game' every chance you get.

Brendan Burchard, *The Motivation Manifesto*

Ray Dalio, *Principles*

Jeffrey Gitomer, *Gitomer's Little Book of Leadership*

Seth Godin, *Linchpin*

Bob Johansen, *The New Leadership Literacies*

Ginny Whitelaw, *The Zen Leader*

December 30, 2017

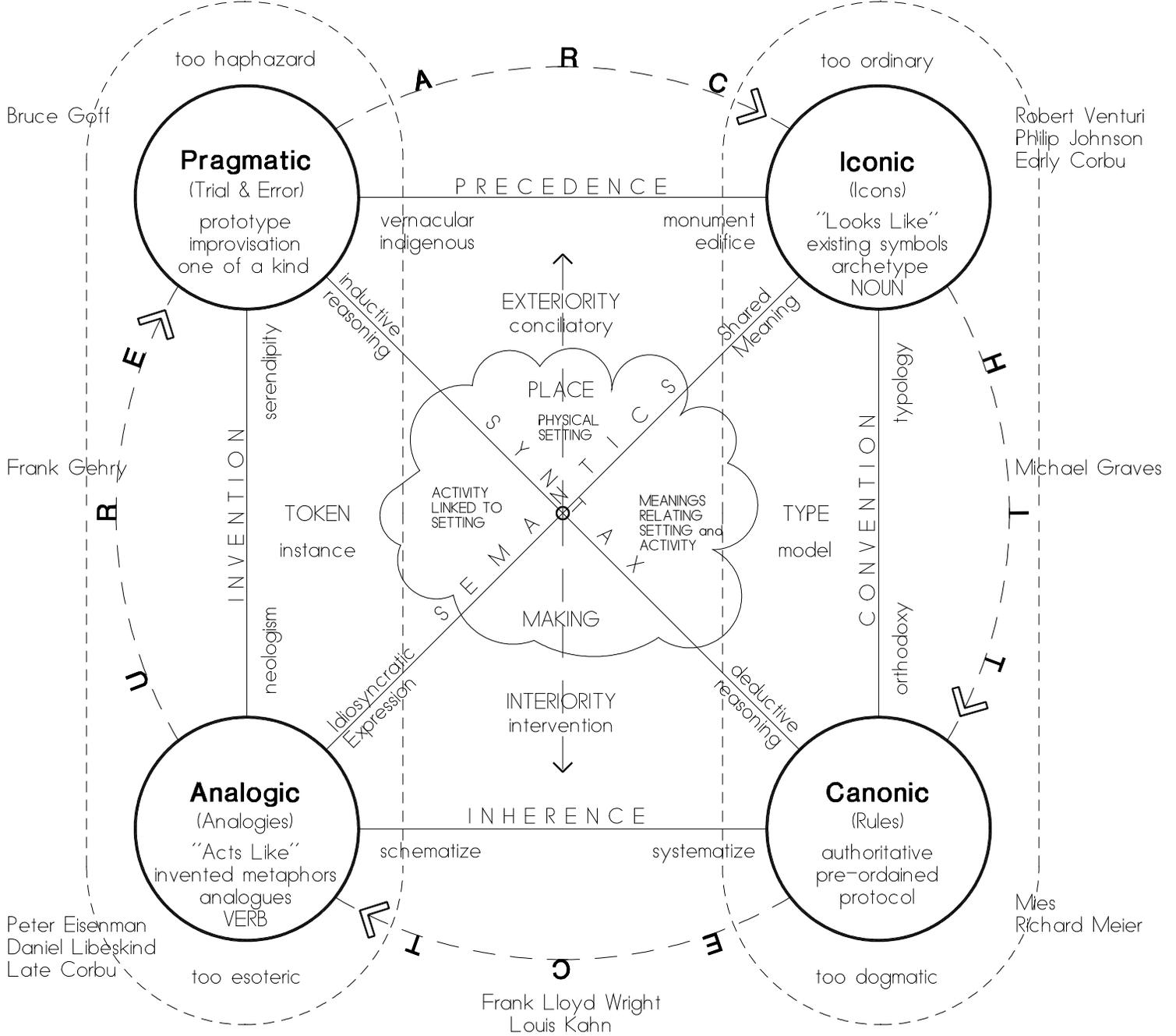
## Top Ten Excuses People Use to Avoid Critical Evaluation of Art, Architecture & Design

10. “Only an ‘egg-head’ worries about critical reflection.”  
[philistine]
9. Objectivity is an illusion; critical rationality is an ethno- and gender-centric mode of domination which disguises itself *as* objectivity.  
[post-modern wise-guy (girl) ]
8. Critical evaluation *presupposes* that a single right answer is possible, even though no such thing is possible.  
[cognitive relativist]
7. Critical evaluation takes the *fun* out of art and design.  
[pop-culture mystic]
6. Art is about pleasure; to fully understand it you must *experience* it.  
[romantic hedonist]
5. Art is *ineffable* – its essence is spiritual and emotional revelation.  
[New Age intuitionist]
4. Art is about appearances (which can be deceiving); reason is about truth (which is eternal).  
[hard-boiled rationalist]
3. There are more important things in life than aesthetics.  
[cultural cynic]
2. Judgments about art are matters of taste; one opinion is as good as any another.  
[radical subjectivist]
1. I might find out that my most cherished ideas, beliefs and values are wrong.  
[coward]

# Four Basic Design Methods classification and relation

A POSTERIORI = truths established by experience  
 necessity is the mother of invention  
 rules created in the process  
 technique favors "found objects"  
 "kit of parts"  
 parts then whole

Fixed mental images  
 established patterns  
 familiar appearance  
 the "tried & true"  
 non-threatening  
 "figural"

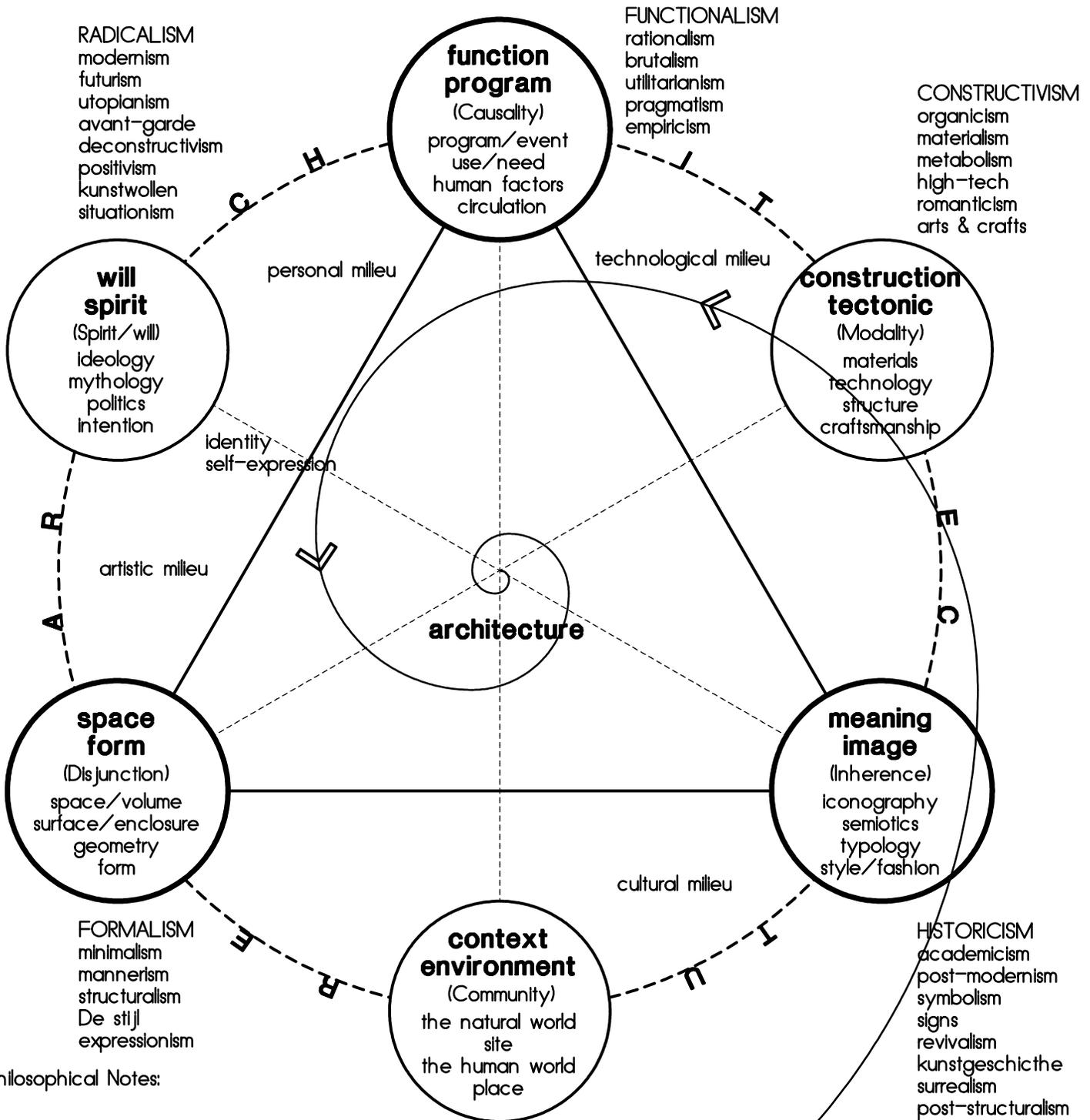


Inference based on SIMILARITY  
 parallel states of existence  
 potent sources of  
 creative ideas  
 "lyrical"

A PRIORI = previous to experience  
 Modular Systems  
 Proportioning Systems  
 The Classical Orders  
 shape grammar  
 space syntax

- Each Method contains subjective and objective elements.
- Each Method has equal potential to facilitate any of the Six Categories of Value:  
 FUNCTION      Context  
 FORM            Construction  
 MEANING        Will

# Architectural Concepts and Ideologies by Category



## Philosophical Notes:

1. Each category contains subjective and objective elements.
2. Doctrines can be distinguished by whether the emphasis is:  
HISTORICAL (particular time and place), or;  
THEORETICAL (any period or location)
3. Time is an element present in all categories.

# An incomplete manifesto for growth

— BRUCE MAU

1. **Allow events to change you.** You have to be willing to grow. Growth is different from something that happens to you. You produce it. You live it. The prerequisites for growth: the openness to experience events and the willingness to be changed by them.
2. **Forget about good.** Good is a known quantity. Good is what we all agree on. Growth is not necessarily good. Growth is an exploration of unlit recesses that may or may not yield to our research. As long as you stick to good you'll never have real growth.
3. **Process is more important than outcome.** When the outcome drives the process we will only ever go to where we've already been. If process drives outcome we may not know where we're going, but we will know we want to be there.
4. **Love your experiments (as you would an ugly child).** Joy is the engine of growth. Exploit the liberty in casting your work as beautiful experiments, iterations, attempts, trials, and errors. Take the long view and allow yourself the fun of failure every day.
5. **Go deep.** The deeper you go the more likely you will discover something of value.
6. **Capture accidents.** The wrong answer is the right answer in search of a different question. Collect wrong answers as part of the process. Ask different questions.
7. **Study.** A studio is a place of study. Use the necessity of production as an excuse to study. Everyone will benefit.
8. **Drift.** Allow yourself to wander aimlessly. Explore adjacencies. Lack judgment. Postpone criticism.
9. **Begin anywhere.** John Cage tells us that not knowing where to begin is a common form of paralysis. His advice: begin anywhere.
10. **Everyone is a leader.** Growth happens. Whenever it does, allow it to emerge. Learn to follow when it makes sense. Let anyone lead.
11. **Harvest ideas.** Edit applications. Ideas need a dynamic, fluid, generous environment to sustain life. Applications, on the other hand, benefit from critical rigor. Produce a high ratio of ideas to applications.
12. **Keep moving.** The market and its operations have a tendency to reinforce success. Resist it. Allow failure and migration to be part of your practice.
13. **Slow down.** Desynchronize from standard time frames and surprising opportunities may present themselves.
14. **Don't be cool.** Cool is conservative fear dressed in black. Free yourself from limits of this sort.
15. **Ask stupid questions.** Growth is fueled by desire and innocence. Assess the answer, not the question. Imagine learning throughout your life at the rate of an infant.
16. **Collaborate.** The space between people working together is filled with conflict, friction, strife, exhilaration, delight, and vast creative potential.
17. \_\_\_\_\_, Intentionally left blank. Allow space for the ideas you haven't had yet, and for the ideas of others.
18. **Stay up late.** Strange things happen when you've gone too far, been up too long, worked too hard, and you're separated from the rest of the world.
19. **Work the metaphor.** Every object has the capacity to stand for something other than what is apparent. Work on what it stands for.
20. **Be careful to take risks.** Time is genetic. Today is the child of yesterday and the parent of tomorrow. The work you produce today will create your future.
21. **Repeat yourself.** If you like it, do it again. If you don't like it, do it again.
22. **Make your own tools.** Hybridize your tools in order to build unique things. Even simple tools that are your own can yield entirely new avenues of exploration. Remember, tools amplify our capacities, so even a small tool can make a big difference.
23. **Stand on someone's shoulders.** You can travel farther carried on the accomplishments of those who came before you. And the view is so much better.
24. **Avoid software.** The problem with software is that everyone has it.
25. **Don't clean your desk.** You might find something in the morning that you can't see tonight.
26. **Don't enter awards competitions. Just don't.** It's not good for you.
27. **Read only left-hand pages.** Marshall McLuhan did this. By decreasing the amount of information, we leave room for what he called our "noodle."
28. **Make new words.** Expand the lexicon. The new conditions demand a new way of thinking. The thinking demands new forms of expression. The expression generates new conditions.
29. **Think with your mind.** Forget technology. Creativity is not device-dependent.
30. **Organization = Liberty.** Real innovation in design, or any other field, happens in context. That context is usually some form of cooperatively managed enterprise. Frank Gehry, for instance, is only able to realize Bilbao because his studio can deliver it on budget. The myth of a split between "creatives" and "suits" is what Leonard Cohen calls a 'charming artifact of the past.'
31. **Don't borrow money.** Once again, Frank Gehry's advice. By maintaining financial control, we maintain creative control. It's not exactly rocket science, but it's surprising how hard it is to maintain this discipline, and how many have failed.
32. **Listen carefully.** Every collaborator who enters our orbit brings with him or her a world more strange and complex than any we could ever hope to imagine. By listening to the details and the subtlety of their needs, desires, or ambitions, we fold their world onto our own. Neither party will ever be the same.
33. **Take field trips.** The bandwidth of the world is greater than that of your TV set, or the Internet, or even a totally immersive, interactive, dynamically rendered, object-oriented, real-time, computer graphic-simulated environment.
34. **Make mistakes faster.** This isn't my idea — I borrowed it. I think it belongs to Andy Grove.
35. **Imitate.** Don't be shy about it. Try to get as close as you can. You'll never get all the way, and the separation might be truly remarkable. We have only to look to Richard Hamilton and his version of Marcel Duchamp's large glass to see how rich, discredited, and underused imitation is as a technique.
36. **Scat.** When you forget the words, do what Ella did: make up something else ... but not words.
37. **Break it, stretch it, bend it, crush it, crack it, fold it.**
38. **Explore the other edge.** Great liberty exists when we avoid trying to run with the technological pack. We can't find the leading edge because it's trampled underfoot. Try using old-tech equipment made obsolete by an economic cycle but still rich with potential.
39. **Coffee breaks, cab rides, green rooms.** Real growth often happens outside of where we intend it to, in the interstitial spaces — what Dr. Seuss calls "the waiting place." Hans Ulrich Obrist once organized a science and art conference with all of the infrastructure of a conference — the parties, chats, lunches, airport arrivals — but with no actual conference. Apparently it was hugely successful and spawned many ongoing collaborations.
40. **Avoid fields. Jump fences.** Disciplinary boundaries and regulatory regimes are attempts to control the wilding of creative life. They are often understandable efforts to order what are manifold, complex, evolutionary processes. Our job is to jump the fences and cross the fields.
41. **Laugh.** People visiting the studio often comment on how much we laugh. Since I've become aware of this, I use it as a barometer of how comfortably we are expressing ourselves.
42. **Remember.** Growth is only possible as a product of history. Without memory, innovation is merely novelty. History gives growth a direction. But a memory is never perfect. Every memory is a degraded or composite image of a previous moment or event. That's what makes us aware of its quality as a past and not a present. It means that every memory is new, a partial construct different from its source, and, as such, a potential for growth itself.
43. **Power to the people.** Play can only happen when people feel they have control over their lives. We can't be free agents if we're not free.

## George Nelson

### Good Design: What is it for?//1957

'Good Design' is neither a book of etiquette nor a social register. What follows is one of many attempts to remove the heavy hand of authority from what should be an area of personal enjoyment:

Within the past few years the phrase 'good design' has taken on a new meaning over and above its original one: a programme jointly sponsored by the Museum of Modern Art, New York, and the Merchandise Mart of Chicago. Such is the power of an idea when backed by effective publicity. I make mention of this at the outset because my subject has the same title as this programme, but otherwise no connection. 'Good design', as popularized by the Museum and the Merchandise Mart, has come to mean a certain number of objects selected by Mr Kaufmann and his juries, objects which may then carry a kind of label of approval when displayed for sale in stores. What I plan to discuss is much less specific, and it would be well, therefore, to avoid any possibility of confusion.

Among these 'less specific' matters is the question of how a design comes into existence and how it is refined to a certain degree of excellence. The process is not a simple one, and I doubt seriously if anyone understands it with any degree of completeness. In spite of this, a tentative exploration of the question has some value.

#### Tradition vs technology

For a design to emerge at all, a definite situation has to exist. There has to be a need – or at least a possible use for it – and there has to be a designer. The designer may think of himself as a farmer or a machinist, or he may call himself a designer. It doesn't matter particularly as long as there is someone around with the urge and the competence to give form to an idea. The channel through which the designer's idea flows to become a finished object is shaped by tradition and by technology. These two do not always function smoothly together. In primitive cultures the need for designed products is expressed in a series of relatively simple implements, utensils and religious objects. The designer is frequently the maker and the user as well. With technology moving slowly, tradition becomes the main guide towards suitable form, and design development tends to go on over generations. Once developed, forms settle into fairly rigid moulds and 'design' would be described more precisely as imitation of standard patterns, with individual variations. There are any number of examples of forms which have persisted virtually unchanged over centuries and even millennia. In

societies which saw themselves as permanent – Egypt is an outstanding example – the persistence of established forms also served to support prevailing belief in an eternally static situation.

#### Function highly overrated

When we talk about the 'need' for a certain kind of object, it is a good thing to realize that there is no necessary connection between the level or type of need and the quality of the design. This is an important point in any discussion of design and it is worth expanding. Let us say that the 'need' in question concerns a vessel to hold liquids. The response to the need – a designed and manufactured object – may be a perfectly adequate container with no aesthetic interest, or it may be a thing preserved through the ages as an incomparable work of art. In other words, functional sufficiency is no guarantee whatever of good design – it is merely the floor below which a design cannot go without failing to serve its purpose. I think it important to realize this because there is a widespread misconception today regarding the role of function, and a very general tendency to overemphasize its significance. And just as the role of function is not necessarily a major one, so with the type or level of the need. It makes no difference, from the viewpoint of good design, whether a container for liquids was made for a prince or a pauper. To be sure, until relatively recently the princes had a better time of it because they were better able to take over the production of the best designers. But the level at which the artist or designer worked has always been far more significant a factor than the social or financial level of his client. [...]

#### The 'designer' need not be an individual

No design can exist in isolation. It is always related, sometimes in very complex ways, to an entire constellation of influencing situations and attitudes. What we call a good design is one which achieves integrity – that is, unity or wholeness – in balanced relation to its environment. The reason good design is hard to come by is that its creation demands a high degree of emotional and intellectual maturity in the designer, and such people are not found too often. Earlier generations solved this problem by using many hands and minds over periods of centuries, as in the case of the axe, or the teacup. The 'designer' then was not an individual, but an entire social process of trial, selection and rejection. Today he is still that, though in a somewhat different sense, and we tend to overestimate his significance as an individual.

#### An impossible comparison

If someone posed a question like 'which is better design, a Roman chariot or an

Italian automobile?' an interesting characteristic of all design would reveal itself. It is that the usual yardsticks for measuring relative excellence do not work. If the question were 'which is better for stopping a headache: aspirin or baking soda?' we are well equipped to find an answer. In the case of the first question, you can say that a modern motor car is faster, more powerful or more comfortable than a chariot, but you cannot say that it is better designed merely on the basis of these technological improvements. Each is a unity, created in response to the opportunities and limitations of a given environment. The quality of each, as a design, relates to the emotional intensity and clarity of thinking brought to bear on each problem. This is why many old things, functionally unsuited for present-day use, still look good to us. This is why we can enjoy museums; differences in time and techniques do not act as barriers in this area. To paraphrase a very profound observation of Picasso, there is no past in art.

### **A Kleenex culture**

We live in a period which tends to reject old things and to get bored with new ones. This is not entirely bad. In part, at least, it is a logical consequence of the fantastic increase in knowledge and expansion of productivity, both of which generate new and exciting opportunities. And in part it reflects an apparently irresistible move toward what might be described as a 'Kleenex culture', in which more and more consumer products shift from a semi-permanent to a disposable basis. To the extent that this shift reduces interest in possessions I suspect that it is all to the good. But the concomitant emphasis on novelty as *the* desirable quality tends to obscure the facts of design development and the understanding of superior performance in this area. New designs, like biological mutations, may represent a better adaptation to changing conditions, and they may not.

### **Rapidity of recent changes**

The past twenty years have seen a rapidly accelerating development of what we call modern or contemporary design. By this I mean an approach which begins with rejection of the forms and symbols of earlier periods in an effort to find something more accurately expressive of the contemporary environment. This movement, as you know, has been worldwide in scope and it has embraced all the arts. Painting especially, which made some of its most important statements around the turn of the century, not only became a major centre of controversy, but also contributed substantially to developments in other arts, notably architecture. The seeds of change were first visible shortly after the mid-nineteenth century. Since the last war so much progress has been made that for all practical purposes one can consider the battle won. To use the biological

analogy for the last time, this century-long history provides an almost perfect example of a series of design mutations appearing, taking hold and flourishing in a steadily more favourable climate, to the point where the new forms become dominant. As a result when we talk about good design today, it is contemporary design of one variety or another we are talking about.

By pretty general consensus, the only good design today is contemporary design. But it is pretty hard to explain to the enthusiasts that not all contemporary design is good design. And it is even harder to explain that just because modern has taken over in the design of houses, interiors, accessories, and consumer products, this is not because it makes for easier living, less maintenance and so on. The fact happens to be that all design in this general area today, whether modern or period, makes for these things, and for the simple reason that nobody – rich or poor, old or young – can any longer put up with design that doesn't. All this takes us back to the earlier discussion of the relation of functionalism and good design, and what I am again saying is that the requirements of function have to be met regardless of quality or type or design.

It may shock you to learn that when some of these requirements happen to conflict with the overall scheme in the designer's mind, they are quite as likely to be honoured in the breach as in the observance. Some years back, when I was trying to do my first houses, there were repeated discussions with clients about the relative merits of one- and two-storey houses. At that time it was taken for granted that all houses outside of Florida and California should be two-storey houses, and we wanted to keep ours down to one. Why did we want to do this? We wanted to keep our houses down to one storey because we found them more satisfying aesthetically. What we said to our clients, however, was quite different: we said one-storey houses were more functional. The same arguments were used in favour of the glass wall and the open plan, although both have serious disadvantages. What the architects and designers were driving at was a new kind of total expression which made more good sense in terms of a changed environment than the older kinds. Functionalism was emphasized partly because it had a grain of truth in it, but mainly because it offered the most convincing argument to laymen.

### **Extravagant claims for good design**

A good bit of the support given the modern movement came from people imbued with a real crusading spirit, and it is inevitable that enthusiasts make extravagant claims. Yet these unfounded claims do not further the modern movement in any substantial way, and they have nothing whatever to do with good design. The dedicated folk who still buttonhole me from time to time give the impression that if one could live in a well-designed modern house, fitted out

with discreetly furnished and accessorized contemporary interiors, life would somehow become very full and very beautiful. Since my trade has to do with the design of houses, interiors and products, I suppose I should be very pleased to hear all this, but somehow it never works out that way. I find it impossible to believe that life is so simple that a new garment of whatever description can transform it. Albert Einstein lived in a drab, ill-furnished little house (to judge from published photographs) on a side street in Princeton. Can you see this man's life enriched or deepened in the slightest by an immersion in good, modern design? Or Picasso's? Picasso could have the services of the best architect in the world any time he wanted; he happens to have three dwellings, none of which could be accused of being either good or contemporary design. Braque lives in a conventional Normandy farmhouse. Matisse has occupied a very commonplace hotel suite for years. Yet all of these people are extraordinarily sensitive and fully aware of what has been going on. One could hardly accuse them of not understanding the meaning of good design. And yet, as consumers, they ignore it.

#### **What good design is not ...**

All of this brings me to the main, and concluding point. Good design, like good painting, cooking, architecture, or whatever you like, is a manifestation of the capacity of the human spirit to transcend its limitations. It enriches its maker through the experience of creating, and it can enrich the viewer or user who is equipped to respond to what it has to say. But it is a statement and not a gadget. If it happens to make something easier or more comfortable, this is quite incidental – a bad design could do just as well in this respect, and very often does. Used to demonstrate one's superior taste to the neighbours it loses its essential quality and becomes one more item of conspicuous consumption, like a yacht or a Cadillac. It cannot transform a dark brown little life into a large, brightly coloured one – only the person living the life can do that. It is not a vitamin pill or a sulfa tablet. It reaches its full potential when it is experienced by a person fully equipped to understand and enjoy what it has to communicate. But such a person has no need of it for enrichment, for he is already rich. This, I think, is why people like Einstein and Picasso seem to ignore its more general manifestations – they are busy making good designs of their own and need no further distraction.

The purpose of good design is to ornament existence, not to substitute for it.

George Nelson, 'Good Design: What is it for?', *Problems of Design* (New York: Whitney Library of Design, 1957) 8-14.

# 121 Definitions of Architecture | ArchDaily

by Becky Quintal



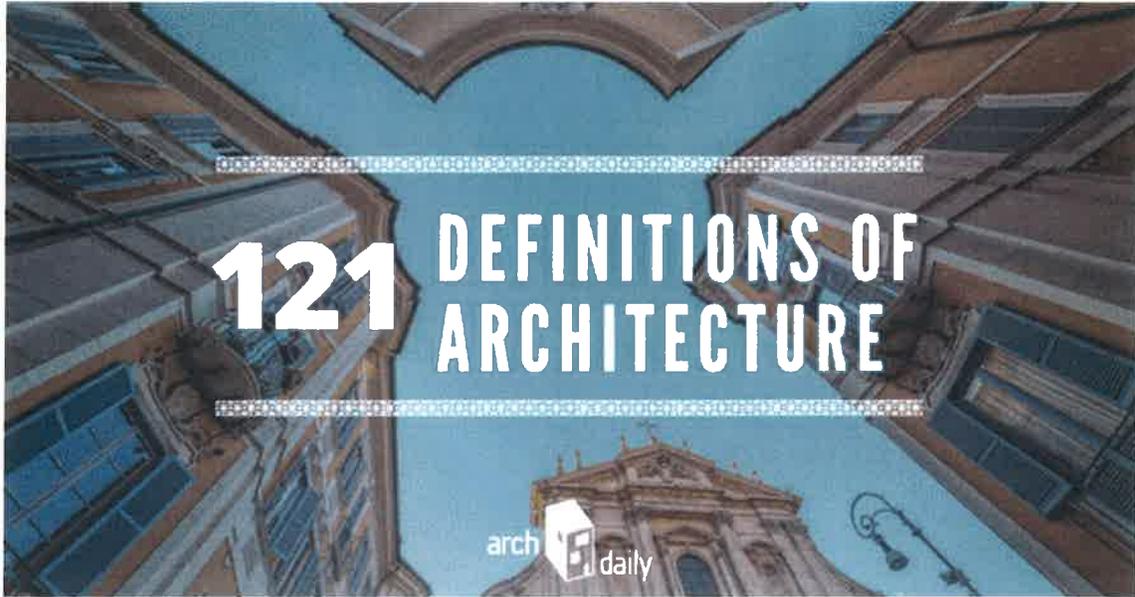
There are at least as many definitions of architecture as there are architects or people who comment on the practice of it. While some embrace it as art, others defend architecture's seminal social responsibility as its most definitive attribute. To begin a sentence with "Architecture is" is a bold step into treacherous territory. And yet, many of us have uttered — or at least thought— "Architecture is..." while we've toiled away on an important project, or reflected on why we've chosen this professional path.

Most days, architecture is a tough practice; on others, it is wonderfully satisfying. Perhaps, though, most importantly, architecture is accommodating and inherently open to possibility.

This collection of statements illustrates the changing breadth of architecture's significance; we may define it differently when talking among peers, or adjust our statements for outsiders.

*A note: In an age that is particularly enamored with capturing ideas in 140 characters or less, it is tempting to take these remarks out of context. **Yet many are part of a larger, nuanced conversation.** Sources and/or*

*context are included for each definition.*



1. "Architecture is definitely a political act." - **Peter Eisenman** in [Haaretz](#)
2. "Architecture is unnecessarily difficult. It's very tough." - **Zaha Hadid** in [The Guardian](#)
3. "Architecture is by definition a very collaborative process." - **Joshua Prince-Ramus** in [Fast Company](#)
4. "Architecture is a way of seeing, thinking and questioning our world and our place in it." - **Thom Mayne** in his [Pritzker Prize Acceptance Speech](#)
5. "Architecture is the art and science of making sure that our cities and buildings actually fit with the way we want to live our lives: the process of manifesting our society into our physical world. - **Bjarke Ingels** in [AD Interviews](#)
6. "Architecture is merciless: it is what it is, it works or doesn't, and you can clearly see the difference." - **Jacques Herzog** in a [lecture at Columbia University](#)

**Architecture is** by definition a very collaborative process.

## JOSHUA PRINCE-RAMUS



7. "Architecture is always related to power and related to large interests, whether financial or political." - **Bernard Tschumi** in [The New York Times](#)
8. "Architecture is a good example of the complex dynamic of giving." - **Jeffrey Inaba** in [World of Giving](#)
9. "Architecture is too complex for just one person to do it, and I love collaboration." - **Richard Rogers** in [The Guardian](#)
10. "Architecture is the most powerful deed that a man can imagine." - **Ben van Berkel and Caroline Bos** in [Volume](#)
11. "Architecture is an act of optimism." - **Nicolai Ouroussoff** in [The LA Times](#)
12. "Architecture is an artificial fact." - **Mario Botta** in [Perspecta](#)

**Architecture** is full of romantics who think that even relatively small changes to the built environment create the aspiration for a better society.

**MARK WIGLEY**



13. "Architecture is full of romantics who think that even relatively small changes to the built environment create the aspiration for a better society." - **Mark Wigley** in [Surface Magazine](#)
14. "Architecture is for us, the public, and it is going to get scuffed." - **Alexandra Lange** in [Design Observer](#)
15. "Architecture is the work of nations..." **John Ruskin** in *Stones of Venice*

16. "Architecture is always dream and function, expression of a utopia and instrument of a convenience." - **Roland Barthes** in ["Semiology and Urbanism"](#)
17. "Architecture is an expression of values – the way we build is a reflection of the way we live." - **Norman Foster** in [The European](#)
18. "Architecture is the real battleground of the spirit." - **Ludwig Mies van der Rohe** in ["ID Merger Speech"](#)

**Architecture is the real battleground  
of the spirit.**

**LUDWIG MIES VAN DER ROHE**



19. "Architecture is not a question of the purely theoretical if you're interested in building buildings. It's the art of what is possible." - **Paul Rudolph** in [Chicago Architects Oral History Project](#)
20. "Architecture is geometry." - **Álvaro Siza** in *Imaginar a Evidência (Imagining Evidence)*
21. "Architecture is about improving conditions: environmental, social and sometimes also political." - **Arjen Oosterman** in [Volume](#)
22. "Architecture is not just one thing. It is not just an art. ... It has to deal with the real situation; it has to do something good for the society." - **Xiaodu Liu** in ["What Can Architecture Do? An Interview with Xiaodu Liu"](#) on ArchDaily
23. "Architecture is much more than the building of an object on a site: it is a reinvention of the site itself." - **Sean Lally** in [The Air From Other Planets](#)
24. "Architecture is a language: new designs should abide by grammatical rules to avoid dissonance with existing structures." - **Prince Charles** in [The Architectural Review](#)

**Architecture is** about improving conditions: environmental, social and sometimes also political.

**ARJEN OOSTERMAN**



25. "Architecture is an untapped source of magnificent stories waiting to be imagined, visualized, and built." - **Matthew Hoffman** in "[Blank Space Launches Architecture Storytelling Competition](#)"

26. "Architecture is about serving others through the design of the built environment." - **Kevin J Singh** in "[21 Rules for A Successful Life in Architecture](#)"

27. "Architecture is a very complex effort everywhere. It's very rare that all the forces that need to coincide to actually make a project proceed are happening at the same time." - **Rem Koolhaas** in [Co.Design](#)

28. "Architecture is intended to transcend the simple need for shelter and security by becoming an expression of artistry." - **Jay A. Pritzker** in his [1985 Pritzker Ceremony Speech](#)

29. "Architecture is the only art that you can't help but feel. You can avoid paintings, you can avoid music, and you can even avoid history. But good luck getting away from architecture." - **Philippe Daverio** in [Humans of New York](#)

30. "Architecture is the petrification of a cultural moment." - **Jean Nouvel** in [Newsweek](#)

**Architecture is** characterised by endurance and longevity: a long

education, long training, long hours  
and long lives.

**CATHERINE SLESSOR**



31. "Architecture is characterised by endurance and longevity: a long education, long training, long hours and long lives." - **Catherine Slessor** in [The Architectural Review](#)

32. "Architecture is a muddle of irreconcilable things." - **Juhani Pallasmaa** in [The Architectural Review](#)

33. "Architecture is, in many ways, a very specific type of science fiction; it is its own genre of speculative thought," - **Geoff Manaugh** in [Architect](#)

34. "Architecture is largely irrelevant to the great mass of the world's population because architects have chosen to be." - **Bruce Mau** in [Architect](#)

35. "Architecture is becoming less about a single walled-off phallus on the horizon, and more about parks and public spaces which engage with the city." - **Alissa Walker** in [Gizmodo](#)

36. "Architecture is most often a victory over the process of creating architecture." - **Sam Jacob** in [Log](#)

**Architecture is** becoming less about  
a single walled-off phallus on the  
horizon, and more about parks and  
public spaces which engage with the  
city.

**ALISSA WALKER**



37. "Architecture is capable of mounting a profound critique of the status quo." -

**Reinhold Martin** in [Places](#)

38. "Architecture is such a conspicuous immensely physical object in space its presence is bound to influence everyone." - **Gautam Bhatia** in [India](#)

[International Centre Quarterly](#)

39. "Architecture is not just about building. It's a means of improving people's quality of life." - **Diébédo Francis Kéré** in [Washington Post](#)

40. "Architecture is a physical experience — it needs to be seen and touched to be wholly understood." - **Nicolai Ouroussoff** in [Los Angeles Times](#)

41. "Architecture is really difficult. I realized that only very recently. It's like music. You can enjoy it but — to know it — it's a different story." - **Diana Agrest** in [nprEd](#)

[nprEd](#)

**Architecture is not just about building. It's a means of improving people's quality of life.**

**DIÉBÉDO FRANCIS KÉRÉ**



42. "Architecture is capable of absorbing anything, and hence tends to dissolve into everything." - **Ole Bouman** in [Volume](#)

43. "Architecture is not just a matter of technology and aesthetics but the frame for a way of life – and, with luck, an intelligent way of life." - [Bernard Rudofsky](#)

44. "Architecture is a discipline where you can have multivalent interests. You could be a philosopher, a geographer, a scientist, an artist, an engineer; you can be poetic about it." - **Toshiko Mori** in [Metropolis](#)

45. "Architecture is supposed to be about a higher purpose." - **Stanley Tigerman** in [Newsweek](#)

46. "Architecture is the most public of the arts, and the public are severe critics."

- **Eric Parry** in [The Guardian](#)

47. "Architecture is a formmaker, problem-solver and environment-creator, and the international exposition is its laboratory."

- **Ada Louise Huxtable** in [New York Times](#)

**Architecture is** a formmaker,  
problem solver and environment  
creator, and the international  
exposition is its laboratory.

**ADA LOUISE HUXTABLE**



48. "Architecture is supposed to complete nature. Great architecture makes nature more beautiful—it gives it power."- **Claudio Silvestrin** in [Elle Decor](#)

49. "Architecture is a small piece of this human equation, but for those of us who practice it, we believe in its potential to make a difference, to enlighten and to enrich the human experience, to penetrate the barriers of misunderstanding and provide a beautiful context for life's drama." - **Frank Gehry** in his [1989 Pritzker Prize Ceremony Speech](#)

50. "Architecture is not a private affair; even a house must serve a whole family and its friends, and most buildings are used by everybody, people of all walks of life. If a building is to meet the needs of all the people, the architect must look for some common ground of understanding and experience." - **John Portman** in "[The Architect as Developer](#)"

51. "Architecture is a social art. And as a social art, it is our social responsibility to make sure that we are delivering architecture that meets not only functional and creature comforts, but also spiritual comfort." - [Samuel Mockbee](#)

52. "Architecture is too important to be left to men alone." - **Sarah**

**Wigglesworth** in [Parlour](#)

53. "Architecture is not a purely private transaction between architects and clients. It affects everyone, so it ought to be understandable to everyone." - [Blair Kamin](#)

**Architecture is not a purely private transaction between architects and clients. It affects everyone, so it ought to be understandable to everyone.**

**BLAIR KAMIN**



54. "Architecture is vital and enduring because it contains us; it describes space, space we move through, exit in and use." - **Richard Meier** in his [1984 Pritzker Prize Ceremony Speech](#)

55. "Architecture is more about ideas than materials." - **Qingyun Ma** in [Los Angeles Times](#)

56. "Architecture is not just for big star projects like museums. It's for the slums around them, too." - **Juan Ramon Adsuara** in [npr](#)

57. "Architecture is bashful about reality." - **Wouter Vanstiphout** in [Archis](#)

58. "Architecture is just background. The beauty of architecture is that it brings people together and can create public constructs." - **Ben Van Berkel** in [AD Interviews](#)

59. "Architecture is about hope, about change—it makes life more exciting." - **Lars Lerup** in [Architect](#)

**Architecture is about hope, about change—it makes life more exciting.**

LARS LERUP



60. "Architecture is blessed and cursed with more dimensions than its greats know what to do with: the three of sensible space, the celebrated fourth of travel through it; and others, ineffable, beyond—the fifth of utility, say, the seventh of happy accident, the ominous eleventh." - **Philip Nobel** in [Metropolis](#)

61. "Architecture is a mystery that must be preserved." - **Jean Nouvel** in [Huffington Post](#)

62. "Architecture is only as great as the aspirations of its society." - **Lisa Rochon** in [Globe and Mail](#)

63. "Architecture is like the picture of Dorian Gray: It can look beautiful in public, while somewhere out of sight its true soul withers and rots." - **Lance Hosey** in [Architect](#)

64. "Architecture is about reason-right?" - **Alfred Caldwell** in [Chicago Tribune](#)

65. "Architecture is a profession of optimism." - **Johanna Hurme** in [spacing](#)

Architecture is a profession of optimism.

JOHANNA HURME



66. "Architecture is about the manipulation of light: both artificial light and day

lighting." - **Tom Kundig** in [Architectural Record](#)

67. "Architecture is expected to carry too much weight in many cases." - **Patricia Patkau** in [Globe and Mail](#)

68. "Architecture is not a goal. Architecture is for life and pleasure and work and for people. The picture frame, not the picture." - **William Wurster**

69. "Architecture is the most obvious flower of a society's culture." - **Alan Balfour** in [Art Papers](#)

70. "Architecture is more than making a statement from the street. It's making an environment for living." - **Dion Neutra** in [Los Angeles Times](#)

71. "Architecture is a translation process." - **Fernando Romero** in [Metropolis](#)

**Architecture is not a goal.  
Architecture is for life and pleasure  
and work and for people. The picture  
frame, not the picture.**

**WILLIAM WURSTER**



72. "Architecture is quite a narrow, obsessive business." - **Nicholas Grimshaw** in [The Guardian](#)

73. "Architecture is perplexing in how inconsistent is its capacity to generate the happiness on which its claim to our attention is founded." - **Alain de Botton** in [The Architecture of Happiness](#)

74. "Architecture is a kind of urban ballet." - Aaron Betsky in [New York Times](#)

75. "Architecture is a history of style written by the victors." - **Herbert Muschamp** in [New York Times](#)

76. "Architecture is driven by belief in the nature of the real and the physical: the specific qualities of one thing - its material, form, arrangement, substance, detail

- over another." - **Kester Rattenbury** in [This is Not Architecture: Media Constructions](#)

77. "Architecture is not always synonymous with building." - [Francisco "Patxi" Mangado](#)

**Architecture is quite a narrow,  
obsessive business.**

**NICHOLAS GRIMSHAW**



78. "Architecture is complicated and like other complicated things it is prone to entropy from the outset." - **Guy Horton** in [Metropolis](#)

79. "Architecture is where imagination meets life." - **Kazuyo Sejima & Ryue Nishizawa** in their [2010 Pritzker Prize Ceremony Speech](#)

80. "Architecture is an incredible ego trip. You get things done, you build them, you look at them. That's why I enjoy life and don't have an ulcer." - **Stanley Tigerman** in the [Chicago Tribune](#)

81. "Architecture is a strange field where we're constantly asked to demonstrate over and over why design matters, to everyone, all the time. It's exhausting." - **Amale Andraos** in [Metropolis](#)

82. "Architecture is about the lack of stability and how to address it. Architecture is about the void and how to cross it. Architecture is about inhospitability and how to live within it." - **Geoff Manaugh** in [The Guardian](#)

83. "Architecture is both an art and a practical pursuit, and the profession has always been divided between those who emphasize the art, that is pure design, and those who give priority to the practical." - **Paul Goldberger** in [New York Times](#)

**Architecture is a strange field** where we're constantly asked to demonstrate over and over why design matters, to everyone, all the time. It's exhausting.

**AMALE ANDRAOS**



84. Architecture is one of the reflections of the permanence of a civilization. - [Charlie Rose](#)

85. Architecture is not a profession for the faint-hearted, the weak-willed, or the short-lived. - **Martin Filler** in [The New York Review of Books](#)

86. "Architecture is a very dangerous job. If a writer makes a bad book, eh, people don't read it. But if you make bad architecture, you impose ugliness on a place for a hundred years." - **Renzo Piano** in [Time](#)

87. "Architecture is the pathology of the contemporary era." - [Forensic Architecture](#)

88. "Architecture is a discipline directly engaged with shaping enclosure, of erecting and toppling barriers or—more explicitly—of extending and limiting 'freedoms'." - **E. Sean Bailey & Erandi de Silva** in "[BI's First Print Edition Released - FREE: Architecture on the Loose](#)"

89. "Architecture is interesting, but by itself it means nothing." - **Massimiliano Fuksas** in [New York Times](#)

**Architecture is interesting, but by itself it means nothing**

## MASSIMILIANO FUKSAS



90. "Architecture is an art, yet we rarely concentrate our attention on buildings as we do on plays, books, and paintings." - **Witold Rybczynski** in [Metropolis](#)

91. "Architecture is aligned with and implicated in the systems of surveillance and control." - **Eric Howeler** in [Volume](#)

92. "Architecture is 90 per cent business and 10 per cent art." - [Albert Kahn](#)

93. "Architecture is probably the subject of more theorizing, navel-gazing and introspective agonizing than any of the other arts." - **Paul Gapp** in the [Chicago Tribune](#)

94. "Architecture is invention." - **Oscar Niemeyer** in [Newsweek](#)

95. "Architecture is always political." - **Richard Rogers** in [Financial Times](#)

**Architecture is 90 per cent business  
and 10 per cent art.**

**ALBERT KAHN**



96. "Architecture is a frame of mind, it's about ideas; the profession is about how to translate those ideas into the real world." - **Christopher Janney** in [Architectural Record](#)

97. "Architecture is an active participant in the interactions of people within it." - **Jonathan C. Molloy** in [ArchDaily](#)

98. "Architecture is not only developing in its own realm, it is constantly

assimilating achievements from other fields. - **Maya Engeli** in [Volume](#)

99. "Architecture is first and foremost about serving people and society. This is an architect's responsibility: to design buildings that fulfill their practical purpose, bring people together, and connect us to the natural world while preserving precious resources." - **Steven Ehrlich** in [Metropolis](#)

100. "Architecture is about building a place in the universe, not about mimicking a depleted, decrepit reality." - **Stefanos Polyzoides** in [The LA Times](#)

101. "Architecture is a public commodity, and as such invites public scrutiny." - **Reed Kroloff** in [Architecture\\*](#)

**Architecture is a public commodity,  
and as such invites public scrutiny.**

**REED KROLOFF**



102. "Architecture is not about the creation of newness but rather about the fulfillment of needs and expectations." - **André Tavares** in [Forbes](#)

103. "Architecture is the same as advertising for communicating the brand." - **Patrizio Bertelli** in [The New York Times](#)

104. "Architecture is not just about accommodating very prescriptive demands—it's doing it in a way that stimulates the unfolding of life. - **Bjarke Ingels** in [Co.Design](#)

105. "Architecture is exposed to life. If its body is sensitive enough, it can assume a quality that bears witness to past life." - **Peter Zumthor** in [Thinking Architecture](#)

106. "Architecture is flexible." - **Krzysztof Wodiczko** in [St. Louis Post - Dispatch\\*](#)

107. "Architecture is a combination of science and fiction." - **Winy Maas** in [Domus](#)

**Architecture is exposed to life. If its body is sensitive enough, it can assume a quality that bears witness to past life.**

**PETER ZUMTHOR**



108. "Architecture is the art we all encounter most often, most intimately, yet precisely because it is functional and necessary to life, it's hard to be clear about where the "art" in a building begins." - **Jonathan Jones** in [The Guardian](#)

109. "Architecture is not an inspirational business, it's a rational procedure to do sensible and hopefully beautiful things; that's all." **Harry Seidler** in the [Sydney Morning Herald](#)

110. "Architecture is used by political leaders to seduce, to impress, and to intimidate." - **Deyan Sudjic** in [The Washington Post](#)

111. "Architecture is a paradigm for reconsidering research." **B.D. Wortham** in [Journal of Architectural Education](#)\*

112. "Architecture is about giving form to the places where people live. It is not more complicated than that but also not simpler than that. - **Alejandro Aravena** in his 2016 [Pritzker Prize acceptance speech](#)

113. "Architecture is generally a poor relative to things like film, fashion and product design. Even though it is economically more important, for some reason it is not getting the recognition." - **Tamsie Thomson** in [The Architects' Journal](#)

**Architecture is not an inspirational**

business, it's a rational procedure to do sensible and hopefully beautiful things; that's all.

**HARRY SEIDLER**



114. "Architecture is a complex and articulated process but if you lose the process and only keep the form you lose the core of architectural practice." - **André Tavares** in [Wallpaper\\*](#)

116. "Architecture is practical poetry." - **Bjarke Ingels** at the [New Yorker Festival](#)

117. "Architecture is the sum of inevitable negotiations." - **Felipe Mesa** in [Domus](#)

118. "Architecture is more than just buildings; these structures can inspire and motivate people to do great things." **Fisk Johnson** for the 2017 [Chicago Architecture Biennial](#)

**Architecture is** one of those disciplines that has no shortage of voices.

**GUY HORTON**



119. "Architecture is one of those disciplines that has no shortage of voices." - **Guy Horton** in [Metropolis](#)

120. "Architecture is always a temporary modification of the space, of the city, of

the landscape. We think that it's permanent. But we never know." - **Jean Nouvel** in [The New York Times](#)

121. "Architecture is like life: a matter of trade-offs." - **Paul Goldberger** in [The New York Times](#)

**"Architecture is like life: a matter of trade-offs."**

**PAUL GOLDBERGER**



*\*These links can only be viewed by those who have access to Proquest and JSTOR. Many universities and public libraries provide access to their students, alumni and patrons.*

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December 29, 2017  
Rick Fox

Interior Designers Institute  
MIA Program  
Design 202 (Special Topics 504)

Lecture Notes            Class 2 – Line of logic  
                                  Basic Tools for Argument: Induction & Deduction

## **1.0 DEDUCTION**

Excerpts Taken from:

Angeles, Peter A. The Harper Collins Dictionary of Philosophy, 2<sup>nd</sup> Ed. New York: Harper Perennial, 1992.

### 1.1 “Deduction”:

“1. reasoning from a general truth to a particular instance of that truth.

Example:     All dogs are mortal.  
                  Charlie is a dog.  
                  Therefore, Charlie is mortal.

2. the process of making explicit the logical implications of statements or premises. 3. the process of inference from statements (premises) in which a necessarily true condition is arrived at by rules of logic. Contrasted with INDUCTION.” (Angeles, p. 64)

Example:     All U.S. Presidents are excellent dancers.  
                  Barack Obama is a U.S. President.  
                  Therefore, Barack Obama is an excellent dancer.

### 1.2 Deductive Method:

- i) Deduction is the most rigorous form of argumentation.
- ii) A deductive argument is one where *IF* the premises are true, then the conclusion *must* be true. A valid deductive argument absolutely *guarantees* that *IF* all premises are true, then only true conclusions result. True conclusions necessarily follow from true premises—it is impossible for things to be otherwise.
- iii) *Validity* has to do with the proper organization [structure] of the argument. In well-formed deductive arguments the *content* of the argument is not relevant to whether it is valid. In this sense validity is entirely *content-neutral*.
- iv) *Soundness* has to do with whether: i) the argument is valid, and ii) all the premises are, in fact, true. Being valid is not sufficient to make an argument sound; all the premises must actually be true.

### 1.3 Uses in a Design-based Context:

For our purposes, the deductive method deserves some amplification:

- i) If a given design theory is presumed to be true, the deductive method is useful for determining what else must also be true.
- ii) Begin with a theory; develop testable hypotheses; gather data and collect observations that address the hypotheses; test the hypotheses with specific data thereby confirming or dis-confirming them.

## 2.0 INDUCTION

Excerpts Taken from:

Angeles, Peter A. The Harper Collins Dictionary of Philosophy, 2<sup>nd</sup> Ed. New York: Harper Perennial, 1992.

### 2.1 “Induction”:

“1. reasoning from a part to a whole, from particular instances of something to a general statement about them, from individuals to universals. 2. reaching a conclusion about all (or many) members of a class from statements describing only some of them.

Example: All observed X’s have had the characteristic Y.  
Therefore, All X’s are Y’s.

It is often believed that in this procedure the probability of the truth of the generalization is increased by each instance that verifies it. 3. a form of nondeductive inference in which the conclusion expresses something that goes beyond what is said in the premises; the conclusion does not follow with logical necessity from the premises. Contrast with DEDUCTION.” (Angeles, p. 144)

Example: *Some* U.S. Presidents are excellent dancers.  
Barack Obama is a U.S. President.  
Therefore, Barack Obama is an excellent dancer.

### 2.2 Inductive Method:

- i) Induction is a mode of argumentation that reasons from the truth of ‘some’ to the truth of ‘all’.
- ii) Inductive reasoning is often characterized as: 1) reasoning from a limited number of specific observations to probable generalizations, and 2) a type of argument where the conclusion follows from the premises with probability (and not necessity).
- iii) Inductive generalization is useful in reasoning about matters of fact, and forms the basis of scientific rationality. However, inductive arguments rely on a subtle assumption about how the world is. Namely, the belief in its *uniformity*, that past regularities are a reliable indication of future reliabilities.
- iv) Analogies, typical examples and rules of thumb are all methods of inductive argument.
- v) An *inductively strong* argument occurs when it would be improbable that the conclusion is false, if all the premises are true.
- vi) An inductive argument is *cogent* when it is both inductively strong and all of its premises are true.

### 2.3 Uses in a Design-based Context:

For our purposes, the inductive method deserves some amplification:

- i) It is useful for analyzing complex examples through comparison and contrast, to see what they have in common.
- ii) It is useful for evaluating data gathered from direct observation, surveys and questionnaires and predicting probable future outcomes.
- iii) It is helpful for isolating cause-effect relationships, and for isolating causal variables.
- iv) If a particular design approach/solution worked in the past, it is likely to work again in the future provided that the same circumstances and context apply.
- v) Begin with specific observations and data; detect patterns and regularities; formulate tentative hypotheses; explore them; develop general conclusions [theories].

### **3.0 INVALID INFERENCE**

An invalid inference occurs when:

- (1) the statements (premises) offered in support of the conclusion do not establish undeniable logical support for it;
- (2) the conclusion being offered does not follow necessarily and with certainty from the premises;
- (3) it is possible for the premises to be true, yet the conclusion could be false.

#### 3.1 Problems of Logic include:

- Logical fallacies
- Missing/unstated premise
- Circular reasoning
- Leaps of faith

#### 3.2 Problems of Unclear Expression: include:

- Ambiguity
- Vagueness
- Obscurity
- Incompleteness
- Idiosyncratic

#### 3.3 Informal Fallacies include:

- Confirmation Bias
- Implicit Bias
- Equivocation
- Slippery slope
- False dichotomy (false choice)
- Straw Man
- Relevance

December 29, 2017  
Rick Fox

Interior Designers Institute  
MIA Program  
Design 502

Lecture Notes            Class 2  
                                    Research, Aesthetic Terms, Theory

## **1.0 RESEARCH, Aesthetic Terms, and THEORY**

Some reasons to integrate research into professional practice, include:

- (1) research enhances your credibility;
  - i) broader understanding of client and project;
  - ii) designer is not merely a consumer of facts, but actively engaged in assessing significance, relevance, and veracity;
  - iii) research can be used in all phases of practice, and helps ensure appropriate data collection and complete analysis.
  
- (2) research is useful for managing emerging areas of practices;
  - i) expanded areas of service;
  - ii) new profit centers;
  - iii) finding and understanding your selected market-niche;
  - iv) Brown's innovation matrix p. 161;
  
- (3) research boosts practice;
  - i) new selling tools;
  - ii) new ways to tell the story;
  - iii) better prediction of outcomes.
  
- (4) research builds bridges between academic and professional disciplines.
  - i) most adults in their life will have more than one career;
  - ii) knowledge integration across intellectual and academic disciplines/practices will dominate the 21<sup>st</sup> C.;
  - iii) more professionals are seeking/experiencing a hybridized form of practice;
  - iv) within Interior Design there is an increasing acceptance of higher-education, particularly as licensing requirements and professional membership mandate increased levels of education;
  - v) the gap between research and practice is harder to discern.

## 2.0 CLARIFICATION OF TERMS

Excerpts Taken from:

Angeles, Peter A. The Harper Collins Dictionary of Philosophy, 2<sup>nd</sup> Ed. New York: Harper Perennial, 1992.

### Aesthetics:

For our purposes, the definition of aesthetics given by Robinson (see page 51) deserves amplification.

- i) The term “aesthetics” as we typically use it today emerged around 1750 through the work of a German philosopher A.G. Baumgarten. Throughout most of the 18<sup>th</sup> & 19<sup>th</sup> C. aesthetics encompassed a theory of perception, a theory of beauty and a theory of art.
- ii) Towards the end of the 19<sup>th</sup> C. the philosophy of art began to emerge as distinct from, yet overlapping with the philosophy of aesthetics.
- iii) Philosophy of aesthetics focuses more generally on the nature of aesthetic responses and judgments. These rely on theories of perception, knowledge, judgment and value, that are themselves anchored in more fundamental consideration regarding the nature of reality, our relationship to it, and how we come to know them both.

“1. the study of beauty, and of related concepts such as the sublime, the tragic, the ugly, the humorous, the drab, the pretty.

2. the analysis of the values, tastes, attitudes and standards involved in our experience of and judgments about things made by humans or found in nature that we consider beautiful.”

(Angeles, p. 4)

### Four Different Kinds of Aesthetic Values

#### Absolutism:

“1. the view that truth (value, reality) is objectively real, final, and eternal.

2. the belief that there is only one unchanging and correct objective explanation of reality.”

(Angeles, p.1)

#### Relativism:

“the theory that values: 1. differ from society to society, from person to person, 2. are conditioned by the peculiarities of the society in which they arise, 3. are not universally applicable at all times or in all places, 4. are correct or incorrect, desirable or undesirable only relative to whether or not they conform to a common norm or to common acceptance.”

(Angeles, 261)

#### Subjectivism:

“the theory, especially in aesthetics and ethics, that (a) values are entirely dependent on and relative to the modes of responses of the individual, and have no independent objective or external reality or source; and (c) objects or activities are valuable or good insofar as they produce desired or desirable pleasurable states of consciousness, feelings, subjective experiences.” (Angeles, p. 296)

Objectivism:

“the view in aesthetics and ethics that (a) values exist in the external world independently of and external to our comprehension of them; (b) they can be found and known; (c) they must be used as principles for human judgments and conduct; (d) objects or activities are valuable or right because of some objectively existing quality in them that, when perceived or experienced, makes them desirable.” (Angeles, p. 209)

Paradigm:

“1. a way of looking at something, 2. in science, a model, pattern, or ideal theory, from which perspective phenomena are explained. 3. an ideal situation or exemplification, as in ‘A paradigm case of this disease....’” (Angeles, p 219)

### **3.0 THEORY**

3.1 Definition:

Excerpts taken from “InformedDesign Research Tutorial, Part II, p.1”

“A theory is a set of interrelated ideas or a set of relationships. It provides a system or filter for planning and conducting research and then, for making sense of its findings.”

3.2 Elements of Theory:

Constructs = components, pieces that make up a theory

Propositions = facts, rules, principles, claims

Assumptions = contrary to the authors, I, Rick Fox, claim that assumptions CAN be proven or disproven, and that they are best thought of as “a beginning point and *nothing* more.’ If assumptions were beyond the realm of proof, what would be the point of developing and testing hypotheses?

3.3 Use(s) of Theory:

Excerpts taken from “InformedDesign Research Tutorial, Part II, p.2”

“Theories can help us understand or predict how people will behave in designed environments.”

Research Findings may either: i) confirm; or ii) disconfirm the assumptions, elements or propositions of the theory under consideration.

A theory can be used as a source of knowledge from which further empirical knowledge can be deduced.

3.4 What Theories Are There? (A Modest Taxonomy)

Environmental Psychology

Person-Environment

Diffusion of Information

Environmental Preference

Human Ecosystem

Place Attachment

Interior Ecosystem

### General Psychology

Maslow's Hierarchy

Narrative Theory

Change Theory

Reggio Emilia Theory

(an educational theory focused on child-directed curriculum. Nussbaumer, 334)

Kolb's Learning Theory

### The Allied Arts

Functionalism

Gestalt

Vitruvian

Kevin Lynch (legibility, imageability & way-finding in the urban environment)

Christopher Alexander (Pattern-Language)

### Philosophical Aesthetics

Mimesis

Expressionism

Phenomenology

Existentialist Aesthetics

Feminism

Meaning of Place

Symbolic Interactionism

Semiotics

## 3.5 What Makes a Theory Good?

**Week 3.** Visual Story-Telling

May 11, 2016  
Rick Fox

Interior Designers Institute  
BA Program  
Senior Studio 440

Reading Notes: Godin, Seth. All Marketers Tell Stories New York: Portfolio/Penguin, 2012.

## **WORLDVIEW**

1. Focus on what people believe, then tell stories that augment their *worldview*.

What Godin means by *worldview*:

P39. "Worldview is the term I use to refer to the rules, values, beliefs and biases that an individual consumer brings to a situation."

P44. "A worldview is not who you are. It's what you believe. It's your biases. A world view is not forever. It's what the consumer believes right now."

P65. "A worldview is the lens used to look at every decision a person is asked to make."

Advise on how to treat consumer's worldviews:

P41. "Don't try to change someone's worldview... instead, identify a population with a certain worldview, frame your story in terms of that worldview and you win."

P43. "our opportunity lies in finding a neglected worldview, framing your story in a way that this audience will focus on and going from there."

P54. "It's not enough to find a niche that shares a worldview. That niche has to be ready and able to influence a large group of their friends."

P60. "People don't want to change their worldview. They like it, they embrace it and they want it to be reinforced."

## **STORIES**

2. P2. "Stories make it easier to understand the world."  
Stories spread ideas.  
We all tell ourselves stories.
3. P7. People don't buy facts; they buy stories.  
Stories spread person-to-person.
4. People believe compelling stories.
5. Great stories make a promise: e.g. safety, wealth, fame, fun, shortcut
6. Great stories match the worldview of a specific audience.
7. P19. "Successful marketers are just the providers of stories that consumers choose to believe."
8. P23. "...spreading ideas is the single most important output of our civilization."
9. P74. Frame your story in terms of your audience's worldview, and it will be heard.

## **BELIEF**

10. P27. There is a gap between ... reality ←---&----→ what we believe.
11. Audiences are selective; they pick and choose what to believe.
12. P33. “The actions of our competitors change what’s going to work in the future.”
13. P67. Communities share (some) worldviews.
14. P69. People like being in sync with their peers.
15. P78. Most people tend to ignore data contrary to what they already believe.
16. P89. “In order to survive the onslaught of choices, consumers make snap judgments.
17. P91. “The reason authenticity matters is that we don’t know which inputs the consumer will use to invent the story he tells himself.”
18. P103. “It’s the story, not the good or the service you actually sell, that pleases the consumer.”
19. P110. “Expectations are the engine of our perceptions.”

## **STRATEGY**

20. P124. “The only robust, predictable strategy is a simple one, to be authentic. To do what you say you’re going to do.”

**Week 4.** Change by Design

**Week 5.** Problem Seeking

Lecture Notes            Class 5

Required Reading        **Problem-Seeking, Programming & Information Management for Pre-Design**  
Robinson, Chapter 10  
Nussbaumer, Appendices A & B

Related Reading        Nussbaumer, Chapter 1, pp. 7-8  
Dickinson, Chapters 1 & 2

## **1.0 PROBLEM-SEEKING vs. PROBLEM SOLVING**

### 1.1 Problem-Seeking::

- 1.1.1 is a process of identifying issues, concerns, themes, facts, values, and other items of information likely to be relevant and useful for a successful resolution'
- 1.1.2 clearly articulates what "successful resolution" amounts to;
- 1.1.3 identifies and describes constraints and opportunities;
- 1.1.4 is a search for things that matter to the problem at hand;
- 1.1.5 identifies and defines the "problem" to be solved

### 1.2 Problem-Solving:

- 1.2.1 is a series of coordinated responses to a design problem;
- 1.2.2 involves methods of analysis & synthesis employed to arrive at a resolution of the relevant constraints and opportunities;
- 1.2.3 is the offering of potential design solutions.

## **2.0 PROGRAMMING vs. RESEARCH**

### 2.1 Similarities include:

- 2.1.1 Accurate observation and description;
- 2.1.2 Systematic fact finding;
- 2.1.3 Gathering, organizing and interpreting information & data;
- 2.1.4 Reliance on published research.

### 2.2 Crucial Differences include:

- 2.2.1 Programming is the systematic *search* for information (Dickinson, 12);
  - .1 Programming is *site-specific*;
  - .2 Programming problems are broad in context but apply to a specific client (Dickinson, T. 2.1).
- 2.2.2 Research is the systematic pursuit of *new* knowledge (Dickinson, 12);
  - .1 Research is a methodical process of discovery / invention;
  - .2 Research moves the "body of knowledge" and the profession forward;
  - .3 Research can be generalized to the larger population (Dickinson, 21);
  - .4 Research problems are clearly defined and specific in nature (Dickinson, T. 2.1).

### 3.0 PROGRAMMING

- 3.1 Some General Comments:
  - 3.1.1 typically described as the first phase of professional services
  - 3.1.2 the phase in which the design problem is identified and described
  - 3.1.3 a professional skill utilized by designers
  - 3.1.4 a bridge between research and design excellence (R, 265)
  - 3.1.5 a search for the values that the completed design should embody
  
- 3.2 Definition(s) of Programming
  - 3.2.1 Robinson cites a definition offered by Edith Cherry in her book *Programming for Design*:  
“Programming is the research and decision-making process that defines the problem to be solved by design.” (R, 265):
  - 3.2.1 Pena & Parshall offer the following definition from Webster’s dictionary,  
Programming is, “A process leading to the statement of an architectural problem and the requirements to be met in offering a solution.” (Pena, 14 & 100)
  - 3.2.3 Duerk offers this definition:  
“Programming is the gathering, organizing, analyzing, interpreting and presenting of information that is relevant to a design project.” (Duerk, 9)
  - 3.2.4 Joan Dickinson offers several more definitions. See Dickinson, page 15.
  - 3.2.5 Defines the problem to be solved;
  - 3.2.6 Identifies and develops strategies for solving the problem.
  
- 3.3 Frameworks for Programming
  - 3.3.1 Spatially-Based vs. Activity-Based (Robinson’s distinction)
    - 3.3.1.1 Spatially based: Identifies required spaces based upon some notion of what spaces are necessary.
    - 3.3.1.2 Activity based: Identifies necessary activities, behaviors, and functions, then defines spatial requirements.
  - 3.3.2 Nussbaumer bases her suggested format on the Human Ecosystem Model;
  - 3.3.3 Pena / Parshall (CRS) - 5 step x 4 consideration matrix
  - 3.3.4 Duerk’s – 5 step x several relevant issues matrix
  
- 3.4 Program Document
  - 3.4.1 “Problem statements are the bridge between programming and design and are agreed upon by both client and user.” (R, 294)
  
  - 3.4.2 Presents the work of the programming phase:
    - .1 Summarizes client needs;
    - .2 Information in the program document, “can help the client better understand the reality of the existing conditions.” (R, 274)
    - .3 Should provide a distinct separation for needs from desires, and clearly prioritize both;
    - .4 “A good programming document essentially describes how the space should perform based on client needs.” (Dickinson, 17)
    - .5 Identifies broader issues relevant to the project.
      - If too limited, it inhibits creative responses
      - If too broad, it fails to inspire relevant responses or serve as a useful evaluative measure
    - .6 Functions as an “objective” road map / guide book for design;
    - .7 Succinctly and clearly identifies and describes the design problem and focuses the Design effort

- .8 According to Robinson, the program document is a, "...guide that provides all relevant information and necessary guidance for the rest of the project." (R, 268)
- .9 Programs can and often do morph. Robinson writes, "You can see your program as a living document: inherently flexible, responding to the design, and subject to change with the client's approval." (R, 268)
- .10 A good program document should separate the relevant and useful data from the superfluous to avoid "data clog," analysis-paralysis and overwhelm;
- .11 A good program document enhances the design team's understanding of relevant Issues forming the context of the design problem;
- .12 "Programming allows the designer to base decisions on facts rather than opinion, assumptions, or experience." (Dickinson, 16)
- .13 Helps the design team understand the design problem from the multiple viewpoints of all stakeholders [client of record, end-users, potential users, contractors, community groups, governmental agencies, etc]
- .14 Varies in size, complexity and detail depending on the nature and complexity of the project;
- .15 The program document is separable from the design, and should be written assuming that someone other than the programming team will use it;
- .16 Robinson writes, "Remember, you should be able to hand this document to another designer and walk away from the project, leaving behind all the tools and information a designer would need in order to proceed to schematics." (R, 301)

#### 3.4.3 Document Formats: include

- .1 Kumlin's format (R, 295)
- .2 Robinson's short format (Table 10.5, p. 298)
- .3 Robinson's detailed format (Table 10.6, p. 301)
- .4 Nussbaumer's format (Appx A & B)
- .5 CRS Format (Pena & Parshall)
- .6 Duerk's Format

### 3.5 Programmatic Concepts vs. Design Concepts

#### 3.5.1 Programmatic Concepts:

- .1 Programmatic concepts are performance criteria/requirements that guide development of design solutions;
- .2 Program concepts are abstract ideas that address performance concerns of the project;
- .3 Program concepts can contain aesthetically-based criteria;
- .4 Program concepts are conceptual strategies for evaluating the usefulness / appropriateness of a potential design concept;
- .5 Pena offers this definition of programmatic concepts, "These refer to ideas intended mainly as functional and organizational solutions to the client's own performance problems. These concepts are general or abstract ideas generalized from particular instances." (Pena, 108)
- .6 Program concepts are not physical solutions.

#### 3.5.2 Design Concepts:

- .1 Robinson offers a succinct statement, "A design concept is the specific physical response that attempts to achieve a programmatic concept. (R, 283)

- .2 Design concepts are responses that achieve the criteria contained in program concepts;
- .3 Pena offers this definition of design concepts, “These refer to ideas intended as physical solutions to the client’s architectural problems.” (Pena, 108)
- .4 There is a many-to-one relation between design concepts and program concepts.

#### **4.0 INFORMATION MANAGEMENT for PRE-DESIGN**

- 4.1 Understanding your strengths is a good thing, but don’t get too attached to them.

Sharpening the same knife all the time might be comforting, but this is rarely as useful as it seems. Try sharpening another tool for a change.

- 4.2 Identify your weaknesses...you may have to work harder in this area to produce a balanced work-product.

- 4.3 Information Storage & Retrieval Systems

- 4.3.1 Digital – folders,

- 4.3.2 Binders

- 4.3.3 Colored Index cards



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## MIA 502 – DESIGN PROJECT, part 1

(30 points)

### PROGRAMMING – Case Study Analysis (Assignment #4)

#### 1.0 Objectives:

The objectives for this assignment are as follows:

- 1.1 To deepen student understanding of the information gathering steps needed during the pre-design phase to clearly identify client/end-user needs, desires, motivations, and expectations necessary for the development of a complete *design program*.
- 1.2 To sharpen student appreciation of the potential successes/failures of a pre-design phase that adequately/inadequately identifies all of the items of information necessary for a successful design solution.
- 1.3 To sharpen student appreciation of the necessity for complete problem identification before embarking on the design solution.
- 1.4 To enhance student understanding of the *case study method* as a research technique, exploring the strengths and limitations of the method.

#### 2.0 Guidelines & Format:

The following guidelines should be followed for this exercise:

- 2.1 Present all analysis and findings during a 20 minute presentation in a manner and format determined by the student employing media of their choice; provided that some form of a hard-copy ‘takeaway’ will be prepared and distributed to all attendees.
- 2.2 A competent response would include:
  - (i) a Title Page or sequence;
  - (ii) a brief recap of steps and methods of information-gathering actually used by the Architect;
  - (iii) a discussion of the ways in which the designer was effective at gathering information; and ways in which they were not;
  - (iv) an evaluation of the architect’s overall effectiveness in terms of adequate problem definition; (link pre-design success/failure to design outcome)
  - (v) a synopsis of what you think the problem definition for the project *ought* to have been;
  - (vi) a brief discussion of the strengths and weakness of the case study method.

**Week 6.** Design Research

January 1, 2018  
Rick Fox

Interior Designers Institute  
MIA Program  
Design 502

Lecture Notes            Class 6  
                                    Research Terms, Concepts & Topics

## **TERMS**

### **Behavior Mapping**

Botti-Salitsky offers this definition:

“Behavior Mapping is the process of observing the current conditions of an environment.” (Botti-Salitsky, 84)

The method is used to observe and record what people actually do as a way of better understanding human behavior. This is helpful because what people say they do, is sometimes not what they actually do. The two types of behavior mapping are: (1) traffic mapping which documents paths people travel through an environment; and (2) activity mapping which documents what people actually do when they are stationary.

### **Case Study**

Is an in-depth investigation that examines some topic of concern by means of a limited number of examples.

Donna Duerk in her book “Architectural Programming: Information Management for Design” John Wiley, 1993. offers a concise definition she cites from Robert K. Yin, Case Study Research: Design and Method. 1984: “A case study is an empirical inquiry that: investigates a contemporary phenomena with real-life context; when the boundaries between phenomena and context are not clearly evident; and in which multiple sources of evidence are used.” (Duerk, 111)

Method: Donna Duerk outlines Five Steps for doing a case study (Duerk, 111 & 112)

- (1) Read Yin’s book;
- (2) Develop research question & define cases;
- (3) Establish those characteristics or issues that will be analyzed & compared across cases;
- (4) Determine and clarify data collection methods;
- (5) Determine how the data will be analyzed to produce information meaningful to design.

After these steps are complete, then collect data, analyze and prepare report/presentation of findings.

Possible Areas of Focus for Design-based Case-Studies, include:

Formal features; historical precedents; design solutions; specific typologies; theoretical aspects; social/cultural concerns; programming concepts, concerns, & issues

Potential Problem: Invalid generalization from an insufficient or limited sample.

An *individual* case study is an in-depth review, analysis, and documentation of a *single* instance, event, experience, situation, thing, or set of circumstances, usually with the intent of understanding all of the salient features, facets and details of the particular case.

A *comparative* case study examines multiple instances of the same kind of case, where the cases are all presumed to be similar in nature. The researcher then compares the multiple cases based on a list of pre-determined criteria or attributes.

*Cumulative* case studies combine information from more than one case study, where those case studies have been conducted at different times. The intent is to bring together findings from many studies to answer a specific evaluative question.

### **Causation | Correlation**

Causation: (Cause)

“1. Anything capable of changing something else. 2. That which produces something else (makes something happen; brings about the occurrence of something) without which that thing would not have resulted. That which is produced (or changed) is called the *effect* and the effect is explained by its cause.”

E.G. X causes Y;  
Y would/could not happen without X;  
X is necessary for Y  
without X, Y could not occur;  
without X, Y is impossible.

Correlation:

Is NOT causation. Merely because two things occur *together* is not evidence that one *causes* the other

E.G. X and Y are [always, often, rarely, never] seen together;  
Some relationship exists between X and Y;

### **Consensual | Egalitarian**

Consensual means willingly or mutually agreed to.

Egalitarian means that all people are considered equal.

### **Direct Observation**

Observing phenomena *first-hand* in its ‘natural’ setting as it unfolds. Tangible evidence of “everyday” life is gathered by the observer/researcher without reliance on the testimony of others.

### **Evidence Based Design (EBD)**

Has its origins in the platform of evidence-based medicine that dates to the 1972 publication of Professor Archie Cochrane’s “Effectiveness and Efficiency: Random Reflections of Health Services”.

With respect to design, EBD operates on the principle that design decisions and solutions ought to be grounded in evidence external to the designer’s preferences and predilections.

Botti-Salitsky offers the following definition: “EBD is a system for analyzing data and then emphasizing credible evidence as the foundation of decision making.” (Botti-Salitsky, p 276)

She offers eight steps for achieving the best possible outcome: (p65)

1. Define evidence-based goals and objectives.
2. Find sources for relevant evidence.
3. Critically interpret relevant evidence.
4. Create and innovate evidence-based design concepts.
5. Develop a hypothesis.
6. Collect baseline performance measures.

7. Monitor implementation of design and construction.
8. Measure post-occupancy performance results.

### Literature Review

A basic initial method of ‘scouting’ the overall outlines and specific terrain of a topic, by means of understanding what others have already researched and written about the topic. Relevant *literature* include, but are not limited to, books, academic journals, periodicals, trade publications, general circulation magazines, newspapers, online search tools & data bases, web blogs, documentary films, videos.

### Paradigm

Paradigms are ways of *thinking/doing/believing / making sense of the world* that seem normal, natural, inevitable, indubitable, common-sensical, and “it couldn’t be otherwise,” that generally go unquestioned, until...

Examples of a *paradigm* in design:

- (1) Human Scale: architecture and interiors should be built to address the physical dimensions of humans (as opposed to pets, insects, giraffes, gazelles or fish)
- (2) Educational facilities must emphasize and promote learning.
- (3) Aging: convalescent homes used to be based on the acute-care model used for hospitals. Today assisted-living facilities are based on the idea of growing old at home. Interestingly, the approach to acute-care has changed from antiseptic laboratory/operator to welcoming, joyful, healing and homey.

Examples of a *paradigm* in the social-world:

- (1) drunk-driving is not only unsafe, it is pathologically injurious to society.
- (2) picking up after your dog is not only polite it is required—you are a guilty socio-path if you don’t.

### Phenomenologist | Existentialist

A Phenomenologist believes:

- (1) we cannot know the ultimate nature of reality in itself;
- (2) what we do know depends on the activity of our consciousness;
- (3) our knowledge is limited to what we can perceived about the external world;
- (4) that human beings *construct* their view of the world from:
  - i. within their own consciousness;
  - ii. based on their own personal experiences (family, social group, religious upbringing, racial/gender identities, work history)

An Existentialist believes:

There are many varieties of existentialism, but some common themes include:

- (1) existence precedes essence;
- (2) human beings do not have an essential nature except what results from their acts of choosing;
- (3) one is not born an ‘X’, but rather becomes it;
- (4) our self-identity is created in the process of our actions and choices;
- (5) moral principles are *constructed* by human beings in the process of being responsible for their actions;

### Reliability | Validity

The *reliability* of a test or experiment has to do with whether they yield the same results on repeated trials. When you conduct a dozen experiments, they should all produce similar data.

*Validity* focuses on a study's objectivity and truthfulness, and is concerned with how successful an inquiry, test or experiment is measuring what it intends to.

### **Research Method**

- (1) is a strategy of inquiry;
- (2) a tool for collecting data;

### **Subjective | Objective**

Excerpts taken from:

Angeles, Peter A. The Harper Collins Dictionary of Philosophy, 2<sup>nd</sup> Ed. New York: Harper Perennial, 1992.

Subjective:

“1. That which is derived from the mind...and not from external sources. 2. That which exists in consciousness. 3. That which is relative to the knower's own individual experiences (sensations, perceptions, personal reactions, history, idiosyncrasies).

*Subjective* refers to the experiencing modes of the experiencer (the subject) in contrast to the things (objects) in the world that are being experienced. At times the term is used pejoratively to indicate judgments that are arrived at based on emotional or prejudiced grounds lacking logical support or external evidence.

Objective:

“Often implies something (1) that is publicly observable, or (2) that is the same for all those that experience it, or (3) that is commonly assented to and therefore unlike an individual's own peculiar reaction to it” .

*Objective* refers to either:

1. the ability to evaluate a situation without being affected by feelings, emotions and preconceived ideas; or,
2. support of a statement using proof and evidence based on actual events

Researcher 'objectivity' is characterized by the following :

- (1) the researcher has an open-mind curiosity, willing to go where evidence and logic take them;
- (2) the researcher remains aware of personal attachments, commitments, and biases;
- (3) the researcher is committed to 'detachment', and has no preconceived ideas;
- (4) the researcher is a “sponge” and absorbs as much as possible.

### **Qualitative | Quantitative Methods**

Qualitative:

- (1) have their origins in the social sciences;
- (2) tends to study experiences, impressions, reactions where “data” is non-numeric;
- (3) based on the principle that social reality is a construct of meaning and interpretation which may be transitory and situational.

E.G. Interviews

Visual Analysis

Direct Observation

Behavior Mapping

Activity/traffic Mapping

Focus Groups

Precedent Studies

Quantitative:

- (1) have their origins in the natural sciences;
- (2) tends to study observable facts, where numerical data can be gathered;
- (3) assumes an external reality that is uniform and consistent across time and location, and this reality can be described and explained by statistical analysis.

E.G. Surveys (standardized)

Questionnaires (standardized)

Lab experiments (for Interior Architecture, could include a full-scale room mock up)

## Defining a Variable

### *What's a variable?*

A variable is an object, event, idea, feeling, time period, or any other type of category you are trying to measure. There are two types of variables: independent and dependent.

### *What's an independent variable?*

An independent variable is a variable that stands alone and is not changed by the other variables you are trying to measure. For example, a person's age may be an independent variable. Other factors, such as his favorite food, the school he attends, or his grade point average, are not going to change the person's age. Age is a constant. In fact, when you are looking for a relationship between variables, you are looking to see if the independent variable causes a change in some other, dependent variable.

### *What's a dependent variable?*

A dependent variable is something that depends on other factors. For example, a test score could be a dependent variable because it could change. Various factors could affect it—for example, how much you studied, how much sleep you got the night before you took the test, or even the noise level in the classroom where you took the test. Usually, when you are looking for a relationship between two things, you are trying to figure out what makes the dependent variable change the way it does.

Many people have trouble remembering which variable is the independent variable and which is the dependent variable. An easy way to remember this is to insert the names of the two variables you are using in the following sentence:

(Independent variable) causes a change in (Dependent variable), and it isn't possible that (Dependent variable) could cause a change in (Independent variable).

For example:

(Time spent studying) causes a change in (Test score), and it isn't possible that (Test score) could cause a change in (Time spent studying).

We see that time spent studying must be the independent variable and the test score must be the dependent variable, because the sentence wouldn't make sense the other way around (NCES, 2008).

January 1, 2018  
Rick Fox

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Design 502

Lecture Notes            Class 6  
                                  Analysis of Precedent  
                                  Nussbaumer, Linda L. *Evidence Based Design for Interior Designers*. New York: Fairchild  
                                  Books, 2009.  
                                  Chapter 4 & Chapter 5

## **1.0 ANALYSIS OF PRECEDENT**

- (1) Compares a group of similar existing examples;
- (2) Analysis of precedent is an important tool in research-inspired / evidence-based design. If you want to know where the 'cutting edge' is, you need to know what has already been done;
- (3) Research of precedent:
  - i) "...research of precedent provides inspiration and development of new ideas." (N, 56)
  - ii) Two major kinds of precedent
    - a) historic precedent = examines the past (and present)
    - b) design precedent = examines typology  
focuses on a specific type of building, interior of set of design concerns.  
Nussbaumer offers a definition of *Typology*,  
"Typology: A system of groupings that are identified by specific attributes (characteristics) or similarity of use. For example, an art museum is a type of museum design or a department store is a type of retail design." (N, 336)

## **2.0 HISTORIC PRECEDENTS**

- (1) Uses of historic precedent
  - i) may cross into multiple building typologies;
  - ii) focuses on design features or *theories*, or both;
  - iii) "Research and analysis of historic precedents provide grounded evidence, inspiration for new ideas, and improvement in present and future projects." (N, 56)  
  
Q: If this is true why did the modernists (1910-1960) reject history?
  - iv) "...lessons can be learned from the past." (N, 70)
  - v) "The intent is to use this method as an analysis of past and present architecture and interiors and, with an analysis, inspire new innovative design solutions." (N, 70)
- (2) Sources for historic precedent research
  - i) Books  
Ching Frank. *Architecture: Form Space & Order*. New York: Wiley, 2007.  
Clark, R.H. and Pause, M. *Precedents in Architecture*. New York, Wiley, 2004.
  - ii) articles
  - iii) travel
  - iv) ? ? what else ? ?

- (3) Framework for historic precedent research
  - i) architectural and interior criteria
    - a) Tables 4.1 & 4.2
  - ii) theoretical criteria (3-D design principles)
    - a) Tables 4.3 & 4.4
    - b) potential confusion with Nussbaumer's use of the term "theoretical" include:
      - i. principles are abstract, and so is "theory;"
      - ii. design principles are elements of a theory;
      - iii. **problem:** design principles by themselves, individually or as a group, are NOT enough to constitute a complete theory;
      - iv. Rick Fox, prefers to call these criteria *formal*, in the sense that these criteria relate to the conceptual organization of physical form.

### **3.0 DESIGN PRECEDENTS**

Usually undertaken as a comparative Case Study

- (1) Uses of design precedent identifies, records and analyzes:
  - i) changes, previous trends, emerging trends;
  - ii) conceptual design ideas;
  - iii) relevant images, branding, target market, methods of selling;
  - iv) ways concepts (design, branding) have been implemented;
  - v) other ideas that inspire and serve as background data for a design;
  - vi) collaborative problem-seeking and problem-solving processes and techniques.
  
- (2) Sources for design precedent research
  - i) mass-circulation, non-professional targeted publications, trade publications;
  - ii) fellow professionals / colleagues;
  - iii) built works; (work "on the boards")
  - iv) ?? what else ??
  
- (3) Methods of design precedent research
  - i) locate and understand relevant literature;
  - ii) interviews;
  - iii) post-occupancy evaluations ("POE");
  - iv) any info gathering technique that will reveal the needs / desires of end- and potential users ("ideal consumers" versus "extreme users")
  - v) ?? what else ?? (making a list of questions, undercover documentary, TV shows)
  - vi) begin broadly and narrow to specifics

**Table 4.1**

**Historic Precedents: Architectural and Interior Criteria**

Criteria	Explanation
Site and Orientation	View or seclusion, geography, topography
Entrance	<ul style="list-style-type: none"> <li>• Entrance door on the façade penetrates plane</li> <li>• An approach is perpendicular, oblique, hidden, or spiral</li> <li>• Portals or gateways: orients visitor into area, space, and/or building</li> <li>• Approach to building and entrance may vary in duration: few paces to series of spaces</li> </ul> <p>Entrances can be visually reinforced:</p> <ul style="list-style-type: none"> <li>• Lower, wider, narrower; deep or circuitous; articulated with or without ornamentation</li> <li>• Scale of entrance: building and human</li> </ul>
Structure	<ul style="list-style-type: none"> <li>• Connection between section and elevation to floor plan</li> <li>• Geometry in plan and elevation</li> <li>• Hierarchy: rank ordering of attributes</li> <li>• Patterns, scale configuration, geometry, articulation</li> <li>• Quality, richness, detail, ornamentation, special materials used as indicator of importance</li> <li>• Interior to exterior: connect to nature—open gardens connected to view or entrance, etc.</li> </ul>
Repetitive to Unique	<ul style="list-style-type: none"> <li>• Relationship between the repetitive and unique elements: unique elements dominate</li> </ul>
Circulation	<ul style="list-style-type: none"> <li>• Represents movement and stationary components</li> <li>• Relates to function and circulation</li> <li>• Focus on dominant relationship</li> </ul>
Path	<ul style="list-style-type: none"> <li>• Perceptual thread linking a series of interior and exterior spaces</li> <li>• Moving in time through and experiencing sequence of spaces, space</li> <li>• Paths of movement are linear in nature (for people, cares, goods, services)</li> <li>• Form and scale of entrance and/or path convey the functional and symbolic distinction</li> <li>• Enclosed path: public galleria or private corridor</li> <li>• Open path: open on one or both sides and form a gallery or balcony</li> <li>• Promenade, pause, rest, or viewing area along a path must accommodate movement of people</li> </ul>
Staircase	<ul style="list-style-type: none"> <li>• Going up: conveys privacy, aloofness, or detachment; going down: secure, protected, or stable</li> <li>• Shallow and/or side steps convey an invitation to public spaces</li> <li>• Width provides a visual cue: public or private</li> <li>• Narrow and/or steep to private spaces; shallow and/or wide steps to public spaces</li> <li>• Slope of staircase—proportioned to fit the body movement and capability</li> <li>• Path of movement: reinforce, interrupt, accommodates change, or terminate</li> <li>• Pitch of stairs and location of landings determine rhythmic movements: ascending, descending</li> <li>• Space for staircase: run along room’s edge, wrap around a space, or can rise between walls</li> <li>• Three-dimensional forms moving up or down</li> </ul>

Excerpt from:

Linda L. Nussbaumer

"Evidence Based Design for Interior Designers"

Page 89

Table 4.1

**Historic Precedents: Architectural and Interior Criteria** *(continued)*

Criteria	Explanation
	<ul style="list-style-type: none"> <li>• Three-dimensional experience and quality: treat as sculpture, freestanding, or attached to wall plane</li> <li>• Space can become an oversized, elaborate staircase</li> <li>• Organizing element weaves a series of spaces</li> </ul>
Views	<ul style="list-style-type: none"> <li>• Interior to exterior views: vistas, gardens, fountains, etc.</li> <li>• Openings to provide light and establish visual relationships: windows, skylights</li> <li>• Small opening:               <ul style="list-style-type: none"> <li>• Grouped windows sequenced to fragment view</li> <li>• Encourages movement through space</li> </ul> </li> <li>• Long, narrow openings (vertical or horizontal):               <ul style="list-style-type: none"> <li>• Larger openings provide larger, broader vistas</li> <li>• Bay window provides view from different directions</li> </ul> </li> <li>• Interior views:               <ul style="list-style-type: none"> <li>• Focal gatherings</li> <li>• Degrees of public viewing</li> </ul> </li> </ul>
Materials and Details	<ul style="list-style-type: none"> <li>• Contrast of surfaces and edges using different colors, shapes, tonal value, etc.</li> <li>• Openings punctuate the surface</li> <li>• Corners define or diminish</li> <li>• Changes in floor and ceiling heights</li> <li>• Flooring: step down, visual change</li> <li>• Ceilings: tray, shed, vaulted, beamed, etc.</li> <li>• Attention to detail: moldings, trim, hardware, sculpture, etc.</li> </ul>

to view and prepare for an approaching enemy (Kostof, 1985). Today, as in the past, a site location needs to be strategically located to meet client needs and desires, whether it is the capability to be viewed, secluded, or connected to nature.

In analyzing site and orientation, designers ask the following questions:

- What is the geography and topography?
- How does the geography and topography affect the design?
- Is there a view or is the building secluded?
- If there is a view, is the building appropriately sited for best advantage?

### Entrance

The entrance is an opening that penetrates a vertical plane—the façade—and gives an impression of what is beyond the entrance doors. The approach to this entrance is the beginning of that impression. The approach may be perpendicular, oblique (i.e., to the side), hidden, or spiraling. For example, a perpendicular approach is employed for some plantation homes with a drive through a grove of trees directly to the entrance door. An oblique approach is used for many homes today with the driveway to the side and the entrance

Table 4.2

## Questions for Analysis: Architectural and Interior Criteria

Criteria	Questions
Site and Orientation	<ul style="list-style-type: none"> <li>• What is the geography and topography?</li> <li>• How do the geography and topography affect the design?</li> <li>• Is there a view or is the building secluded?</li> <li>• If there is a view, is the building appropriately sited for best advantage?</li> </ul>
Entrance	<ul style="list-style-type: none"> <li>• Is the approach and entrance an appropriate precursor to the experience on the inside?</li> <li>• Is the entrance at the building scale and/or human scale?</li> <li>• If a connection to nature is important in the design, does the landscape provide a precursor to the visual experience beyond the entrance?</li> </ul>
Structure	<p>When determining the geometric two-dimensional forms found in plan view to elevations and/or section:</p> <ul style="list-style-type: none"> <li>• Is there a relationship between the geometric forms found on the plan to elevations and/or the sections?</li> <li>• What is the relationship between the dominant to the subordinate parts?</li> </ul>
Repetitive to Unique	<ul style="list-style-type: none"> <li>• What is repetitive and what is unique?</li> <li>• How do the repetitive and unique relate to one another?</li> <li>• Does the unique element dominate?</li> <li>• Does the entire plan focus on the dominant concept?</li> </ul>
Circulation	<ul style="list-style-type: none"> <li>• Does the path move through a logical sequence of spaces?</li> <li>• Does the movement relate to function?</li> <li>• Do paths and staircases meet the following guidelines: Is path unobstructed? Is public or private paths indicated? Are ADA guidelines met?</li> </ul>
Views	<p>When considering the relationship between the interior spaces to the exterior:</p> <ul style="list-style-type: none"> <li>• Are the vistas, gardens, fountains, and so on easily viewed from the interior?</li> <li>• Is there a connection between the exterior view and interior spaces?</li> <li>• What is the interior focal point?</li> <li>• Is there a connection between an exterior view and an interior focal point?</li> </ul>
Materials and Details	<ul style="list-style-type: none"> <li>• Do materials and details coordinate?</li> <li>• What colors, shapes, tonal values, materials are used?</li> <li>• Is the concept fully realized through materials and details?</li> </ul>

at an angle to the approach. A hidden approach makes guests look for the entrance; the entrance to Frank Lloyd Wright's Meyer May House in Grand Rapids, Michigan, is an example of this. A spiraling approach winds toward the entrance, such as that of the Hearst Castle, which spirals up a hill toward its entrance.

In more expensive homes and/or gated communities, portals or gateways are the traditional means of orienting visitors into an area, space, and/or building. The impression of what may be located beyond these gates or entrance doors either welcomes or guards against entry. The approach to a building and its entrance may vary in duration from a few

Table 4.3

## Historic Precedents: Theoretical Criteria

Criteria	Explanation
Line	<ul style="list-style-type: none"> <li>• Visual expression of direction, movement, growth</li> <li>• Segmentation of line (parallel or crossing)</li> <li>• Movement through space</li> <li>• Supporting as with post and beam</li> <li>• Articulates and defines: different material used on edges or corners (exterior or interior)</li> </ul>
Planes	<ul style="list-style-type: none"> <li>• Organizational: the device aligns and orders forms and space</li> <li>• Defines open or gathering space; forms define open volume</li> <li>• Exterior wall: defines and molds interior spaces</li> <li>• Interior wall planes: size and shape of spaces or rooms determined by wall plane</li> <li>• Out-of-reach planes: symbolize sky, shelter; unify different parts of space</li> </ul>
Shape and Form	<ul style="list-style-type: none"> <li>• Inseparable: triangle to pyramid; circle to sphere or cylinder</li> <li>• Additive: transform the form by adding a form</li> <li>• Subtractive: transform the form by taking away a portion</li> <li>• Form types: centralized; clustered or interlocking; grid</li> <li>• Change the form: rotate the grid</li> <li>• Articulate corners or planes: lines, shapes, forms; change materials, colors, texture, light</li> </ul>
Mass or Volume	<ul style="list-style-type: none"> <li>• Creates volume: three-dimensional element; defined by boundaries/planes—walls, floors, ceiling, roof</li> <li>• Massing defines, articulates: creates emphasis or image of total building</li> </ul>
Scale and Proportion	<ul style="list-style-type: none"> <li>• Scale and proportion interrelated</li> <li>• Golden mean, section, rectangle</li> <li>• Human scale: human body dimensions of (our pace, reach, or grasp)</li> <li>• Building scale: small versus large relative to psychology (emotions)</li> </ul>
Balance	<ul style="list-style-type: none"> <li>• Balance: perceptual and conceptual equilibrium: symmetry, asymmetry, radial</li> <li>• Symmetry: specialized form of balance</li> <li>• Both impact all other analysis issues</li> </ul>
Light	<ul style="list-style-type: none"> <li>• Natural light: daylight enters building</li> <li>• Light affects perceptions of mass and volume</li> <li>• Reinforces structure that may be articulated or diminished</li> <li>• Radiant energy of light reveals shape, color, textures of forms in space</li> <li>• Light penetrates windows (wall plane) or skylights (roof plane)</li> <li>• Sun's energy on room's surface affects space: enlivens colors of materials, textiles, etc.</li> <li>• Light—ever changing: changes during day; creates patterns of light, shade, shadows</li> <li>• Direct sunlight affects pattern</li> </ul>

**Table 4.4**

**Questions for Analysis: Theoretical Criteria**

Criteria	Questions
Line	<ul style="list-style-type: none"> <li>• How does line provide the visual expression, direction, and movement?</li> <li>• How does line articulate and define aspects of the exterior and interior?</li> <li>• How does line become an organizing device?</li> <li>• How is line used to articulate the form and/or surfaces?</li> </ul>
Planes	<p>How will the planes define the following applicable points:</p> <ul style="list-style-type: none"> <li>• The façade</li> <li>• The organization of openings</li> <li>• The implied planes for gather spaces (markets, squares, etc.)</li> <li>• The exterior walls that mold interior spaces</li> <li>• Overhead ceilings, walls, or floors that create the volume</li> <li>• Interior wall planes that determine size and shape of the interior spaces</li> </ul>
Shape and Form	<ul style="list-style-type: none"> <li>• Is the form transformed in plan view?</li> <li>• Is the change effective to the overall design?</li> </ul>
Mass and Volume	<ul style="list-style-type: none"> <li>• What areas are emphasized and how is this accomplished?</li> <li>• Does it provide a perceived image of the total architecture or space?</li> </ul>
Scale and Proportion	<ul style="list-style-type: none"> <li>• Was human scale considered?</li> <li>• In what ways does the space visually appear small scaled and vice versa—large scaled?</li> <li>• How are the golden mean, golden section, and golden rectangle used to examine the appropriateness of scale and proportion of the architecture and interior?</li> </ul>
Balance	<p>Do the following indicate balance and provide actual or visual equilibrium?</p> <ul style="list-style-type: none"> <li>• Line, shape, form</li> <li>• Structure</li> <li>• Entrance</li> <li>• Movement through the space</li> </ul>
Light	<p>Analyze how natural light will affect the space; analyze how light will change, reveal, or even diminish various elements within the interior during different times of the day as well as seasons of the year</p>
Final Analysis	<p>To complete the analysis, the following questions should be answered:</p> <ul style="list-style-type: none"> <li>• What is consistently found in this design?</li> <li>• What can be applied from this analysis to another (or a present) project?</li> <li>• What problems were found that can be avoided?</li> <li>• How could the problems found improve another project?</li> <li>• How will this information be applied and improve your project?</li> </ul>

and/or shelter. They also unify different parts of space, become a means for artistic expression, such as Michelangelo’s Sistine Chapel, or become a passive and receding surface without ornamentation or decoration (Ching, 2007).

In analyzing planes, designers ask the following question:

- How will the planes define the previously listed applicable points?

## Case Study 4.1

# The Role of Historic Precedents in Contemporary Design

By Lily Robinson, RA, ASID, IDEC

Shortly after the success of his breakthrough polio vaccine in 1955, Dr. Jonas Salk set out to build a research facility where top scientists from around the world could live, work, and meet in a sort of monastic environment (Carter, 1966). The Salk Institute for Biological Studies represents a unique collaborative effort between a forward-thinking scientist and a top architect, Louis Kahn. The program of areas for the institute was not dictated by the client, but rather grew out of research; particularly, research of historic precedents (Ronner & Jhaveri, 1987). Kahn collected data through informal interviews and observations. However, to develop form, he searched images of historic precedents.

In interviews from a previous project, Kahn learned that the scientists were so dedicated to their work that at lunchtime they moved test tubes from benches to sit and eat and disregarded the noise around them. Kahn realized that the wants of the scientists did not necessarily match their needs. “I realized that there should be ‘a clean air and stainless steel’ area, and ‘a rug and oak table’ area. From this realization, form became” (Ronner et al. 1987, p. 138). The data informed Kahn that spaces needed to be separated by function—(1) experimentation, (2) private contemplation, and (3) social interaction—in order to accomplish the goal of moving knowledge forward. Kahn also included a new type of space, the “unnamed space,” which was not ascribed to any one function, but would accommodate unknown uses, allow for inspiration and, as Kahn stated “for the glory of the fuller environment” (Ronner et al. 1987, p. 131).

With an innovative program of areas in place, Kahn scoured for ideas for form from historic pre-

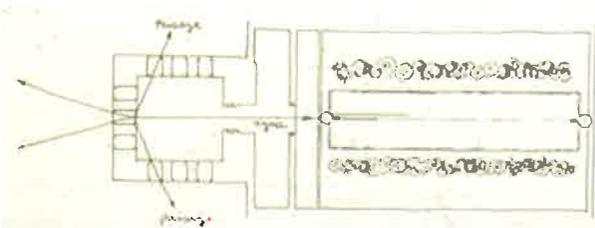
cedents, imagery, readings of the site, and personal observations. These were essential to develop the physical aspects—size and shape of spaces. In fact, Kahn was so inspired by historic monuments that he would often “leave illustrated architectural books on the employees’ drafting tables” for their inspiration (Wiseman, 2007, p. 104). Kahn often looked to historic precedents in search of classical, iconographic forms on which to base new uses and modernistic principles.

For the main concept of the facility, Kahn derived form from the monastery, St. Francis of Assisi—a historic precedent. Kahn and Salk had visited this historic place at different times: Kahn in 1928 and Salk in 1954. Salk was influenced by the life of the monks, their dedication to something higher than their own lives. Kahn saw a perfect building type that matched the function and needs of a research facility; particularly, the specialized spaces for silent contemplation, and the social plaza and an arcade for circulation. Kahn was also attracted to the quality of light produced by the interaction of the columns of the arcade and the openness of the plaza. Figure Case Study 4.1.1 illustrates the plaza of St. Francis of Assisi.

One of the controversies, or mysteries, that surrounds the Salk Institute is the source for the inspiration for the water feature dividing the plaza. From one historical account, a design by Luis Barragan inspired the open plaza between the two mirror image lab buildings. Another source of inspiration may have been the Mughal gardens in India and Pakistan. However, a Kahn employee and supervisor of Salk Institute construction, Jack McAllister stated in an interview that the Alham-



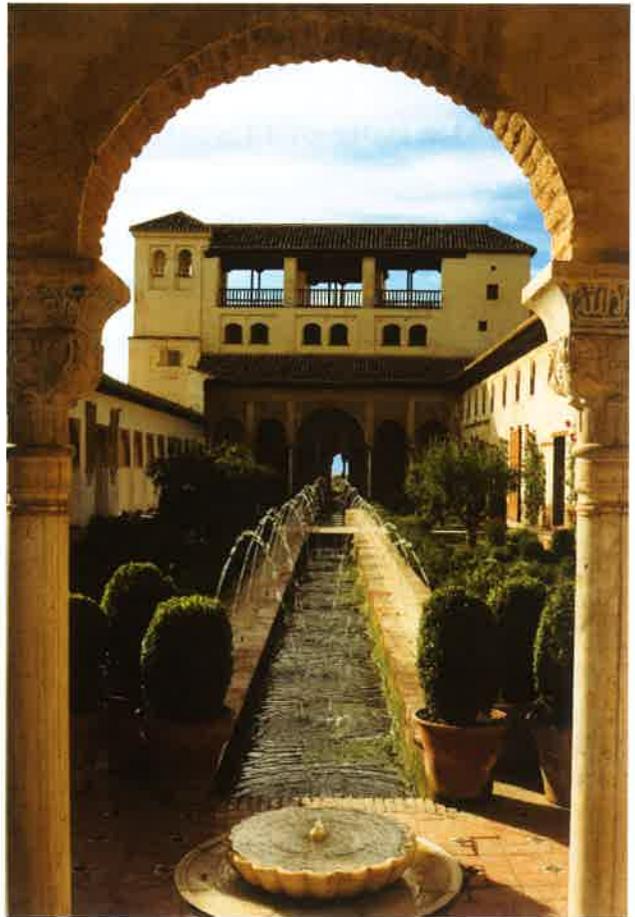
**Figure Case Study 4.1.1** The St. Francis of Assisi monastery influenced Salk and inspired architect Louis Kahn in the design of the Salk Center. For Salk, it was the monks' dedication to a higher power. For Kahn, it was the combination of functions into one building. (*iStockPhoto*)



**Figure Case Study 4.1.2** To provide an understanding of the Alhambra water feature, Kahn created this sketch of the Alhambra.

bra, a Moorish landmark, might have inspired the water feature (Wiseman, 2007). Figures Case Study 4.1.2 and 4.1.3 illustrate the water feature at the Alhambra in a sketch and photograph, respectively.

A look at Kahn's sketches (Figure Case Study 4.1.4) and early models indicate not only research of historic precedents but also site research and analysis that included climate, land formations, the site's proximity to the ocean, personal observation of the ocean view, the path of the sun, and solar orientation of the buildings. Site maps were all researched and analyzed in sketches and model form. Kahn used the similar climates to draw a parallel between La Jolla and the Greco-Roman world and the Middle East, further supporting his use of formal historical references to ancient monuments, plazas,



**Figure Case Study 4.1.3** A photograph illustrates the Alhambra water feature that inspired Kahn's design. (© *David Sutherland/Getty Images*)



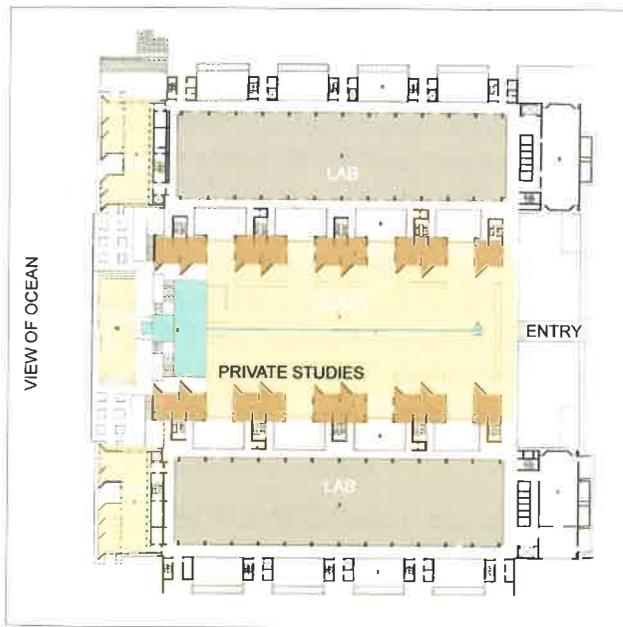
**Figure Case Study 4.1.4** Having been inspired by the Alhambra water feature, Kahn sketched his concept for the Salk Institute with the ocean as a focal point. Kahn's sketches indicate research of historic precedents and site analysis.



**Figure Case Study 4.1.5** The completed building at the Salk Institute reflects the inspiration from the Alhambra with the view of the ocean from the plaza. (Photo by Lily Robinson)



**Figure Case Study 4.1.7** Photographs of the study areas near the plaza allow natural light and a view of the ocean into the space. (Photo by Lily Robinson)



**Figure Case Study 4.1.6** The diagrammatic plan of the Salk Institute identifies the various functions of the building. (Photo by Lily Robinson)

and water features. Figure Case Study 4.1.5 shows the concepts from water feature at the Alhambra, the plaza at St. Francis of Assisi monastery, and the connection to the ocean and natural light. As is illustrated in Figure Case Study 4.1.6, the labs—areas of experimentation are in the center of each building section, whereas the study areas are near the plaza. Natural light and view—are allowed into the study area (see Figure Case Study 4.1.7). The plaza, on the other hand, is the social area that provides the necessary connection between people and nature—the ocean view. Clearly, this case study illustrates a successful use of historic precedents, seamlessly incorporating specific architectural concepts from antiquity into contemporary design.



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## MIA 502 – DESIGN PROJECT, part 1

(30 points)

### PROGRAMMING – Precedent & Typology (Assignment #5)

#### 1.0 Objectives:

The objectives for this assignment are as follows:

- 1.1 To broaden and deepen student understanding of the building ‘type’, relevant to their capstone project, as necessary for the development of a complete *design program*.
- 1.2 To sharpen student understanding of historical and design precedents as they relate to the selected building type.
- 1.3 To deepen student understanding of typical spatial features, and relevant elements of the physical setting *specific* to the selected building type.
- 1.4 To enhance student understanding of various *precedent & typology methodologies* as research techniques, exploring the strengths and limitations of the method.

#### 2.0 Guidelines & Format:

The following guidelines should be followed for this exercise:

- 2.1 Present ‘high-level’ analysis and findings during a 20 minute presentation in a manner and format determined by the student employing media of their choice; provided that the information presented becomes integral to the student’s final program document. (11” x 17” format)
- 2.2 A competent response would include:
  - (i) a Title Page or sequence;
  - (ii) a synopsis/summary of spatial features and specific elements of the physical setting;
  - (ii) a brief recap of methods of information-gathering actually used by the student during this phase of study;
  - (iii) possible methods could include some or all of the following:  
Literature review (authoritative texts, trade publications, mass circulation media), expert testimony/opinion, focus groups, visual analysis...etc.
  - (iv) One of the methods of information gathering *must* involve the researcher’s direct observation, and include recording methods such as activity mapping or traffic mapping,
  - (v) a brief discussion of the strengths and weakness of the various methods.

**Week 7. Users are People Too**



# Inquiry Course

www.informedesign.org

Continuing Education

## Taking Care of Business: Design for the Workplace

IQ1003



### Description:

The modern office is designed to accommodate interpersonal relationships, address the physical needs of employees, and address the performance needs of the organization. Through research, designers have learned qualitative and quantitative characteristics that can enhance employees' experiences. This research brief is designed to strengthen the designer's knowledge on how to design a supportive and flexible work environment.

### Course Objectives:

Using evidence from the studies surveyed in this research brief, the participant will be able to:

1. Identify physical and emotional needs of workers.
2. Identify design strategies that promote the health and safety of employees.
3. Understand why workplace designs need to be updated to consider present and future requirements.
4. Create workplace designs that address a shifting employee demographic.

### Content:

There is one issue of *Inquiry* and one exam in this course.

***Inquiry:*** *Taking Care of Business: Design in the Workplace*

**Course Proficiency Exam**

**Course Evaluation**

### Directions:

Read all course materials, then answer a 12-question proficiency exam. When complete, fax or email the exam and the course evaluation to the address given. InformeDesign's staff will grade the exam and if scored at 80% or higher, you will be emailed a certificate of completion (with name, date, and course number). If you are an AIA member, please provide your member number, and we will file it for you.



InformeDesign®  
Page 99  
Where Research Informs Design

# Inquiry

A Research Brief by InformeDesign®

April, 2011

Taking Care of Business:

## [DESIGN FOR THE WORKPLACE]



**InformeDesign**®  
Where Research Informs Design

### **The Mission**

The Mission of InformeDesign is to facilitate designers' use of current, research-based information as a decision-making tool in the design process, thereby integrating research and practice.

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## [ INTRODUCTION ]

Welcome to *Inquiry*—a research brief developed by InformeDesign®. *Inquiry* summarizes research on a single, focused topic using content from InformeDesign Research Summaries and issues of *Implications*. It provides you the opportunity to use evidence-based design criteria.

Development of each issue of *Inquiry* involves carefully selecting and reviewing Design Criteria and Key Concepts and highlights information found in relevant Research Summaries and *Implications*. These elements are then reorganized into smaller sub-topics.

*Inquiry* provides you with increased accessibility to evidence-based research for the development of better design solutions that benefit both people and the environment.



Disclaimer: Content in this issue of *Inquiry* was taken from numerous Research Summaries and issues of *Implications*. InformeDesign does its best to present accurate and concise information; however, due to the investigative nature of the studies referenced in this document, general limitations exist. Findings may not be generalizable to all populations. Please refer to Research Summaries for details on specific study limitations.

Content wording may be slightly modified from its original form for clarity and to provide context.

Do not design a project from reading only this *Inquiry*. Consider knowledge presented in context with your experiences and content from other knowledge sources.

## Taking Care of Business: [DESIGN FOR THE WORKPLACE]

As new research comes into focus, office design must address new findings. To design offices that meet the needs of the present and hold potential for the future, it is important to design spaces that are flexible. Flexible spaces not only allow for shifting organizational structures, but they allow for shifting work styles and employee personalities. Today's office is designed to accommodate interpersonal relationships, address the physical needs of employees, and address the performance needs of the organization.

### keyword search

Use these keywords to find more on this topic at [www.informedesign.org](http://www.informedesign.org).

ENVIRONMENTAL HEALTH  
HEALTH EFFECTS  
PRODUCTIVITY & PERFORMANCE  
QUALITY OF LIFE  
WELL-BEING  
OFFICE  
WAYFINDING  
SENSORY RESPONSES  
SOCIAL INTERACTION  
NEIGHBORING  
PRIVACY  
AESTHETICS  
MEANING & SYMBOLISM  
PROXEMICS  
STRESS  
WORKER  
COLOR  
LIGHTING/DAYLIGHTING DESIGN

This research brief focuses on evidence found in the following areas related to design for the workplace:

- **EMPLOYEE QUALITY OF LIFE & WELL-BEING**
  - Performance
  - Privacy and Acoustics
  - Health and Wellness
- **MEETING INDIVIDUAL NEEDS**
  - Sense of Place
  - Telecommuting
  - Business Culture
  - Aging Workforce
- **OFFICE DESIGN CONSIDERATIONS**
  - Aesthetics
  - Space Planning
  - Ventilation and Temperature
  - Lighting
- **ERGONOMICS**
  - Work Stations
  - Other Ergonomic Considerations

Information is available from over 100 Research Summaries and issues of *Implications* related to designing for the workplace. However, only a portion have been referenced in this issue of *Inquiry*. To find more information on this topic, use the list of keywords above to navigate the InformedDesign Web site.

## [ EMPLOYEE QUALITY OF LIFE AND WELL-BEING ]

### Performance

Designers need to understand how spaces affect individuals so they can design spaces that counter-balance the chaos and stress of everyday life and create environments that support personal well-being.<sup>1</sup> Since we spend so much time in our work environments, it is important to not add additional stress through improperly developed designs. Designing spaces that make employees feel comfortable may contribute to their performance within their work environment.

- Recognize that the designed environment may impact the success of training in the workplace.
- Design workplaces to encourage successful retention and application of skills learned in training.
- Design training environments, which are often quiet and uninterrupted, to more closely match actual working conditions, which are often riddled with noise and interruption.

Kupritz (2006), OFFICE DESIGN AFFECTS  
WORKPLACE TRAINING

- Be aware that an individual's ability to screen out environmental distractions may impact how interior color schemes affect their work productivity.
- Understand that long-term exposure to an interior color scheme may influence workers differently than short-term exposure.

Kwallek et al., OFFICE COLOR  
INFLUENCES PRODUCTIVITY

- Design space so that all workers have some privacy, personal territory, and the ability to personalize their areas, as these attributes contribute to creativity.

Vithayathawornwong et al., WORKPLACE DESIGN CAN  
SUPPORT WORKPLACE CREATIVITY

- Match adaptive computing (and any assistive technology) to the individual user's needs and goals.

Harrell, USING TECHNOLOGY TO  
ACCOMMODATE FOR DISABILITIES



# Taking Care of Business: [DESIGN FOR THE WORKPLACE]

[ Understand that the functional and architectural features that make up different office types may collectively influence workers' health and job satisfaction. ]<sup>2</sup>

- Noise may lessen workers' ability to deal with work-related challenges (e.g., workload, job relationships).
- Specify heating, ventilation, and air conditioning (HVAC) systems that operate with minimal noise, as HVAC may be an annoying noise source in office settings.

Leather et al., NOISE LEVELS AND STRESS  
AFFECT JOB SATISFACTION

- Plan workspaces for long-term employees and supervisory or management staff in quiet areas, as these individuals may experience more disruption from background noise.

Banbury & Berry, BACKGROUND NOISE  
IN OPEN OFFICES

<sup>1</sup>Kwallek et al., COLOR IN OFFICE ENVIRONMENTS

<sup>2</sup>Danielsson & Bodin, OFFICE TYPE AND EMPLOYEE JOB  
SATISFACTION AND HEALTH

notes:

## Privacy and Acoustics

Studies show that the majority of office workers spend most of their time doing individual work that requires them to concentrate without distraction. Additional time is spent conducting one-on-one conversations, either in-person or on the phone, where they would likely prefer not to be overheard.<sup>3</sup> It is important to allow for privacy without taking away other workspace needs such as adequate natural light and ease of communication.

- Design offices to accommodate different noise preferences, depending on the number of occupants and individual privacy needs.

Mahdavi & Unzeitig, EVALUATING THE QUALITY OF THE OFFICE ENVIRONMENT

- Incorporate absorption materials (e.g., acoustical ceiling tile) and partitioning to make background noises such as voices less distinguishable from one another.

Banbury & Berry, BACKGROUND NOISE IN OPEN OFFICES

- While high partitions provide visual privacy and increase perceived privacy, they may not adequately block sound transmissions. High partitions may decrease satisfaction with cubicle workspace because noise may be more obtrusive when it is inconsistent with visual expectations.
- Include acoustic buffers or controls when specifying partitions in office.
- Consider providing dedicated, enclosed, sharable work space within open-space offices that employees can use to work with reduced distractions.

Maher & von Hippel, INDIVIDUALS' RESPONSES TO OPEN-PLAN OFFICE DESIGN



.....

- Specify panels that are higher than the heads of seated occupants to improve acoustic privacy.
- Specify highly absorbent ceiling tile (absorption of 0.9 or higher) to reduce the level of reflected speech sounds. Increasing the absorption of other surfaces also helps.
- Increase the size of workstations; this improves privacy because it increases the distance between neighbors.
- Use a well-designed masking-noise system to “drown out” speech from other parts of the office, but limit masking noise levels to 45-48 dBA to reduce the chance that the system itself will become annoying.
- Locate workstations, particularly entrances to them, away from high-traffic areas to improve both acoustic and visual privacy.

Newsham, MAKING THE CUBICLE A BETTER PLACE TO WORK

# Taking Care of Business: [DESIGN FOR THE WORKPLACE]

## Health and Wellness

Within office environments, it is often important to provide space for employees to participate in activities supplementary to business tasks (e.g., taking breaks, working out). Supplementary tasks have the ability to positively contribute to employees' experiences. By making the workplace a flexible space, designers provide the opportunity for employees to make the space their own and have a vested interest in their environment.

- Understand that promoting physical activity in the workplace may require a multi-faceted approach that includes both environmental interventions (e.g., incorporating workout facilities) and mechanisms that support individuals' beliefs that they can be active (i.e., promoting self-efficacy).

Prodaniuk et al., SUPPORTING ACTIVE LIVING  
IN THE WORKPLACE

- Consider ways to accommodate short (less than 30 minutes), voluntary, after-lunch naps when designing workplaces and break rooms.

Takahashi et al., NAPPING AND WORKER ALERTNESS

- Consider including workout facilities in workplaces to promote physical activity among employees.

Dodson et al., ENCOURAGING PHYSICAL  
ACTIVITY AT WORK

[ Design workplaces with easily accessible stairways to encourage stair use. ]<sup>4</sup>

<sup>3</sup>Newsham, MAKING THE CUBICLE A BETTER PLACE TO WORK

<sup>4</sup>Dodson et al., ENCOURAGING PHYSICAL ACTIVITY AT WORK

notes:

## [ MEETING INDIVIDUAL NEEDS ]

### Sense of Place

Positive self-identity and sense of well-being are commonly associated with having a sense of place.<sup>5</sup> Because of the amount of time spent at the workplace, it is important to provide employees with a sense of belonging. However, people experience a sense of belonging in different ways. Having a flexible space opens up the possibility for both intrapersonal and interpersonal relationships to form in a variety of ways, which may contribute to a positive sense of place.

- Allow employees to be involved in the design of their workspace to create a more effective work environment and to increase employees' sense of ownership of their space.

Cairns, INFLUENCE OF AESTHETICS IN THE WORKPLACE

- Provide space for employees to display personal artifacts.

Elsbach, OFFICE DÉCOR AND WORKPLACE IDENTITY

- Provide appropriate levels of sound control and privacy to contribute to creating a sense of place.
- Incorporate sufficient flexibility into workspaces to allow for personalization through the display of personal (i.e., photographs) and work-related objects.

Miller et al., SENSE OF PLACE AFFECTS JOB



[ Provide a work environment that has a sense of place to address employee needs, while improving satisfaction and motivation levels. ]<sup>6</sup>

### SATISFACTION AND MOTIVATION

- Personal control over a workspace (e.g., adjustable or flexible components, access to meeting areas) may increase group cohesiveness, job satisfaction, and satisfaction with the work environment.

Lee & Brand, CONTROL OVER WORKSPACES AND JOB PERFORMANCE

- Male employees may feel less attached to their personal office environments than their female co-workers.
- Female employees may view their private office spaces as opportunities to reflect home comfort, while offering flexibility and spontaneity with temporary changes to office layout.

Dinç, PRIVATE OFFICE ENVIRONMENT PREFERENCES VARY BETWEEN GENDERS  
<sup>5</sup>Erickson et al., SENSE OF PLACE AFFECTS JOB SATISFACTION AND MOTIVATION

<sup>6</sup>Miller et al., SENSE OF PLACE AFFECTS JOB SATISFACTION AND MOTIVATION

notes:

# Taking Care of Business: [DESIGN FOR THE WORKPLACE]

## Telecommuting

Advances in the technology industry have significantly impacted the way designers work and changed the way offices are viewed. Designers now have the challenge of designing spaces that meet both current and future definitions of office and workplace.

[Provide a variety of supplemental work settings and services for workers including team communication centers, non-traditional work areas (i.e., coffee houses), print/mail/copy services, concierge services, and teleconference capabilities.]<sup>7</sup>

- Design workspaces that support mobility, portability, collaboration, and individuality.
- Set aside office space in the workplace for mobile or guest workers.
- Provide meeting spaces (i.e., conference rooms) for mobile workers.
- If not carefully considered, workstations and offices provided to mobile workers may be considered unproductive and fail to meet needs.

Venezia & Allee, SATISFACTION OF MOBILE WORKERS

- Use open plans plus team rooms, free-address facilities, and hoteling to replace private offices; positive communication can increase with these solutions.
- Locate satellite offices (smaller offices) closer to customers or employees.

Apgar, ALTERNATIVE WORKPLACES  
CAN SAVE MONEY

- Create neighborhood-based workspaces, or telecommuter centers, that accommodate a range of professions.
- Incorporate adjustable spaces (movable cubicle walls), modular furniture that is easily rearranged or stacked, and adaptable technology features.
- Accommodate a secure area appropriate to telecommuters (i.e., locked personal file cabinets stored in a secure area that could be rolled into workspaces as needed).
- Provide well-lit parking areas and security systems that allow users to safely access telecommuting centers outside of normal business hours.
- Investigate demand for child-friendly areas within or near telecommuter facilities.

Johnson, NEIGHBORHOOD-BASED OFFICES  
FOR TELECOMMUTERS

<sup>7</sup>Venezia & Allee, SATISFACTION OF MOBILE WORKERS

notes:

## Business Culture

Within an organization's business culture there is a possibility for further subcultures often defined by departments. Accommodating different work cultures can facilitate smoother interactions between the various levels of an organization.



- Provide organizational tools, accessories, and storage for conscientious clients as they may desire neat, organized, and uncluttered environments.
- Extroverted individuals tend to be drawn toward environments that are inviting, somewhat disorganized, and have more decorative items.
- Provide distinctive, stylish, and unconventional environments for individuals who are open to new experiences and adventurous.

Gosling et al., PERSONALITIES INFLUENCE LIVING AND WORK ENVIRONMENTS

- Recognize that an organization can only absorb small amounts of cultural change at a time; therefore it is recommended that changes are small and incremental.

Birk & Burk, ORGANIZATIONAL CULTURE INFLUENCES EMPLOYEE PERFORMANCE

- Increase flexibility in type of interaction between co-workers by using an “open door” policy and by having co-workers share a room, as this creates frequent informal conversation and fosters creativity.

Vithayathawornwong et al., WORKPLACE DESIGN CAN SUPPORT WORKPLACE CREATIVITY

- Be aware that some work environments and tasks may increase one's desire to interact socially.

Stone, COLOR AND SCENIC IMAGES IN WORKSPACES

- Organizational support is needed to encourage recycling in work environments.
- Organize workplace recycling sites to reflect materials recycled in workers' homes.

Lee et al., UNDERSTANDING OFFICE RECYCLING BEHAVIOR

notes:

# Taking Care of Business: [DESIGN FOR THE WORKPLACE]

## Aging Workforce

Rather than retire at 65, many people continue to work or re-enter the workforce due to inflation, healthcare costs, inadequate savings, or simply the desire to be productive.<sup>8</sup> Because of this, it is important to design work environments that accommodate the shift in traditional employee demographics. Environmental conditions of an office can mitigate the effects of declining physical abilities in older workers.<sup>9</sup> However, all ages of employees need to be taken into account when designing effective work environments. Good design can positively contribute to someone's experience without calling attention to their age.

- Two subcultures of employees have formed in the contemporary office, the 20-year olds and older (20+) and the 40-year olds and older (40+); the interaction between these two cohorts often creates stress and interpersonal anxiety in the workplace.
- Enhance corporate image and engage in interactive and personalized recruitment; and provide outcome-based rewards systems, informal physical environments, and high information content in corporate processes and products to attract and retain top 20+ employees.

Novicevic & Buckley, MANAGING INTERGENERATIONAL NEEDS

- Add desk or ceiling light fixtures, use higher wattage lamps, and provide additional lighting to increase the luminance in office environments to improve worker performance, especially for older workers.

Charness & Dijkstra, LIGHTING AND AGE INFLUENCE READING ABILITY

- The importance of many workplace design features is similar for workers of various ages; however, the perception of privacy, level of privacy, and how privacy is achieved can vary significantly with age.

Kupritz (2000), AGE AFFECTS PERCEPTIONS OF WORKPLACE DESIGN

- In one study, older workers preferred higher lighting levels for supervision, more resources for supporting computer work, and a larger personal office for meetings. Middle-aged workers preferred a large personal office and up-to-date technology for private communication and movable furniture and equipment to support numerous aspects of higher productivity.
- Middle-aged and older workers may agree about which features of the office environment are important to productivity, though they use office space and features differently (e.g., older workers may prefer a large office to meet with groups while middle-aged workers may prefer a large office for private conversation).

Kupritz (2003), AGE AFFECTS OFFICE WORKERS' NEEDS

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<sup>8</sup>Kupritz (1999), WORKPLACE DESIGN NEEDS OF OLDER WORKERS

<sup>9</sup>Kupritz (2001), OLDER AND MIDDLE-AGED WORKERS' PERCEPTIONS OF OFFICE DESIGN

notes:

## [ OFFICE DESIGN CONSIDERATIONS ]

### Aesthetics

Recently, design has aimed to empower the worker by providing control over the physical environment.<sup>10</sup> Whether a space's aesthetics are appealing or not is purely subjective, but certain design strategies reduce stress, increase performance, and improve the work experience.

[ Provide plants in office space to increase office appeal, task performance, and comfort.]<sup>11</sup>

- People derive personal meaning from their surroundings. There are many ways to interpret one design.

Cairns, INFLUENCE OF AESTHETICS IN THE WORKPLACE

- Include plants in creative work environments, but avoid overemphasizing plants in work environments that house employees involved in repetitious tasks, as they may be too distracting thereby reducing productivity.

Larsen et al., PLANTS AFFECT EMPLOYEE MOOD AND INCREASE OFFICE APPEAL

- Consider placing nature posters on office walls to reduce stress in male occupants, which in turn may reduce anger.

Kweon et al., NATURE POSTERS IN THE WORKPLACE

- Mood may be primarily affected by a specific work task (duration and difficulty level) rather than environmental factors (color and scenic images).
- The color of work environments may affect performance over time.
- A scenic image may reduce errors in some work environments.

Stone, COLOR AND SCENIC IMAGES IN WORKSPACES



- Employees may believe that the appearance of a workplace represents the occupant's characteristics or personality.
- Workplace décor may convey status (e.g., formal décor may be associated with professionalism, success, or imply high status or superiority).
- Consider that some office décor may be associated with negative qualities (high quality furniture may denote snobbishness).

Elsbach, OFFICE DÉCOR AND WORKPLACE IDENTITY

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<sup>10</sup>Cairns, INFLUENCE OF AESTHETICS IN THE WORKPLACE

<sup>11</sup>Larsen et al., PLANTS AFFECT EMPLOYEE MOOD AND INCREASE OFFICE APPEAL

notes:

# Taking Care of Business: [DESIGN FOR THE WORKPLACE]

## Ventilation and Temperature

Establishing the appropriate ventilation within an office environment can be a challenge. However, allowing for flexibility and employee control can make employees feel more comfortable and connected to their workspace.

- Unfavorable thermal environments may be associated with physical symptoms such as headache, dry eyes, nose irritation, irritated throat, and fatigue
- Individuals can differ in their air movement sensitivity. Provide opportunities for individualized control (e.g., ability to open and close vents) over the thermal environment of occupants' immediate workspaces.
- When displacement ventilation is used, the highest risk for draft is just above the floor (0.1 m).
- Consult industry standards (e.g., ASHRAE guidelines) to predict and prevent occupant discomfort due to draft.

Melikov et al., DISPLACEMENT VENTILATION  
AND OFFICE WORKER COMFORT

- Allow workers to control the temperature of their workspaces.

Mahdavi & Unzeitig, EVALUATING THE QUALITY  
OF THE OFFICE ENVIRONMENT

- Recognize sick building syndrome (SBS) risk factors (e.g., working in a new building, workplace dissatisfaction, frequent photocopier use, central air conditioning) when designing office buildings to reduce the likelihood of SBS symptoms.

Gul et al., OFFICE SICK BUILDING SYNDROME RISKS

- Adjust supply air diffusers to avoid discomfort from localized drafts.
- Avoid very high panels (over 72" or 1.8m) that can create an impression of poor air flow.
- Give individuals control over one or more of the following: air-flow rate, direction, or temperature.
- Choose windows with high insulation values, provide shading devices, and offer local sources of additional heating or cooling to offset thermal comfort problems near windows.
- Use low-emission materials and ensure regular cleaning of office furniture and carpets to reduce the effects of pollutants.

Newsham, MAKING THE CUBICLE A  
BETTER PLACE TO WORK

notes:

## Space Planning

When designers think about space planning, they often think of how to locate a space within the larger context of the project. However, space planning also encourages designers to fully think about what activities happen in individual spaces, and how individuals and organizations use those spaces.

- When planning office space, be aware of the importance of creating distance (e.g., via doorways, elevators, copy centers) between activity areas and work areas to minimize noise, draft, and glare distractions.

Leaman & Bordass, IMPROVED PRODUCTIVITY THROUGH OFFICE DESIGN

- Promote dynamism by decreasing distances between workspaces and by designing a compact building with offices connected by clear circulation paths.
- Create environments that provide work-related space and also function for non-work uses as well (stretch-out facilities, break areas), as non-work usability may help create a sense of freedom (supporting creativity).

Vithayathawornwong et al., WORKPLACE DESIGN CAN SUPPORT WORKPLACE CREATIVITY

- Designing workplaces that allow workers to see each other may increase the likelihood of face-to-face interaction.

Rashid et al., SEEING OTHER WORKERS INCREASES WORKPLACE INTERACTION

- Recognize that flexibility should be addressed in the early stages of workspace design.

Hassanain, DESIGNING FLEXIBLE OFFICES

- Provide furniture, lighting, and workspace adjustability that increases employees' well-being and perceived freedom in and control of the environment.
- Provide flexible furnishings and wiring that allow for a range of possible changes in the layout.

Veitch & Newsham, IMPACT OF OFFICE WORKERS HAVING ENVIRONMENTAL CONTROL

[ Consider workplace design that utilizes small workspaces to comfortably accommodate two to four people and spatial organization that limit distractions from noise, glare, and drafts.]<sup>13</sup>

# Taking Care of Business: [DESIGN FOR THE WORKPLACE]

- Consider how people work (e.g., independently or in groups) and how the design of a space (e.g., team spaces, workstation design, office plan) might accommodate individual work styles.
- Focus on individual comfort when designing a workplace. Use technology systems to accommodate individuals' indoor environmental climate preferences and needs for rest and social interaction.
- Consider how technology dictates workplace design and prepares for changes and advances in technology (e.g., more telecommuting).

Pullen, DESIGNING WORKPLACES FOR FLEXIBILITY



- Specify flexible components such as 1) modular workstations that may be combined to create other kinds of space (e.g., larger offices, conference rooms); 2) prefabricated systems (e.g., demountable wall storage) and common kits of parts for furniture or workstation reconfiguration that can be stored and inventoried for future use; 3) and raised floor plenums that enable access to voice/data, electrical, or HVAC services.
- Be aware that using movable prefabricated components with integrated lighting and sound masking characteristics rather than sheetrock may provide clean, quiet changes to office environments.
- Create designs that anticipate future location changes (e.g., stand-alone buildings with their own parking garages) that would allow a group of facilities to be used by multiple companies should the current tenant vacate.
- Consult with a workspace designer and facility manager to develop or integrate solutions that are designed for flexibility and quick adaptations over a company's life cycle.

Latshaw et al., FAST AND FLEXIBLE  
CORPORATE SETTING

- Avoid a precedent-based design approach, that may not adequately accommodate a particular group of workers' specific needs and habits.

Joroff et al., CREATING WORKPLACE AGILITY

## Space Planning (cont'd)

- Consider current and future issues related to building planning, workplace layout, technology, and building systems (e.g., HVAC, electric, plumbing) when designing flexible office workspaces.

- Consider allowing for the addition of adaptive technologies when designing learning environments and workplaces.

Harrell, USING TECHNOLOGY TO ACCOMMODATE FOR DISABILITIES

- Be aware that employees may dislike open-plan office designs, especially those who feel crowded or perform complex tasks.

Maher & von Hippel, INDIVIDUAL'S RESPONSES TO OPEN-PLAN OFFICE DESIGN

- Locate co-workers close together to facilitate supervision.

Kupritz (2000), AGE AFFECTS PERCEPTIONS OF WORKPLACE DESIGN

- Include input from information technology and human resource executive staff to ensure alignment and integration of services when designing or procuring an effective workplace.

- Be aware that it is important to maintain a sense of community among employees working remotely (e.g., by providing adequate conference and training facilities).

Joroff, DIGITAL TECHNOLOGY AND THE WORKPLACE

[ Avoid standardized design across multiple workspaces as workers' approaches and spatial needs may differ, even for identical tasks.]<sup>14</sup>

- Workers in open layout and high-density workplaces may have lower privacy and job satisfaction than workers in cellular office layouts. Close proximity of workstations may be stressful for workers, distract them from job tasks, and cause immediate negative reactions (e.g., fatigue, increased blood pressure level).

- When designing office layouts, consider that some workers (e.g., those doing complex tasks) may require more privacy and less noise.

DeCroon et al., HEALTH EFFECTS OF OFFICE DESIGN

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<sup>13</sup>Leaman & Bordass, IMPROVED PRODUCTIVITY THROUGH OFFICE DESIGN

<sup>14</sup>Joroff et al., CREATING WORKPLACE AGILITY

notes:

# Taking Care of Business: [DESIGN FOR THE WORKPLACE]

## Lighting

Dynamic lighting design may promote health and well-being among those who spend the majority of their time indoors away from windows.<sup>15</sup> Whether natural or electric, adequate lighting has the potential to drastically alter a workplace setting. With the current amount of knowledge on lighting and lighting systems, designers have numerous options when designing for the workplace. Because of the variety of activities that can occur within the workplace, it is important to design lighting systems to accommodate shifting activities.

The amount of natural light within a space does not always fall within the scope of the designer. However, through space planning, designers can optimize the amount of natural light that currently exists. Conversely, designers should also be aware of the negative effects of natural light within the workplace.

[ Design workplace lighting to be of adequate intensity to avoid affecting workers' circadian rhythms. ]<sup>16</sup>

- Consider lighting systems that change illuminance level and color temperature in accordance with visual and task needs and body rhythms.

Bommel, DYNAMIC WORKPLACE LIGHTING

- Use available natural light to illuminate work areas as people generally prefer to sit or work near windows.

Leaman & Bordass, IMPROVED PRODUCTIVITY THROUGH OFFICE DESIGN

- Workers may not notice dimming or brightening office lights if the increase or decrease in lighting is equal to or less than seven percent (e.g., from 750 lux to 800 lux).
- Workers may not notice changes in lighting that are somewhat greater than seven percent when the changes are made gradually while workers are engaged in work tasks.

Shikakura et al., WORKERS' SENSITIVITY TO CHANGES IN OFFICE LIGHTING

- Use luminaires that have low brightness when viewed directly and that do not create reflections on a computer screen.
- Use electronic ballasts with fluorescent lights to eliminate flicker.
- Provide individual dimming control over lights so occupants can choose their own preferred light level. In the open-plan office, this requires aligning and assigning luminaires to workstations.

Newsham, MAKING THE CUBICLE A BETTER PLACE TO WORK

- Use dimmable fluorescent lighting, local switching, window blinds and curtains, and a design approach that emphasizes local rather than general illumination in the workspace.
- Train individuals to operate lighting controls.

Veitch & Newsham, IMPACT OF OFFICE WORKERS HAVING ENVIRONMENTAL CONTROL

- Create systems that incorporate natural light, have adaptable illuminance at both eye and task levels, distribute light throughout space, and provide accurate color rendering.

Bommel, DYNAMIC WORKPLACE LIGHTING

## Lighting (cont'd)

[ Provide natural views to increase user satisfaction, especially in high-stress work environments. If this is not possible, provide views of small areas of natural elements. ]<sup>17</sup>

- Good lighting design should include daylight and access to views, protection from glare (e.g., via blinds or glazing with changeable daylight transmission), luminaires with high lighting levels (e.g., 800 lux), and luminaires that light the wall surfaces.

Tenner, TRENDS IN OFFICE LIGHTING

- Incorporate windows in all work environments as people react negatively to being without natural light.

Vithayathawornwong et al., WORKPLACE DESIGN CAN SUPPORT WORKPLACE CREATIVITY

- Consider specifying electrochromic windows when visual comfort is the priority, and energy efficiency is also desired.

Gugliermetti & Bisegna, ELECTROCHROMIC WINDOW SYSTEMS

- Provide as many people as possible with a window, or at least a view of one.
- Reduce panel heights and use lighter-colored surfaces to increase daylight penetration, and to increase illuminance and lighting uniformity from electric light sources.

Newsham, MAKING THE CUBICLE A BETTER PLACE TO WORK



- Consider the amount of sun exposure when planning work environments. Provide sufficient sun exposure to increase worker satisfaction, retention, and to reduce fatigue.
- Provide users with effective ways to control amount of sunlight saturation to avoid overexposure.

Leather et al., WORKPLACE WINDOWS PROMOTE JOB SATISFACTION AND WELL-BEING

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<sup>15</sup>Heil & Mathis, EFFECTS OF WORKPLACE LIGHTING LEVELS ON EMPLOYEES

<sup>16</sup>Bommel, DYNAMIC WORKPLACE LIGHTING

<sup>17</sup>Leather et al., WORKPLACE WINDOWS PROMOTE JOB SATISFACTION AND WELL-BEING

notes:

# Taking Care of Business: [DESIGN FOR THE WORKPLACE]

## [ ERGONOMICS AND ALTERNATIVE DESIGN ]

### Work Stations

In response to mechanization in the workplace, ergonomics emerged as an academic discipline that sought to solve problems in human-machine interactions. Today, entire work systems rather than specific interactions need to be addressed to create efficiencies, improve design, and increase the well-being of workers.<sup>18</sup> Design and implementation of ergonomic and alternative workplace arrangements can increase productivity, decrease corporate costs, and help companies retain talented employees.<sup>19</sup>

- Create adjustable workstations designed to accommodate a variety of employees.

Cook & Burgess-Limerick, FOREARM SUPPORT FOR COMPUTER USERS

- Men and women may utilize different work techniques due to different biological and anthropometric characteristics.

Dahlberg et al., PHYSICAL TASKS AFFECT MEN AND WOMEN DIFFERENTLY

- Desk sharing may be beneficial for certain workers as it may encourage communication between workers.

DeCroon et al., HEALTH EFFECTS OF OFFICE DESIGN

- Specify different chairs for men and women to reduce risk of injury or aggravation in areas that are more likely to need support.
  - specify chairs with increased lumbar support for men
  - specify chairs that encourage back rest use for women

Dunk & Callaghan, SEATING POSTURE OF MEN AND WOMEN

- Design workspaces to avoid wrist and forearm postures and motions that put joints near the limits of their motion range to reduce worker's risk of injury.

Marshall et al., WRIST AND FOREARM POSITION AND PERFORMANCE

[ Restricted spaces may force workers into unusual or restricted postures when dividing up workspaces. Whenever possible, design work spaces that support normal postures (e.g., ceiling heights that accommodate standing, spatial dimensions that allow variations in work postures). ]<sup>20</sup>

- Consider workplace design modifications that reduce the amount of time workers spend in awkward positions (e.g., with hands above the head in a lifting posture, stooping, crouching).

Dahlberg et al., PHYSICAL TASKS AFFECT MEN AND WOMEN DIFFERENTLY

- Lifting objects to and from shelves that are elbow height and are perpendicular to the worker's chest minimizes back stress and reduces the risk of back injury.
- Create workplace designs that allow for maximum storage at elbow level and minimize the need for lifting to and from knee and shoulder level.
- Consider workplace design that allows users to approach and lift from storage shelves without twisting.

Davis & Marras, WORKPLACE DESIGN FOR SPINAL HEALTH

[Chairs with concave and contoured seats may increase comfort. ]<sup>21</sup>

## Work Stations (cont'd)

- Allow individuals to select and arrange their own ergonomic office furnishings to increase efficiency and reduce physical strain.

Miller et al., SENSE OF PLACE AFFECTS JOB SATISFACTION AND MOTIVATION

- Provide screens that have adjustable viewing heights and distances.
- Involve the individual worker to identify the most comfortable screen position relative to tasks, age, eyesight, and comfort.
- Place screens at a mean range of 80 cm (range of 60 to 100 cm) and a gaze angle at a mean of -8° (horizontal angle to -16° downward) to accommodate most viewers.

Jaschinski et al., OPTIMAL VISUAL DISPLAY SCREEN PLACEMENT



- Consider providing an alternative keyboard (12° split, 8 to 14° gable, and 0° slope) to promote neutral wrist and forearm postures and comfort.

Rempel, HOW ALTERNATIVE KEYBOARDS AFFECT ARM POSITION

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<sup>18</sup>Apgar, ANALYZING WORK SYSTEMS USING ERGONOMICS

<sup>19</sup>Kleiner, ALTERNATIVE WORKPLACES CAN SAVE MONEY

<sup>20</sup>Gallagher, IMPROVING WORKPLACE POSTURES TO REDUCE INJURY

<sup>21</sup>Dunk & Callaghan, SEATING POSTURE OF MEN AND WOMEN

<sup>22</sup>Cook & Burgess-Limerick, FOREARM SUPPORT FOR COMPUTER USERS

notes:

[Allow ample desk space for forearm support to reduce pressure on upper extremities (i.e., arms, neck). ]<sup>22</sup>

# Taking Care of Business: [DESIGN FOR THE WORKPLACE]

## Other Ergonomic Considerations

Information from ergonomic studies is not relegated solely to workstation design. Ergonomic design is simply designing around the body's movements. By considering all aspects of the workplace, designers can more effectively address the needs of employees. To design effectively, designers may also wish to consult an ergonomist.<sup>23</sup>

[While ergonomists often focus on workers' specific physical movements and work situations, understanding and studying larger work systems and environments can provide a holistic view that illuminates otherwise unidentified problems and solutions. Macroergonomics can provide a whole systems view of a work environment.]<sup>24</sup>

- Workers' perceptions of their jobs and work task demands may be related to reports of lower body pain but not upper body pain.
- When designing industrial workplaces, consider that electricians and painters may be less likely to report upper (and lower) body musculoskeletal pain than sheet metal workers, joiners, platers, or team leaders.

Randall et. al, WORK RELATED  
MUSCULOSKELETAL PAIN

- Be aware that both psychosocial and ergonomic conditions may contribute to work-related upper extremity (WRUE) symptoms.

Feuerstein et al., WORK-RELATED UPPER EXTREMITY  
SYMPTOM INTERVENTIONS

- Consult rankings of perceived discomfort and joint movement when determining what strategies will be most effective in preventing discomfort.
- Different joint movements can cause varying levels of discomfort. In one study, ranked joint motions in order of most discomfort to least discomfort were: 1) hip, 2) lower back, 3) ankle, 4) shoulder and wrist, 5) knee and neck, and 6) elbow.

Kee & Karwowski, JOINT MOTION AND DISCOMFORT

## Other Ergonomic Considerations

- Thoroughly inventory all the problems an ergonomic intervention seeks to address.
- Involve appropriate stakeholders (e.g., ergonomists, facilities managers, occupational therapists) as directed by the specific demands of the project.
- Be aware that user involvement may contribute to but does not guarantee a successful ergonomic intervention.

Vink et. al, SUCCESSFUL ERGONOMIC INTERVENTIONS

- Be aware that economic benefits of workplace ergonomic interventions may be greater than their costs, and that productivity enhancements may account for the largest economic benefits.

Lahiri et al, ERGONOMIC IMPROVEMENTS MAY  
PAY FOR THEMSELVES

<sup>23</sup>Randall et al., WORK RELATED MUSCULOSKELETAL PAIN

<sup>24</sup>Gallager, IMPROVING WORKPLACE POSTURES TO  
REDUCE INJURY

notes:

# Taking Care of Business: [DESIGN FOR THE WORKPLACE]

## [ LEARN MORE ]

The following Research Summaries and issues of *Implications* relate to designing for the workplace. Due to the large amount of information on this topic, these Research Summaries and issues of *Implications* are not referenced in this research brief; however, they do provide valuable design criteria. Furthermore new Research Summaries and issues of *Implications* are being added weekly/monthly, so keep checking for new research on this and other topics at [www.informedesign.org](http://www.informedesign.org).

Arens et al., ACCEPTABILITY OF TEMPERATURE RANGES IN OFFICES

Veitch et al., PSYCHOLOGICAL IMPACTS OF HIGH QUALITY LIGHTING IN OPEN OFFICES

Toftum, OCCUPANT CONTROL AND SATISFACTION WITH OFFICE ENVIRONMENTS

McElroy & Morrow, GENERATIONAL DIFFERENCES IN RESPONSE TO AN OFFICE REDESIGN

Rashid & Zimring, COMPARING ENVIRONMENTAL RESEARCH IN OFFICE AND HEALTH CARE ENVIRONMENTS

Duvall, *IMPLICATIONS* VOLUME 6, ISSUE 11, DESIGNER AS CHANGE AGENT

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The following sources were cited in this research brief. Please visit [www.informedesign.org](http://www.informedesign.org) and use the keyword search on page 1 of this issue of *Inquiry* to help you find related Research Summaries not included in this brief.

NOTE: Research Summaries have abbreviated titles that identify the topic of the original article. After each piece of research, the author's name(s) and the corresponding title of the Informedesign Research Summary are given. The following list of references provides the citation for the original scholarly article. Articles are available through the journal's publisher. Contact information for publishers can be found in the Research Summary on Informedesign.

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# Taking Care of Business: [DESIGN FOR THE WORKPLACE]

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## IQ1003 Taking Care of Business: Design for the Workplace

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# Course Proficiency Exam

### Please select the best answer:

1. Why is it important to design spaces that foster a worker's sense of place in the work environment?
  - A. Employees who have a say in their physical environment will likely feel a greater sense of ownership and pride in their space.
  - B. Having a sense of personal control over space may increase group cohesiveness.
  - C. A work environment supporting sense of place may improve employee work satisfaction and motivation.
  - D. All of the above
2. There are many benefits to having an open-plan workspace. Which of the following does NOT reflect one of these benefits?
  - A. Limiting the number of walls and individual offices increases the potential for face-to-face interactions.
  - B. Fewer walls mean fewer toxic chemicals are polluting the indoor air quality.
  - C. An open space increases flexibility for future organizational needs.
  - D. Open-plan offices allow light to travel farther into the space.
3. When setting up workplace lighting systems, Newsham suggests designers should do all of the following EXCEPT:
  - A. Limit daylight exposure to the top-level employee offices only.
  - B. Use electronic ballasts with fluorescent lighting to eliminate flicker.
  - C. Use low brightness luminaires to limit glare on screens.
  - D. Provide occupants with individual dimming control.
4. According to Shukakura et al., which of the following statements is TRUE?
  - A. Workers are extremely sensitive to dimming or brightening office lighting.
  - B. Workers are likely to notice any change in office brightness greater than 7% (e.g., from 750 lux to 800 lux) no matter how rapidly or gradually the change is made.
  - C. Gradual changes in brightness levels may go unnoticed by occupants, even if the changes are greater than 7%.
  - D. Workers rarely notice changes in brightness levels unless they are over 25%.



5. Studies show that the majority of office workers spend most of their time doing individual work where they need to concentrate without distraction. To accommodate individual pursuits in open-office environments, designers should:
  - A. Provide an enclosed, shared work space that employees can use if they need to work without distractions.
  - B. Incorporate absorption materials (e.g., acoustical ceiling tile) and partitioning to make background noises, such as voices, less distinguishable from one another.
  - C. Design individual cubicles with high partition walls.
  - D. Both A & B.
6. According to research by Gugliermetti & Bisegna, electrochromic windows in the workplace may improve:
  - A. Visual comfort and worker performance.
  - B. Energy efficiency and indoor environmental quality.
  - C. Visual comfort and energy efficiency.
  - D. Energy efficiency and heat gain.
7. When displacement ventilation is used, the highest risk for draft is:
  - A. At the worker's eye level, which may dry out their eyes.
  - B. Around knee-level.
  - C. Above workers' heads, so the risk is negligible.
  - D. Just above the floor (0.1 m).
8. Middle-aged and older workers tend to have different preferences regarding:
  - A. The type of spaces that are important to workplace productivity.
  - B. The functions that are important to workplace productivity.
  - C. The ratio of time spent working in the office to working from home.
  - D. The type of secondary activities that a workplace should support.
9. What parts of the body are directly impacted by specifying alternative keyboards?
  - A. Wrists and forearms
  - B. Wrists and fingers
  - C. Forearms and elbows
  - D. Back and shoulders
10. When designing for telecommuters, which of these strategies should designers consider?
  - A. Provide a secure area for telecommuters to store important information (i.e., locked personal file cabinets stored in a secure area that could be rolled into workspaces as needed).
  - B. Provide well-lit parking areas and security systems that allow users to safely access telecommuting centers outside of normal business hours.
  - C. Create neighborhood-based workspaces that accommodate a range of professions.
  - D. Designers should considering all of the above when designing to accommodate telecommuters.

Questions 11-12 are on the next page.



11. **InformeDesign** offers thousands of Research Summaries to support evidence-based design. Navigate the InformeDesign Web site ([www.informedesign.org](http://www.informedesign.org)), to find **five** additional Research Summaries related to this course that would further your design knowledge. List the title of the **five** Research Summaries you find below.

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12. Reflecting on the course material and additional research you have found, give an example of how you would apply the course material in a current, future, or hypothetical project.

Project Type (e.g., office, institution, healthcare, park, residence): \_\_\_\_\_

Nature/Description of the Problem:

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Description of Research used in possible Design Solution:

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The Mission of InformeDesign is to facilitate designers' use of current, research-based information as a decision-making tool in the design process, thereby integrating research and practice.



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**\*Please fill this out immediately after completing the course and send it back with your course exam. We need to have this evaluation sent back in order to keep our courses approved by IDCEC and USGBC. Please send it via email, fax, or mail to the address listed below. *If you are completing this course for credit with AIA, please access the evaluation for this course by logging into CES Discovery and clicking on the Course Evaluation link on the left side of the page***

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Total Attendance: (1)

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*For each evaluation, assign 1 = poor, 3 = average, 5 = excellent*

Appropriateness of course content	1	2	3	4	5
Effectiveness of handout materials	1	2	3	4	5
Effectiveness of visual presentation	1	2	3	4	5
Organization of course material	1	2	3	4	5
Overall rating of course	1	2	3	4	5

**Summary of Logistic(s) Evaluation**

*For each evaluation, assign 1 = poor, 3 = average, 5 = excellent*

Efficiency of online registration	1	2	3	4	5
Ease of online registration	1	2	3	4	5
Correspondence with InformeDesign	1	2	3	4	5
Effectiveness of Web site content	1	2	3	4	5
Overall rating of online process	1	2	3	4	5

**Conclusions** *(summarize comments that appeared with some frequency)*

Best features of course \_\_\_\_\_

Weakest feature of course \_\_\_\_\_

Suggested Improvements \_\_\_\_\_

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# Inquiry Course

www.informedesign.org

Continuing Education

## Understanding How Culture Influences Design

IQ0803



### Description:

Globalization and internationalization of the world economy have led to multiple cultures using the same city, village, neighborhood, building, and house. This course presents research that helps designers identify cultural needs that they can reflect in their design solution. Various scales of environments and various cultures are examined.

### Learning Objectives:

Using evidence from the studies surveyed in the course readings, the participant will be able to:

1. Identify the issues that underpin creation of cultural identity for various cultures that can be used to develop a program or brief.
2. Analyze the cultural needs of a population to identify specific physical, social, or psychological factors to be met in a design solution.
3. Determine norms that reflect a population's culture and design needs.
4. Create design solutions that reflect cultural identity.

### Content:

There is one issue of *Inquiry* and one exam in this course:

***Inquiry: Understanding How Culture Influences Design***  
**Course Proficiency Exam**

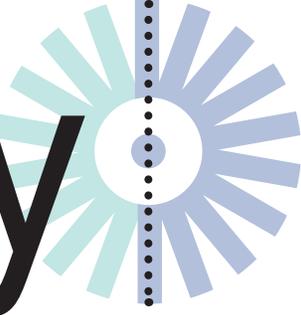
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Page 132  
**Informedesign**<sup>®</sup>  
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# Inquiry



A Research Brief by InformeDesign®  
May 2009

Understanding how  
[CULTURE INFLUENCES DESIGN]



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## [ INTRODUCTION ]

Welcome to *Inquiry*—a research brief developed by InformeDesign®. *Inquiry* summarizes research on a single, focused topic using content from InformeDesign Research Summaries and monthly issues of *Implications*. It is a resource that provides you the opportunity to use research-based design criteria.

Development of each issue of *Inquiry* involves carefully selecting and reviewing Design Criteria, Key Concepts, and other information found in relevant Research Summaries and issues of *Implications*. These elements are then reorganized into smaller sub-topics according to the design/human behavior issues most important to informing the design of environments.

*Inquiry* provides you with increased accessibility to evidence-based research for the development of better design solutions that benefit both people and the environment.

.....

Disclaimer: Content in this issue of *Inquiry* was taken from several Research Summaries and issues of *Implications*. InformeDesign does its best to present accurate and concise information; however, this information is subject to the limitations of the original research. Content wording may be slightly modified from its original form for clarity and context.

Note: The term “design” is used to broadly define all design-related professions including architecture, interior design, graphic design, landscape architecture, and urban design/planning.

## Understanding how [CULTURE INFLUENCES DESIGN]

Globalization has created increased cultural exchange and transformation. While there are positive outcomes for people whose work, living, or play have changed, there are also negative consequences such as people's loss of tradition and unique cultural identity, often manifested through the built environment. Designers can play an active part in sustaining cultures, i.e., supporting and perpetuating a given culture's visual language.<sup>1</sup>

### keyword search

Use these keywords to find more on this topic at [www.informedesign.org](http://www.informedesign.org).

CULTURE  
RACE & ETHNICITY  
MEANING & SYMBOLISM  
PREFERENCE & ATTITUDE  
IDENTITY & STATUS  
HISTORICAL CONTEXT  
SPECIFIC CULTURE IDENTITIES  
(i.e., Danish, German, etc.)

This research brief focuses on evidence that documents cultural influences on design relating to:

- GENERAL CONCEPTS
  - Globalization
  - Regionalism
  - Cultural Sustainability
- LANDSCAPE DESIGN
- URBAN PLANNING
- PARKS AND PUBLIC SPACES
- COMMUNITIES
- HOUSING DEVELOPMENTS

Over 125 Research Summaries and issues of *Implications* were found related to designing for the needs of culturally diverse populations. Only a portion have been referenced in this issue of *Inquiry*. To find more information on this topic, use the list of keywords above to navigate the InformedDesign Web site.

Designers have the ability to be sensitive to the individual needs of specific cultural groups, allowing their characteristic qualities to be celebrated through design of the built environment and not lost in globalization.

By using design as a vehicle for cultural understanding, designers can consider the past and present of a culture, and they can further benefit the future by adhering to cultural sustainability.<sup>1</sup>

<sup>1</sup>Blankenship, CULTURAL SUSTAINABILITY IN DESIGN

## [ WHAT IS CULTURE? ]

Culture can be defined as the interaction of activities, lifestyles, and social variables within an environment.<sup>2</sup> Through these interactions between the individual and his or her environment, concepts, expectations, and definitions of environments are created over time, and it is through design that these cultural messages are conveyed through the built form.<sup>3</sup> Designers have the ability to design spaces that support or suppress the variety of cultures that inhabit our globe.

- Increasingly, culture acts as a commodity to be bought, sold, and consumed.

Lloyd, CREATIVE CULTURE AND URBAN RENEWAL

- Cultural sensitivity helps designers create more suitable and attractive public spaces.
- Differences in cultural preferences can create conflict or make a design even richer, depending on how the design process is handled.

Forsyth, Lu, & McGirr, INFLUENCE OF PUERTO RICAN CULTURE ON DESIGN

### IMPLICATIONS for SYMBOLS & CULTURE

Human culture represents historical and geographical traditions of specific groups of people, describing their particular perspectives and reflecting specific human experiences (Wagner, 1975). The ability to create and symbolize culture is the nature of humans (Dhasouadi, 1993). Every culture has a system of communication and assigned meanings that are contained in the most commonly used languages and symbols. The signs can be visual, verbal, or a combination, but most importantly, they have the capacity of producing a sense of culture as they construct reality.<sup>4</sup>

[ Variables through which to understand culture include ideals, norms, lifestyles, activity systems, and types of group organization (i.e., kinship, family structure, roles, social networks, status, identity, and institutions. <sup>5</sup> ]

- People of various ethnic and cultural backgrounds with diverse lifestyles, customs, and cultural considerations populate America. The United States' population increased 12.6% from 1980 to 1992. During that same time, the Asian American population increased 121%, the American Indian population increased 39.5%, the Hispanic population increased 65.9%, and the African American population increased 16.5%.

Fan, EFFECT OF ETHNICITY ON EXPENDITURE PATTERNS

- Visual traditions and folklore can affect contemporary design in a culture.

Blankenship, CULTURAL SUSTAINABILITY IN DESIGN

- During the pre-design phase of the project, the designer must investigate the cultural make-up of the anticipated users of the space. Encourage your clients to investigate the cultural and ethnic aspects of the users of their future or renovated facility.
- Consider the influence of culture on color, symbolism, organization, size of space, and orientation of daylight. All are unique ways depending on cultural orientation.

Martin, DEFINING THE USER

<sup>2</sup>Rapoport, CULTURAL CONSIDERATIONS IN HOUSING DESIGN

<sup>3</sup>Case, HOW JOURNEYS AFFECT VIEWS OF HOME

<sup>4</sup>Chu, S. (2003). INFLUENCE OF CULTURE. *Implications*, Vol. 1, Issue 9

<sup>5</sup>Rapoport, UNDERSTANDING CULTURE AND HOUSING DESIGN

# Understanding how [CULTURE INFLUENCES DESIGN]

## [ GLOBALIZATION ]

To meet the demands of an increasingly global market, designers must be prepared to develop solutions that are both culturally sensitive and culturally sustainable. This responsibility calls for a keen observation of diversity and an open mind about the changing needs, values, and norms of different groups. In many communities, traditional architectural styles and elements have been resurrected as globalization has homogenized much of the built environment and rapid change has seemed to threaten traditional identities.<sup>6</sup> To understand the cultural significance of built environment features within specific cultures, skilled designers apply a research-based approach rather than relying on convention or stereotypes.

- Western styles tend to dominate and influence the design aesthetic of other cultures, but it should not be at the expense of losing non-Western cultural traditions. Consider the history, traditions, identity, religions, languages, crafts, arts, and geography of local culture when designing.

Blankenship, CULTURAL SUSTAINABILITY IN DESIGN

- The desire for participation in a global market may create pressure on developing societies to take on values, attitudes, and practices of the dominant culture(s) in control of the market. Consider how ideas and practices that are promoted in the name of development may contribute to social, cultural, physical, psychological, or economic stress for indigenous or migrant populations.

- Keep in mind that while development (i.e., changes to the built environment, legal/political/cultural institutions, or industry) meant to improve overall quality of life (i.e., health, living conditions) may inadvertently reject and weaken traditional values (e.g., spiritual beliefs) and cultural practices (e.g., methods of house building).

Kaitilla, MATERIAL PREFERENCES IN MIGRANT SETTLEMENTS

[ Globalization in design can be defined as the replication of design ideas and concepts that exclude local history and culture.<sup>7</sup> ]

- The combination of political influence and private capital may drive construction and design to reflect globalization.

Anderson & Al-Bader, REGIONALISM AND GLOBALIZATION IN CONTEMPORARY KUWAITI ARCHITECTURE

- Be aware of the complexity involved in preserving cultural traditions.

Williams, CONSTRUCTING TRADITION AT NATIONAL PARKS

- Unique regional traditions need to be preserved despite the continual push for a universal culture brought about by globalization.

Jiaping, Wang, & Liu, INTEGRATING PAST AND PRESENT IN NEW CHINESE HOUSING



[ In spite of global architectural homogenization, unique elements of individual cultures may be expressed in the built environment, giving residents control over their surroundings.<sup>8</sup> ]

<sup>6</sup> Mahgoub, IDENTITY EXPRESSED IN ARCHITECTURE

<sup>7</sup> Anderson & Al-Bader, REGIONALISM AND GLOBALIZATION IN CONTEMPORARY KUWAITI ARCHITECTURE

<sup>8</sup> Casault, CULTURALLY APPROPRIATE HOUSING FOR THE INNUIT

- Developing nations and cultures often discard their rich traditional heritages only to later create a new, often fictionalized cultural past.
- Vernacular traditions can be degraded in the face of modern developments and architectural trends.
- Preserving architectural traditions may provide a way to connect to the past in an era of modernization and globalization.
- Remind local residents of the importance of local architectural traditions when engaging in new construction development.
- Preferences for nostalgia in the built environment may be a reaction to globalization.

[ Ideals for a culture's traditional design may be imposed from outside forces (e.g., a colonizer). Consider global, social, and economic forces that influence design trends within a culture. Specifically, be aware that an outsider's insistence on traditionally designed objects may not align with the social, political, and economic needs of a given society. <sup>9</sup>]

<sup>9</sup>McGowan, CONFLICTING DEFINITIONS OF TRADITIONAL INDIAN DESIGN

- Work to achieve a culturally and historically sensitive balance between architectural traditions and modern innovations.
- Architectural traditions can be manipulated for marketing purposes, resulting in distortions of actual traditions and a romanticization of real-life struggles and hardships.

Latter, TRADITION AND MODERNITY  
IN A SWISS VILLAGE

## notes:

# Understanding how [CULTURE INFLUENCES DESIGN]

## [ CULTURAL SUSTAINABILITY VS. REGIONALISM ]

Cultural sustainability refers to the development of awareness and responsibility to identify, maintain, and apply elements of a culture to create a unique visual language.<sup>10</sup> Cultural sustainability is a positive direction for designing in today's globalized world; however, one must understand that the unique visual language that is created for each environment should not control, inhibit, or mock the culture for which it is created. Luis Barragan, a mid-20<sup>th</sup>-century Mexican architect, is renowned for his use of critical regionalism, but his fame also represents a prime contradiction in the practice: a single style being imposed on an entire culture.<sup>9</sup>

- A study on regionalism versus globalization in Kuwait found that local climate, material selection, context sensitive forms, and color impact regionally-specific design, and that regionally-specific architecture in prominent locations increased awareness of regional identity.
- Though some attempts to regionalize design in Kuwait and nearby countries are cliché (e.g., minarets, fountains, decorated friezes), design approaches that linked spatial use, aesthetics, and structure to local conditions and less obvious aspects of culture enhanced a regional identity (e.g., modern pilotis resemble arcades in their function of providing shelter from the sun).

Anderson & Al-Bader, REGIONALISM AND GLOBALIZATION IN CONTEMPORARY KUWAITI ARCHITECTURE

- Critical regionalism describes a style of architecture that deliberately employs geographical and cultural conditions in subtle, often political ways and attempts to avoid cultural universalism by indirectly using the local forms of an exact place.
- Critical regionalism often utilizes romanticized and primitive notions of a place, ignoring the current sociopolitical, economic, and aesthetic structure of a place.

[ Architecture is not symbolic of culture but actually sculpts it, therefore basing critical regionalism on one architect's unique style can limit and control the growth of culture. <sup>11</sup> ]

[ Regionalism is defined by characteristics of architecture that evoke a sense of place and cultural identity. <sup>12</sup> ]

- Attempts to avoid sameness while retaining local flavor are often imposed by outside stakeholders (i.e., design consultants, planners), and what was meant to be preserved is sometimes inadvertently lost.
- The practice of critical regionalism often finds itself reduced to a single, fashionable national style when representing a whole set of unique national styles.
- Regional forms most closely represent actual conditions of a particular place and make people most comfortable in their environments by reflecting current cultural conditions.
- Resist cultural universalism (i.e., cultural sameness) by emphasizing a building's regional design features unique to a particular place.

Eggerer, IMPACT OF CRITICAL REGIONALISM

<sup>10</sup>Blankenship, CULTURAL SUSTAINABILITY IN DESIGN

<sup>11</sup>Eggerer, IMPACT OF CRITICAL REGIONALISM

<sup>12</sup>Salama, MEANING AND IDENTITY BEHIND EGYPTIAN ARCHITECTURE

## [ LANDSCAPE DESIGN ]

Researchers and theorists in various areas of study (e.g., arts, humanities, social sciences) are recognizing landscapes as an integral part of understanding the world, but the idea of landscape with its multiple meanings is not easily defined. “Landscape” refers to both bounded views of particular places and the visual quality of larger regions; in addition to being actual places, landscape can take the form of pictorial and written records.<sup>13</sup> By understanding the cultural meaning of a landscape, designers are able to better align ecological design solutions to a person’s values, beliefs, and perceptions. Yet, landscapes have multiple meanings and represent more than what is visible to the eye; social and cultural ideologies are attached to perceptions of what wilderness and civilized spaces “should look like.”<sup>14</sup>

- Landscapes embody and convey the values and beliefs of a culture.
- Consider the values, beliefs, and cultures of clients and potential users before designing a landscape to ensure that the design’s form and content are congruous with societal perceptions and expectations, and that they accurately convey the values of the culture.
- Cultural conventions, including others’ opinions and local customs, influence people’s perception of landscape beauty, which subsequently shapes the natural environment.

Nassauer, LANDSCAPES CONVEY CULTURAL VALUES

[ Landscapes are embedded within social and cultural contexts that include expressions of class hierarchy. These can be seen in site location, spatial organization, types of land use, and site function.<sup>14</sup> ]

- Different cultural preferences for vegetation and landscape should influence landscape design and architecture. For example, a study conducted in Andalusia, Spain, rated landscapes more attractive as the following factors increased: the amount of wilderness, the presence of preferred human-made structures (e.g., traditional houses and farm buildings), amount of plant cover, water, presence of mountains and contrasting color.

Arriaza et al., VISUALLY APPEALING AGRICULTURAL LANDSCAPES

- A study conducted in the ethnic community of Little Saigon in Westminster, CA, identified that the use of plants, trees, and design features native to immigrants’ homelands remind residents of where they are from.

Mazumdar et al, CREATING ETHNIC COMMUNITIES

- Grounding is described as the ability of landscape to shape a nation’s culture and identity by influencing common experiences and activities among citizens. An example of this can be seen in Israeli landscape design:

- Home Ground: living and working communities containing pedestrian oriented open spaces.
- National Ground: dried riverbeds sculpted by seasonal waters and defined by stone and vegetation.
- Sacred Ground: sculptural monuments and environments created to communicate tradition and memory.
- Common Ground: Mediterranean style promenades and garden terraces connecting the built environment to public gathering spaces.

Helphand, LANDSCAPING MODERN ISRAEL

<sup>13</sup>Cosgrove, SOUTHERN CALIFORNIA AND THE PICTURESQUE

<sup>14</sup>Baker, WILDERNESS AREAS AS CONSUMER GOODS

# Understanding how [CULTURE INFLUENCES DESIGN]

- Investigate social and cultural factors (e.g., environmental concerns, cultural identity) relevant to individual communities to build support for new, natural, protected areas. Also, regional pride directly increased support for specific, natural, protected areas while general environmental concern only indirectly impacted support for protected areas.

Carrus, Bonaiuto, & Bonnes, PUBLIC SUPPORT FOR NATURAL PROTECTED AREAS

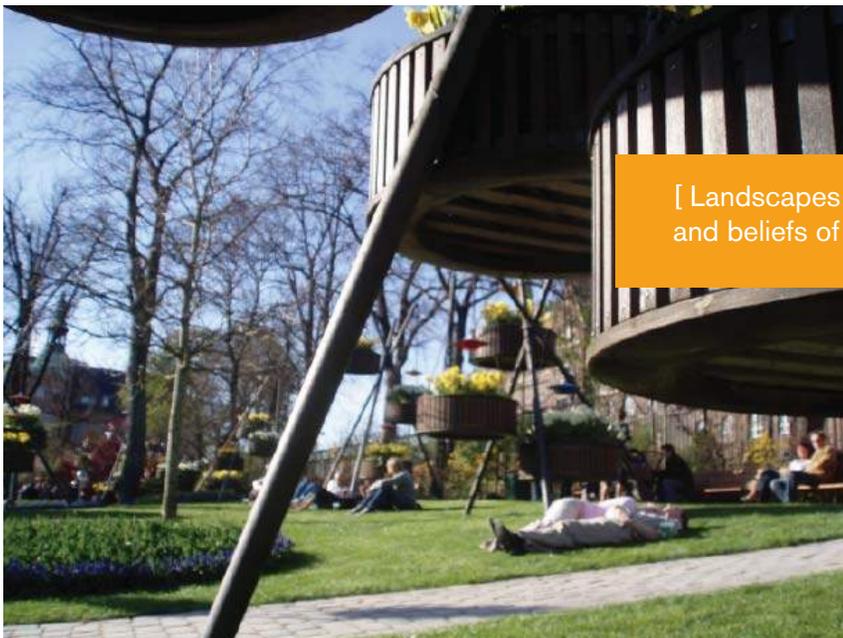
## notes:

- Parks can be considered an unexpected piece of urban life that allow inhabitants to escape everyday routine.
- Studying park users may lead to better understanding of the socialization between people of different age groups, ethnicities, and interests who use the space in different ways.

L'Aoustet & Griffet, ADOLESCENTS AND THE SOCIAL FUNCTIONS OF PARKS

- Cultural agendas vary between different groups of people, and concepts of appropriate land use differ accordingly. Consider the needs and traditions of local residents when making land use decisions. An innovative way to do this could be to include contextual information about cultural traditions and heritage at a park site.

Williams, CONSTRUCTING TRADITION AT NATIONAL PARKS



[ Landscapes embody and convey the values and beliefs of a culture. <sup>15</sup>]

<sup>15</sup>Nassauer, LANDSCAPES CONVEY CULTURAL VALUES

## [ URBAN PLANNING ]

Urban planning, architecture, and design can draw upon historic elements and existing cityscapes to create a strong bond between residents and their city. The history, geography, culture, and environment of the city can be used to create a more cohesive cityscape that promotes pedestrian travel and business.<sup>16</sup> Urban design can play an important role in cultural regeneration, a tool for economic growth, environmental change, and city identity. Culture shapes the urban landscape through design and adaptive use of multiple social groups.<sup>17</sup>

- Globalization has brought international design trends to local urban planning projects, and careful urban planning may be overridden by future developments or national or political turmoil.

Inam, APPROACHES TO URBAN DESIGN

- Investigate how changes made to the environment in developing areas affect existing cultural norms and the distribution of power and resources.

Kaitilla, MATERIAL PREFERENCES IN  
MIGRANT SETTLEMENTS

- Design pedestrian areas to promote local or regional culture (e.g., historic preservation and re-creation of structures and furnishings; incorporation of geographic, national, or local iconography).

Zacharias, PROMOTING  
PEDESTRIANISM

[ Culture shapes the urban landscape through design and adaptive use by multiple social groups. <sup>17</sup> ]

- Enhance local architecture through preservation, creative adaptive re-use, and development of mixed-use structures; use the physical and historical context of the neighborhood as inspiration.

- Program urban areas for cultural regeneration projects by providing spaces for festivals; public art; around-the-clock activity; and creative, individualized expression via signage and facades.

Use public art in cultural quarters to expand the ways the landscape is used.

Wansborough & Mageean, URBAN  
DESIGN FOR CULTURAL IDENTITY



[ Urban design can play an important role in cultural regeneration, a tool for economic growth, environmental change, and city identity. <sup>17</sup> ]

<sup>16</sup>Schmandt, CREATING A PEDESTRIAN-FRIENDLY CITY

<sup>17</sup>Wansborough & Mageean, URBAN DESIGN FOR CULTURAL IDENTITY

# Understanding how [CULTURE INFLUENCES DESIGN]

[ Design pedestrian areas to promote local or regional culture.<sup>18</sup> ]

- Consider energy use both in the production and use of modern materials as opposed to more traditional materials.
- A study done on migrant populations in Tanzania and Papua New Guinea discussed how ideas and practices of different cultures are either promoted or prohibited in the name of development, and in turn social, cultural, physical, psychological, or economic stress can be created among indigenous or migrant populations.

Kaitilla, MATERIAL PREFERENCES IN MIGRANT SETTLEMENTS

- Recognize that while no neighborhood is homogeneous in design preference, cultural sensitivity can create a more comfortable environment for residents, overall. For example, conflicts in design preference between Anglos and Puerto Ricans are found in the use of grassy versus paved spaces, main streets verses central plazas, open spaces verses fenced yards, and loitering verses socialization in the streets. Consider the following:

- Zone and provide spaces for game playing, vending carts, and market places.
- Differentiate and define public and private property with fences, balconies, etc.
- Incorporate bright colors and patterns in the design and decoration of communities.
- Include residents in a participatory planning and design process.

Forsyth, Lu, & McGirr, INFLUENCE OF PUERTO RICAN CULTURE ON DESIGN

notes:



<sup>18</sup>Zacharias, PROMOTING PEDESTRIANISM

## [ COMMUNITIES ]

Architecture can communicate the cultures and values of a community; it can evoke emotional and social ties between people by creating a sense of place and community.<sup>19</sup> Just as landscape architects and urban planners need to be culturally sensitive, community developers should be aware of the effect each aspect of the neighborhood has on each resident. Therefore, the world continues to get smaller with neighborhoods increasingly becoming melting pots of diversity, designers must consider the users for whom they are designing.

- Recognize that while no neighborhood is completely homogenous in design preference, cultural sensitivity can create a more comfortable environment for residents.

Forsyth, Lu, & McGirr, INFLUENCE OF PUERTO RICAN CULTURE ON DESIGN

- Because young people are dependent on public amenities (e.g., transit, public space), they may promote plans that encourage livability for all citizens. Youth participation can allow for young people to address their needs as well as those of the broader community. Previous research has indicated that the youth population in Western nations feels socially isolated when planning is adult-oriented.

Frank, YOUTH PARTICIPATION IN COMMUNITY PLANNING



[ When developing communities, involve members of the community in the design process.<sup>20</sup> ]

<sup>19</sup>Mazumdar, CREATING ETHNIC COMMUNITIES

<sup>20</sup>Leigh & Asojo, DESIGNING RELIGIOUS SPACES FOR ETHNIC COMMUNITIES

- Research has spurred interest in the relationship between local, social resources and community participation; however, current knowledge largely ignores cultural factors.

- Consider ways to improve residents' perceptions of their own neighborhoods, as this influences community participation, quality of life, and sense of pride and belonging.

Small, FACTORS INFLUENCING VOLUNTARY COMMUNITY PARTICIPATION

- Religious spaces within communities provide places for expressing cultural heritage through architectural means and may be used to narrate and communicate cultural stories. Currently, Native American, African, and African American communities are seeking means to preserve cultural traditions and identities while finding a place in contemporary society.

- When designing these spaces, be aware that culturally specific religious places will be interpreted and experienced by other members of society and include on-site information to help these individuals learn about the cultural group and its traditions.

- Emphasize centrality, interpret traditional forms with modern materials, and convey a sense of spirituality in the design and construction of contemporary religious spaces for ethnic communities.

Leigh & Asojo, DESIGNING RELIGIOUS SPACES FOR ETHNIC COMMUNITIES

# Understanding how [CULTURE INFLUENCES DESIGN]

- La Boca, a neighborhood in Buenos Aires with a reputation for being a center for Italian culture in Argentina, attempted to control perceptions of the neighborhood and the people who lived there through murals, statues, plaques, paintings, and building facades. Be aware that these additions to communities may be used to make political statements about who belongs and who does not belong in a neighborhood.

Guano, CONTROLLING NEIGHBORHOOD  
IMAGE IN BUENOS AIRES



[ An ethnic enclave creates a cultural buffer zone for immigrants to help minimize the stress of transition and culture shock.<sup>19</sup> ]

- Ethnic enclaves (i.e., a culture's own space and place) allow immigrants to remember their past and share it with others.
- A field study of immigrant Vietnamese in the United States showed that these enclaves allow immigrants to transition and adjust to their new lifestyle.
- Provide space for religious buildings, festivals, and community gatherings to foster and reinforce community development enclaves.
- Surrounding communities can interact with and benefit from the presence of an ethnic enclave.
- Use plants, trees, and design features native to immigrants' homelands in enclaves to remind residents of their homeland.
- Provide shop signs in English and the foreign language most often used in that area.
- Create design standards to ensure that the enclave has the same architectural style throughout to create a sense of place for immigrants.
- Consider the social norms and expectations of immigrant communities when designing and planning spaces and built structures for these communities.
- Work with local officials and existing communities to ensure that codes, regulations, and expectations are met when planning a new ethnic community.

Mazumdar et al., CREATING  
ETHNIC COMMUNITIES

## [ PRIVACY & CROWDING IN HOUSING DEVELOPMENTS ]

Meaning and significance of activities taking place within a particular setting, especially housing, are factors in the occupants' acceptance of the built environment. These preferences are linked to the occupants' activities, lifestyles, and values, which are all influenced by the occupants' cultures. When considering housing needs, it is important to understand that different groups of people may demand different qualities from the same built environment. The specific built environment of "housing" should consider all types, time periods, cultures, and the larger environment of neighborhoods.<sup>21</sup>

- Crowding tolerance is the ability to cope with the negative impact of high-density living conditions and differs from perceived crowding, which may be more related to desensitization of environmental stimuli over time.
- Overcrowding, poor management, lack of resources and control, and unhealthy relationships within the community can negatively influence resident satisfaction with public housing.

Ukoha & Beamish, HOUSING SATISFACTION IN NIGERIA

- It is believed that high-contact (i.e., low interpersonal distance preference) cultures are tolerant of more crowded conditions than low-contact (i.e., large interpersonal distance preference) cultures. For example, Latin-American cultures are typically higher-contact than Anglo-American cultures which, in turn, is interpreted to mean that Latin-American cultures are better able to withstand crowded living conditions.
- Members of cultures that encourage small families, individuality, and independence are generally considered non-contact cultures.

[ Desired privacy is defined as an individual's preferred level of social interaction. When a desired level of privacy is not achieved, individuals may feel crowded. Perceived crowding is defined as the psychological state that results when an individual's need for personal space is not met.<sup>22</sup> ]

- Culture may impact privacy preferences and sensitivity to crowding, and individuals from non-contact cultures (i.e., cultures where close interaction is unusual) may require more privacy than individuals from contact cultures (i.e., cultures where closer interaction is a norm).
- Cultures that promote large, extended families, closer interaction, and stronger family ties are generally considered contact cultures.

Evans, Lepore, & Allen, CROWDED RESIDENTIAL CONDITIONS HAVE NEGATIVE EFFECT



[ Crowding may be perceived as a result of unwelcome social interaction or interference within an individual's personal space.<sup>23</sup> ]

<sup>21</sup> Rapoport, CULTURAL CONSIDERATIONS IN HOUSING DESIGN

<sup>22</sup> Horn, as cited in Kaya & Weber (see below)

<sup>23</sup> Kaya & Weber, CULTURAL DIFFERENCES IN COLLEGE DORMITORY PERCEIVED CROWDING

# Understanding how [CULTURE INFLUENCES DESIGN]

## [ CULTURALLY SENSITIVE HOUSING ]

One's concept of home is heavily dependent on his or her culture and background. It is important to undergo extensive research of the family's culture when designing housing in a culturally sensitive manner. This can include but is not limited to site visits, interviews, and observations. Due to variance in cultural activities, flexible spaces allowing for multiple functions and user groups are a great start when designing culturally sensitive housing.<sup>24</sup>

[ Break the culture down into concrete, manageable, variables (e.g., values, ideals, lifestyle, family structures, and roles) to better understand the housing needs of specific groups of people.<sup>25</sup> ]

- People's concept of home is influenced by culture.

Case, HOW JOURNEYS  
AFFECT VIEWS OF HOME

- There is a growing need for increased sensitivity to the needs of diverse cultures among designers.

Amor, MEANING AND  
SYMBOLISM IN ARAB-AMERICAN  
MUSLIM HOME INTERIORS

- Be aware that a culturally sensitive, participatory design process may be time consuming.

Casault, CULTURALLY APPROPRIATE  
HOUSING FOR THE INNUIT

- As many cultural connections evidenced through social, cultural, and religious traditions are often practiced in the home, the design of residential environments can support or suppress the practices that define our cultural identities.

- The first barrier to creating residential designs that sustain cultural identity lies in our willingness to acknowledge the existence of cultural differences and to devote the time, funds, and energy needed to uncover them.

- Generate knowledge about cultural perspectives to help determine traditions/activities to be supported. Spaces in a home should support these traditions by considering proper room adjacencies, number of occupants to be accommodated, and required storage, furniture, and lighting.

- Due to the number of diverse cultural groups in need of affordable housing, it is important to design culturally sensitive housing that is affordable and that maintains re-sale value, without compromising its appeal to the typical American consumer. Designs should allow for spaces that are adaptable and flexible, accommodating multiple uses and users as well as future modifications.

Hadjiyanni, CULTURALLY SENSITIVE  
HOUSING: CONSIDERING DIFFERENCE

- Be aware that everyday human activities (e.g., cooking, washing, etc.) are practiced differently by different groups of people and may demand different qualities from the same built environment.

Rapoport, CULTURAL CONSIDERATIONS  
IN HOUSING DESIGN

### *place attachment*

Place attachment is an individual's social-psychological bond to a specific location.<sup>26</sup>

<sup>24</sup>Hadjiyanni, CULTURALLY SENSITIVE HOUSING: CONSIDERING DIFFERENCE

<sup>25</sup>Boschetti, INCREASING PLACE ATTACHMENT FOR OLDER ADULTS

## [ IMMIGRANT POPULATIONS IN CANADA ]

Traditional North American housing designs may not always accommodate the cultural norms or needs of non-dominant immigrant groups. A study in Canada investigated how cultural differences influenced the design and use of public and private spaces within multi-family cooperative and non-profit housing developments. Due to Canada's increasingly diverse population, immigrant and native Canadian cultures may differ with regard to spatial boundaries and the use of public and semi-public space within housing developments.

- Regard all housing needs and desires as expressions of culture, not only those expressed by immigrant or minority groups but also those of the majority.
- Investigate values and cultural practices (e.g., preferred living arrangements including extended family members).
- Consult with potential users about how they interpret spatial boundaries within and surrounding the home.
- Be aware that spatial boundaries may be defined physically (e.g., placement of walls, open or closed doors), symbolically (e.g., a pagoda style roof), and behaviorally (e.g., how people use semi-public courtyards). Behaviors may be more fixed than users' ideas about symbolic and physical boundaries.

[ Develop creative solutions to zoning requirements when cultural values dictate a non-traditional site plan.<sup>26</sup> ]

- Research culturally specific housing types, construction techniques, and site plans; incorporate features that provide a transition between the culture of the neighborhood and the identity of the housing development.
- Investigate how individual and group activities and lifestyles express values and culture differently in different contexts (e.g., home culture versus immigrant culture), and understand that they can vary among people of a specific culture.
- Incorporate space to accommodate group activities (e.g., classes, social activities, shared meals) that may combat feelings of isolation created by traditional North American apartment buildings or townhouse developments.



[ Investigate organizers' and potential users' feelings with regard to neighborhood integration and the expression of culturally specific ideas.<sup>27</sup> ]

- Be aware that development organizers may prioritize rapid completion of the project so users may be served as quickly as possible, causing culturally specific designs and materials to be rejected in favor of more generic ones in an effort to expedite funding, approval of plans, and construction.

Cooper & Rodman, IMMIGRANT CULTURES INFLUENCE HOUSING DEVELOPMENTS

<sup>26</sup> Cooper & Rodman, IMMIGRANT CULTURES INFLUENCE HOUSING DEVELOPMENTS

# Understanding how [CULTURE INFLUENCES DESIGN]

## [ SAUDI ARABIA ]

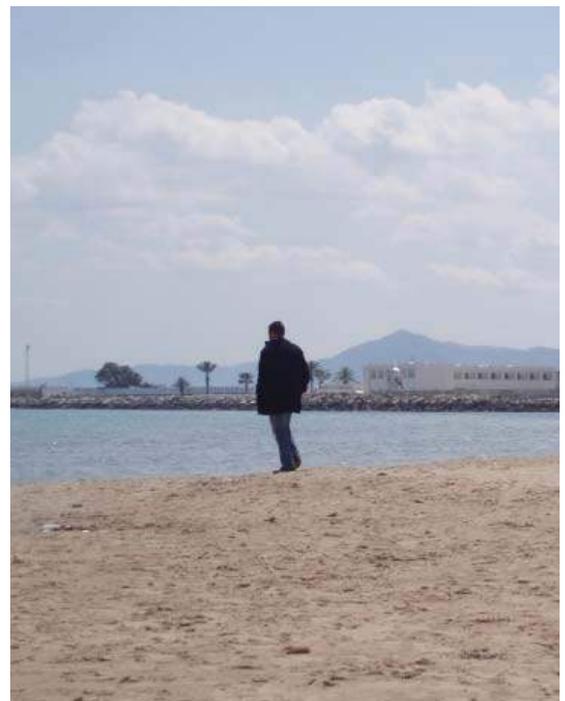
How space is defined and demarcated varies across cultures. A study that examined the relationship between gender-based expectations, privacy, and spatial configurations in Saudi Arabia identified that privacy and gender roles are growing concerns throughout the culture. High levels of privacy are typically important in Saudi Arabia; women in particular are expected to maintain high privacy levels. Be aware that spaces are generally divided according to gender and across socioeconomic levels in both domestic and non-domestic (airports, schools, etc.) spaces. Homes are also perceived differently than non-domestic spaces and should ideally make inhabitants feel safe and secure.

- Consider how city planning, zoning regulations, laws, and privacy concerns may interact with one another and with Saudi culture when designing or modifying residential spaces and housing.
- Study and evaluate the spatial preferences and concerns of users of different cultural backgrounds and communicate directly with users to meet their needs.
- Consider how modifications made to homes to enhance residents' privacy (e.g., a high concrete wall, screens, or partitions) may affect neighboring residents and the aesthetics of the community.

Abu-Gazzeh, PRIVACY NEEDS  
IN SAUDI ARABIA

## [ IRAN ]

- Be aware that traditional Iranian courtyard houses were influenced by religion, culture, climate, and topography.
- The distinction between private and public space, the separation of males and females not related by blood or marriage, and the importance of hospitality were key religious factors influencing the design of traditional houses in Iran, all in accordance with religious law.



- To find comfort in the hot, arid climate, occupants migrated throughout the house during the day as well as the year (e.g., south side of the house in summer, north in the winter, basement during the day, roof at night). Most rooms were modular, adaptable to multiple uses, and contained little fixed furniture.
- The religion-based need for privacy led to complex layouts, especially for entrances, which were carefully planned to avoid direct views of the interior.

Memarian & Brown, RELIGION AND CLIMATE  
IMPACT TRADITIONAL HOUSING IN IRAN

## [ ASIAN - AMERICAN ]

Spending trends in the United States are influenced by culture and lifestyle. Understanding the factors contributing to the spending patterns of Asian Americans as compared to those of Blacks, Hispanics, and Whites could help identify the specific shelter needs of this rapidly growing segment of the U.S. population.

- Research ethnic and cultural characteristics of the people who will be using a space to determine frequency and type of use that can be expected. Marketing that emphasizes cultural customs, beliefs, lifestyles, and values may be more effective.
- Shelter is of primary importance to Asian Americans, and this high level of importance must be represented through the design of the space.
- From 1980 through 1992, Asian Americans had the largest household expenditures; more education (in terms of total years); and had more family members employed than White, Black, or Hispanic Americans.

Fan, SHELTER IS AN IMPORTANT EXPENDITURE FOR ASIAN AMERICANS



## [ ARAB - AMERICAN ]

Increasing immigration has resulted in multiple generations of Arab-American Muslims living in the U.S. A study investigated how cultural traditions influence organization and meaning of home interiors in Arab-American communities.

- Consider incorporating the Arabian majilees (i.e., traditional multi-purpose room) when designing homes for Arab-American Muslim clients.
- Design for interaction (e.g., a U-shaped cushion arrangement promotes eye-to-eye contact and conversation) and is used for family relaxation and entertaining guests.
- Be aware that religious decorations may be used (e.g., picture frames, artifacts, sculptures) to express identity within the Arab-American Muslim home environment.
- Design interior spaces in Arab-American Muslim homes to facilitate privacy. Create barriers between public and private spaces and male and female spaces through the use of partition walls, arches, or curtains. Provide separate sleeping spaces for male and female children.
- Be aware that spaces used to receive and accommodate guests may be more important than other spaces in Arab-American Muslim homes.

Amor, MEANING AND SYMBOLISM IN ARAB-AMERICAN MUSLIM HOME INTERIORS

# Understanding how [CULTURE INFLUENCES DESIGN]

## [ LEARN MORE ]

The following Research Summaries and issues of *Implications* relate to *Understanding how Culture Influences Design*, but were not referenced in this research brief. Look at these Research Summaries and issues of *Implications* to find more information about this topic.

Asfour, ARAB TRADITIONAL TECHNIQUES FOR RESPONDING TO CLIMATE

Hadjiyanni, HOUSING DESIGN FOR SOMALI IMMIGRANTS

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NOTE: Research Summaries have abbreviated titles that identify the topic of the original article. After each piece of research, the author's name(s) and the corresponding title of the InformeDesign Research Summary are given. The following list of references provides the citation for the original scholarly article. Articles are available through the journal's publisher. Contact information for publishers can be found in the Research Summaries on InformeDesign.

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## IQ0803 Understanding How Culture Influences Design

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### Please select the best answer:

1. During the pre-design phase of the project, designers must investigate the cultural make-up of the anticipated users of the space by considering these influences:
  - A. Expectations from past generations
  - B. Color, symbolism, and organization
  - C. Size of space and orientation of daylight
  - D. B & C
2. The United States' ethnic population increased from 1980 to 1992. The following ethnic populations and percentage increase during this time was:
  - A. Hispanic population- 65.9%
  - B. Hmong population- 56%
  - C. Asian American population- 62%
  - D. African American- 54%
3. Globalization has challenged the way spaces are designed. The designer must be prepared to understand the demands of designing with cultural sensitivity and therefore should consider:
  - A. Understanding history and local cultures when designing spaces
  - B. Implementing non-Western cultural traditions
  - C. Development can inadvertently weaken traditional values
  - D. All of the above
4. Researcher Helphand lists all of the following design features of Israeli landscapes the influence common activities for citizens EXCEPT:
  - A. Home Ground: pedestrian orientated open spaces
  - B. Common Ground: land that the public owns
  - C. Sacred Ground: monuments and environments to communicate traditions
  - D. National Ground: dried riverbeds defined by seasonal stone and vegetation



5. The concept of home is dependent on a person's cultural background. In research done by Hadjiyanni, it is important to be aware of:
- A. Cultural differences and devote the time to uncover them
  - B. Designing traditional spaces that encompass storage, furniture, and lighting even if space requirements are compromised
  - C. Designing permanent spaces that reflect the culture
  - D. A & B
6. Urban planning can draw upon historic elements and cityscapes to create a strong bond between residents and their city. The following elements should be considered:
- A. Design pedestrian areas to promote local or regional culture
  - B. Use international art in private areas
  - C. Limit the use of bright colors to stay consistent with the existing environment
  - D. Create individual spaces for neighborhoods with multiple cultural differences
7. Architecture can evoke strong emotions and create a sense of community. As neighborhoods become more diverse, it is important as a designer to:
- A. Create public art that reflects local politics
  - B. Involve the community just prior to construction
  - C. Integrate needs from all age groups in the community
  - D. Design signage in the language most common in the neighborhood
8. When considering housing needs, different groups demand different qualities from the same built environment. Research has found:
- A. Overcrowding can create a sense of a close, tight-knit community
  - B. Cultures that have extended families are considered "contact cultures"
  - C. Latin-American cultures prefer crowded environments
  - D. Desired privacy reflects a "low-contact" culture
9. Privacy and gender roles are growing concerns in Saudi Arabia; especially when homes are expected to make the inhabitants feel safe. The following is recommended:
- A. Study the local planning, zoning laws, and privacy concerns
  - B. Create low concrete walls and partitions around homes for privacy
  - C. Communicate with only the men when planning new spaces
  - D. Give specific separation to men's and women's spaces
10. Globalization can be defined as:
- A. Preserving history and culture in newly designed spaces
  - B. Fusion of multiple cultures in one space
  - C. Replication of design ideas and concepts that exclude history and culture
  - D. Design ideas that combine political influence with tradition





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IQ0803

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12. Reflecting on the course material and additional research you have found, give an example of how you would apply the course material in a current, future, or hypothetical project.

Project Type (e.g., office, institution, healthcare, park, residence): \_\_\_\_\_

Nature/Description of the Problem:

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Description of Research used in possible Design Solution:

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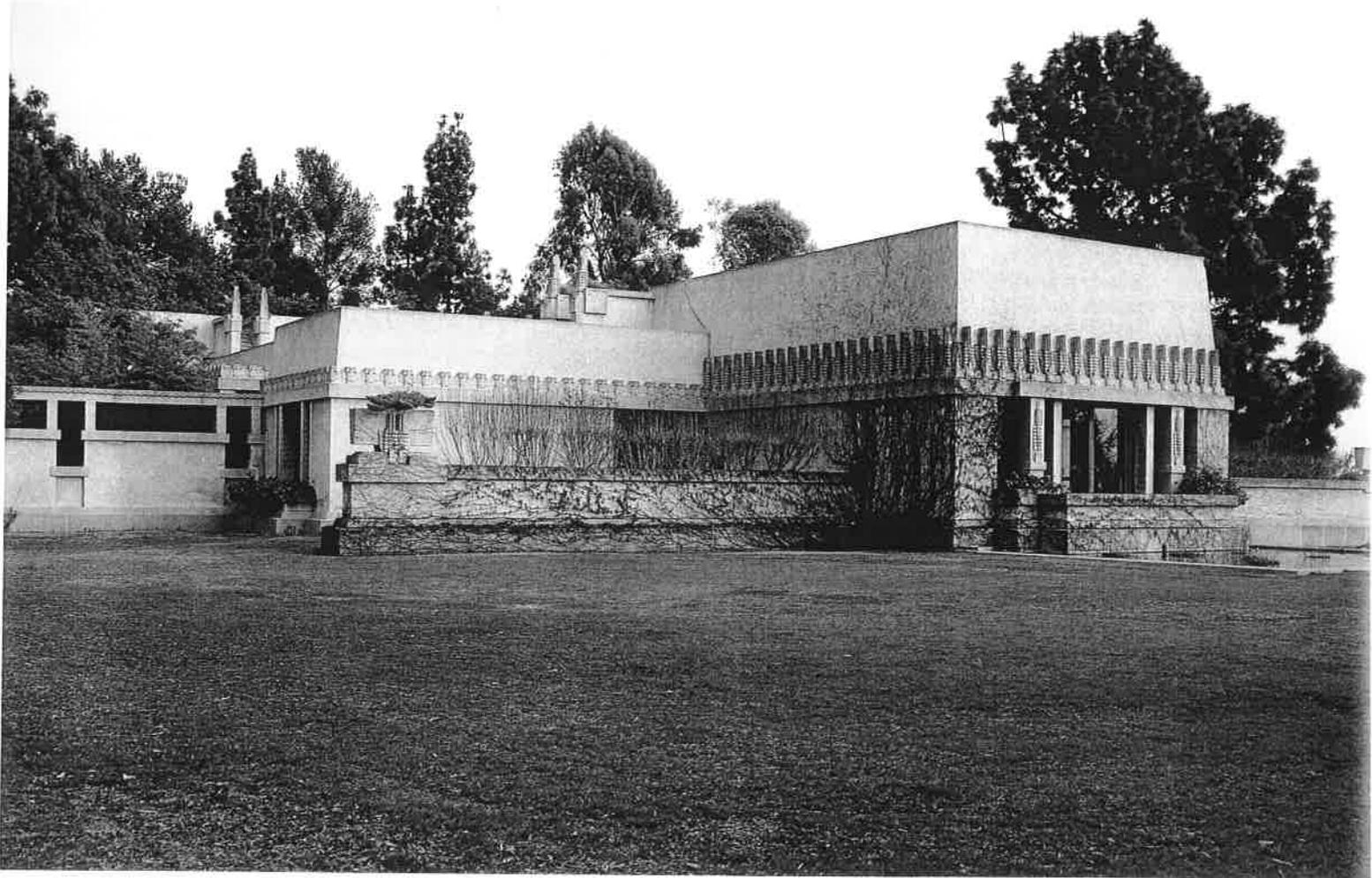


PLATE 1

Frank Lloyd Wright, Hollyhock  
House, Los Angeles. 1919-21

In the spring of 1916 the American heiress Aline Barnsdall (1882–1946; fig. 1) left Chicago for California in search of a theater where her newly formed company could begin preparations for the coming season’s dramatic productions. With a characteristic flurry of activity, she crisscrossed the country, making hasty arrangements to secure the services of the actors, directors, and designers she intended to hire for her new venture. Her list included not only many of the recognized talents of the American stage – people like Irving Pichel, the principal actor and co-director of the Arts and Crafts Theatre in Detroit, and Kirah Markham, the star of the Chicago Little Theatre – but also some who were as yet undiscovered, such as the young playwright and set designer Norman Bel Geddes, who was working as a commercial artist in Detroit.<sup>1</sup> Barnsdall’s goal was to pour her considerable experience and vast wealth (rumored to be about \$19 million) into the creation of a center for art theater in America that would rival those in the cultural capitals of Europe. She hoped that in California she would find a place to begin her experiment, a distinctively American place, in which the theatrical community she envisioned could grow and prosper. In such a place her architect, Frank Lloyd Wright (1867–1959), could build a theater, a community, and a home that would match her dreams with a boldness and individuality of their own.

The project on which Wright and Barnsdall collaborated between 1915 and 1923 represents one of the most unusual challenges Wright encountered during his long career, since it called for a rethinking of building types and particularly of notions concerning house design,



Aline Barnsdall. ca. 1925

## No Ordinary House:

### Frank Lloyd Wright, Aline Barnsdall, and Hollyhock House



FIGURE 1  
Barnsdall on the beach, ca. 1923

family life, and domesticity. Barnsdall's Hollyhock House, the most important piece of that project to survive, was a house built not for the private life of a family but as a residential centerpiece in a public garden and theater complex; its large, formal spaces and evident lack of domestic feeling reflect this program. Yet in rejecting the conventions of domestic planning and searching for an unusual hybrid type, architect and client were free to push the boundaries of architecture to new limits, focusing on theatricality, on the experience of monumental form, and on the vividness of the landscape as it was framed and defined by the house. Thus Hollyhock House has a lot to teach us about creativity and about the sorts of new experiences that become possible when conventions of social behavior, program, and planning are challenged.

On May 10, 1916, Barnsdall wrote to the playwright Mary Hunter Austin from Mill Valley, California, describing the profound impact of the visit on her thinking: *Above all California has me by the throat and for a while nothing else could quite be made to appear real. The friend of the Soul of Man seems very close to one out here among these hills and redwoods and I stopped and listened to the earth and "things" and California...*

*If only I might have a talk with you after "listening to California." I have changed a number of theories and begin to feel that the dramatic future, out here, is in the open air theatre. And I want to ask you about a new idea of mine. What do you think of Carmal-by-the-Sea [sic] as a place for initial productions? I should think that professional as well as spirited productions could be made there, afterwards playing all over California.... Do you know of any open air theatre where this could be done if Carmal should not prove hospitable to the idea?*

This letter was followed by another on June 1:

*I spent a couple of days at Carmal, immediately after writing you but saw it would not be practicable to put on the sort of professional things I care about so far from a city. So my present solution is to take a theatre in the old part of town... fit it up simply to create our own atmosphere and run a season for as long as my capital lasts – taking it on the road in repertoire in the spring. If I have not made some appreciable gain in two years I will confine my efforts to one or two big open air performances a year... How thankful I am that I was able to break away and come to California! There is a largeness of spirit here that will even penetrate the souls of the second generation – even tho it be American! The audience has much to learn and last Sunday [when Barnsdall had seen an open air production of William Tell at the Mountain Theatre] they were not handled well. The hikers were really out of the picture and I had expected so much from that element of the Audience. Most of them could not shed Nature – the human nature of the American office and department store – and open their eyes to Art – possibly because it was not big enough – lets hope so! But I love the spirit of it! It has shown me how far removed my effort must be from the commercial theatre.<sup>3</sup>*

These letters provide the starting point for an inquiry into Barnsdall's ideas about modern drama and theatrical performance, which not only shed new light on the design of Hollyhock House (plates 1, 2; fig. 2), but for the first time provide a context in which to understand the meaning of the open-air theater that forms its core. While the roof terraces and semicircular garden at Hollyhock House have long been recognized as elements in a flexible outdoor theater, it is now possible to show that they grew out of Barnsdall's increasingly well defined and articulated ideas about American theater. Moreover, the theater – as well as broader issues concerning theatri-

cality, public life, and spectatorship – became the focus of Wright's response to the hybrid nature of the commission and to Barnsdall as a client. Barnsdall's commitment to theater, and to outdoor theater in particular, filled her with an enduring passion far deeper than anything else in her life could inspire. Her home thus quite literally made room for her greatest love in an unprecedented way.

Although the earliest surviving communications between Wright and Barnsdall (beginning with a letter bearing the notation in Wright's hand "circa: 1915") make no mention of any building other than a theater, by the time Barnsdall finally purchased her site – a full city block in Los Angeles known as Olive Hill – in 1919, her concept of the project had expanded greatly.<sup>4</sup> The theater was now to be the centerpiece of an extensive arts precinct, designed by Wright, which would include a large residence for Barnsdall, houses for her principal associates in the company, houses for visiting directors, studios and apartments for actors, shops, and extensive landscaped grounds.<sup>5</sup> Of these buildings only Hollyhock House, on the crest of the hill, and two other houses, known as Residences A and B, were completed, thus creating the false impression that the houses, rather than the unbuilt theater, were the priority in Barnsdall's commission. Wright fostered this impression in his autobiography, barely mentioning the new theater and focusing instead on Hollyhock House and on the supposed weaknesses in Barnsdall's character, which as he saw it undermined the success of the project. Barnsdall's letters to Austin thus signal the need to reinstate her ideas at the center of the story, ideas that once identified and explored shed new light on the meaning of Hollyhock House not only for her but for Wright as well.

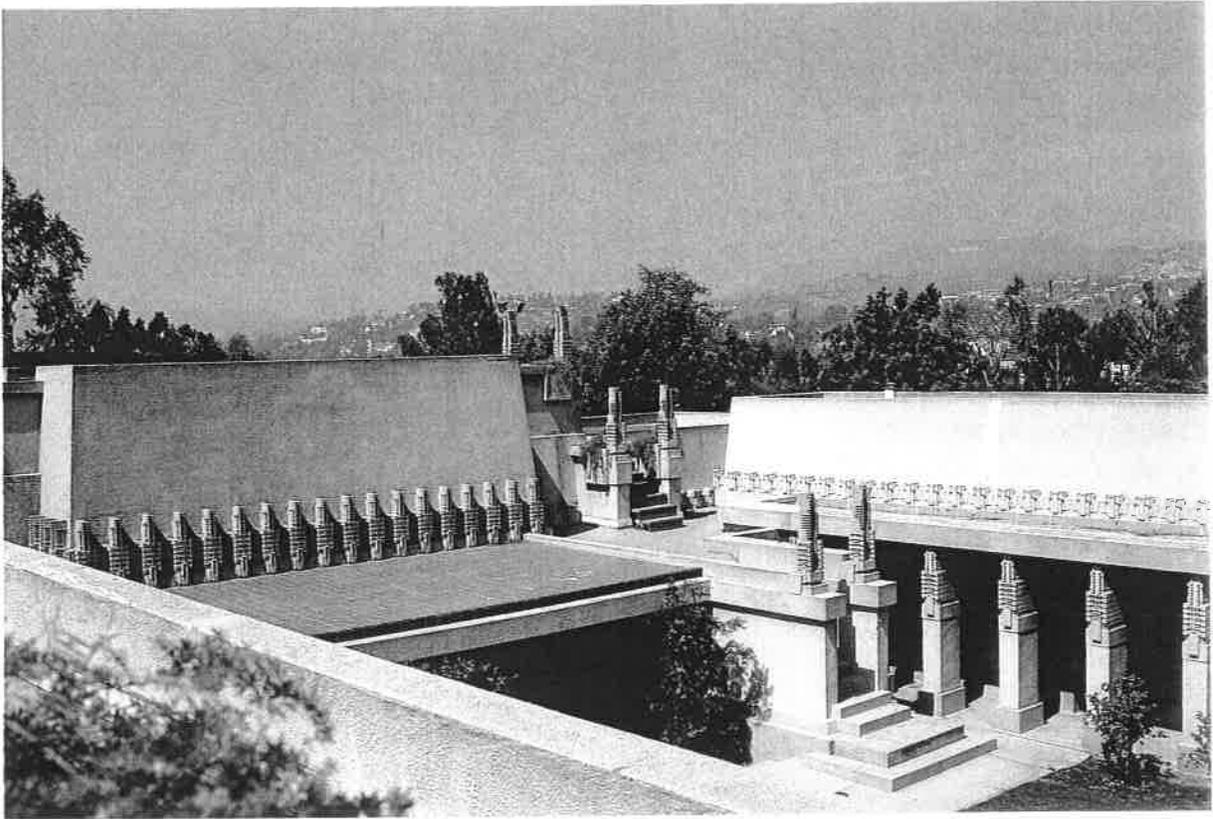
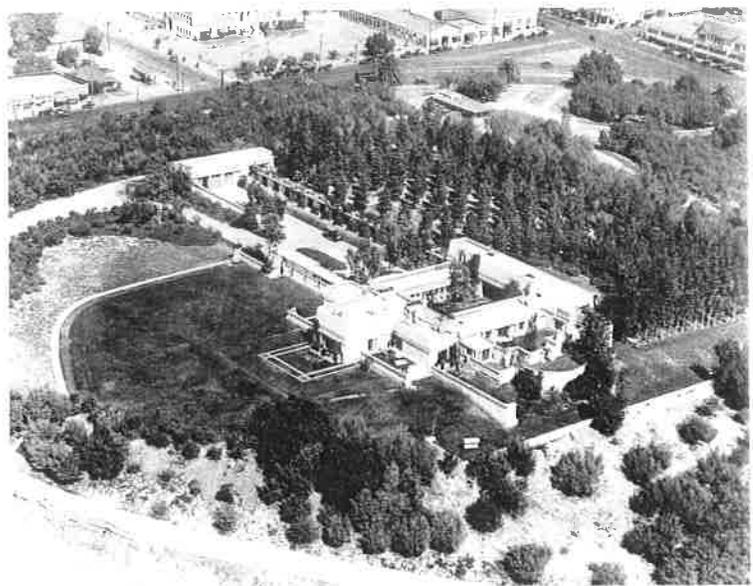


PLATE 2  
Hollyhock House, roof terrace

FIGURE 2  
Hollyhock House and Olive  
Hill, Los Angeles, aerial view,  
ca. 1924



### Barnsdall and Art Theater

Barnsdall's letters to Austin are charged with energy and enthusiasm, and her comments reveal not only a quasi-spiritual love of nature but also a deep commitment to theater as art and as a form of public education. There is also a developing sense of what it means to be an American patron, on a quest for art forms that respond to the unique American landscape and experience. At the same time, however, these letters reveal Barnsdall's characteristic restlessness, her indecisiveness and snobbery, qualities she herself attributed to her upper-class background. Speaking with a reporter for the *Los Angeles Examiner* in July 1919, a few weeks after finally purchasing Olive Hill, she was explicit about her ambivalence: *I don't want to do it... I know it will take time, agony of spirit and all that liberty which my gypsy soul adores, but it is something I simply have to do. Whether it's a success or a failure, the responsibility of the effort lies with me, and cannot be evaded. Personally I prefer to vagabond through the world amusing myself with my friends, my studies and my love for the out of doors. I have struggled with the inborn conviction without avail. I seem forced to try, at least, to create a domicile fitting for the art which is, I believe, destined to help form the taste and ideals of the world, and I shall put every ounce of energy and experience and thought I have in the doing.*<sup>6</sup>

Barnsdall's grandiose feelings of responsibility for the future of American theater and, indeed, for the future of American culture as a whole, apparently so out of character for a rich and rather spoiled young woman, were the product of two powerful and contradictory influences on her life: the first was her father, Theodore Barnsdall, a wildly prosperous pioneer in the American oil industry (fig. 3), and the second, surprisingly, was Emma Goldman and the world of radical politics, feminism, and avant-garde art theater for which she stood.<sup>7</sup>



FIGURE 3

Theodore Barnsdall. ca. 1890

Born in 1882 in Pittsburgh, Aline Barnsdall attended school there but spent summers in Europe or in the mountains of Colorado, where her father had invested in mines.<sup>8</sup> It is unclear when she first became interested in theater, but by her late twenties she had made a serious commitment to it, traveling to Europe to study acting with Eleanora Duse in 1911–12.<sup>9</sup> According to Bel Geddes, who devoted a number of pages to Barnsdall in his autobiography, *Miracle in the Evening*, the decision to turn from acting to producing was made on the advice of Duse, who “suggested that her love and talent for the theater would be far better expressed in directions other than acting” since she “lacked sufficient control over her emotions to become a dependable actress.” Duse had suggested that Barnsdall’s good sense about plays and her great wealth would make her particularly suited for a career as

a producer; according to Bel Geddes's version of the story (no doubt told to him by Barnsdall herself), "Aline had restrained her tears and gone off to prepare herself."<sup>10</sup>

These "preparations" apparently began with a study tour of the major art theaters of Europe, with a particular focus on Max Reinhardt's productions in Berlin and on the work of Gordon Craig in Florence, and ended in 1913 with her arrival in Chicago to work with the members of the Little Theatre under the direction of Maurice Browne and Ellen van Volkenburg.<sup>11</sup> Chicago was the obvious choice for Barnsdall, as it was for so many other young people with an interest in the arts in the years just before World War I. The city had come to represent, for a small yet growing cohort at least, the hub of the artistic universe, the center of all that was new and progressive in American art, literature, and politics. Chicago was the home of Harriet Monroe's *Poetry Magazine*, of the *Little Review*, founded by Margaret Anderson, and since 1912, of the Little Theatre, which mounted its own productions, hosted lectures on art and drama, and presented plays by touring companies.<sup>12</sup> Much of this activity centered around the Fine Arts Building on Michigan Avenue, which housed a number of theaters, a bookstore, a bustling tea room, and the offices and studios of musicians, writers, artists, and architects – including, in 1908 and 1910–11, Frank Lloyd Wright. In Chicago, Barnsdall also discovered Emma Goldman and was moved by her message that social change could be accomplished not simply through anarchism but, as Goldman's plain-spoken monthly magazine *Mother Earth* repeatedly explained, through feminism, birth control, progressive literature, and art theater.<sup>13</sup> This thinking deeply affected the many young women and men who, like Barnsdall, had come to the city brimming with high ideals and deeply felt emotions in search of Art and Truth.

Barnsdall thrived in this environment. Her restlessness and emotional volatility, noted in every memoir of these years that mentions her (Margaret Anderson described her as "an erratic rich woman with a high temper"<sup>14</sup>), perhaps seemed only an extreme and rather irritating version of the tendency to self-dramatization, which ran rampant in the arts community. And she did indeed begin to put her money and her energy to work in the service of her high ideals. In 1914–15 she collaborated with Arthur Bissel in founding the Players Producing Company, offering a season of new American plays in the ground floor theater of the Fine Arts Building (the Little Theatre was on the eighth floor). The pieces included "social dramas" like Oren Taft's *Conscience* and George Middleton's *Criminals* as well as Alice Gerstenberg's adaptation of *Alice in Wonderland*, which was staged in February 1915 and marked Barnsdall's debut in children's theater. *Alice* was so successful that Barnsdall was able to take it to New York, where it received considerable critical attention and acclaim.<sup>15</sup>

In her autobiography, *Living My Life*, Goldman recalled meeting Barnsdall at one of her Chicago lectures.<sup>16</sup> This encounter may not have taken place until the spring of 1915, at least as Goldman remembered it, because she noted that Barnsdall had already produced a series of plays in Chicago and that they shared a devotion to modern drama. Despite their very different backgrounds, the two women apparently got on quite well and spent "many pleasant hours together." Goldman was impressed (and probably a bit startled) by Barnsdall's commitment to social change, and characterized her as "wide awake to social problems, particularly free motherhood and birth-control." Barnsdall found in Goldman a female friend who felt things as passionately as she did and a model of how to combine high culture, feminism, and politics in a life of activism.

By this time Barnsdall had probably read Goldman's *The Social Significance of Modern Drama* and heard first-hand some of the lectures on which it was based during the author's 1913–14 tour. In the foreword to her book Goldman stated her position with characteristic candor: *Unfortunately, we in America have so far looked upon the theater as a place of amusement only, exclusive of ideas and inspiration. Because the modern drama of Europe has till recently been inaccessible in printed form to the average theater-goer in this country, he has had to content himself with the interpretation, or rather misinterpretation, of our dramatic critics. As a result the social significance of the Modern Drama has well nigh been lost to the general public. . . .*

*The Modern Drama, as all modern literature, mirrors the complex struggle of life – the struggle which, whatever its individual or topical expression, ever has its roots in the depth of human nature and social environment, and hence is, to that extent, universal. Such literature, such drama, is at once the reflex and inspiration of mankind in its eternal seeking for things higher and better. Perhaps those who learn the great truths of the social travail in the school of life do not need the message of drama. But there is another class whose number is legion, for whom the message is indispensable. In countries where political oppression affects all classes, the best intellectual element have made common cause with the people, have become their teachers, comrades and spokesmen. But in America political pressure has so far affected only the “common” people. It is they who are thrown into prison; they who are persecuted and mobbed, tarred and deported. Therefore another medium is needed to arouse the intellectuals of this country, to make them realize their relation to the people, to the social unrest permeating the atmosphere.*<sup>17</sup>

These sentiments endeared Goldman to the Little Theatre group and to other young artists in Chicago, for she outspokenly described the ways in which the arts

could confront the issues with which they themselves were grappling: love, sexuality, marriage, the education of children, poverty, class struggle, and not least, what it meant to be an American.<sup>18</sup> For Barnsdall, who not only dealt with these questions along with the others but who also felt a responsibility to provide leadership through her new career as a producer, Goldman represented a solution, a way in which the pieces of her identity could be pulled together. Through Goldman, Barnsdall grew more and more committed to the view that theater was not simply a serious art but *the* art that, as she said in her 1919 *Los Angeles Examiner* interview, was “destined to help form the taste and ideals of the world.”

Yet the lessons she learned went deeper still: she began to take political activism seriously, transmuting the wealth and privilege that had been her father's legacy into a feeling for leadership and a genuine commitment to the rights of the oppressed. As Goldman put it, her “attitude was not mere theory.”<sup>19</sup> She became an active supporter of labor organizer Tom Mooney and contributed to his defense fund for many years following his imprisonment in connection with the Preparedness Day bombings of 1916.<sup>20</sup> She was opposed to war, contributed funds to radical groups in Los Angeles, and years later backed Upton Sinclair in his campaign for governor of California. Indeed, unlike many intellectuals, Barnsdall remained a loyal friend of Goldman's long after the enthusiasm for *Modern Drama* had cooled, traveling to Chicago to celebrate her release from prison in 1919 and presenting her with a check for \$5,000 to help in her fight against deportation. Barnsdall's generosity cost her her own trip to Europe the following year, when her passport was suspended by the State Department because, as she wrote to Wright, of her “friendship for Emma Goldman.”<sup>21</sup>

### The Los Angeles Little Theatre

By 1916 Barnsdall had become convinced that her work lay in producing modern drama, in forming a new theater company, and in housing it in her own newly designed theater. She had recently met Frank Lloyd Wright in Chicago through mutual friends and found that they had a great deal in common, not least of all their high hopes for American art and their conviction that they were the ones who could put America on the cultural map.<sup>22</sup> In a letter to Wright of July 27, 1916, she encouraged him to move forward quickly with his designs for her new theater:

*Do work on the theatre plans and get them finished as soon as possible for this is the psychological moment and if I do not grip it and build a theatre within the next six months somebody else will. We are looking for land now and I am only waiting for father's very definite consent. He writes constantly that I must wait and have my own theatre, to give out a statement that it is to be built. It must be along the lines of the studio plan and can you tell me roughly what size the lot must be? I want to get the land within the next two months, if possible... so that you may see it when you come out and have the time to build to the best advantage on it.*

*You will put your freest dreams into it, wont you! For I believe so firmly in your genius that I want to make it the keynote of my work. Can't you give it the grace of the Midway Gardens, with the added lift and color they never achieved? Things done in the theatre will always have a certain lightness, piquancy and grace, so it should have lovely golds that take the sun!*<sup>23</sup>

During the summer of 1916 Barnsdall rented an auditorium in a downtown Los Angeles building, christened it "The Los Angeles Little Theatre," and began preparations for an ambitious season of new productions. According to Bel Geddes, the first offering was to have been his own *Thunderbird*, a play based on his experi-

ences among the Blackfoot Indians of Montana in the summer of 1912. Bel Geddes's script was to have been accompanied by music written by the American composer Charles Wakefield Cadman, inspired by Native American themes.<sup>24</sup> Twelve boxes of costumes, made from Bel Geddes's designs by his friends on the Blackfoot Reservation, had duly arrived in Los Angeles, much to the delight of the company, among whom interest in Native American culture ran high. Ultimately, however, the production was postponed and eventually canceled because of a string of delays in the schedule, caused at least in part by the realization of both Barnsdall and Bel Geddes that no member of the all-white company could convincingly play the role of a Native American.

Other productions included *Nju*, by Ossip Dimov, which opened on October 31, 1916; *Papa*, by Zoe Akins; and D. H. Lawrence's *The Widowing of Mrs. Holroyd*. All three were American premieres. The season also included a play by Oren Taft, *Conscience* (part of the 1914–15 season in Chicago) and works by Arthur Schnitzler and W. B. Yeats of the sort familiar to Barnsdall and the company from the Little Theatre repertoire and praised by Emma Goldman in her lectures.<sup>25</sup> Through the efforts of a talented professional company these productions achieved a very high standard; those that did not were abruptly canceled.<sup>26</sup> The critics praised in particular Bel Geddes's lighting and sets, the acting of Markham, Pichel, and others, and the direction of both Barnsdall and Richard Ordynski, newly arrived from New York after years with Reinhardt's Berlin Theater and Diaghilev's Ballets Russes. Many years later Barnsdall summed up her efforts: "Any impression that I have made has not been the money I have expended. . . . It has been in my original impulse and discrimination in choosing the right people for the work and in doing something the first time."<sup>27</sup>

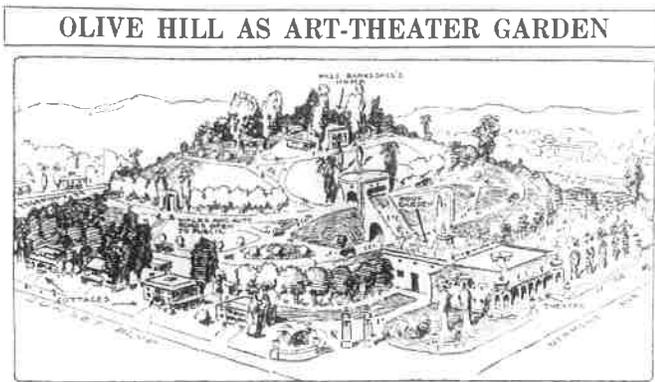
Yet this was to be the company's first and only season. It was characteristic of Barnsdall to solicit advice and

to surround herself with talented individuals (like Wright, Bel Geddes, or Ordynski), but equally characteristic of her to question her judgment in having done so, thus remaining paralyzed by indecision. This trait would prove to be a major obstacle to the success of her project because it affected not only the design of the theater itself but also every aspect of the life of the company. Barnsdall knew that she wanted to do something innovative and significant for American theater, but she ultimately failed to settle on one advisor or find her own point of view. This weakness, fostered by the rivalries among her associates and their own inability to commit themselves to her, ultimately dealt a blow to the project for which no amount of time, money, or energy could compensate.

Moreover, by the end of February 1917, a number of unexpected changes had taken place: Barnsdall was pregnant by Ordynski, her father had died, she had not yet purchased a site on which to build, and her conversations with Wright about the theater were stalled.<sup>28</sup> Accordingly, she placed her project on hold, intending to pick it up again after the estate was settled, presumably sometime in 1918. Wright was in any case now out of the country, at work on the Imperial Hotel in Tokyo.<sup>29</sup>

### Barnsdall and Wright on Olive Hill

As Kathryn Smith has shown in her study of Hollyhock House, both the scope of the project and Barnsdall's financial resources were considerably enlarged by June 1919, when she purchased Olive Hill, a thirty-six-acre tract in Hollywood, California. Wright's office had done very little work on the design for the theater, in any case.<sup>30</sup> Now Barnsdall was ready to move forward with an elaborate plan and, once again, she expected her architect to follow. The principal components of the expanded scheme were outlined in newspaper articles and interviews, in which Barnsdall described her vision to an enthusiastic public. Among the most striking ideas was the notion that the buildings and the garden were to be fully integrated to form an "art park": not only would theater patrons be encouraged to stroll outside during long intermissions, but there would also be a roof garden for "afternoon teas and theatre suppers" and extensive gardens for the use of the public. A sketch made by an artist at the *Los Angeles Examiner* to accompany an article about the project shows the hill as a series of terraced gardens surrounding the theater (near the corner of Sunset Boulevard and fronting on Vermont Avenue) and leading up to Hollyhock House at the crest (fig. 4). The drawing bears the title "Olive Hill as Art-Theater Garden," and the accompanying caption points out the "projected theater, with tropical roof garden, promenades, park and residence grounds at summit." In an interview Barnsdall made clear her intention that the entire site be part of a public recreation complex: "I propose to keep my gardens always open to the public that this sightly spot may be available to those lovers of the beautiful who come here to view sunsets, dawn on the mountains and other spectacles of nature, visible in few other places in the heart of the city."<sup>31</sup>



Examiner artist's drawing of Miss Barnsdall's proposed transformation of Los Angeles' beauty spot, showing site of projected theater, with tropical roof garden, promenades, park and residence grounds at summit.

FIGURE 4

"Olive Hill as Art-Theater Garden." From the *Los Angeles Examiner*, July 6, 1919

Among the ideas that were not discussed in the press, however, were Barnsdall's apparent determination never to marry and her decision to raise her infant daughter, Betty (whom she nicknamed "Sugar Top"), by herself in her home on Olive Hill. As a follower of Goldman's whose "attitude was not mere theory," Barnsdall rejected marriage, believing to some degree at least that it was, as Goldman had written, "an institution which makes a parasite of woman, an absolute dependent. It incapacitates her for life's struggle, annihilates her social consciousness, paralyzes her imagination, and then imposes its gracious protection, which is in reality a snare, a travesty on human character."<sup>32</sup>

Barnsdall's feminism and her unwillingness to conform to convention are key factors both in the history of Olive Hill and in the design of Hollyhock House. This is true at three levels: first, at the level of the program, because her household was neither a conventional family nor could its activities be fitted into a conventional home; second, at the symbolic and artistic level, because Wright's interpretation of Barnsdall's commission was colored by his response to her personality and values and by her relationship with him; and third, at what might be called the level of gender politics, because it deeply affected the response of artists (Wright among them), theater people, and others in the community, including public officials, to her ideas and to projects in which she sought to provide leadership. Barnsdall's progressive feminist politics, her beliefs about art, and her uninhibited way of life constituted a challenge to convention that ultimately gave the Olive Hill project its distinctive character, informing Wright's design for Hollyhock House with brilliance and creative energy, while surrounding architect, client, and everyone else involved in an atmosphere of contest and conflict. None of these struggles was foreshadowed in the early days at Olive Hill; indeed,

Barnsdall's only disagreement with her architect then, she said, concerned the color of her house: "'So far,' laughed Miss Barnsdall, 'Mr. Wright and I have differed on only one point. He wants my house to be white, and I think a white house is too glaring for Southern California. So no matter what he says my house will not be white.'"<sup>33</sup>

As he explained at length in his autobiography, Wright saw Hollyhock House as a poetic response to the personality of his eccentric client and to the distinctive qualities of the place in which she chose to build. His characterization of her is memorable: she was "neither neo, quasi nor pseudo... as near American as any Indian – as developed and traveled in appreciation of the beautiful as any European. As domestic as a shooting star."<sup>34</sup> Emphasizing freedom and artistic creativity, he described Hollyhock House as a "California Romanza," an essay in "free form," an artistic "holiday" from the discipline of machine-age architecture:

*Hollyhock House was to be a natural house, naturally built; native to the region of California as the house in the Middle West had been native to the Middle West.*

*Suited to Miss Barnsdall and her purpose, such a house would be sure to be all that "poetry of form" could imply, because any house should be beautiful in California in the way California herself is beautiful.<sup>35</sup>*

Wright's ideas about "the sovereignty of the individual" were consistent with hers:

*Why should Aline Barnsdall live in a house like Mrs. Alderman Schmutzkopf or even like Mrs. Reggie Plasterbilt's pseudo-Hacienda on the Boulevard-Wilshire. Individuality is the most precious thing in life, after all – isn't it? . . .*

*In any expression of the human spirit principle is manifest as character that alone endures. And individuality is the true property of such character. No... not one house that possessed genuine character in this sense stands, safe, outside the performance of the passing show.*

*Hollyhock House is such a house.<sup>36</sup>*

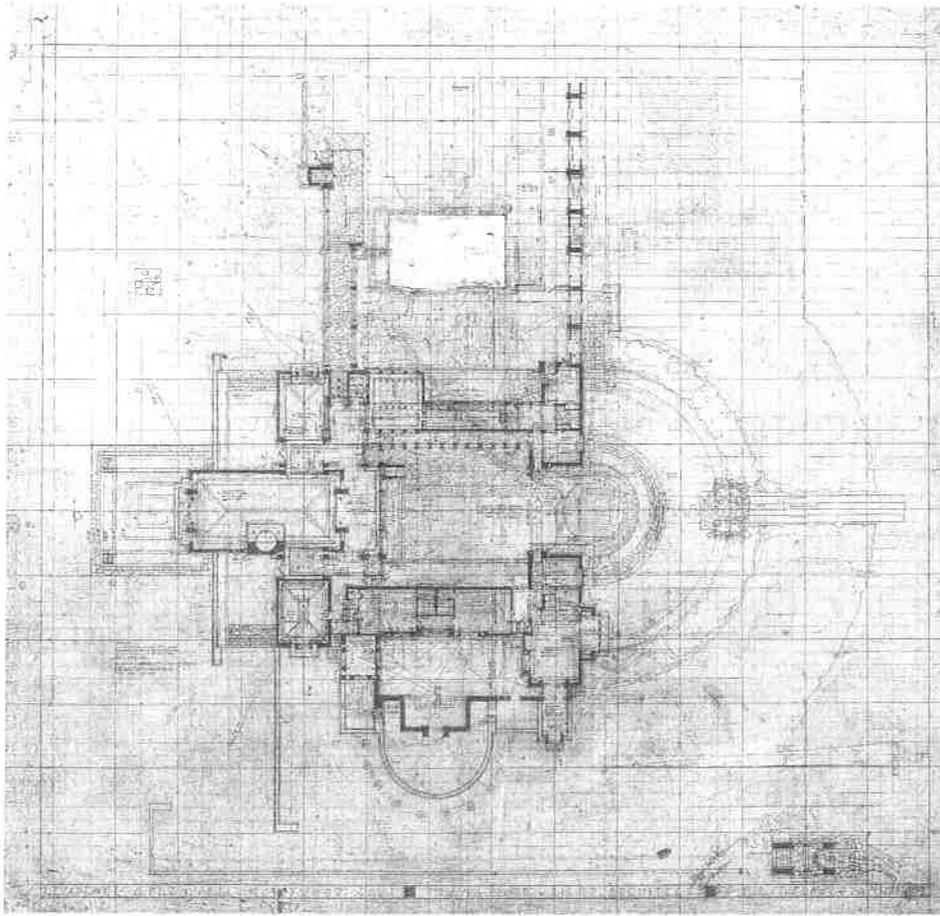


FIGURE 5  
 Hollyhock House, plan, ground  
 floor, 1920

#### Hollyhock House and Its Sources

The earliest surviving plan of Hollyhock House (fig. 5), dating from January 1920 and differing little from the house as completed two years later, expresses the meaning and significance of Barnsdall's individuality as Wright understood it – dominated by her love of theater and her decision to make her home the center of a new artistic community – through the strongly articulated imagery of an open-air theater. Unlike Wright's earlier houses, which extend outward from a core, Hollyhock House *encloses* an open courtyard, which is the focus of the design, much as "the noble room" (as Wright called it) is the real and symbolic center of Unity Temple or the open light-court was at the Larkin Company building. Approaching the house via carefully planned access roads that encircle the hill, the visitor arrives at a stark, sun-baked motor court

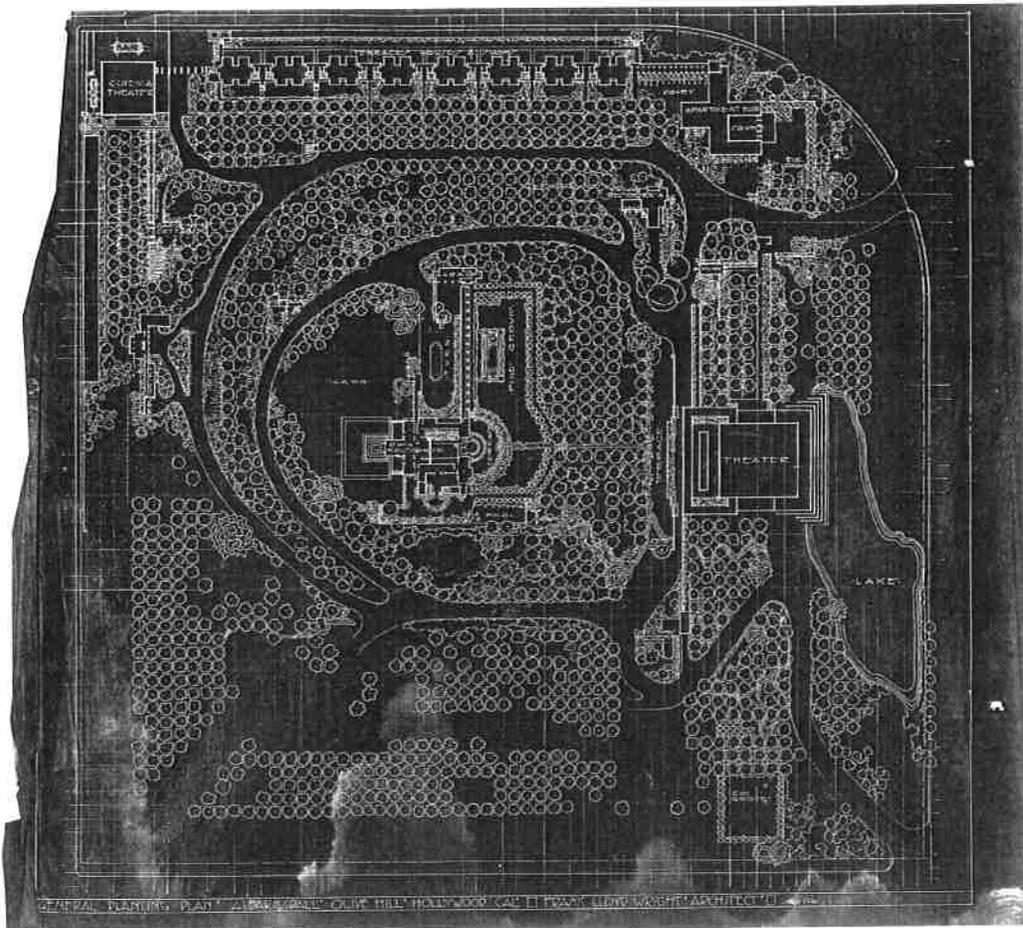


FIGURE 6  
Olive Hill, site plan, 1920

surrounded on three sides by low buildings that served as the garage, rows of pens for pets, and the service entrance to the house (fig. 6). The house itself is entered via a tunnel-like breezeway – low and dark – that projects into the forecourt but, typical of Wright, is otherwise virtually indistinguishable as an entrance. Inside, the rooms are open and filled with shimmering, cool light: whether one looks into the large living room with its immense fireplace, shallow pool of water, and skylight (plate 3; fig. 7), or into the smaller music room or dining room (plate 4) on either side of the entrance foyer, one is struck by the soft, natural light and the contrast with the brightness of the Southern California sun outside. French doors and large windows open out to the rolling lawn and square reflecting pool on the west side of the house and to the grassy courtyard within.

A semicircular exedra shaped by concentric rows of seats (plate 5; fig. 8) encloses the courtyard and contains the view, recalling the distinctive form of an ancient amphitheater with its rising tiers or, perhaps, its modern counterparts, such as John Galen Howard's Hearst Greek Theatre in Berkeley, California, of 1903 (fig. 9). A second-story bridge (which would ultimately accommodate Barnsdall's own room and a guest room) running from north to south forms a sort of *scaena*; below and in front of it, where one would expect to find the stage, is a circular sunken garden, later converted to a reflecting pool. These distinctive forms are conjoined with the rectangular courtyard, flanked on its north side by a loggia and dominated by a strong central axis that runs from the glazed double doors of the living room foyer through the exedra to a semicircular hedge that separates the garden from the park. In the site plan this clearly defined east-west axis extends across the park via a sort of *allée* to the large, freestanding theater. This axial arrangement not only organizes the composition but connects the various parts of the complex symbolically.

FIGURE 7  
Hollyhook House, living room,  
ca. 1926





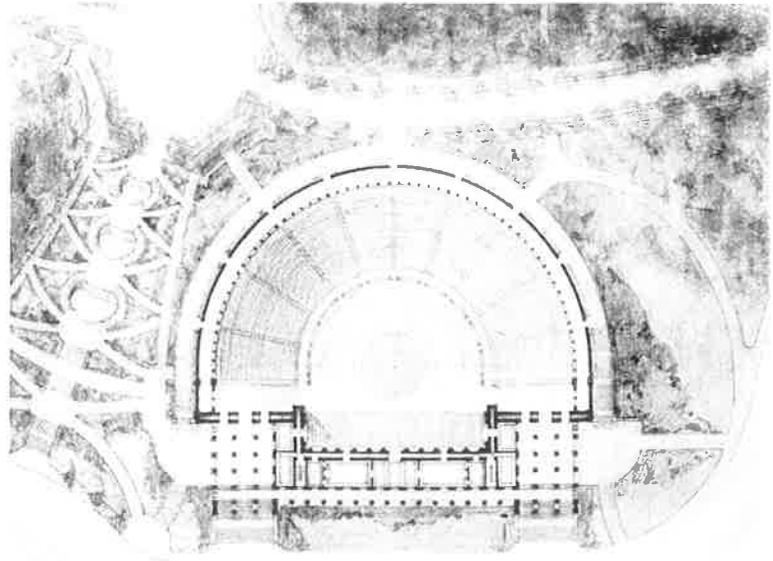
PLATE 5

Hollyhock House, garden court

Here again the centrality of the idea of the open-air theater is expressed by the theater's dominant position in the design, since the circular pool at the center of the composition forms a bull's-eye at the very center of the site, exactly where the two principal axes of the house and the site plan intersect.

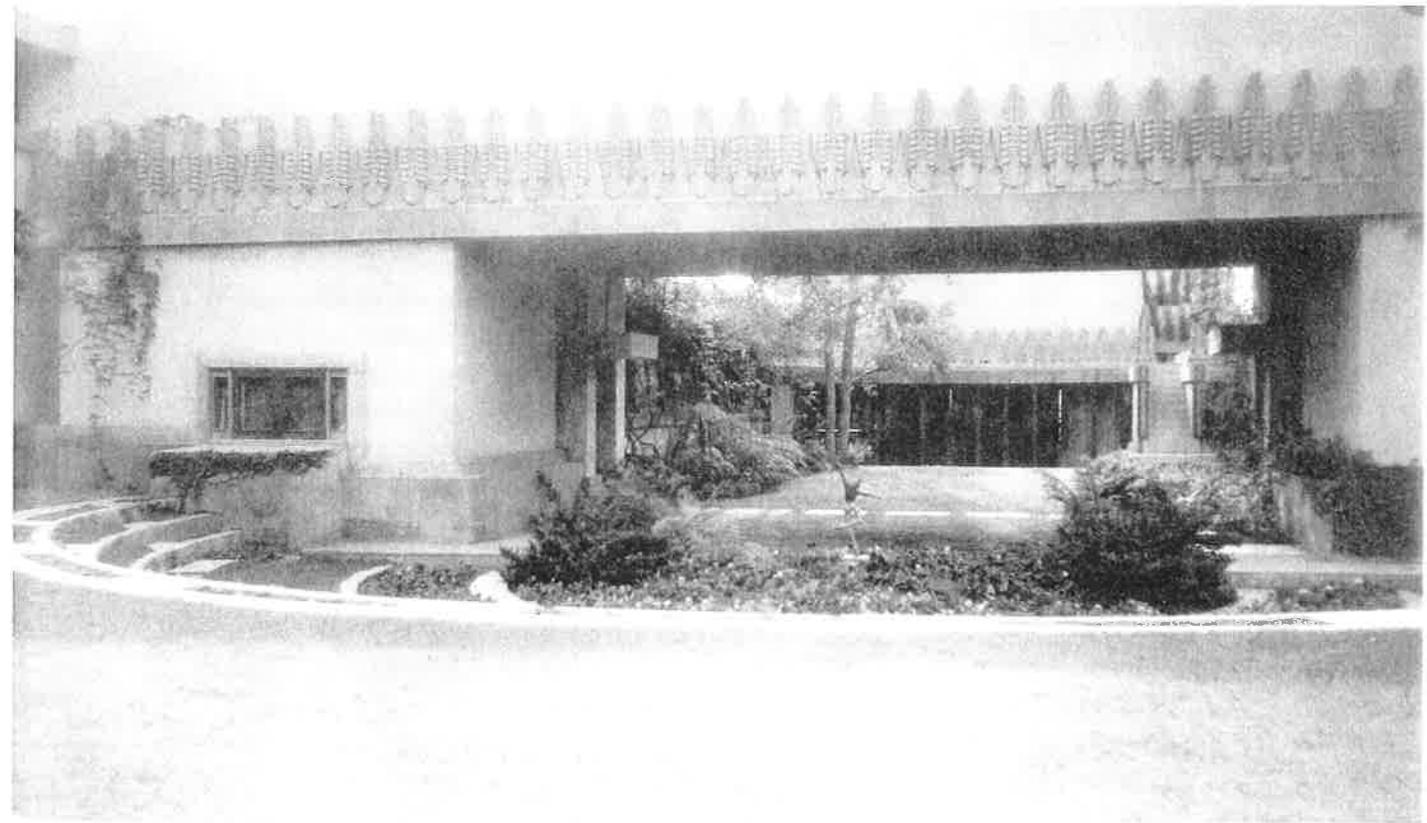
Although Barnsdall's letter to Austin shows that she had been thinking about producing plays in the open air since 1916, there is no written evidence to suggest that she ever intended to incorporate a working theater into the design of her home. Moreover, her letters and newspaper interviews suggest that by the time the site on Olive Hill was chosen, in 1919, the conception of the theater as a monumental, freestanding, and fully enclosed building seems to have supplanted any ideas about open-air theater in Barnsdall's mind. Yet the outdoor theater at the heart of Hollyhock House clearly has enormous symbolic significance in the project. Although Wright's

FIGURE 9  
John Galen Howard. Hearst Greek Theatre, Berkeley, California, site plan, 1903. From Sheldon Cheney, *The Open-Air Theatre*, 1918



THE GREEK THEATRE

FIGURE 8  
Hollyhock House, garden court and exedra, ca. 1927



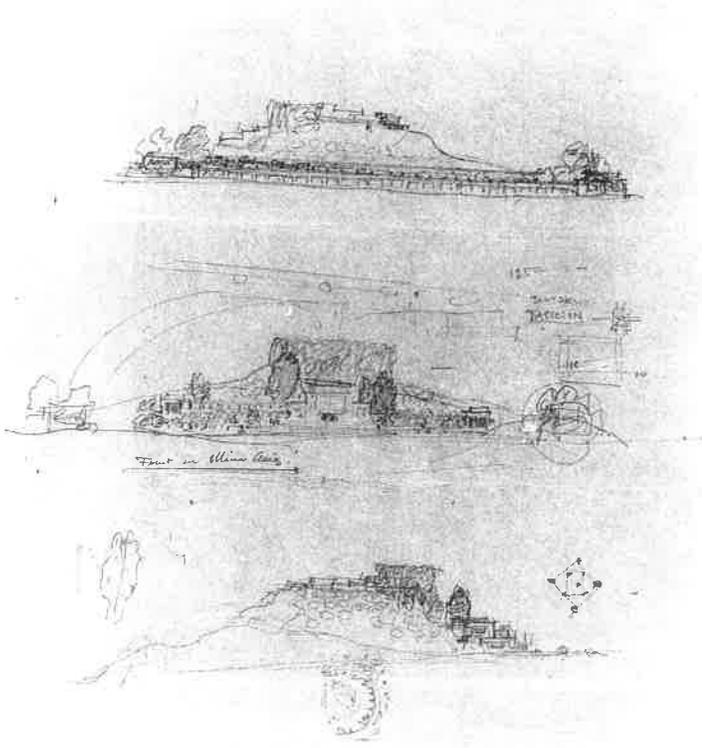


FIGURE 10  
Frank Lloyd Wright. Olive Hill.  
preliminary sketches. 1919

earliest sketches of the site (fig. 10) – made shortly after the property was purchased, in the summer of 1919 – were primarily concerned with the massing of the various structures in relation to the contour of the hill, they nonetheless contain a germ of the theater idea, in the form of a small sketch of a semicircular plan at the bottom of the east-west perspective. Placed directly below the point on the drawing where the garden meets the park at the top of the hill – and clearly differentiated from the square silhouette of the freestanding theater on the Vermont Avenue perspective (the middle sketch) – this small sketch shows that from the very beginning, the outdoor theater was for Wright the physical and ideological center of the composition. Like the hearth and chimney in one of his prairie houses, the semicircle at the core of the theater acts in these designs as a pivot around which the Olive Hill complex is organized. The analogy with the hearth can be extended further when one realizes that just as that form served as the ideological and spiritual core in Wright’s domestic program, providing the warmth, light, and good fellowship by which the family thrived, here the life of the theatrical community and its most deeply felt needs are symbolized by the distinctive semicircular form of the amphitheater.

Wright understood that Barnsdall had substituted emotional ties to her theatrical community for those of a conventional family. In his autobiography he alluded to this by pointing out both the essentially nondomestic nature of the Hollyhock House concept and Barnsdall’s uniquely unfeminine decision to place the theater before all else:

*Unlike many “patronesses of the arts” Miss Barnsdall wanted no ordinary home for she was no ordinary woman. If she could have denied she was one at all, she might have done so. But the fact claimed and got her continually, much to her distress and the confusion of her large aims. If any woman ever hitched her wagon to a star, Aline Barnsdall*

hitched hers thereto. And so far as Hollyhock House and the building of the New Theatre that was to carry her “Art of the Theatre” a generation or two ahead of itself, were concerned – at the moment – she chose her architect as that bright and particular star.<sup>37</sup>

For Wright, Barnsdall’s new home represented a fusion of the nondomestic typology of the ancient amphitheater – articulated through the plan, materials, and large scale – with a newly created architectural language that he saw as uniquely appropriate to Southern California. Above all, Barnsdall’s new home had to look and feel American, as did the various other buildings that would surround it on Olive Hill. Thus, while its plan contains references to the traditions of European classicism, in its massing and overall appearance Hollyhock House strongly recalls the architecture of the pueblos of the American Southwest. With its jagged profile of stepped and stacked cubes, its smooth plaster walls (Wright had intended them to be concrete), and its tiny window openings, Hollyhock House picks up the most readily recognizable elements of this architecture. The massing and details, such as the frieze of stylized hollyhocks, are also reminiscent of Mayan temples. As a number of scholars have noted, these stylistic devices and motifs pervade Wright’s work in the Los Angeles area of the 1920s, expressing his response to the Southern California landscape and his effort to discover the essential forms of a truly American architecture.<sup>38</sup>

For other reasons as well, the peculiarities of the pueblo form made it particularly suited for the Hollyhock House commission. First, its strong connection to the landscape of dry, flat plains and dramatic mesas, apparent, for example, in views of Zuñi Pueblo in New Mexico (fig. 11), may have suggested a resonance with the landscape of Olive Hill, whose distinctive qualities Wright captured in his original massing sketches, discussed above. A number of pueblos that Wright may have known,

including Acoma in New Mexico and Walpi at First Mesa, Arizona, were built on top of the mesas, just as Hollyhock House would be built at the top of Olive Hill. This characteristic of the house has always puzzled scholars, given Wright’s expressed preference for siting his structures on the “brow” of the hill (as at Taliesin, for instance), but the example of the hilltop pueblos may provide the clue in this case.

A second feature of the pueblos that may have influenced Wright’s thinking is the peculiarly theatrical quality of the interior plazas, a feature that was exploited during ceremonies, which spectators would watch from the rooftop terraces. For Wright, and perhaps for Barnsdall, the pueblos represented an ideal model on which to base the concept for the house of an American involved in the theater, a person who, like Wright, was not only highly theatrical herself but also committed to the idea of community, to American art, and to the expression of the power and beauty of the Southern California landscape. Yet, as Wright explained in his autobiography, she was also a world traveler and a sophisticated upper-class woman who knew European culture very well – indeed, she was among the first such clients of his practice.<sup>39</sup> Thus, his design for her house is deeply connected to American traditions, to nature itself, and to the ground on which it stood, while it incorporates in the plan elements of a sophisticated language of theater architecture drawn from antiquity. It is a *theatrum mundi* for a sophisticated American: “Like it or leave it. There stands Hollyhock House in Hollywood – conceived and desired as a California Romanza. No not so domestic as the popular neo-Spanish of the region. But comfortable to live in well, with all its true pride in itself. Yes, a very proud house is Hollyhock House.”<sup>39,40</sup>

While no evidence survives to show whether or not Barnsdall ever made use of the various stages and dramatic settings in and around the house, it is clear from

her commitment to open-air productions that they could not have been intended simply as symbolic elements in the design.<sup>41</sup> The scope and variety of outdoor productions as Barnsdall and her friends knew them, as well as the theory behind the energetic open-air theater revival in the early twentieth century, are spelled out in Sheldon Cheney's *The Open-Air Theatre*, a book that, according to its preface, was largely completed by 1915 (it was published three years later). This date has considerable relevance to our understanding of the Olive Hill project since Cheney began a lively correspondence with Barnsdall in the fall of 1916, following his first meeting with her and the members of her troupe in Los Angeles.<sup>42</sup> Cheney had just founded a new magazine called *Theatre Arts*, based at the Arts and Crafts Theatre in Detroit, which would quickly become the principal clearinghouse for new ideas in American art theater. Barnsdall looked to Cheney for advice on her project just as she did to her other "experts."



FIGURE 11  
Zuñi Pueblo, New Mexico.  
In the background is the  
Taaiyalone mesa

In the opening chapter of *The Open-Air Theatre*, Cheney traced the history of the genre and outlined its social significance in his own time:

*In the whole history of dramatic art there is no more illuminating truth than this: always when the drama has been simplest, most genuine, and lit up most brightly by the joy of living, and always when the drama has been closest to the life of the people, it has had its setting in the open. . . .*

*The current revival is a spontaneous growth, arising on the one hand from a rediscovery of the value of the out-of-doors as a corrective to an overcited and artificial life, and on the other, from a new spirit of dramatic experiment, and protest against the over-sophisticated stage.<sup>43</sup>*

Viewed as a branch of the art theater movement, open-air theater was a particularly apt choice for Barnsdall. Cheney's emphasis on its socially beneficial aspects was clearly influential in her thinking, and it is evident from their correspondence that the two genuinely shared their devotion to the form, drawing on common values and ideals. Cheney even cited Eleanora Duse, Barnsdall's mentor, to support his enthusiasm: "To save the theatre, the theatre must be destroyed; the actors and actresses must all die of the plague. They poison the air, they make art impossible. . . . We should return to the Greeks, play in the open air; the drama dies of stalls and boxes and evening dress, and people who come to digest their dinner."<sup>44</sup> Cheney's opinions also echo sentiments found in the writings of Goldman that emphasize the importance of bringing drama to the people, the power of its message when presented simply, and the sense of community that grows as a result of common goals and achievements.

In *The Open-Air Theatre*, Barnsdall, and perhaps Wright, found a handbook of theories and a how-to guide for putting these into practice through architecture. Cheney described the different types of open-air theater at length and provided illustrations of the most important examples. Among these are two that bear directly

on the design of Hollyhock House: the Cranbrook Greek Theatre, in Bloomfield Hills, Michigan, by Marcus R. Burrowes (fig. 12), and the “Roman Theatre according to Vitruvius” reproduced from the first English translation of *De architectura* (*The Ten Books on Architecture*), published by Harvard University Press in 1914 (fig. 13). Both are described in detail in the book’s appendices, which were intended “to be of use to architects and others who may be charged with the actual creation of an open-air playhouse.”<sup>45</sup>

The unresolved quality of the Hollyhock House design, underscored by its awkwardness as an open-air theater, appears symptomatic of Wright’s ambivalence concerning the overall concept for the project. Neither the model provided by Cranbrook nor that of Vitruvius’s Roman Theatre has been followed consistently, yet aspects of each have been employed to evoke an idea in a bold and visually accessible language. A third type, apparently drawn from Cheney’s examples for garden theaters, has also been incorporated here, for, as Smith has shown, it would have been possible to use the rear part of the semi-circular clearing as a greensward stage with the tall evergreens behind it as a backdrop.<sup>46</sup> The cumulative effect of this apparent piling up of pieces from various schemes is a design that is highly evocative of theater imagery and, indeed, of the idea of theatricality, yet never entirely satisfactory as a place for theatrical presentations.

The explanation for Wright’s uncharacteristic reliance on preexisting prototypes would appear to stem from two circumstances: first, his absence from Los Angeles during most of the design phase of the project, which left his son Lloyd Wright and Rudolph Schindler in charge; and second, the close association of a number of theater experts with Barnsdall as a client and with the project architects themselves. Although Wright worked on the project sporadically between 1916 and 1920, he seems never to have given it the consistent attention through

which both the program and his conception of it would have grown and developed. While the original design was Wright’s own and reflected his interpretation of the commission, it is evident that the development of key elements – the arrangement of the spaces within the overall plan and the detailing of the interior, for example – was left to his assistants, notably Schindler, or was a reworked elaboration of themes set out in Wright’s own previous projects.<sup>47</sup> Wright was certainly sympathetic to much that Barnsdall believed and, as mentioned above, was himself engaged in the search for an American, and specifically Southern Californian, aesthetic. Though he was loath to admit it, however, the design that he produced for her relied heavily on the contributions of others.<sup>48</sup>

#### Wright and Theater Architecture

Despite the problems outlined above, Wright did bring a number of original ideas to the Barnsdall commission. His fascination with the shapes of ancient amphitheaters is evident both at Hollyhock House and in other projects associated with Olive Hill, including the Community Playhouse or Little Dipper School. Although perhaps originally introduced to this subject by his client, Wright became deeply committed to the idea of outdoor theater early in their partnership and stubbornly insisted on designing not only Hollyhock House but also the free-standing theater as a sort of amphitheater in which the audience and the players were not separated by a proscenium.<sup>49</sup> One project for the theater at Olive Hill, published in *Theatre Arts* magazine, even used a skylighted ceiling treatment to contribute to the impression that the auditorium was open to the sky (fig. 14). From the evidence of photographs, plaster models (fig. 15), and a number of surviving sketches related to the project, it is clear that the image of the ancient amphitheater remained a dominant theme in Wright’s thinking and that he struggled to find an original response to it in his designs.

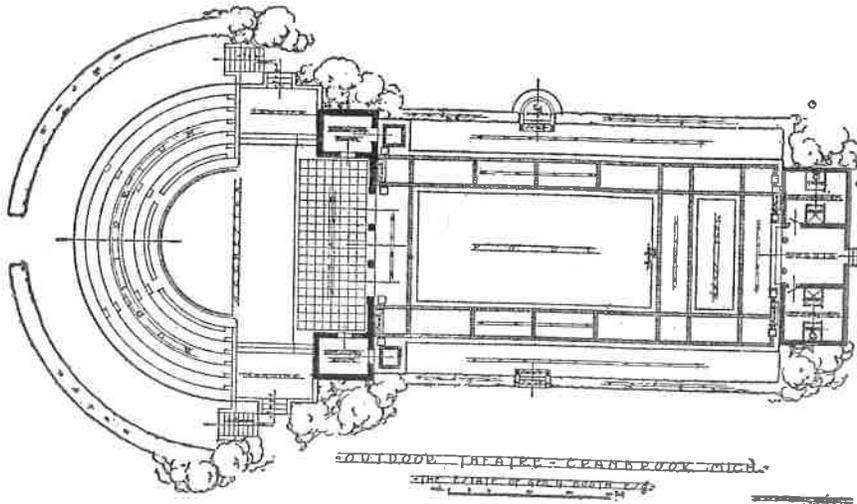
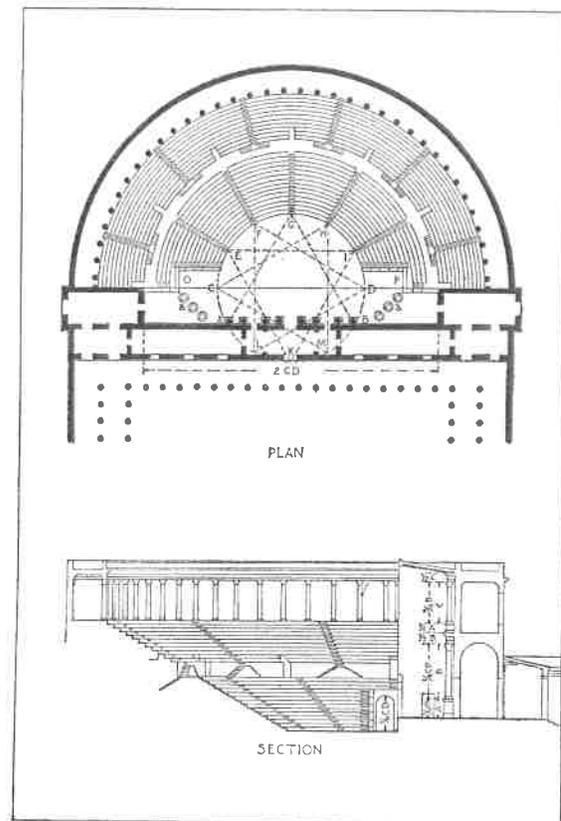


FIGURE 12  
 Marcus R. Burrowes, Cranbrook  
 Greek Theatre, Bloomfield Hills,  
 Michigan, plan. From Sheldon  
 Cheney, *The Open-Air Theatre*,  
 1918

Yet given the importance of theater design for the professionals associated with Barnsdall, and Wright's apparent unwillingness to work with them on the project, it is not at all surprising that no mutually acceptable approach could be found. Bel Geddes, who clearly viewed Wright as a capricious braggart and a bully, recalled with dismay the architect's comments on the theater: "It isn't necessary for me to see other theaters to design better ones.... We can't learn anything from Europe. They have to learn from us. Europe is a dying civilization. The theater in Europe died in Athens in 500 B.C." And later: "Aline, the true theater is an architectural structure... I have improved the forms of churches and houses and office buildings, and if left alone I will give you the finest theater in the world. If you are unable to leave me alone, I will not waste my time going any further with it."<sup>50</sup> Though Bel Geddes was clearly presenting his own version of events – and he blamed Wright for the fact that the theater was never built – it is evident that Wright cared

FIGURE 13  
 "The Roman Theatre according  
 to Vitruvius," From *The Ten  
 Books on Architecture*, 1914



very deeply about recovering the fundamental elements of ancient theater architecture – community, simplicity, contact with nature – and bringing them back to life.

These concerns surface again in the designs for the Little Dipper, a building intended as a playhouse and school for Barnsdall's daughter and her friends. The structure was to be built on a site adjacent to the house. Music and movement were the focus of the lessons, which were to be taught according to the theories of Emile Jaques-Dalcroze, a Swiss musician and teacher whose work Barnsdall had first encountered in Europe.<sup>51</sup> The Dalcroze method, based on a system known as "eurythmics," was also popular in the avant-garde theater community. An article by Elizabeth S. Allen entitled "Eurythmics for the Theatre" appeared in *Theatre Arts* magazine in November 1919; in it Allen described the ways in which simple rhythmic movement and gesture could add expressive power to dramatic action.<sup>52</sup> Barnsdall had demonstrated her own commitment to children's theater earlier with her production of *Alice in Wonderland*; characteristically, the school was both a timely response to her need to provide for her daughter's education and an outgrowth of her effort to bring the newest and best art forms to Los Angeles.

The Little Dipper was divided into two parts: a raised stage and an open-air sandpit surrounded by tiered seats arrayed in concentric circles around a small pool (fig. 16). Both areas could be used for music lessons and other sorts of children's play activities. The round bowl of the sand-pit would have provided the children with a mini-amphitheater in which to perform plays for their friends.

#### Barnsdall's "Gifts" to the People of Los Angeles

Unfortunately this remarkable building would never see the light of day. Although construction began in 1923, Barnsdall had by then given up hope of achieving her ambitious plans for Olive Hill. Her struggles with Wright over the design of the theater continued with little progress and scant hope of resolution. More damaging still was the fact that she had lost her hold on the key members of her company: people like Bel Geddes and Markham had already deserted Los Angeles for New York.<sup>53</sup> Without them, her theatrical community would come to nothing; without the community, she herself had no reason to occupy Hollyhock House, the building she and Wright conceived as its centerpiece.

Planning for the theater continued, but Barnsdall began thinking about new uses for Hollyhock House and, in spring of 1923, she commissioned Wright to design a new house for her on a twenty-four-acre site in Beverly Hills.<sup>54</sup> In December 1923 Barnsdall met with representatives of the city to discuss a plan in which Hollyhock House would serve as a city-run library and community center; she intended to make the house and ten acres of surrounding land her gift to the people of Los Angeles. A portion of the Olive Hill site was to be offered up for sale, the proceeds from which would finance Barnsdall's various ongoing projects. When these negotiations fell through, however, all building activities on the site were halted. Still in possession of Olive Hill at the end of 1924, Barnsdall abandoned the Little Dipper and ordered the existing foundations demolished.

Perhaps to console herself for these disappointments, Barnsdall took an active interest in open-air musical and dramatic productions at the Hollywood Bowl, a privately sponsored open-air amphitheater for public concerts and performances under construction in the Hollywood Hills. Barnsdall's support for the Hollywood Bowl took a number of forms, including a pledge of \$5,000 to the

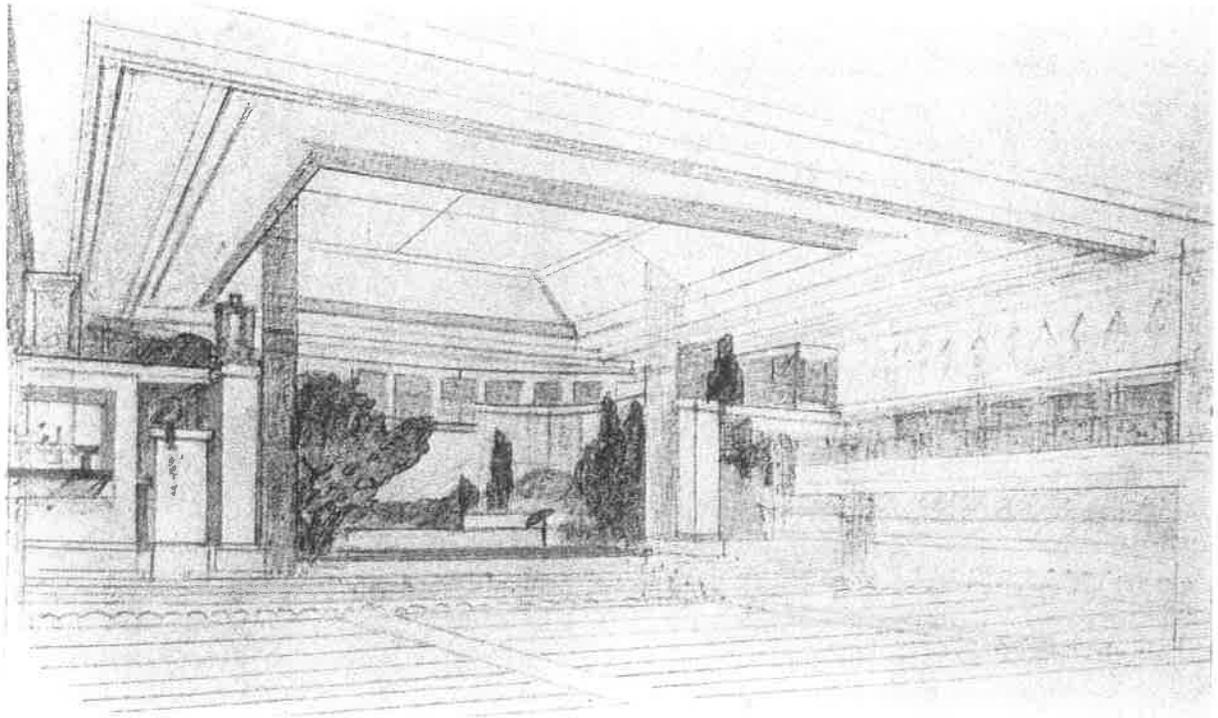
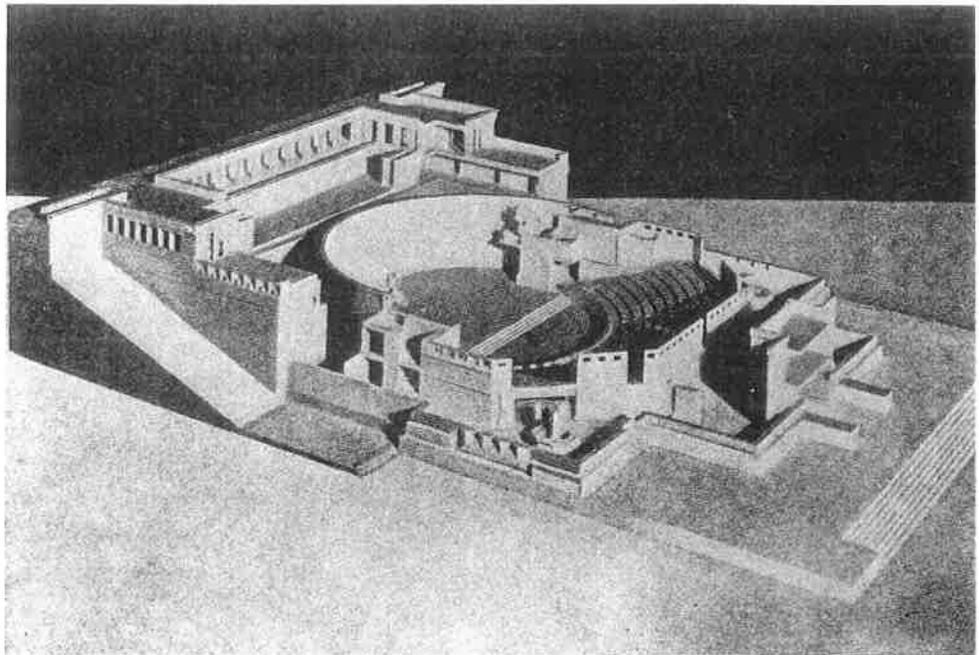


FIGURE 14  
Frank Lloyd Wright, Barnsdall  
Theater, interior perspective,  
From *Theatre Arts*, August  
1926

FIGURE 15  
Frank Lloyd Wright, Barnsdall  
Theater, model, 1920. From  
*Theatre Arts*, August 1926



board of directors in 1923 to help purchase the property and the offer of a prize, also of \$5,000, the following year for a new design “for the permanent improvement of the Hollywood Bowl.”<sup>55</sup> Very likely it was through her influence that Lloyd Wright became involved in the project, proposing and building various acoustic shells for the amphitheater in the 1920s.<sup>56</sup> Though a far cry from the lavish splendors of Olive Hill as she originally imagined them, the Hollywood Bowl was for Barnsdall an important American monument, a place where the public could come into contact with art and nature through open-air theater.

In a letter to Cheney written on August 8, 1923, on the eve of her departure for Europe, Barnsdall tried to explain the ideals that motivated her many projects: *I believe that Mr. Wright will never do an “interior” for me. He is too much the architect and not enough the man of the theatre. But as an architect he is bigger than any man in the theatre at present. We are building a little school for Sugar Top and fifteen other children in which Paul Swan the dancer and sculptor is going to teach a combination of sculpture, painting, dancing, costume making and drama to young children as part of a school program and Mr Wright’s plan is a joy. We call it “The Little Dipper” unofficially. . . . It includes a tiny child’s amphitheatre too delightful for words. I too hope that something definite for next summer in Hollywood Bowl may be worked out between Norman and me. . . . The Bowl Concerts have been a great success and I have sat evening after evening and planned and dreamed of things I might do there surrounded by the magic of those southern California nights. I add California because it is one of the drawbacks as well as urges – especially in the Hollywood valley it comes so close to being too cold for out of door performances. As to productions: one by an American and a classic beginning with the Greek classics and coming down through the ages. The*

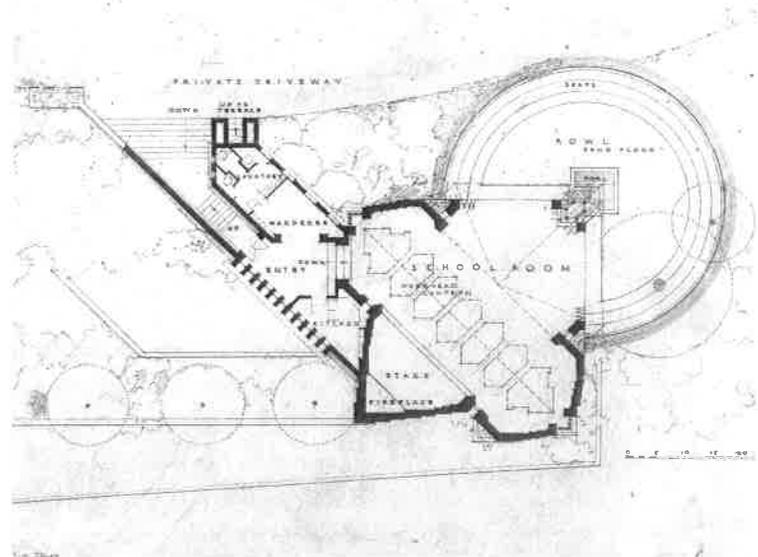


FIGURE 16  
Frank Lloyd Wright, The Little Dipper, Olive Hill, plan, 1923

academic aspect of this may make you smile – but I have the touching memory of that hoard from Iowa, Kansas and Wisconsin – and incidentally from the farms of New York and Ill. . . . sitting in that circle of light night after night – they sit in heavy coats and a kind of spirit of earnestness pervades the place in so far as their response to the music is concerned. . . . They pioneer once more – from their ugly Kansas towns but this time for a touch of beauty – everything is comparative you know. Unceasing are the arguments Wright and I have on this. For after all he is one of the great provincials like those men who have done so much for literary and artistic France. He loves America and the tragedy is that he has had to make his greatest effort in Japan.<sup>57</sup>

This passage reveals that, as a group, Barnsdall's disparate Los Angeles projects reflected a consistent set of goals, inspired by her commitment to American culture and public education. In later years she would refer to Olive Hill as part of her "quest for Arcadia in the U.S.A."<sup>58</sup> Spurred by these ideals, her continuing interest in making Hollyhock House part of a gift to the city makes a great deal of sense, and it is not surprising that she rejoiced when, in 1927, her gift was finally accepted as a headquarters for the California Art Club. Her statement at the official opening of the house in August of that year, reprinted in *California Art Club Bulletin*, a copy of which she sent to Wright, makes her intentions clear:

*I would like this gift to grow like our own California oak – slowly, with its separate branches each reaching from the same trunk – the Art Club, the Recreation Center and finally my own theatre. In giving the park I have thought of my father, of the happiness of children and young people with Olive Hill as a place to work and play, a background for their dreams and memories and my reluctance to see a building and landscaping of great beauty destroyed. . . .*

*So we have the fitting background for a group of artists reaching out for newer, fresher expression, children, the potential force of the future handled with kindness*

*and understanding and allowed that same creative freedom in their play that the artists have in their more serious work, the trial of a great music method that creates future musicians and audiences and much more and eventually a theatre that will draw people together, I hope, in sympathy with the life and art of other races and a joy in the development of their own drama.*

*No country can be great until the least of its citizens has been touched by beauty, truth and freedom; unless all three radiate from this little hill it is as nothing.<sup>59</sup>*

Despite her earnest efforts to bridge the gap created by class and money, Barnsdall's motives and her projects were often misunderstood, obstructed, or thwarted by others because of her all-too-apparent wealth, her left-wing politics (Wright wrote that some called her a "Parlor Bolshevik"), her gender, and her own inability to concentrate on people or places for very long. Indeed, in the letter to Cheney of August 8, 1923, she revealed the deep conflict she felt about her own philanthropic impulses and the problems money created in her relationships with others:

*But more and more I come to believe I do a harmful thing to my own nature to give money where I do not also give an idea. There seems to be something unhealthy in the after relation of a gift. . . . I give spontaneously and when I can't a second time I am treated as tho I had deprived them of their rights. . . . This has been one of the big disillusionments of life to me that one must be clever in giving. I can't be clever and I don't think it right for me to give any longer unless I give my self with it to stand for an idea as well as a gift. . . . Some of us children of the last generation of easy going rich men have had a terrible heritage to fight. They took early from our rich resources and gave grandly and could for their generation. We resist the temptation or try to and know that we must give of ourselves. To put it in every day English I'll be damned if I want to give anything to anybody.<sup>60</sup>*

Wright, one of the principal beneficiaries of her patronage, was deeply ambivalent about her, and it is he, through his autobiography, who is responsible for creating the image of her as self-indulgent and irresponsible. Though Wright, perhaps more than anyone else, was aware of her ambitions for Olive Hill and, as such, surely understood her reasons for abandoning Hollyhock House, he nonetheless saw fit to represent her to his readers as a rich woman who gave up her house for mysterious personal reasons. Moreover, he insisted on the notion that Barnsdall's house was built for her private enjoyment – “Up there on Olive Hill... the daughter of one of America's pioneers had constructed a little principality, her very own, free to live as a queen” – and that she, a woman alone, had begun to feel lonely there, “more lonely because of it than she had felt without it.”<sup>61</sup>

In print Wright consistently attempted to lay the entire blame for the failure of the Olive Hill project on Barnsdall's feminine susceptibility to “advice,” presenting his own inability to see the construction of Hollyhock House through to the end as a desperate attempt to protect the integrity of his masterwork from these meddlers: “Now, *the* penalty (one of the many, probably) for being feminine, with extremely small hands and feet, rich, alone and mundane, is to have an entourage of dear ‘friends.’ ... Collectively this insurance-brigade knew about as much about this building, Hollyhock House, as Sodom knew of Sanctity.”<sup>62</sup> In their private correspondence, however – a correspondence that lasted until her death in 1946 – Wright could acknowledge not only his fondness for Barnsdall but also the fact that their problems went far deeper than his published account would ever suggest. As he put it in a letter from Taliesin dated June 27, 1921: *And then beside all else there has been so much in this attempt on our own part that has been irrelevant and adverse to the real matter in hand. Instead of reasoning logically about the features as they arose, the flea-bites of*

*personal rancour would often goad us into tangents that left the scheme and went wide of the mark: And too – I would often go bang or go hang against flat walls that no logic nor any power I had could pierce. Those walls were particular recollections, preferences or prejudices you had preconceived, perhaps not germane to the case at all, but nevertheless irrevocable. You confounded these idiosyncracies with individuality and defended them.*<sup>63</sup>

Barnsdall, however, saw the picture very differently, as she explained to him in a letter of February 4, 1926: *I thought it best not to answer your letter [a letter written by Wright some time before this date, which does not survive] until our disagreement was settled one way or another and now that it is settled I hope that we may not consider each other enemies and that we may never attempt to work together again. It cant be done. We are both too much of the same mold – egotistical, dictatorial and creative. ... In one thing you are gravely mistaken and you will never know me if you don't get this right [and] also realize there is a new kind of woman in the world today. Haven't you read your Bernard Shaw? You write “And there is a third woman. A wistful, lonely one, none too sure of anyone, or anything about her – she having ventured too far into the ‘unchartered’ than fortified by her knowledge of life or circumstances, driven sometimes to cover her fear by defiance and to buttress her woman weakness with a willfulness beyond parallel!” You will never know me if you dont come to realize that I have never known fear in that or any other moral sense, that I am only at home and interested on unchartered seas. My willfulness I was born with. I hav`nt [sic] that old fashioned thing called “womans weakness” and I doubt if any woman ever really had it. Rather they projected it to flatter the ego of men. I have nothing in my life I need to buttress knowing that the position I take is because I have a fine, more forward feeling for life and love than most women. As for men they have nothing they can give in their present stage of development in relation to love*

– they may be fairly civilized in other ways. . . . You judge me by a deep rooted conventionality within your self. You are free in your art but not in your relation to life; you consider aspects of people and their little conventions, created for safety, more important than they are.<sup>64</sup>

This wasn't the last word on the subject – the two would continue exchanging barbs and sharing insights for the next twenty years – but it does shed a great deal of light both on the relationship and on Wright's highly charged artistic and personal response to his client. For Wright, whose conflicting notions of womanhood were tautly strung between the two poles represented by his first wife, Catherine Wright, and Oak Park, Illinois, on the one hand and Mamah Borthwick Cheney, his companion and lover, and the capitals of Europe on the other, Barnsdall represented an irreconcilable paradox. He tenuously resolved it by emphasizing the American, the primitive, and the elemental in his architectural language of "otherness" on Olive Hill. Wright's recurrent emphasis on the theme of untamed or uncivilized forces enabled him to come to terms with the gap between the domestic and the public and theatrical at Hollyhock House.

Though Wright and Barnsdall would continue to squabble over money and control, accusing one another of deception and dishonesty (a struggle that ultimately led to Wright's bringing suit in 1926), planning for the theater continued until 1927 with Wright as architect. An announcement in the *Los Angeles Times* on January 21, 1927, reported on a plan to build a "Greek Theatre" on Olive Hill, noting that Barnsdall had met with members of the city planning association and presented them with a plaster model of an open-air Greek theater, which she planned to erect at Barnsdall Park at a cost of \$2 million.<sup>65</sup> A letter to Wright of November 16, 1927, makes it clear that although she and her architect were still at odds over the details of the design, Barnsdall expected to go ahead with it. Nevertheless, she let Wright know that she would be unable to do anything further until most of

Olive Hill could be sold. Ultimately, Barnsdall came to recognize that even the last surviving part of the project – ironically, the part with which she had begun – would never materialize. Nothing further was reported in the press concerning the plans for the Greek theater after the initial announcement, and there is no evidence that Barnsdall pursued the project in 1928. Ultimately it too was abandoned.

Barnsdall remained connected to Olive Hill in one way or another until her death, in December 1946. Over the years her efforts to put the land and buildings to use would include such ideas as a recreation center for young women employed as nursemaids and housekeepers, a senior citizens' center, a "radical center," a home for soldiers, and an art museum.<sup>66</sup> None of these schemes was realized. Her own house, always intended as just one semipublic element in an extensive "art park," remained the focus of artistic activities on Olive Hill, the one part of the project that truly thrived in the wake of Barnsdall's departure and for fifteen years thereafter. Despite her failure as an impresario on the grand scale, Barnsdall remained true to her belief in the power of the arts to change lives and minds. It is in this spirit that the Olive Hill project should be remembered, as a monument to a period in American cultural history when it was possible for one woman to bring feminism, socialism, experimental theater, and new American architecture together in a single far-reaching project intended primarily not for her own private enjoyment but for the public good. Thus it is fitting that Hollyhock House should become, and remain to this day, the centerpiece of a public park rather than a private retreat, for she never saw it as a "little principality" where she "was free to live as a queen," as Wright and others suggested. A failure of neither her character nor her vision of the central role of the arts in public life, the house and its ongoing use by the public should be counted among Barnsdall's successes.

- 1 For Bel Geddes, see Bruce Bliven, "Norman Bel Geddes: His Art and Ideas," *Theatre Arts* 3 (July 1919), 179–90, and Norman Bel Geddes, *Miracle in the Evening*, ed. William Kelley (Garden City, N.Y.: Doubleday, 1960).
- 2 Barnsdall, letter to Mary Hunter Austin, May 10, 1916, Mary Hunter Austin Collection, Au 1346, Huntington Library, San Marino, Calif. In my citations of Barnsdall's letters I have preserved her distinctive style and spelling as much as possible; I have changed some punctuation in the interest of clarity.
- 3 Barnsdall, letter to Mary Hunter Austin, June 1, 1916, Mary Hunter Austin Collection, Au 1347. The letterhead says "1025 No. Negley Ave. Pittsburgh," Barnsdall's family home.
- 4 Unless otherwise noted, letters written by Barnsdall or Wright cited in this chapter are in the collection of the Frank Lloyd Wright Foundation, Taliesin West, Scottsdale, Ariz. Hollyhock House and the Olive Hill projects are discussed in detail by Kathryn Smith in her *Frank Lloyd Wright, Hollyhock House and Olive Hill: Buildings and Projects for Aline Barnsdall* (New York: Rizzoli, 1992), and her "Frank Lloyd Wright, Hollyhock House and Olive Hill, 1914–1924," *Journal of the Society of Architectural Historians* 38 (Mar. 1979), 15–33. See also Neil Levine, *The Architecture of Frank Lloyd Wright* (Princeton: Princeton University Press, 1996), and his "Hollyhock House and the Romance of Southern California," *Art in America* (Sept. 1983), 150–64. I am indebted to both authors for sharing their research and expertise with me. A third monograph, by Donald Hoffmann, *Frank Lloyd Wright's Hollyhock House* (New York: Dover Press, 1992), is also very helpful. An earlier version of this chapter, entitled "A House Is Not a Home: Hollyhock House as 'Art Theater Garden,'" was published in the *Journal of the Society of Architectural Historians* 51 (Sept. 1992), 239–60.
- 5 A list of "Drawings Promised," enclosed in a letter from Barnsdall to Wright dated Sept. 24, 1919, includes a "Motion Picture House" in addition to "my home" and other buildings.
- 6 Flora Lawrence, "Eminence to Be Made Rare Beauty Spot," *Los Angeles Examiner*, July 6, 1919, 5.
- 7 For Theodore N. Barnsdall, see the *Pittsburgh Bulletin*, Mar. 3, 1917, 14, and the *New York Times*, Feb. 28, 1917, 2: 6.
- 8 For a biography of Barnsdall, see Norman M. and Dorothy K. Karasick, *The Oilman's Daughter: A Biography of Aline Barnsdall* (Encino, Calif.: Carlestone Publishing, 1993). In a letter to Wright of Oct. 29, 1933, Aline wrote from Switzerland: "We have a good deal to talk about when I eventually see you. Have come to conclusion that what I want is a self supporting farm or small ranch and my mind turns to Colorado. It has the high light air I must live in to be at my best; I spent many happy summers there when I was a girl, and the soil can be so flush red and beautiful." On July 30, 1942, she wrote to him again, from Grand Lake, Colo.: "This is the region which taught me to like the USA. Father had a mine here and we came to it for a number of summers." Barnsdall's father also had close ties to Oklahoma. He maintained a friendship and business relationship with Chief Bigheart of the Osage nation, which ultimately led to Barnsdall's lucrative development of oil resources on Osage land; see *The Chronicles of Oklahoma* 32 (1954), 389. These ties may have contributed to Aline's lifelong interest in the culture of the Plains Indians; see Barnsdall to Wright, Nov. 22, 1932, and June 4, 1946.
- 9 Bel Geddes, *Miracle*, 173.
- 10 Ibid.
- 11 See Sheldon Cheney, *The New Movement in the Theatre* (New York: M. Kennerley, 1914), and his *The Art Theatre* (New York: M. Kennerley, 1914). For a glimpse of Barnsdall's European experience and early years in Chicago, see Lawrence Langner, *The Magic Curtain* (New York: Dutton, 1951), 56–84.
- 12 For the Chicago Renaissance, see Dale Kramer, *The Chicago Renaissance: The Literary Life of the Midwest* (New York: Appleton-Century, 1966), and Jackson Robert Bryer, "A Trial-Track for Racers: Margaret Anderson and the Little Review" (Ph.D. diss., University of Wisconsin, 1965).
- 13 *Mother Earth* was started in New York in 1905; Goldman was frequently on lecture tours but established offices and significant followings in both New York and Chicago. In New York her circle included Charlotte Perkins Gilman, Mabel Dodge, and Margaret Sanger. For Goldman, see Alice Wexler, *Emma Goldman: An Intimate Life* (New York: Pantheon, 1984), and Candace Falk, *Love, Anarchy and Emma Goldman* (New York: Holt, Rinehart & Winston, 1984).
- 14 Margaret Anderson, *My Thirty Years War* (London: Knopf, 1930), 107. Recalling Barnsdall's visit to the offices of the *Little Review* and their subsequent meetings, Anderson referred to her simply as "Nineteen Millions" or "N.M."; it was only in reply to a question from Dale Kramer in June 1964 that Anderson made it clear that this was Aline Barnsdall; Kramer Notebook 3, Special Collections, Newberry Library, Chicago. See also Bryer, "Trial-Track," 201–3.
- 15 See Alice Gerstenberg, "Hope of the Little Theater in Chicago," *Townfolk* (Feb. 1948), 16. The history of Chicago theater in these years is described in letters written by Gerstenberg and others to Dale Kramer in 1960; Kramer Notebooks, esp. nos. 3, 4, 5. According to Gerstenberg, the play was first produced on Feb. 11, 1915, and moved to the Booth Theater in New York in March; *Alice in Wonderland* (New York: Longmans Green, 1929). Excerpts from positive reviews in Chicago and New York papers appear on pp. xi–xii.
- 16 Emma Goldman, *Living My Life* (New York: Knopf, 1931), 707–8.
- 17 Emma Goldman, *The Social Significance of Modern Drama* (Boston: R. G. Badger, 1914), 5–7.
- 18 The challenge facing American artists was summed up in a book by Waldo Frank

- entitled *Our America* (New York: Boni & Liveright, 1919), which Barnsdall knew and admired (as is clear from her letter to Sheldon Cheney of August 8, 1923, discussed below). Like Barnsdall and Wright, Frank wrote about American culture both as a mission of the younger generation and as a response to the drama of the landscape itself: "But America was intense before the white man came. America is a land with a shrieking rhythm. And whatever you would understand of our weakness and our strength you must interpret in this key. . . . America is vivid and vibrant beyond the scales of temperate Europe"; *Our America*, 22–23.
- 19 Goldman, *Living My Life*, 707.
  - 20 Curt Gentry, *Frame Up: The Incredible Case of Tom Mooney and Warren Billings* (New York: Norton, 1967), 143, 329, 352, 374ff.
  - 21 Barnsdall to Wright, May 30, 1920.
  - 22 Wright described his ideas about American architecture in a number of published and unpublished texts, including "The Sovereignty of the Individual," published as the preface to the *Ausgeführte Bauten und Entwürfe von Frank Lloyd Wright* (Berlin: Wasmuth, 1910) and reprinted in Edgar Kaufmann, Jr., and Ben Raeburn, eds., *Frank Lloyd Wright: Selected Writings and Buildings* (New York: Meridian Books, 1960). For Wright's description of his first meeting with Barnsdall, see Smith, *Hollyhock House*, 15. In a letter of June 4, 1946, Barnsdall presented still another version, alluding to their first meeting "that evening in Mrs. Potter Palmer's garage."
  - 23 Barnsdall to Wright, July 27, 1916, from Mill Valley, Calif. The letterhead is from the Players Producing Co.
  - 24 Bel Geddes, *Miracle*, 98–114, 152–54, 165–67.
  - 25 See Constance d'Arcy Mackay, *The Little Theatre in the United States* (New York: H. Holt, 1917), 156–58, and Bel Geddes, *Miracle*, 166–71.
  - 26 An early letter from Wright to Barnsdall, dated Oct. 27, 1916, refers to a note he had received from his son Lloyd (already a member of Barnsdall's circle and soon to be married to the actress Kirah Markham) "applauding you [Barnsdall] for the spirit you manifested, your real nerve in calling off the venture before the opening night."
  - 27 Barnsdall to Wright, Nov. 16, 1927. For Ordynski, see Bel Geddes, *Miracle*, 166, and Barnsdall, letter to Austin, May 10, 1916.
  - 28 Bel Geddes described a series of tense meetings between Wright, Barnsdall, and himself in 1916 and 1917 in which Wright flatly refused to take any advice on the design. Barnsdall apparently knew that his project was unworkable and refused to go ahead with it in the form he suggested; the result was a deadlock, *Miracle*, 161–64.
  - 29 See Smith, *Hollyhock House*, ch. 3, esp. 34–35.
  - 30 *Ibid.*, ch. 5.
  - 31 Lawrence, "Eminence," 5.
  - 32 Emma Goldman, "Marriage and Love," in her *Anarchism and Other Essays* (New York: Mother Earth Publishing Assn., 1910), 233–45, esp. 241. In a letter of Nov. 16, 1927, Barnsdall wrote to Wright: "Instead of my facing the power of money in the old sense let us face the fact that the world must work toward a cleaner relation between money and art – and *no exchange of money* where there is love. Too great a stench has been created by it. The finest future types of women want something different. Every now and then you hear of some woman refusing alimony – in principle, sooner or later, counting in thousands of years, the stench will be cleared away."
  - 33 Lawrence, "Eminence," 5.
  - 34 Frank Lloyd Wright, *An Autobiography* (New York: Longmans Green, 1932), 228. Reprinted in Bruce Brooks Pfeiffer, ed., *Frank Lloyd Wright: Collected Writings*, vol. 2, (New York: Rizzoli, 1992), 271.
  - 35 *Ibid.*, 270. Various drafts of the section of the manuscript dealing with Hollyhock House are in the Frank Lloyd Wright Archives at Taliesin West.
  - 36 *Ibid.*, 274–75.
  - 37 *Ibid.*, 269–70.
  - 38 Wright described these as "primitive American Architecture . . . long slumbering remains of lost cultures; mighty primitive abstractions of man's nature"; Kaufmann and Raeburn, *Frank Lloyd Wright*, 21, quoted from Wright, *A Testament* (New York: Horizon Press, 1957). See Vincent Scully, *Frank Lloyd Wright* (New York: Braziller, 1960), 24–25, and his *American Architecture and Urbanism* (New York: Holt, Rinehart & Winston, 1969), 155–56; Dimitri Tselos, "Exotic Influences in the Architecture of Frank Lloyd Wright," *Magazine of Art* 47 (Apr. 1953), 160–69, and his "Frank Lloyd Wright and World Architecture," *Journal of the Society of Architectural Historians* 28 (Mar. 1969), 58–72; and Levine, *The Architecture of Frank Lloyd Wright*, 140 and n. 76.
  - 39 For Wright's clients before World War I, see Leonard K. Eaton, *Two Chicago Architects and Their Clients: Frank Lloyd Wright and Howard Van Doren Shaw* (Cambridge, Mass.: MIT Press, 1969).
  - 40 Wright, *An Autobiography*, 274.
  - 41 The open-air theater is discussed by Smith in "Hollyhock," 27. She cites evidence that it was used by the California Art Club as a theater after 1927; Frank W. Vreeland, "A New Art Centre for the Pacific Coast," *Arts and Decoration* 28 (1927), 64–65. Levine first suggested the connection between the treatment of the open-air theater in the house and the design of the Barnsdall Theater; Smith, "Hollyhock," 158.
  - 42 Sheldon Cheney Papers, Roll 3497, Archives of American Art, Smithsonian Institution. The first letter is dated Sept. 4, 1916, Bel Geddes says that Cheney, "a young, lanky, intently talking writer," appeared at the stage door of the Los Angeles Little Theatre and said that he was "leaving for Detroit where he intended to start a magazine he would call *Theatre Arts Magazine*"; *Miracle*, 160.
  - 43 Sheldon Cheney, *The Open-Air Theatre* (New York: M. Kennerley, 1918), 1, 5.

- 44 Ibid., 8.
- 45 Ibid., 134. For Cranbrook, see Eileen L. Roberts, "Ionic Order Restored," *Inland Architect* 45 (July–Aug. 1991), 21–25. For Marcus R. Burrowes, see *Michigan Society of Architects Monthly Bulletin* (Sept. 1953), 38.
- 46 Smith, "Hollyhock," 27–28.
- 47 For Lloyd Wright, see David Gebhard and Harriette Von Breton, *Lloyd Wright, Architect* (Santa Barbara: University of California at Santa Barbara, 1971), esp. 23–28. For Schindler, see Esther McCoy, *Vienna to Los Angeles: Two Journeys* (Santa Monica: Arts and Architecture Press, 1979), esp. 34–38.
- 48 For further evidence, see Barnsdall to Wright, Jan. 29, 1920, which contains a reference to Lloyd Wright's designs for the interior.
- 49 See also Wendell Cole, "The Theatre Projects of Frank Lloyd Wright," *Educational Theatre Journal* 12 (1960), 86–93. The model and an interior perspective were published in *Theatre Arts* 10 (Aug. 1926), 534–37, having appeared in *Wendigen* a few years before.
- 50 Bel Geddes, *Miracle*, 156, 162. Later in the book Bel Geddes describes a letter he wrote to Wright after seeing the model for the theater in 1922: "Your attitude forces me to believe you are obsessed with founding a FLW style of staging which would inevitably result from being forced to work within the architectural limitations imposed by your design"; 269.
- 51 Barnsdall sent Cheney a copy of the program for a "lecture demonstration" given by Dalcroze at Wigmore Hall in London in 1922, on which she had written: "This was given me in Geneva. It may help you to know what I mean. I am anxious to bring a teacher out here and start a class of children on the hill. Will build a hall later and help it develop." Sheldon Cheney Papers, Roll 3947.
- 52 Elizabeth S. Allen, "Eurythmics for the Theatre," *Theatre Arts* 3 (Nov. 1919), 42–50.
- 53 See Bel Geddes, *Miracle*, 268–73, 276–81, where he discusses his role in the failure of the project. In a letter of Sept. 1, 1923, to Sheldon Cheney, Barnsdall blamed herself; Sheldon Cheney Papers, Roll 3947.
- 54 The history of Barnsdall's various gifts to the city of Los Angeles is discussed by Norman Karasick in "Art, Politics and Hollyhock House" (master's thesis, University of California at Dominguez Hills, 1982). For the Beverly Hills house, see Smith, *Hollyhock House*, 166–71. Barnsdall also had Schindler design a house for her in 1927, the "Translucent House," to be built at Palos Verdes; see David Gebhard, *Schindler* (New York: Viking, 1980), 102–4. In 1939 she wrote to Richard Neutra, asking him to build her "a house like von Sternberg's" of 1935 and reporting that "one reason I left Olive Hill was because I always felt heavy and under vitalized there." The letter of Feb. 15, 1939, in the Neutra Archive at UCLA, is quoted by Thomas S. Hines in *Richard Neutra and the Search for Modern Architecture* (New York: Oxford University Press, 1982), 137–38.
- 55 Barnsdall, letter to Dr. Percival Gerson, May 8, 1923, Gerson Collection, UCLA; *Southwest Builder and Contractor*, June 6, 1924, 47.
- 56 Gebhard, *Lloyd Wright*, 25–26, 43–45.
- 57 Barnsdall, letter to Cheney, Aug. 8, 1923, Sheldon Cheney Papers, Roll 3947.
- 58 Barnsdall to Wright, Aug. 9, 1943.
- 59 *California Art Club Bulletin* 11 (Aug. 1927). Barnsdall sent a copy of the flyer to Wright and wrote next to her statement, "This gift has become the pet of the newspapers"; Frank Lloyd Wright Archives.
- 60 Barnsdall to Cheney, Sheldon Cheney Papers, Roll 3947.
- 61 Wright, *An Autobiography*, 275.
- 62 Ibid., 273. See also the manuscript of this section, Frank Lloyd Wright Archives, 2401,035, 8–9.
- 63 Wright to Barnsdall, June 27, 1921.
- 64 Barnsdall to Wright, Feb. 4, 1926.
- 65 "Art Theater To Be Built," *Los Angeles Times*, Jan. 21, 1927. For the Greek theater, see Karasick, "Art, Politics and Hollyhock House," 38 n. 3, and *Los Angeles Times*, Dec. 23, 1926, 2: 1.
- 66 Some of these ideas are discussed in Karasick, "Art, Politics and Hollyhock House," esp. 17–35, 40–44. In a letter to Wright of July 28, 1929, Barnsdall mentioned that she had a "tentative plan for building an Art Gallery on the south slope of Olive Hill." Wright responded on Aug. 10 with enthusiasm, but the idea came to nothing. A letter from Barnsdall to Wright of Nov. 5, 1930, says, "I am still living in Residence 'B' but it may become a girls club for the city recreation. They are thinking of taking over the whole hill." In this letter she also mentions Schindler's renovation work at Hollyhock House.



PLATE 1

Gerrit Rietveld and Truus  
Schröder, Schröder House, Utrecht,  
the Netherlands, 1923-24

No matter how many times one has visited the Schröder House in Utrecht, the Netherlands (plate 1), the sight of it at the end of Prins Hendriklaan is always a happy surprise.<sup>1</sup> Compared to its somber neighbors, dark brick row houses that line the street in an orderly series of doors and windows, the Schröder House seems fresh, playful, and filled with the promise of new discoveries, as if it had been assembled from the parts of a child's building toy. Metal strips, lengths of wood, and bits of tubular steel painted bright red, blue, yellow, and black provide a sort of framework for the roof, walls, and windows, thin planes that never meet at the corners but appear to be propped together in an elegant yet strangely precarious composition. The Schröder House has often been compared to the paintings of Piet Mondrian (plate 2), but the similarity remains on the surface, for when it is experienced in person, the house seems to share little of the painter's patient and cerebral investigation of form. With its smooth, bright walls (maintained in pristine condition since the house was renovated and opened to the public, in 1987), colorful touches, and handcrafted appearance, the Schröder House seems instead the very embodiment of an impulsive, joyful, and confident modernity. Despite its age, the house Gerrit Rietveld (1888–1964) and Truus Schröder designed in 1923–24 is eternally young.<sup>2</sup>

Yet there is also something self-conscious and didactic about the place; one quickly senses that the parts of this building toy were deliberately shaped and colored to provide us with a learning experience. Indeed, the Schröder House, like so many architect-designed buildings of the 1920s, has its polemical side, expressing new



Truus Schröder. ca. 1925

## Family Matters:

### The Schröder House, by Gerrit Rietveld and Truus Schröder

*with Maristella Casciato*

ideas not only about the nature of modern materials and architectural design, but also about a philosophy of progressive education: Mrs. Schröder was a young widow with three children, aged twelve, eleven, and six, when the family moved in, and she had a vision of family life in the modern world. The house's double personality – playful and carefree on the one hand, yet disciplined and even moralistic on the other – reflects the complex personalities of architect and client, and the unique nature of the collaboration between Rietveld, who had never built a building before, and Schröder, a well-to-do woman with strong ideas about how and where she wanted to live.<sup>3</sup> Passionate about art and about each other, both saw the house as an opportunity to create a totally modern environment, free of the repressive traditions and rules – both social and architectural – that kept them

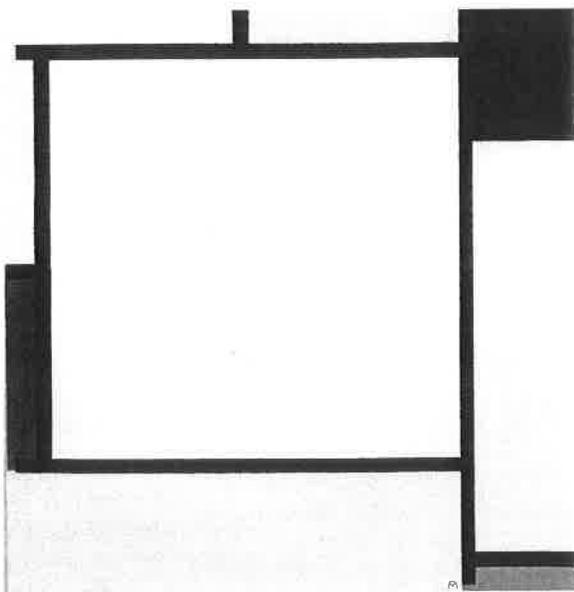


PLATE 2

Piet Mondrian. *Tableau 2*. 1922.  
Oil on canvas, 21½ x 21½ in.  
Solomon R. Guggenheim  
Museum, New York, 51. 1309

from new experiences and the expression of emotions. Their commitment to this partnership was long-standing: they would continue working together on a number of important domestic and other design projects, particularly during the 1920s and 1930s.<sup>4</sup>

Entering the house via the front door, the visitor is greeted by the orderly (and small-scale) world of the schoolhouse. A narrow hallway, fitted with both adult- and child-size cupboards for coats and shoes, is surrounded by what appear to be four rather ordinary-looking rooms. Directly opposite the door is the stair and a landing, on which there is a bench, telephone shelf, and a row of small drawers.

The experience of this pleasant, unremarkable foyer offers no warning of the extraordinary environment that lies above (plate 3). Having climbed the stairs, the visitor emerges into another realm entirely, a large, open space filled with light and color. On the floor and walls, shiny rectangles of red, blue, yellow, black, gray, and white play off the clear light of the windows, creating in effect a grid of shifting, two-dimensional planes in a three-dimensional composition. Large expanses of glass dematerialize the boundary between interior and exterior and offer changing views of the neighboring buildings on Prins Hendriklaan and of the garden. (A highway constructed next to the house in 1963 destroyed the view from the front window, which originally opened onto unspoiled countryside.) Retractable wooden partitions, deployed along yellow, blue, and red tracks in the ceiling, make it possible to subdivide the open room, creating a constellation of smaller spaces that serve as the living/dining area and rooms for the children. These rooms are sparsely furnished with tables, cupboards, beds, and chairs designed by Rietveld.<sup>5</sup>

This unprecedented assemblage of brightly colored elements produces an environment imbued with a sense of freedom and choice. There is a new attention to the

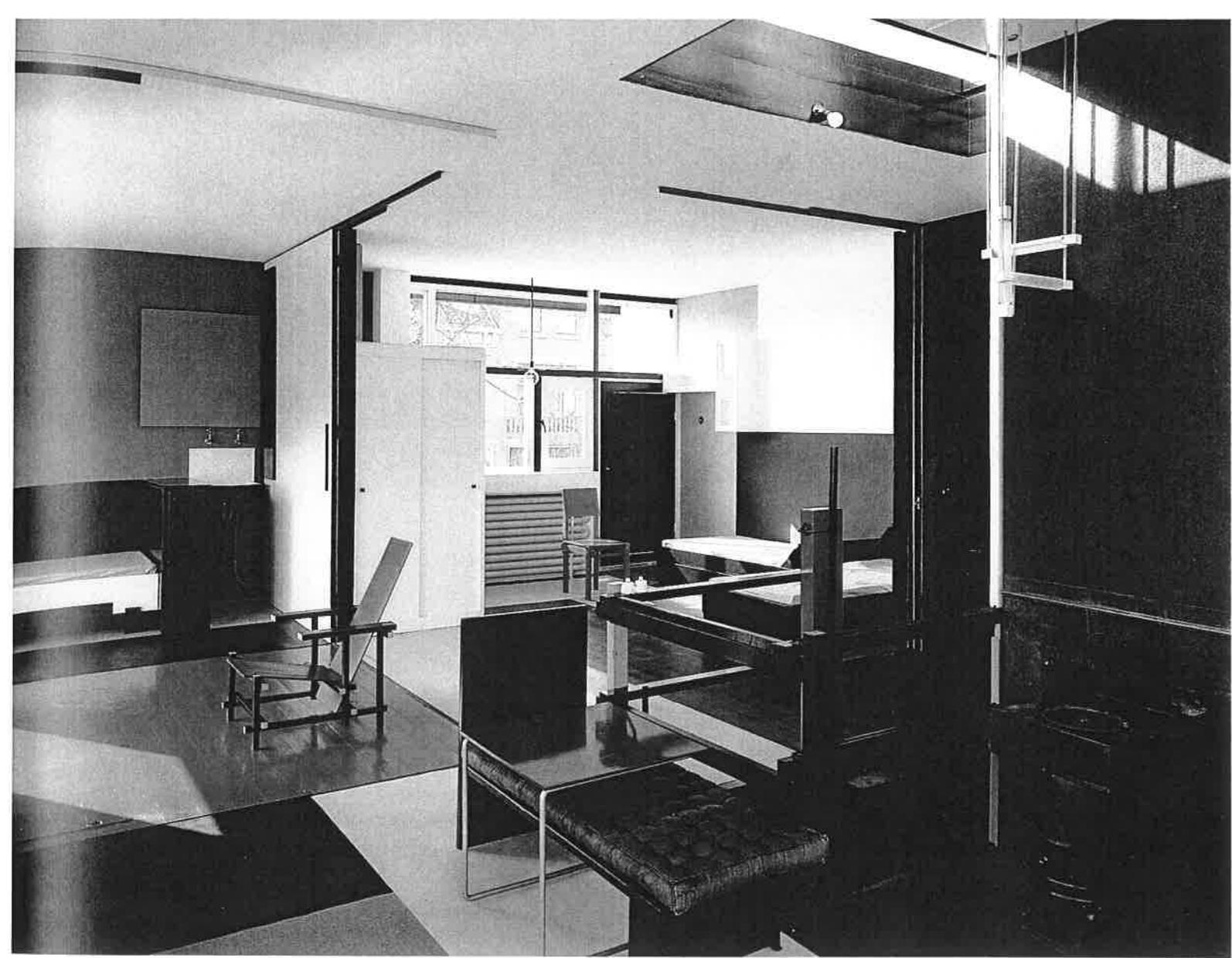


PLATE 3

Schröder House, upper floor,  
looking toward the boys and  
girls' rooms

additive processes of design and construction, reflected and reiterated through the day-to-day experience of dwelling. The interior of the upper floor is literally animate; its folding partitions and movable walls (particularly in the corner where the bathroom and Mrs. Schröder's bedroom are located) slide, pivot, click, and lock into place like the smooth wooden parts of a giant magic box in which a coin is made to disappear and reappear at will. Like the exterior, the interior has a serendipitous, playful quality, but it also makes its message clear: one must construct an environment as one constructs a way of life – thoughtfully and deliberately.

In this strange, malleable space all things seem possible. The human body, a living organism in a man-made environment, takes on new importance, just as Rietveld's chairs and other furniture become focal points of attention, demanding to be analyzed, disassembled, and reassembled. In this way the house "stages" individual experiences and interpersonal relationships, heightening awareness of movement, of sight and sound, and awakening a deep appreciation of the complexity of domestic life. Despite its own extraordinary vitality, then, the interior is strangely contemplative, eliminating unnecessary motion by focusing on ritually repeated actions like the folding and unfolding of the partition walls. In this way the house makes room for new thoughts and experiences.

What Rietveld and Schröder shared was an exuberant confidence in the present and in their own ability to make art that was both beautiful and liberating. In 1918 Rietveld had revolutionized furniture design with the first unpainted versions of his Red-Blue Chair (fig. 1; he added the colors in 1923). By reexamining the posture of the human body in a sitting position, Rietveld had been able to identify and isolate the chair's component parts; these he brought together in an elegant three-dimensional composition that was both functional (though hardly

comfortable) and decorative.<sup>6</sup> For him the process of making architecture, like that of constructing a piece of furniture, itself represented a quintessential modern activity, one in which new machine technology led the way: design was a matter of *assembling* a kit of parts – sections of flat wall, thin metal or wooden supports, windows of various sizes, pegs, hinges, and metal fastenings – with a specific purpose in mind, thereby creating new forms and dynamic spaces. As he wrote in 1932, in an article entitled "New Functionalism in Dutch Architecture":

*It is a sign of progress that the huge monumental edifices will belong to the past and that we now also take an interest in small practical houses. Our pieces of furniture too are no longer heavy immobile objects. They are no longer exclusively intended for a single purpose nor, in fact, made for exceptional surroundings. They are beginning to consist of small, light sections that can be assembled, so that one can construct a sort of framework as large as one wants; a piece of furniture consisting of supporting surfaces, in combination with open and closed boxes, drawers and so on; not just for the welcome variety provided by new materials.... The aim is to preserve a free, light and unbroken space, that gives clarity to our lives and contributes to a new sense of life."*

The work Rietveld and Schröder did together was intended not simply to communicate this "new sense of life" but literally to guide body and mind toward clearer and more natural actions and thoughts. In 1921 Schröder and her husband had hired Rietveld to renovate a room in their house as a private sitting room/study for her; Mrs. Schröder's new room had to look "modern" as well as to communicate something of the feeling of modernity to its users. Their ideas about living in a "free, light and unbroken space," as Rietveld wrote, were bound up with a fierce commitment to a new openness about relationships within their own families and to truth in



FIGURE 1

Gerrit Rietveld, seated on an early version of his Red-Blue Chair, and co-workers in front of his furniture-making workshop in Utrecht, 1918

their emotional lives. Bourgeois notions of respectability and propriety, with their emphasis on discipline, hierarchy, and containment, would be eliminated through architectural design that countered each of these aspects in a conscious and systematic way. They saw their next project, the Schröder House of 1923–24, as an opportunity to pursue their goals on a larger scale, exploring the ways in which the parts of a building could be shaped into a spatial environment that would stimulate people to live and even to think differently.

Rietveld and Schröder were not only professional partners but also friends and lovers; he was often in the house and appeared at art events and social gatherings with her, despite the fact that his own wife and six children also lived in Utrecht. The Schröder House was their laboratory, and they studied its effects on themselves and on the children. Truus Schröder lived there for some

sixty years; Rietveld kept an office in the house in the early years (1924–32) and even lived there himself at the end of his life, from the time of his wife's death, in 1958, until his own, in 1964.<sup>8</sup> While they speculated about the broader implications and possible applications of their experiments to housing design (for example, in the two apartment houses near the Schröder House on Prins Hendriklaan and around the corner on Erasmuslaan, erected in 1931 and 1935), it is clear that for both Rietveld and Schröder the house and its meaning were intensely personal. It is hardly surprising, then, to discover that it remains unique in the history of architecture: beloved, wondered at, intensely studied – but never imitated.<sup>9</sup>



FIGURE 2  
Truus and An Schröder, ca. 1910

### Truus Schröder

In a series of interviews conducted in 1982, Truus Schröder described her life and the circumstances that shaped the design of her home.<sup>10</sup> Born in Deventer in 1889 to an upper-middle-class Catholic family (her maiden name was Schröder), she received a first-rate education, developing a taste for books and ideas as well as a sharp critical sense about matters of religion, philosophy, and the arts. Her mother died when she was a small child, and when she was a teenager she was sent to a convent boarding school. The experience shaped her emotionally as well as intellectually; throughout her life her closest relationship was with her older sister An (figs. 2, 3), whose intelligence, avant-garde tastes, and left-wing politics she admired. Trained as a pharmacist, Truus seems never to have practiced but instead immersed herself in reading, concentrating on literature, philosophy, art, and architecture, interests she shared with her sister.<sup>11</sup>

In 1911 Truus married Frits Schröder, a lawyer, and they settled in Utrecht.<sup>12</sup> The couple had two children, a boy and a girl, born in 1912 and 1913; a third child, a girl, followed in 1918 (figs. 4, 5). The family lived in a comfortable apartment above Mr. Schröder's offices at 135, Biltstraat, but it was apparent that Truus and her husband had major differences about the way in which they wanted to live and bring up their children. In a letter to Truus of June 11, 1914, Frits Schröder outlined their problems. He loved her, he wrote, but "[their] differences manifest themselves in all [their] interests." He was more practical and saw things as they were, while she was more theoretical and saw things "as they ought to be"; his views were the result of experience, whereas hers came from reading books. If they were to follow her ideas about education, he wrote, then the children might very well be better people and experience beauty more profoundly, but they would very likely be unfit for the harsh realities

of society; this, he feared, would ultimately “destroy” them. Moreover, he continued, he deeply disapproved of her sister An’s lifestyle and influence on her. The last point was certain to anger Truus, whose love and admiration for her sister were unshakable.<sup>13</sup>

An Harrenstein-Schröder, a writer and art critic, was married to a doctor and lived in Amsterdam. Through her Truus was introduced to a circle of artists who held far greater interest for her than the bourgeois Utrecht society in which she lived. This group included Jacob Bendien (who lived with the Harrensteins for many years and was, in all probability, An’s lover), Paul Citroen (Bendien’s brother-in-law), Charley Toorop, Theo van Doesburg, and other members of the De Stijl circle, as well as visit-

ing artists such as Bruno Taut and Kurt Schwitters, and left-wing politicians and members of the Dutch Communist party.<sup>14</sup> Their interests stretched beyond art and politics to include spirituality (in particular, Theosophy), meditation, free love, and women’s rights. These were the people to whom Truus Schröder looked for intellectual and artistic stimulation, but theirs was a world far removed from Utrecht and the Biltstraat apartment, with its heavy, dark furniture and high-ceilinged, formal rooms, in which she spent her days as the wife of a successful lawyer. In contrast, Frits Schröder’s support for the local arts community was expressed through membership in such organizations as *Kunstliefde* (Love of Art) and *Voor de Kunst* (For Art), to which he and Truus belonged from 1918 on; these affiliations could hardly have offered his discontented wife much consolation, if any.<sup>15</sup>

This unhappy state of affairs dragged on through the First World War and continued in the years that followed. In 1921 Frits Schröder suggested that Truus redesign and furnish a room in their home for her use alone. Frits had been introduced to the work of Gerrit Rietveld by a business associate, and he suggested that she consider him as her architect. Mrs. Schröder was easily convinced. She commissioned Rietveld to design a private study, complete with a built-in daybed and armchair, a table, and some chairs (fig. 6).<sup>16</sup> Mrs. Schröder saw the new room as a place to which she could escape and where she could live as she liked:

*I hardly met any people who had a feeling for what was modern. Not through my husband. My husband was eleven years my senior; he had a very busy practice and a great many acquaintances, some of his family lived in Utrecht, and they weren’t at all interested in that sort of thing. It was only through my sister that ideas came in from the outside. We would discuss such things in my room, and then it was mine, only mine. And once or twice Rietveld visited me.<sup>17</sup>*



FIGURE 3  
Truus and An, ca. 1925



FIGURE 4  
Frits and Truus Schröder. ca. 1911

FIGURE 5  
Truus Schröder with her mother-in-law and two of her children, Marjan and Binnert. 1923



The room represented more than a retreat; it was a place in which a new way of life could be discussed and experienced. The love affair between Truus Schröder and Gerrit Rietveld, which began about this time, gathered force as the couple talked together about their lives, their relationships, and the meaning of art for each of them:

*When I first got to know Rietveld, he, like myself, had been through a lot of unpleasantness. We had a deep understanding of each other's problems with the social norms of our times, which were strongly present. At that time, Rietveld really had to break free from the strict Protestant beliefs with which he had been brought up. And because I had just broken free from religious conventions myself... I think I encouraged this in him... but I think that talking with me helped him sort things out. For a while we were deeply involved with each other's problems and helped each other to develop further.<sup>18</sup>*

In his design for the room Rietveld lowered the ceilings and pared the furniture and lighting fixtures down to essentials, rejecting the rich fabrics, ornament, and heavy forms of conventional upper-class interiors.<sup>19</sup> His own ideas about form and color, shaped in part by his contact with the artists of the De Stijl movement, were channeled and challenged by Schröder's critique. This mutual respect and exchange would shape their relationship for a period of more than forty years.

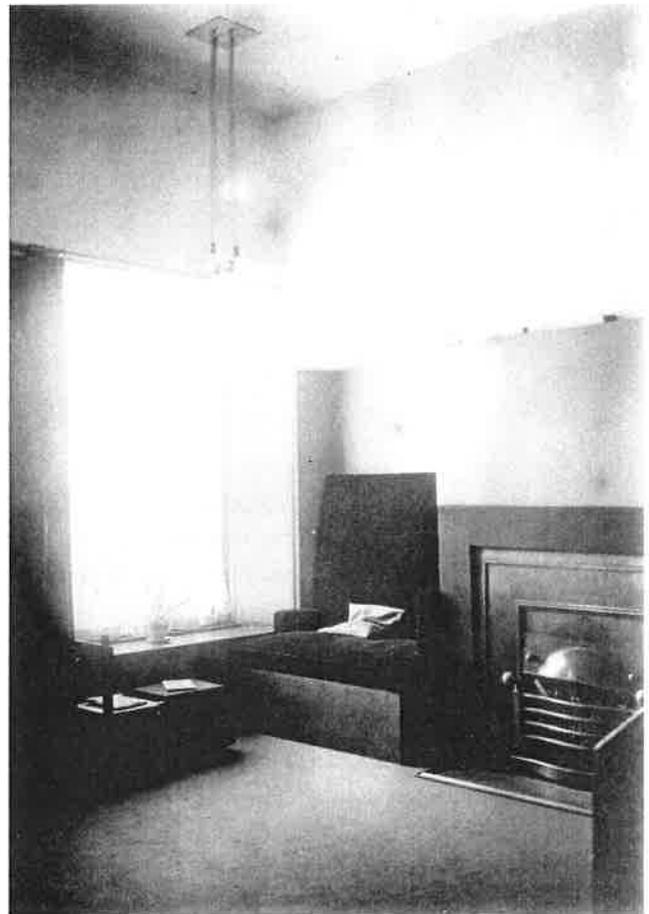


FIGURE 6

Gerrit Rietveld and Truus Schröder. The study at 135, Biltstraat, Utrecht. 1921

### The Schröder House

When her husband died, in 1923, Mrs. Schröder again looked to Rietveld for help in designing her home. Her first idea was to find an apartment that he could remodel; her plan was to remain in Utrecht for only the next six years, until the children were out of school, and then to move to Amsterdam.<sup>20</sup> Nevertheless, having discovered a suitable lot at the end of a row of brick houses on the edge of the town, Schröder and Rietveld set about designing a new house for her family. Although she had a comfortable income from her husband's estate, her budget was limited; the final cost of the house was approximately the same as for a small, semidetached dwelling at that time.<sup>21</sup>

The site Schröder and Rietveld chose permitted them to experiment with a new hybrid type as well as a new style. The site on Prins Hendriklaan was surrounded on three sides by open space (fig. 7) and faced directly onto fields and open countryside. Accordingly, Schröder and Rietveld designed the house to have two principal fronts, a narrow one facing the street, which responded to the scale of its neighbors, and a broad one with a more formal, central entrance, which was approached via an enclosed garden (plate 4). Viewed from the garden side the house resembled a freestanding suburban villa of the type in which the Schröder family lived when Truus was growing up.<sup>22</sup> Looking out from the garden with one's back to the house or from inside through the large windows of the principal living areas (fig. 8), one had the sensation of having left the city behind, of being in the more contemplative and peaceful environment of the country. This mixing of urban, suburban, and rural types at the Schröder House offered flexibility and a choice of experiences in daily life; throughout the house there are other design elements, such as the use of both fixed walls and movable partitions, that free the occupants to make

choices among various ways of living. The fact that the house is both literally and figuratively open-ended is one of its most distinctive qualities, and it provides a richer, more complex definition of what the architect and the client thought modern living was all about.

When Schröder described her program to Rietveld, she emphasized her need for a home in which parents and children would be brought together in an open space, where conversations could be wide-ranging, and where focused activities, including the children's schoolwork, might also be carried out: "I thought it was very good for the children to live in an atmosphere like that, also to have Rietveld often around. To have that experience. To hear those conversations, including those with people who disagreed. In fact, to take part in that exchange of ideas. I was very pleased that the children could share in that."<sup>23</sup> Schröder described the design process, which was guided as much by the client's ideas about family life as by aesthetic or architectural considerations:

*We didn't make preliminary plans. . . Rietveld made a sketch of the plot of land, showing the measurements. The next question was: how do you want to live? Well, I was absolutely set against living downstairs. I've never lived this way, I found the idea very restricting. Rietveld was delighted about this, particularly because of the magnificent view. So we started to map out the upper floor, because you can't do without bedrooms. A room for the two girls and a room for the boy – in fact, that's how we started, with rooms. And where should we put them. All of us together, of course; the children had missed so much.<sup>24</sup>*

The result was a small house (21 x 30 feet) with a studio, library, workroom (originally a maid's room), and eat-in kitchen on the ground floor; Truus's room, the children's bedrooms, and a large living and dining area on the second floor (figs. 9, 10). While the downstairs rooms are small and separated by traditional fixed walls, the upper



PLATE 4  
Schröder House, on Prins  
Hendrikklaan

“rooms” are actually one large space that can be partitioned by thin, sliding panels. On the plans submitted to the building department, the upper floor was labeled “attic” to circumvent the local building regulations.<sup>25</sup>

Truus’s concept of open space had been forged throughout the difficult years of her marriage to Frits Schröder:

*You see, I’d left my husband on three occasions because I disagreed with him so strongly about the children’s upbringing. Each time, they were looked after by a housemaid, but still I thought it was horrible for them. And after my husband died and I had full custody of the children, I thought a lot about how we should live together.*

*So when Rietveld had made a sketch of the rooms, I asked, “Can those walls go too?” To which he answered, “With pleasure, away with those walls!” I can still hear myself asking, can those walls go, and that’s how we ended up with the one large space.<sup>26</sup>*



FIGURE 7  
Schröder House. ca. 1925

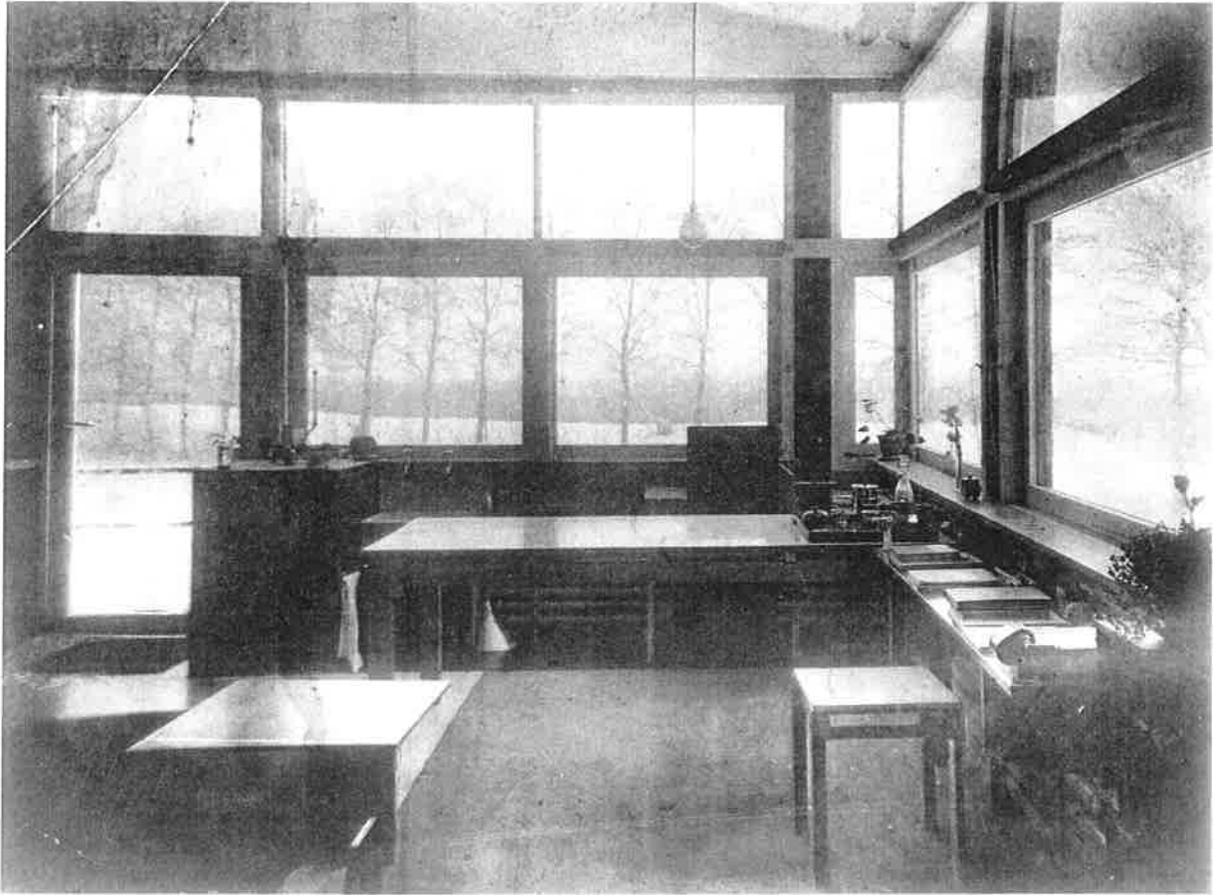
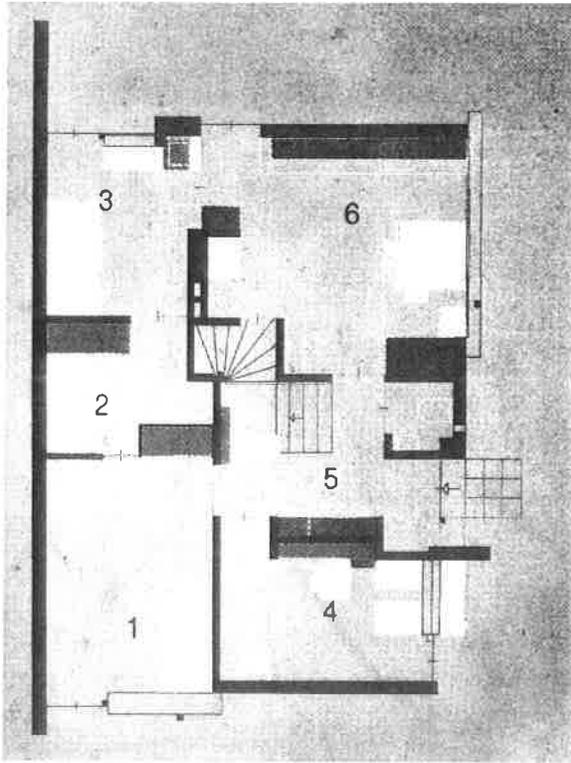


FIGURE 8  
Schröder House, living/dining  
area, ca. 1925

Although Truus's own bedroom, located in the corner of the upper floor, is separated from the principal living area by fixed walls, it is in no way as prominent or large as a traditional parents' bedroom. Her goal was to live her life in close association with her children, to be a part of their daily lives (fig. 11). A low shelf along the wall in the main living area was intended to be used as a desk where they could do their homework together; in practice, the older children often found the privacy of the small library on the ground floor more appealing. Adults and children were constantly together in the large living/dining room, and the children were encouraged to learn from the frequent discussions among visiting artists and intellectuals. In the end this was one of the most lasting contributions to Schröder's life and to that of her family:



*I wanted a real exchange of ideas in this house. That was one of my aims. I wanted to have people here that you could discuss with. People with a critical attitude, all sorts of people. The criticism was less than I had expected, but what there was, was more tangible. Different from cultural evenings, when you come home bubbling with ideas, which have disappeared after a couple of days because you have moved on to the next subject. Actually the discussions here were always on the same topic. But in fact I liked it that way. Not so much a question of a famous house, but something to do with the essentials... that someone really feels spoken to. That someone who comes here takes something away that he or she can ponder over, and maybe reconsider.<sup>27</sup>*

In addition to its educational advantages, living in the house provided opportunities for play that neither Rietveld nor Schröder anticipated. She recalled: *There used to be a wide white stripe [on the floor], near the stairwell. And when the children came home from school, I would call, "Look out, the floor's clean." Then they'd have to jump over the white part, because otherwise it was always getting grubby. And I didn't like having to say that. That was something I really disliked. The children told me later that they didn't mind at all. They thought it was quite fun, having a floor that you had to jump over. I thought it was educationally wrong.<sup>28</sup>*

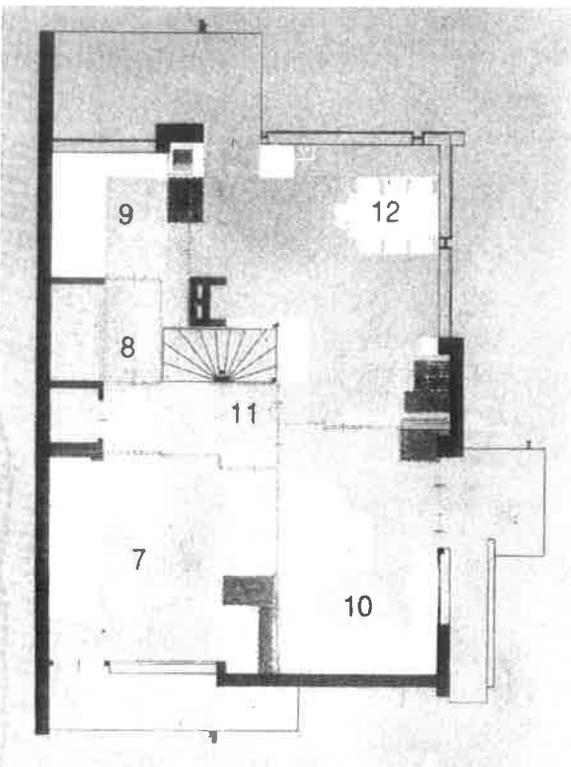


FIGURE 9

Schröder House, plan, ground floor. 1. Studio 2. Workroom (darkroom) 3. Workroom (originally maid's room) 4. Library 5. Entry 6. Kitchen

FIGURE 10

Schröder House, plan, second floor. 7. Girls' room 8. Bathroom 9. Truus Schröder's room 10. Boy's room 11. Stair landing 12. Living/dining area

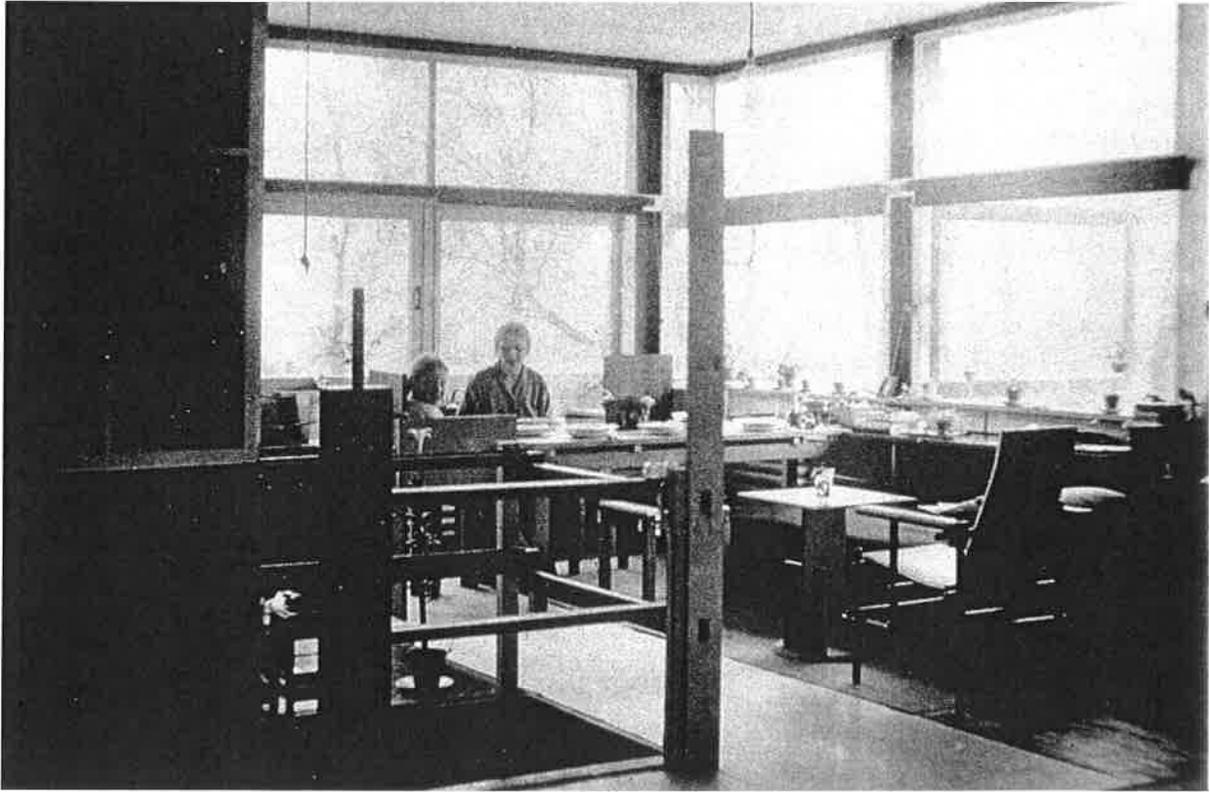


FIGURE 11

Truus and daughter Han  
(sitting in the Berlin Chair),  
ca. 1925

Nevertheless, living in the house was sometimes a strain for the children:

*In the weekends crowds would come to have a gawp... It wasn't so nice for the children. On one occasion my daughter Hanneke came home from school quite scarlet in the face, crying her eyes out, so I asked her what was the matter. She sobbed, "I told a lie, because they said to me, 'You live in that loony house' and I said that I didn't live in that loony house." Something like that was very hard for a child to cope with.<sup>29</sup>*

While Mrs. Schröder's theories about early childhood development, open space, and modern family life contributed greatly to the project, in practice the design of the house was left to Rietveld. He was the acknowledged expert, and it was "his personal vision," his sense of form and color, and his excitement about the potential for change in the world of art that attracted her in the first place: "Rietveld experienced life through his senses, and that 'abstract' manner was nothing for him. The only

thing of which you can be certain, is what you apprehend and can digest through your senses. That was your reality. I found that of the essence, it spoke to me at the deepest level.<sup>30</sup>

For the previous four or five years Rietveld had been experimenting with wooden furniture in which the component parts were isolated and articulated through the use of cantilevered planes and overlapping supports as well as bright colors. Working with a vocabulary of frame and plane, he created and defined a new sense of space, one in which mass and enclosure were replaced by flat surfaces and displaced grids that allowed a continuous flow of space through and around an object. At the Schröder House, Rietveld's evolving artistic language found expression in the creation of a total environment, where architecture and furniture shared an emphasis on the isolated and brightly colored elements of constructed form. Through such devices as the displaced corner of the living/dining area (see fig. 8), which effectively dematerializes the supporting frame of the building, or the glazed transoms and continuous ceilings on the ground floor, which permit the space of one room to flow into another, Rietveld pushed architectural thinking with the same imagination and originality he had brought to furniture design.

Both Rietveld and Schröder were committed to incorporating the most up-to-date thinking and devices into the design of the house. The original plans included a garage in place of the studio on the Prins Hendrikslaan side, reflecting Mrs. Schröder's assumption (unfounded, as it happened) that she, and everyone else, would eventually own a car. Moreover, each "room" on the upper floor had storage cupboards, a washbasin, and an electrical outlet, which Mrs. Schröder felt were important to allow individuals to cook for themselves if they wanted.<sup>31</sup> For the main living space, Rietveld designed a cabinet with modular storage compartments for sewing supplies,

stationery, a phonograph, and a movie projector. This unusual addition to the house's modern "equipment" (fig. 12) was used for showing the latest art films, including those of Soviet filmmakers banned in the Netherlands, and reflected Rietveld's and Mrs. Schröder's commitment (shared by the Harrensteins and their Amsterdam circle) to film as an experimental art medium and as a vehicle for progressive social commentary.<sup>32</sup>

Ultimately, the most lasting benefits of living in the house came from the physical and emotional excitement of the environment. Mrs. Schröder summarized: *This house exudes a strong sense of joy, of real joyousness. That's something in my nature, but here in this house it's stimulated. And that's absolutely a question of the proportions, and also of the light; the light in the house and the light outside. I find it very important that a house has an invigorating atmosphere; that it inspires and supports joie de vivre.*<sup>33</sup>

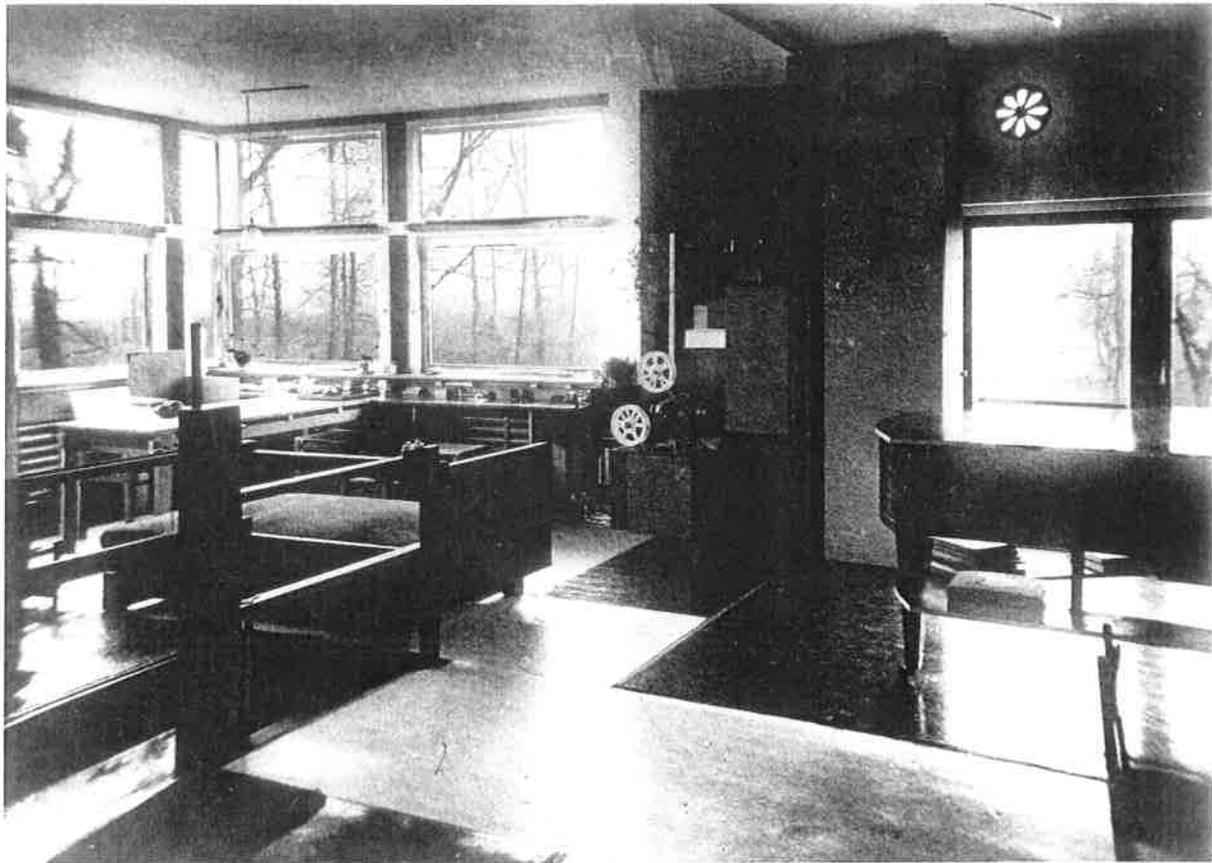
In his 1932 article Rietveld emphasized this commitment to changing the emotional life of the occupant through design:

*The greatest change that architecture has gone through in recent times has been its liberation, its separation from the plastic dimension. . . . Architecture becomes an environment and nothing more. The result is that architecture has become less weighty, but at the same time much more functional and human. The building is no longer a thing that exists in itself or that stands for something; rather it is in active relationship to human beings and human beings will then have to adopt an active attitude towards it in order to be able to experience its qualities.*<sup>34</sup>

The Schröder House was an intensely modern architectural environment; it provided an entirely new kind of space in which individuals – women, men, and children – could make choices about how they wanted to live. Offering a variety of alternatives, from the privacy of the small rooms on the ground floor to the open communal

space of the light-filled living area upstairs, and containing unique flexibility within itself, the Schröder House was not only a creative work of architectural design but offered its users a new environment in which to redefine family life, women's rights, and the responsibilities of individuals to themselves and to each other. Further, by creating opportunities for these individuals to focus on the rituals of daily life (by opening and closing the partitions, for example) and by making them acutely aware of their surroundings and of the conditions in which they lived, the Schröder House helped to create a modern consciousness, a sense that daily life and values were *staged* and enacted in a work of architecture that was designed and built with a larger purpose in mind. These ideas and experiences were directly related to Truus Schröder's broad social and intellectual goals. Thus, as a client, as a designer, and as a feminist, Schröder helped to shape and define the course of modern architecture.

FIGURE 12  
View of the main living area,  
showing modular cabinet  
and projector, ca. 1925



Schröder/Rietveld and Schröder

## Rietveld and De Stijl

Although Rietveld was not a formally educated man (he left school at age eleven), he was entirely familiar with the art movements and theories of his time. He seems to have found numerous ways to keep abreast of the latest thinking, taking evening courses in Utrecht and studying the work of other artists, such as his teacher, the architect and designer P. J. C. Klaarhamer. His friendship with Robert van't Hoff, an architect strongly influenced by the work of Frank Lloyd Wright, proved to be especially important for Rietveld's development, as it led to commissions to study and copy some of Wright's furniture designs.<sup>35</sup> His membership in the arts society Voor de Kunst provided him with opportunities to meet other artists and prospective clients, among them Frits Schröder and Dr. A. M. Hartog, a doctor whose office in Maarsse he renovated in 1922.<sup>36</sup>

Rietveld's connection to the artist Theo van Doesburg, the driving force behind both the *De Stijl* journal and the movement of the same name, had an especially dramatic impact on his career in the late 1910s and early 1920s by bringing him into contact with numerous painters and architects, among them Piet Mondrian, Vilmos Huszár, Jan Wils, and Cornelis van Eesteren, whose experiments with abstract form and color helped Rietveld achieve a new level of sophistication in his own work.<sup>37</sup> Through *De Stijl*, which published photographs of Rietveld's Child's Chair of 1918 and the unpainted version of the Red-Blue Chair of the same year, Rietveld's furniture and new construction techniques reached a broader audience. This exposure led in turn to further contacts and collaborations, among them an important project, ultimately realized, in which his furniture became an integral part of an experimental interior designed by van Doesburg (fig. 13); it was first published in *De Stijl* in 1920 under the title *Example of Coloristic*

*Composition in an Interior* (a retouched color illustration was published in *L'Architecture vivante* in 1925).<sup>38</sup> With its floating planes, fragmented grids, and protruding edges, Rietveld's furniture of the late 1910s already revealed a marked affinity with the art of De Stijl, and the work drew van Doesburg and others to him.

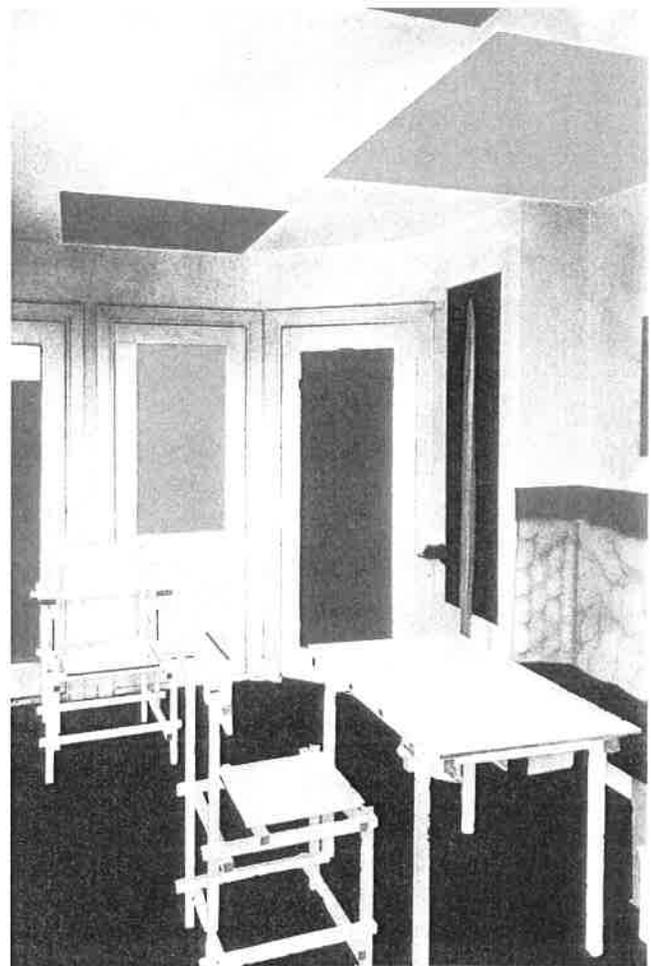
According to Yve-Alain Bois the art of De Stijl can be understood as the product of two "operations" that control the manipulation of abstract form: "*Elementarization*, that is, the analysis of each practice into discrete components and the reduction of these components to a few irreducible elements. *Integration*, that is, the exhaustive articulation of these elements into a syntactically indivisible, non-hierarchical whole."<sup>39</sup> In Rietveld's furniture, for example (and at the Schröder House), there is not only an emphasis on revealing the process of construction but also a celebration of the integral relationship and apparent balance between the component parts and the overall composition. This unity is achieved through an approach to design in which color, form, and space are treated as equal elements, so that the resulting three-dimensional composition says as much about spatial limits and the absence of mass as it does about the relationship between the forms themselves.

In 1924 van Doesburg published an article entitled "Towards a Plastic Architecture," which clearly outlines his views on the subject. Although it appeared when the Schröder House was already under construction (it is unlikely that Rietveld or Mrs. Schröder had seen the text before it was published), the essay describes the new approach to architectural form that the Schröder House achieved. According to van Doesburg it was the experience of free and open space, realized through "mobile" planes, movable walls and screens, that gave the new architecture its distinctive character. Opening up walls and enlarging windows eliminated the distinction

between interior and exterior space, creating what he called the “hovering” aspect of architecture and challenging “the force of gravity in nature.” Moreover, the new architecture was “anti-cubic” and asymmetrical, active rather than passive, with no “dead spaces” or repetitions. Color played an integral part in the design: used “organically” rather than decoratively, color contributed to the creation of a harmonic whole, an aesthetic composition conceived “without prejudice to utilitarian demands.”<sup>40</sup>

Rietveld’s furniture and the Schröder House incorporate and resolve these artistic challenges far more successfully than the De Stijl works of architecture and interior design that predate them. For example, the well-known drawings and models for three small houses by van Doesburg and van Eesteren shown at the Galerie de l’Effort Moderne in Paris in 1923 place much greater emphasis on the composition of boxlike components and the pattern of window openings than on the articulation of the relationship between plane and grid; contrary to van Doesburg’s theories, they display a marked heaviness of form and a distinct separation between outside and inside space.<sup>41</sup> Even in Rietveld and Huszár’s *Spatial Color Composition for an Exhibition*, shown in Berlin in 1923 and published in color in *L’Architecture vivante* the following autumn (plate 5), there is a reliance on the conventional relationship of floor, walls, and ceiling

FIGURE 13  
Theo van Doesburg. *Example of Coloristic Composition in an Interior*, 1920. From *L’Architecture vivante*, 1925



as enclosing elements; blocks of color are applied to these planes in an effort to fragment them visually, but the project is architecturally conservative. Planes predictably meet at the corners of the composition, although the use of primary colors tends to break up surfaces and unify the composition three-dimensionally. While it is possible that in this case Rietveld was responsible for only the furniture (the famous black and white Berlin Chair, an example of which was in the Schröder House), it is significant that the project exhibits few of the qualities that make his other work distinctive.<sup>42</sup>

It is not surprising, then, that the Schröder House was greeted with such enthusiasm. Photographs were immediately published in *De Stijl*; in 1925 van Doesburg wrote to a friend to say that the house seemed to be the very embodiment of their “most recent principles.”<sup>43</sup> For many critics the house was a milestone in the progress of modern architecture: it represented a real break with the past, a celebration of color and abstract form. Though some commentators focused on its use of materials, mistakenly assuming that concrete had been used to build the walls (they are actually made of brick faced with plaster), it was the huge windows, thin walls, open space, and extraordinary colors that seized the imaginations of the majority of architects, critics, and the public.<sup>44</sup> The house thus catapulted Rietveld and Schröder into the public eye, drawing crowds to Prins Hendriklaan and focusing attention on the innovative approach of both the architect and the client.<sup>45</sup>

PLATE 5

Gerrit Rietveld and Vilmos  
Huszár. *Spatial Color Composition*  
for an Exhibition, 1923. From  
*L'Architecture vivante*, Autumn  
1924

### Dutch Feminism and Modern Design

The Schröder House was an extraordinary achievement, a unique and defining moment in the lives of its creators. After it was built Rietveld and Schröder pursued a number of design projects together, collaborating most successfully on interior designs that drew equally on the expertise and experience of each – his in dealing with form, color, and design (in architecture, increasingly), hers in thinking about modern convenience and new ways of living, especially for women and families. Their work included the design of a new living room and bedroom for An Harrenstein’s Amsterdam home, completed in 1926 and widely published (fig. 14), which incorporated many of the ideas used at the Schröder House – built-ins, blocks of bold color, and vertical and horizontal partitions.<sup>46</sup>

In 1930 Harrenstein, with a group of other feminists, founded a women’s magazine, *De werkende vrouw* (The Working Woman), to which both Schröder and Rietveld contributed articles on architecture and design.<sup>47</sup> The goal of the journal, as stated in its first editorial (presumably written by Harrenstein, who served as editor-in-chief), was to publish articles on the full range of women’s work experience, including work in the home. This agenda would expose readers to a wide range of topics, from women’s unions to legal and financial issues, sports, hygiene, clothing, and of course art, architecture, literature, and “the plastic arts.” The new magazine thus played an important (though all too brief – it survived for only two years) role as a clearinghouse for ideas in the middle-class feminist movement in Holland between the wars. It presented an image of the “modern woman” to which a number of readers could relate: she was well educated, economically comfortable, and concerned with questions about work, home, and family. Although it dealt with the problems of working women generally, *De werkende vrouw* was clearly aimed

at the interests of bourgeois intellectuals; as such, the magazine represents the significant broadening of Dutch feminism outward from the small circle of working women and upper-class academics and other experts who had dominated the movement through the First World War.<sup>48</sup> That women like Truus Schröder, her sister, and their friends were not only interested in reading the journal but also willing and able to contribute to it is a marker of their own commitment to feminist ideas and of the importance of feminism in intellectual and left-wing circles in the late 1920s and early 1930s.

Schröder's interest in progressive interior design, and specifically her emphasis on women's work at home, were clearly of a professional nature, and the articles she wrote for the journal reflect her research.<sup>49</sup> They include two pieces that appeared in the earliest issues: an overview and description of the Frankfurt Kitchen, designed by Grete Schütte-Lihotsky and Ernst May in 1926, and a theoretical article on interior design.<sup>50</sup>

In her article on interior design Schröder clearly and succinctly introduced contemporary Dutch architectural theory to a general audience. She described architecture as "space-making," pointing out that the use of planes rather than masses in architectural design enhances consciousness of spatial relations and proportions. Moreover, she continued, this consciousness of space is an active rather than a passive experience and can serve as a stimulus to thought and pleasure for "the tired worker." Bourgeois respectability and luxury have nothing to do with real architecture; on the contrary, this new sort of architectural design, based on the interplay of planar forms, and on the appreciation of relationships of scale, is far superior to "the so-called artistic interior," with its emphasis on coziness and warmth. The piece is illustrated with two photographs of the bedroom she and Rietveld designed for the Harrensteins in 1926, and in the captions both of them are credited.<sup>51</sup>

It is possible to situate Truus Schröder's feminism and her goals for her house within the broad movement of Dutch and European feminism in the early twentieth century. Although *De werkende vrouw* was published for only a short period, its contributors included a number of distinguished feminist philosophers and theorists; as mentioned above, its readers were middle-class intellectuals more interested in art, family, and educational theory than in women's rights in the workplace. Truus herself never held a job outside the home, and her position as a widow with three children stimulated her to take a greater interest in household labor and child care than she might have otherwise.

Like many of her contemporaries, Schröder was broadly influenced by the writings of the Swedish feminist Ellen Key, whose ideas on women's maternal gifts and their special role in the home, explained in a series of books published between the late 1890s and World War I, were particularly well known in Holland and Germany.<sup>52</sup> Key urged feminists to shift their attention away from the workplace and women's equality *outside* the home to focus on women's unique abilities to nurture and guide their families within it. Moreover, Key believed that marriage was unduly restrictive of women's emotional, spiritual, and sexual life, and she thus campaigned for "free love," birth-control, and state support of single mothers. Such ideas had an impact on feminists like Truus Schröder, who sought greater equality for women in all aspects of their lives and who were particularly concerned with creating a more independent and respected role for women within the family.

Although never politically active, Schröder took a strong interest in housing design. In 1930 she and Rietveld collaborated on a project for a block of dwellings to be built across from the Schröder House on Erasmuslaan, on a plot of land that Schröder herself originally owned.<sup>53</sup> The first block of four row houses was completed in 1931,

and a model interior was open to the public. The furniture makers Metz & Co. planned to put some of Rietveld's designs into production if the display proved popular.<sup>54</sup> A second group of houses, four two-story flats with an ingenious interlocking vertical section, were completed in 1935. These projects were realized during Rietveld's most active and professionally prominent years, when he enjoyed both local and international attention.<sup>55</sup>

Perhaps the most unusual commission on which Rietveld and Schröder collaborated was the conversion of a large house in Haarlem into fifteen studio apartments for single working women, in 1937–38.<sup>56</sup> Sponsored by the *Flatstichting voor vrouwen door vrouwen* (The Foundation for Flats for Women by Women), the project sought to make modern amenities and design available to the occupants; built-in furniture and appliances rendered the small spaces highly efficient, and sliding panels gave them an unusual flexibility for use as both bedrooms and sitting rooms.

Motivated by her strong belief in women's rights, Schröder sought to respond to the needs of nontraditional households.<sup>57</sup> Her own house is testimony to her ambitious goals and to her concern for broad social and artistic change; her personal circumstances and struggles reinforced that commitment and pushed her to new levels of creativity in problem solving. The Schröder House not only broke down boundaries between generations and redefined social relations through unconventional design; it also contested the structure of the traditional family. It went beyond the familiar type of the artist's studio to suggest a new model for a small family house

and workshop. Through her architecture and design Schröder was thus able to integrate feminist ideas into the modernist program, using her house as a laboratory in which to test, through experience, new architectural forms, new approaches to daily life, and a new vision of women's role in society.

The Schröder House celebrates collaboration while remaining firmly tied to the vision of one woman. The client's contribution was unusually significant in this case: not only did Schröder act as patron and partner, but she created both the program and the opportunity to realize it in built form. Moreover, the Schröder House would not have been built or even conceived without a series of radical breaks with gender convention, each of which was due to the sheer force of Schröder's personality: her financial independence and authority as a client; her ability to act as a spokesperson for her own ideas; Rietveld's respect for her as a collaborator and equal in matters of design; her decision to change the way in which she lived with her family; and her eloquence and commitment to her house and to modern architecture.

Nevertheless, it must be emphasized that the unique design of the house is especially due to Rietveld, to his talent as an architect, and to his own commitment to change in the world of art and architecture. Rietveld, too, had a vision, and it drew Schröder to him and kept her attention over the course of their long life together. Through their passion and commitment, the Schröder House took shape in 1923–24 as a unique, modern building, a home in which the challenges of living in the present were celebrated with energy and exuberance.

- 1 This chapter is based on research conducted in collaboration with Maristella Casciato in Holland and the U.S. during 1994 and 1995; I could not have undertaken this project, in particular the archival research dealing with documents in Dutch, without her. I have also benefitted greatly from her knowledge of Dutch architecture and from her own previous work on Rietveld: see her "Gerrit Thomas Rietveld, Truus Schröder-Schröder: Casa unifamiliare, Utrecht, 1924," *Domus*, no. 686 (Sept. 1987), 40–49, and "Models of Domesticity in Twentieth-Century Dwelling: The Case of the Schröder House (1924)" (unpublished paper). For the Schröder House, see Paul Overy et al., *The Rietveld Schröder House* (Cambridge, Mass.: MIT Press, 1988); this volume includes original material drawn from interviews with Truus Schröder conducted by Lenneke Büller and Frank den Oudsten in 1982, first published in *Lotus International* 60 (1988), 33–57. For Rietveld, see Theodore M. Brown, *The Work of G. Rietveld, Architect* (Utrecht: A. W. Bruna, 1958), G. H. Rodijk, *De Huizen van Rietveld* (Zwolle: Waanders Uitgevers, 1991), Marijke Küper and Ida van Zijl, eds., *Gerrit Th. Rietveld: The Complete Works* (Utrecht: Centraal Museum, 1992), and Bertus Mulder, *Gerrit Thomas Rietveld: Leven, Denken, Werken* (Nijmegen: Sun, 1994). Rietveld's drawings are held by the Rietveld-Schröder Archive, Centraal Museum, Utrecht (hereinafter referred to as Rietveld-Schröder Archive); a small number of other drawings and documents, including early sketches for the Schröder House and the drawings for the two apartment buildings in Utrecht, is held by the Netherlands Architectural Institute, Rotterdam. I am grateful to both institutions, in particular to Jaap Oosterhoff, curator of the Rietveld-Schröder Archive, for their help with my research.
- 2 In *Painting as Model* (Cambridge, Mass.: MIT Press, 1990), 121, Yve-Alain Bois describes Rietveld as having "substituted the functionalist ethic" of modernism with something closer to what Baudelaire called the "Ethic of Toys: 'Everything is deployed in such a way as to flatter our intellectual desire to dismantle his pieces of furniture or architecture into their component parts.'" 3 Schröder's contribution was noted by Jean Badovici in *L'Architecture vivante*, where she is named with Rietveld as the architect of the house. Jean Badovici, "Maison à Utrecht par T. Schraeder et G. Rietveld," *L'Architecture vivante* (Autumn–Winter 1925), 28–29, pls. 31–33.
- 4 See Küper and van Zijl, *Complete Works*, cat. nos. 87, 96, 102, 107, 108, 126, 131, 164, 212, 248, 259, 275, 381, 383.
- 5 *Ibid.*, cat. no. 85.
- 6 *Ibid.*, cat. no. 35.
- 7 Gerrit Rietveld, "Nieuwe zakelijkheid in de Nederlandsche architectuur," *De vrije bladen* 9, issue 7 (1932), 1–27; English trans. in Küper and van Zijl, *Complete Works*, 33–39. The quotation appears on p. 39.
- 8 Overy, *Rietveld Schröder House*, 17. Truus Schröder died in 1985.
- 9 For Rietveld's involvement in the modern housing movement, see Richard Pommer and Christian F. Otto, *Weissenhof 1927 and the Modern Movement in Architecture* (Chicago and London: University of Chicago Press, 1991), esp. 150–51. For the apartment house projects in Utrecht, see Küper and van Zijl, *Complete Works*, 130–34, 157.
- 10 Mrs. Schröder's contribution was also the subject of a short book, *Ti. Schröder-Schröder; Bewoonster van het Rietveld Schröderhuis* (Utrecht: Impress, 1987) written by Corrie Nagtegaal, who lived in the house as a tenant/companion in the last years of Schröder's life. I am very grateful to Ms. Nagtegaal for her willingness to share her research and experiences with us in July 1995.
- 11 Although the majority of the holdings in Truus Schröder's personal library were distributed to family members and sold at auction after her death, the remaining collection (about three hundred volumes), housed in the Rietveld-Schröder Archive, reveals the wide range of her interests in art, poetry, aesthetics, domestic architecture, and psychology. It is worth noting that in addition to the Bauhausbücher, a series of short books on art and design issued by the Bauhaus, she also owned a number of publications of the Department of Architecture at The Museum of Modern Art, New York. Schröder's handwritten diaries and her scrapbooks of newspaper clippings and other miscellaneous texts, also in the Rietveld-Schröder Archive, suggest an ongoing interest in women's issues, literature, fashion, and household management.
- 12 Overy, *Rietveld Schröder House*, 21.
- 13 Frits Schröder, letter to Truus Schröder (hereinafter referred to as T. Schröder), June 11, 1914, Rietveld-Schröder Archive. I am grateful to Nancy Stieber for her help in translating this text. See also Nagtegaal, *Ti. Schröder-Schröder*, 8, and Lenneke Büller and Frank den Oudsten, "Interview with Truus Schröder" (hereinafter referred to as "Interview"), in Overy, *Rietveld Schröder House* 43 n. 2.
- 14 Paul Overy, *De Stijl* (London: Thames and Hudson, 1991), 33. In 1933 Bendien and Harrenstein published a book on contemporary painting, *Richtingen in de hedendaagse schilderkunst* (Rotterdam: Brusse, 1933). For Bendien, see the exhibition catalogue *Jacob Bendien, 1890–1933* (Leeward and Utrecht: Fries Museum and Centraal Museum, 1985). For Citroen, see Herbert van Rheedan et al., *Paul Citroen: Kunstenaar, docent, verzamelaar* (Zwolle: Waanders Uitgevers, 1994), esp. 82–87. In 1940 Citroen edited a collection of Bendien's writings, *Jacob Bendien, 1890–1933: Een herinneringsboek* (Rotterdam: Brusse, 1940). The articles on Bendien and Citroen in the *Dictionary of Art* (London: Macmillan, 1996) are also helpful.
- 15 Frits was a member of Kunstliefde from 1913 to 1916 (Rietveld had joined in 1911). See Marijke Küper, "Gerrit Rietveld," in Carel Blotkamp et al., *De Stijl: The Formative Years, 1917–1922*, trans. Charlotte I. Loeb and Arthur Loeb (Cambridge, Mass.: MIT Press, 1982), 259–80, esp. 260, 278 n. 25.

- 16 "Interview," 46.
- 17 *Ibid.*, 47.
- 18 *Ibid.*, 90, 92.
- 19 See Küper and van Zijl, *Complete Works*, cat. nos. 51, 84.
- 20 "Interview," 52.
- 21 The house cost somewhere between 6,000 (Mrs. Schröder's recollection in "Interview," 78) and 11,000 guilders (Overy, *Rietveld Schröder House*, 22, after Brown, *The Work of G. Th. Rietveld*, 155 n. 38). Küper and van Zijl cite, without a source, a figure of 9,000 guilders (*Complete Works*, 101).
- 22 A postcard dated 1901 (Rietveld-Schröder Archive, 993) provides an illustration of the Schröders' home, a substantial, freestanding Italianate villa.
- 23 "Interview," 93.
- 24 *Ibid.*, 56.
- 25 Schröder also recalled that she had visited a friend who lived in "one large empty attic room," and that she had wondered what living in such a place would be like, "Interview," 52. See also Overy, *De Stijl*, 114.
- 26 "Interview," 56.
- 27 *Ibid.*, 96, 102.
- 28 *Ibid.*, 71.
- 29 *Ibid.*, 78.
- 30 *Ibid.*, 61, 89.
- 31 *Ibid.*, 30, 60.
- 32 During the 1920s Rietveld was the secretary of the Utrecht branch of Filmliga, the radical film society, and both he and Mrs. Schröder were fascinated by the artistic potential of film; Overy, *De Stijl*, 33. In her autobiography, Han Schröder mentions that she met "modern artists and avant-garde moviemakers" at the home of her aunt in Amsterdam as well; Han Schröder, "Curriculum vitae," typescript, International Archive of Women in Architecture, Virginia Polytechnic Institute, Blacksburg, Va., 4.
- 33 "Interview," 93.
- 34 Küper and van Zijl, *Complete Works*, 37.
- 35 Overy, *De Stijl*, 75.
- 36 Küper and van Zijl, *Complete Works*, cat. no. 57.
- 37 For van Doesburg, see Joost Baljeu, *Theo van Doesburg* (New York: Macmillan, 1974); this volume includes English translations of van Doesburg's key writings.
- 38 *De Stijl* 3, no. 12 (Nov. 1920), 12; *L'Architecture vivante* 3, no. 9 (1925), special issue on *De Stijl*. See Bois, *Painting as Model*, 111–12. For an overview of relevant *De Stijl* projects, see Overy, *De Stijl*, chs. 6, 7, and Nancy Troy, *The De Stijl Environment* (Cambridge, Mass.: MIT Press, 1984), esp. ch. 4.
- 39 Bois, *Painting as Model*, 103.
- 40 "Towards a Plastic Architecture," *De Stijl* 12, no. 6–7 (1924), 78–83, reprinted in Baljeu, *Theo van Doesburg*, 142–47; the quotation is on pp. 144–47.
- 41 See Nancy Troy and Yve-Alain Bois, "De Stijl et l'architecture à Paris," in Bois and Bruno Reichlin, eds., *De Stijl et l'architecture en France* (Liège: Pierre Mardaga, 1985), 25–90. Van Doesburg's own axonometric drawings and "counter-constructions" of the same year begin to display greater fragmentation and elemental construction; see Bois, *Painting as Model*, 118.
- 42 Troy, *The De Stijl Environment*, 129ff.
- 43 *De Stijl* 6, nos. 10–11 (1924–25), 160 (exterior); *De Stijl* 6, no. 12 (1924–25), 140 (interior). For the letter to César Domela, see Troy, in Bois and Reichlin, *De Stijl et l'architecture en France*, 46.
- 44 See Walter Gropius, *Internationale Architektur*, Bauhausbücher 1 (Munich, 1925), 76–77, where a caption notes that the house was made of "concrete, iron, glass"; and Jean Badovici, "Maison à Utrecht."
- 45 Rietveld and Schröder's designs were included in an exhibition at the Stedelijk Museum in Amsterdam in 1929; J. J. P. Oud and J. Duiker were the other featured architects.
- 46 Küper and van Zijl, *Complete Works*, cat. nos. 107, 110–11; the bedroom was bought by the Stedelijk Museum in Amsterdam when the house was demolished, in 1971. A doctor's office and guest room were completed in 1930 (cat. no. 156).
- 47 Truus Schröder-Schröder, "Wat men door normalisatie in den woningbouw te Frankfurt a/d Main heeft bereikt" (What Has Been Achieved by the Standardization of Housing in Frankfurt a/d Main) 1, no. 1–2 (1930), 12–14, and "Een inliedend woord tot binnenarchitectuur" (An Introductory Note on Interior Design) 1, no. 3 (1930), 93–94. Gerrit Rietveld, "De stoel" (Chairs) 1, no. 9 (1930), 244, and "Architectuur" (Architecture) 1, no. 11–12 (1930), 316–18. *De werkende vrouw* was published only until Sept. 1931 and copies of it are extremely rare; a complete run of the journal is held by the Internationaal informatiecentrum en archief voor de vrouwen beweging (International Information Center and Archives for the Women's Movement), in Amsterdam.
- 48 One such specialist, who acted as a bridge between the first and second feminist movements in Holland, was the psychologist and women's rights advocate Ana Polak (1874–1939), author of *De vrouwenbeweging in Nederland 1898–1923* (The Women's Movement in the Netherlands), 1923. The head of the National Bureau for Women's Work, she contributed an article to *De werkende vrouw* on the differences between men's and women's work (see 1, nos. 1–2 [Jan.–Feb. 1930]); a later article focused on the question of whether housewifery was a profession (see 1, no. 10 [Oct. 1930]).
- 49 Truus Schröder's scrapbooks in the Rietveld-Schröder Archive show that she was constantly clipping articles and photographs from newspapers and journals; these clippings range from articles on energy-saving kitchen design to illustrations of modern appliances.
- 50 See *De werkende vrouw* 1, no. 1 (1930), 12–14, and 1, no. 3 (1930), 93–94. For the Frankfurt Kitchen, see Susan R. Henderson, "A Revolution in the Woman's Sphere: Grete Lihotzky and the Frankfurt Kitchen," in Debra Coleman, Elizabeth Danze, and Carol Henderson, eds., *Architecture and Feminism* (New York: Princeton Architectural Press, 1996), 221–53; Peter Noever,

- ed., *Die Frankfurter Küche von Margaret Schütte-Lihotsky* (Berlin: Ernst und Sohn, 1991); and Nicholas Bullock, "First the Kitchen – Then the Facade," *AA Files*, no. 6 (May 1984), 58–67.
- 51 I am grateful to Nancy Stieber for her help with the translation of this text.
- 52 For Key's influence, see Richard J. Evans, *The Feminist Movement in Germany, 1894–1933* (London: Sage Publications, 1976), and Katharine S. Anthony, *Feminism in Germany and Scandinavia* (New York: H. Holt, 1915). See also Kay Goodman, "Motherhood and Work: The Concept of the Misuse of Women's Energy, 1895–1905," in Ruth-Ellen Joeres and Mary Jo Maynes, eds., *German Women in the Eighteenth and Nineteenth Centuries* (Bloomington: Indiana University Press, 1986), 110–27. Key's works influenced Frank Lloyd Wright, and Wright's lover Mamah Borthwick Cheney was designated as Key's official English translator in 1909. See Anthony Alofsin, *Frank Lloyd Wright: The Lost Years, 1910–1922 – A Study of Influence* (Cambridge, Mass.: MIT Press, 1994), and his "Talesin: To Fashion Worlds in Little," in Narciso G. Menocal, ed., *Wright Studies 1* (Carbondale: Southern Illinois University Press, 1992), 44–65.
- 53 Küper and van Zijl, *Complete Works*, cat. nos. 154, 163, 164.
- 54 Rietveld worked for Metz & Co. from 1927 until the 1950s. See Küper and van Zijl, *Collected Works*, cat. nos. 119, 146–48, 155, 162, 189, 192, 258, 306, 423, 432.
- 55 Rietveld's other multi-unit projects included a block of apartment dwellings at the Wienerwerkbund Siedlung, in Vienna, of 1929–32, and a group of houses on Robert Schumannstraat in Utrecht, built in 1931–32; see Küper and van Zijl, *Complete Works*, cat. nos. 172, 175.
- 56 Küper and van Zijl, *Complete Works*, cat. no. 275.
- 57 According to Corrie Nagtegaal (interview with Alice Friedman and Maristella Casciato, July 1995), Truus Schröder had been influenced by the work of Clara Wichmann (1885–1922), a prominent feminist theorist whose articles on women's rights and jurisprudence appeared in *De groene Amsterdamer*, an Amsterdam newspaper of politics. Schröder was also an avid reader of the romance novels of Cary van Bruggen (1881–1932).



PLATE 1

Robert Venturi, Vanna Venturi  
House, Chestnut Hill,  
Pennsylvania, view from the  
street, 1961-64

Given the tastes and interests of her architectural “parents,” it should have surprised no one that the Vanna Venturi House in Chestnut Hill, Pennsylvania (1961–64; plate 1; fig. 1), the first-born child of the Postmodern movement, turned out to be a girl – not a stalwart son destined to go forth into the world boldly proclaiming a new architectural vision, but a rather pretty, mercurial daughter who, wreathed in diffidence and irony, made a case for change through the subtle art of persuasion. With its thin, flat walls – which, on the front facade, part at the center of a broad gable to form a deep slot through which a layered vista of voids and veils is barely visible – its festoon of mismatched windows and decorative string courses, and seemingly haphazard borrowing of imagery and objects from other times and places, the house is unapologetically playful and decorative. It seemed rather unassuming, and it entered the world of architecture quietly; nevertheless, “Mother’s House,” as it has come to be known, soon showed critics and historians just how fundamentally disruptive it would be to the architectural status quo.<sup>1</sup>

Indeed, for its architect, Robert Venturi, the house was not an isolated experiment but part of an ongoing campaign of research, writing, and design. Throughout the three-year period in which he was intensively designing (and redesigning) the little house for his mother, he also focused his attention on writing a work of architectural theory, *Complexity and Contradiction in Architecture* (1966), which digs deep into history to celebrate the “messy vitality” of architecture, confronting contemporary modernism with a series of little-known buildings that responded to “the inherent complexities and contradictions of living.”<sup>2</sup> Using hundreds of illustrated examples, Venturi proposed an alternative approach to design theory, one guided not by modern architecture’s



## It’s a Wise Child:

### The Vanna Venturi House, by Robert Venturi

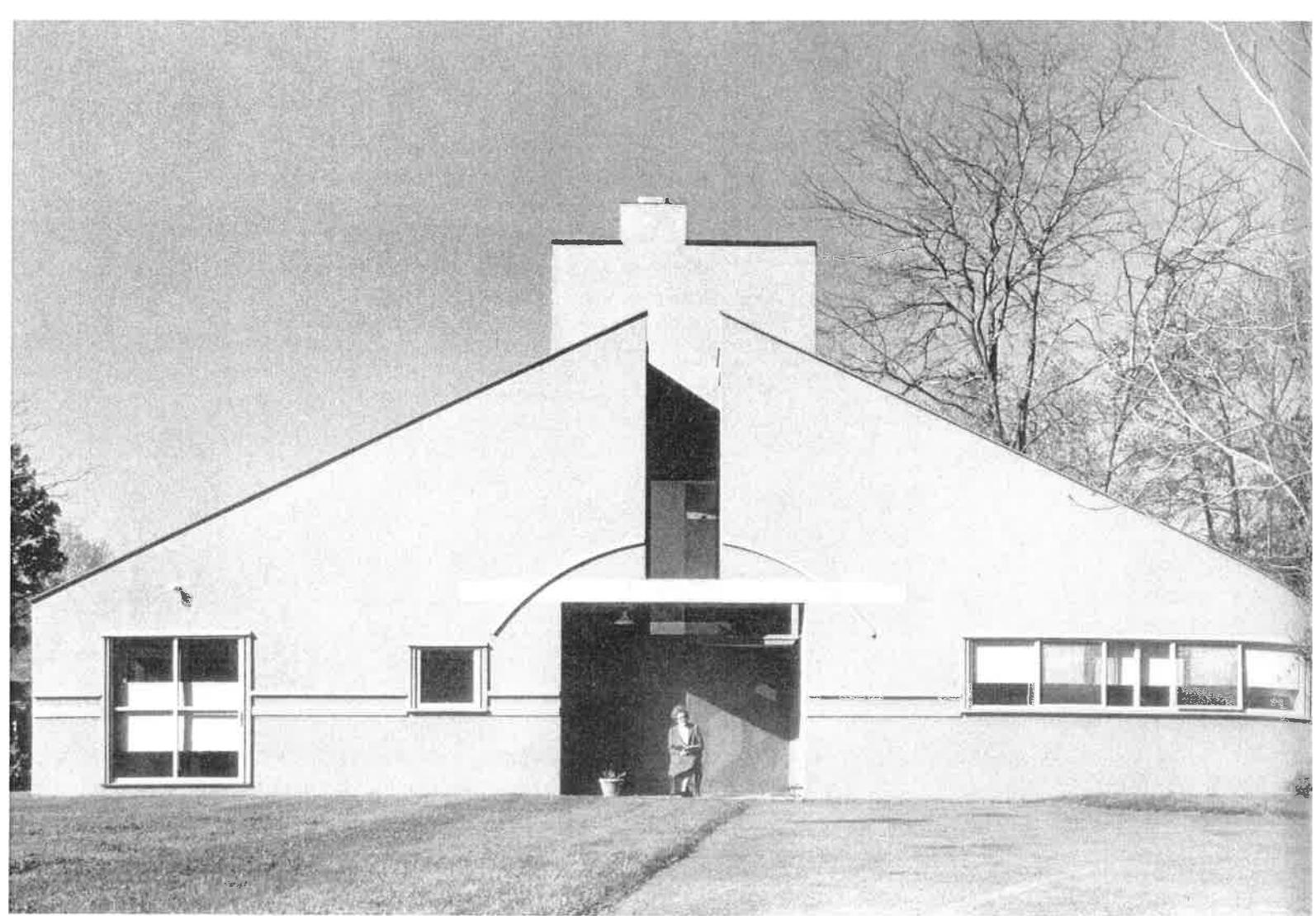


FIGURE 1

Vanna Venturi sitting at the entrance to her house

search for originality and consistency in form and theory, but by a passion for history, a love of variety, and a deep commitment to architecture as an art of accommodation. Challenging Ludwig Mies van der Rohe's famous saying "Less is more," Venturi wrote, "Where simplicity cannot work, simpleness results. Blatant simplification means bland architecture. Less is a bore."<sup>3</sup>

These values made Venturi something of an outsider in the early 1960s, but it was his growing commitment to vernacular and commercial architecture that ultimately separated him from many of his contemporaries. In 1960 he embarked on a collaboration – architectural, intellectual, emotional – with architect and planner Denise Scott Brown (the two were married in 1967), and it was she who, influenced by Pop art and by the London-

based Independent Group, and inspired by the theories of social planners such as Herbert Gans at the University of Pennsylvania, encouraged Venturi to turn his attention to the vernacular architecture of his own time, to advertising, to street life, and to the commercial strip as a valid architectural vocabulary for the mid-twentieth century.<sup>4</sup> For Venturi and Scott Brown, and for a generation of younger architects, these interests represented a fundamental change in architectural thinking, a “shift of perspective from the Champs-Élysées to Main Street,” as Vincent Scully put it in his introduction to *Complexity and Contradiction*, and a rejection of the heroic statements of modernism in favor of an antiheroic approach emphasizing program, accommodation, and inclusion.<sup>5</sup>

As a residence for his mother, a widow of nearly seventy with strong feminist and socialist beliefs and distinctive tastes in fashion and furniture, the Vanna Venturi House had to conform to the shape of a well-defined way of life and create a comfortable setting for a small collection of antiques and other furniture acquired over a period of nearly half a century. Moreover, as a residence for an older person who was still quite healthy in the early 1960s but nonetheless needed a bit of extra looking-after (and perhaps might later need a live-in nurse/companion, as Venturi’s father had at the end of his life), Venturi mother’s house had to respond to an unconventional program, providing spaces for daily life on one floor, and facilitating the movements of and need for domestic privacy of a caretaker.<sup>6</sup> As Denise Scott Brown explained:

*Although the Vanna Venturi house is usually described in stylistic and formal terms, functional requirements were not ignored in its planning, they were merely not discussed in our writing. The house works in the narrowly functional sense, but it satisfies, as well, a broader range of functions. For example, it was intended for a widow and perhaps her companion, and was designed specifically around her*

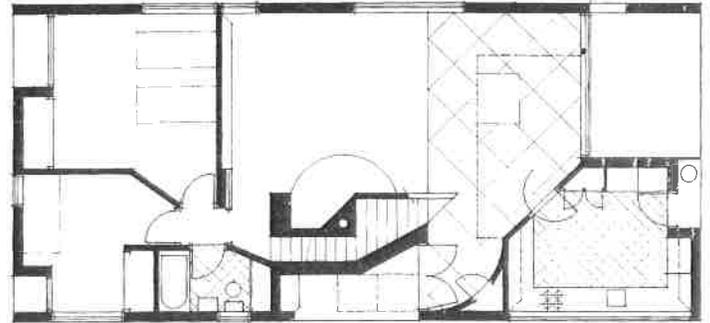


FIGURE 2  
Robert Venturi, Vanna Venturi House, Chestnut Hill, Pennsylvania, plan, ground floor

*antique and reproduction furniture. It was located to give her accessibility to transportation and urban services yet to provide privacy as well.*<sup>7</sup>

The main rooms – master bedroom, guest/caretaker’s room, living/dining area, and kitchen – are all on the ground floor (fig. 2), clustered around a central stair and fireplace. Embracing the whole was the watchful, loving presence of the adult architect/son who, though he traveled frequently and worked downtown, still lived at home. Thus, Venturi designed a small studio/bedroom for himself at the top of the house with a half bath on the landing and a small balcony for additional space and privacy (figs. 3–5). Large windows flooded the room with light and, on the front of the house, offered a view of the street and of the approach to the front door. Venturi lived here until his marriage to Scott Brown and even for some months after.<sup>8</sup>

What made the house such an extraordinary sight in 1964 was its use of overscaled conventional elements – the split gable, the chimney, the arch and lintel, the wide, dark doorway at the center of the facade, the sash window and the ribbon window – which appear to have been tacked up randomly on billboardlike walls.<sup>9</sup> The meaning of the boldest forms, such as the sheltering gable, was immediately recognizable as one looked across the flat site from the street (see plate 1), and as one drew closer, details like the elegant wood moldings and window mullions seemed reassuringly familiar. Thus, while the house was nothing like its suburban Chestnut Hill neighbors, it, like them, drew on a vast lexicon of American and European architectural imagery to create a feeling of domestic security and continuity; the effect of the facade was, at first, rather comforting. In a fundamental way the house seemed to make sense. The broad gable, chimney, and sash window recalled such historical examples as McKim, Mead, and White's Shingle Style Low House, in

Bristol, Rhode Island, of 1887, or Frank Lloyd Wright's own home in Oak Park of 1889, and the arched lunette window at the back of the house (fig. 6) suggested, in a distant, associational way, connections with both Roman and Palladian sources.<sup>10</sup> More important than specific historical references, however, was the fact that the overall shape and many of the individual elements recalled a generic and familiar architectural language drawn from the storehouse of collective memory. Venturi has suggested that this is why his mother's house looks like a child's drawing: "Some have said my mother's house looks like a child's drawing of a house – representing the fundamental elements of shelter – gable roof, chimney, door, and windows. I like to think this is so, that it achieves another essence, that of the genre that is house and is elemental."<sup>11</sup>

Nevertheless, there was something peculiar and unsettling about the look of the oversimplified gable and the flat wall surface with all those architectural spare parts stuck onto it. Such an image of the suburban home – an image simultaneously comforting in its simplicity and jarring in its disjunctive complexity – could easily be read as an ironic commentary not simply on the traditions and language of architecture, but also on the American dream of life in a suburban, single-family home. By the early 1960s, thanks to books like Sloan Wilson's *The Man in the Gray Flannel Suit* (1955) or John Kenneth Galbraith's *Affluent Society* (1958) – or, indeed, to movies like Nicholas Ray's *Rebel Without a Cause* (1955), in which James Dean played a troubled teenager adrift in a sea of empty materialism – the seeds of doubt about postwar American prosperity, family life, and consumption had already been sown, particularly among the intellectuals and art world observers who formed a substantial part of the audience for architect-designed buildings.<sup>12</sup> Thus, while Venturi himself may not have wanted to focus on such a reading, there is no doubt

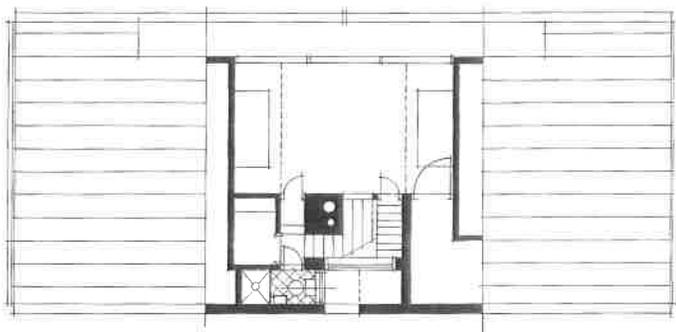


FIGURE 3  
Vanna Venturi House, plan,  
second floor

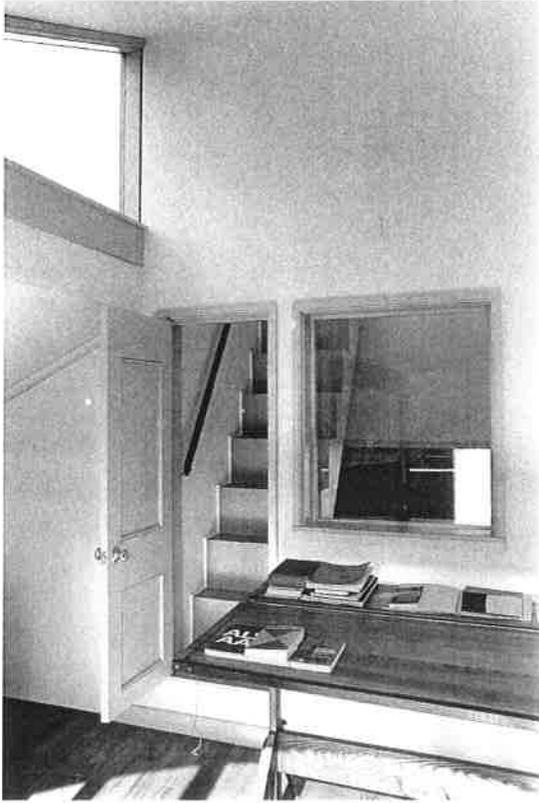
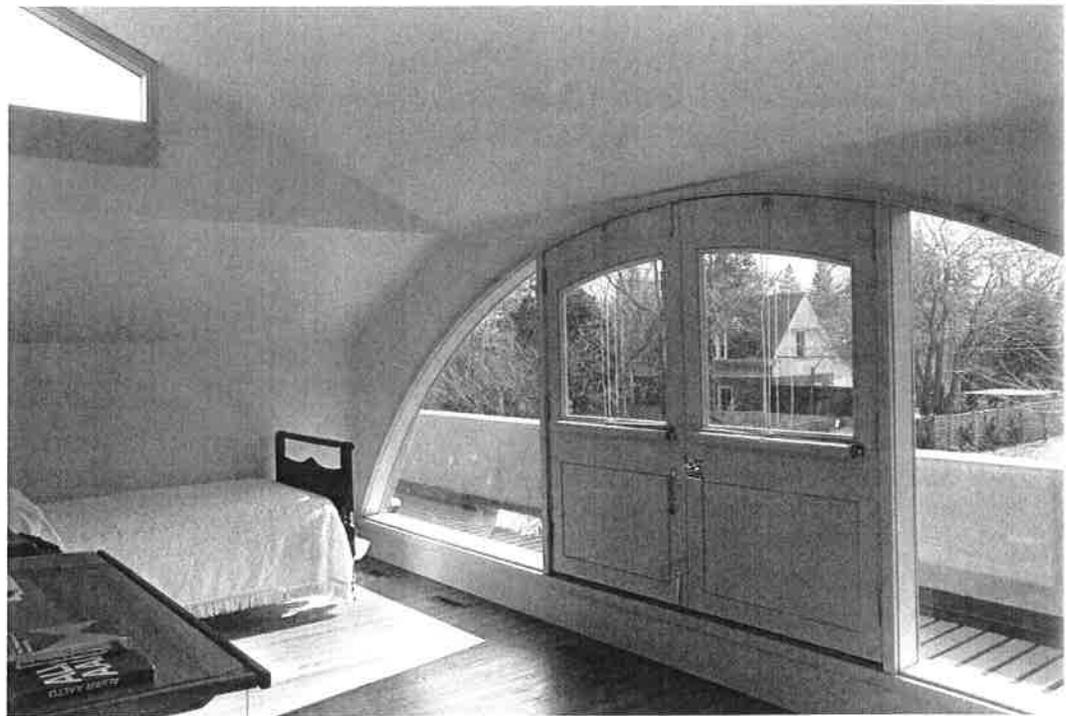


FIGURE 4  
Vanna Venturi House, studio  
and "nowhere stair"

FIGURE 5  
Studio, showing the lunette  
window and balcony beyond



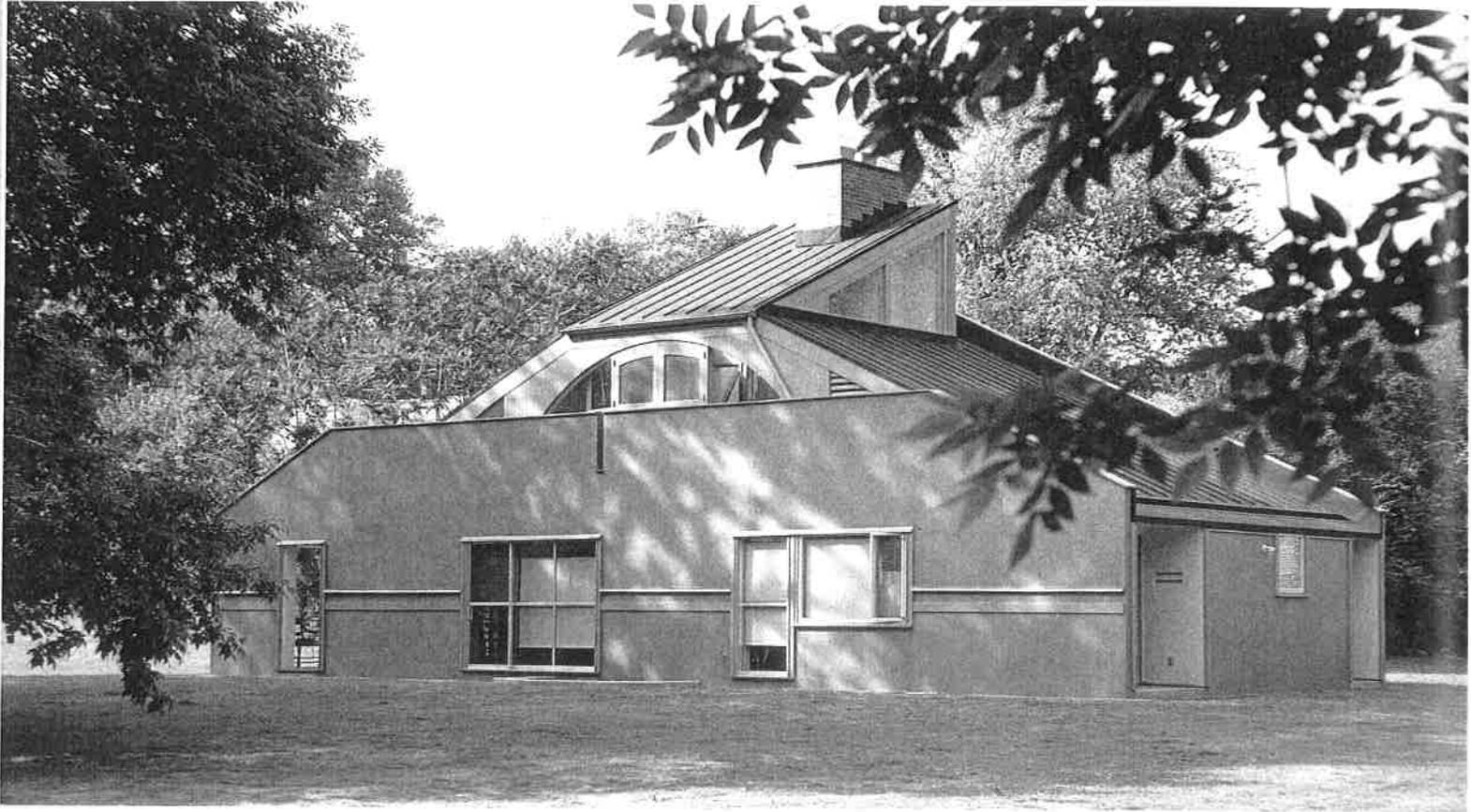


FIGURE 6  
Vanna Venturi House,  
rear elevation

that these themes constituted a significant part of the meaning of his works in their time, particularly for specialists who were inclined to treat any reference to popular culture as cynical, patronizing, or arcane.

On the interior (plate 2; figs. 7, 8) the design was equally unusual, though more subtle. Here one found panel doors, wood moldings, a marble floor, a mantelpiece, and antique and reproduction furniture brought together with more contemporary elements such as the large plate-glass window and freestanding column in the dining area. This mixing of styles and materials constituted a serious challenge to modern architecture in America: since the appearance of Wright's Prairie houses in the 1890s, the unity and integration of architecture and interior furnishings had been assiduously pursued, and it was a basic tenet in the teachings of Mies, Walter Gropius, and Louis Kahn. Here again Venturi's irreverence toward modernist dogma was immediately recognizable.

FIGURE 7  
Vanna Venturi House, dining  
area

Venturi's mother's house was meant to be experienced both associationally – as a series of architectural signs – and spatially, as a series of physical and aesthetic sensations; often these two types of experience overlapped.<sup>13</sup> The house is filled with devices intended to enhance the user's awareness of his or her centrality in a playful, animated dialogue with the architect and with the building itself. As in the Mannerist architecture of sixteenth-century Europe (which Venturi studied with particular enthusiasm during the 1950s), this dialogue is most effectively achieved by manipulating the conventions of architectural form and the expectations of the observer.

As we look down the macadam "driveway" toward the house, for example, it gradually becomes clear that there is no garage door at the end of it (Vanna Venturi did not drive); the closest thing to an opening of the size and shape that we expect in such a suburban setting is the broad entrance in the center of the facade, which was clearly meant for human beings and not for cars. Such contradictions abound. Entering the house through the main doorway, we expect to move forward on axis but instead are forced to turn sharply to the right and proceed along a diagonal path; in the porch and foyer the wall changes three times – first it is parallel with the facade, then diagonal, and finally drops away entirely to reveal the stair. Once inside, we are confronted by an assortment of awkwardly juxtaposed architectural elements: the chimney and the stair seem to compete for space with the oddly shaped window ledge in the front wall; this struggle is ultimately "won" by the chimney, which, halfway up the flight, constricts the stair to a narrow passage, hardly wide enough for a person to pass through. Viewed from the back of the house (fig. 9), the broad "chimney" that we first encountered on the street facade is revealed to be simply the front wall of the large room on the upper story; from here, the actual chimney looks puny

and inconsequential. A large lunette window, also visible only from the back, establishes another unexpected intermediary plane of enclosure at the upper level; the slot of space between this wall and the back of the house becomes a narrow balcony with a low parapet. These are only the most obvious examples of the many architectural ironies, false starts, and rhetorical flourishes that we encounter, and they suggest that "fun house," rather than the farm house of rosy memory, is the more apt metaphor here.

At the Vanna Venturi House, the logic and coherence of plan and elevation, ideas so fundamental to modernist aesthetics, are intentionally disrupted. Responding to the complexities of the program (Venturi called this "allowing form and function to go their separate ways"), and by a need to communicate with the user through architectural form, the house was transformed from a static object into a series of aesthetic and intellectual operations that are "performed" by the building visually, spatially, and symbolically.<sup>14</sup> As in other early projects – the Guild House elderly housing complex, in Philadelphia (1963), for example, or the North Pennsylvania Visiting Nurses Association, in North Ambler, Pennsylvania (1961) – Venturi acted as an agent and advocate for the client/occupant rather than as a distant form-giver.

Because Venturi wanted his architecture to be legible and accessible to his audience, he drew on familiar vernacular and commercial sources, assembling a pastiche of signs and motifs; this characteristic of his work is fundamental to its contribution to Postmodernism.<sup>15</sup> But it was the reinscription of the user/participant/observer at the very heart of the architectural project that marked Venturi's most radical break with modernism. Now the client became not simply a passive recipient but a participant in a process of communication and experience; this notion substantially undermined the belief in the architect as an independent, original creator with mastery



FIGURE 9  
Vanna Venturi House, rear  
elevation

over form, an idea central to the identity of the artistic avant-garde.<sup>16</sup> It was this fundamental change in the definition of the architect's role that, perhaps more than any other aspect of his work, made Venturi an outsider: as Scully once noted, Venturi was hated by the architectural profession (and by many critics) because by successfully challenging the concept of originality, he "took its most satisfying, its most childish myth, away."<sup>17</sup>

The Vanna Venturi House, like other cases described in this book, is an example of a project in which ideas that were circulating in architectural culture and significant for a particular architect were expanded and explored in an unconventional home for an atypical client. Although the house, like many architects' first houses done for relatives, provided her son with an opportunity to build his ideas (rather than simply to write about them), it was nonetheless very specifically a residence for Vanna Venturi herself: her age, her unconventional way

of looking at the world, and her relationship to her son were not only symbolically represented but gently accommodated in the spaces and points of view that the design of the house made possible. Moreover, the house became a meditation on the passage of time, an architectural essay on the significance of fragmentary images and chance memories within the complex reality of the present. Here originality was secondary: the architectural source in history and memory were celebrated instead. That this important reassessment of the value of the past for modern architecture was undertaken in a house for the architect's mother was not a coincidence; on the contrary, the project provided Venturi with the opportunity to draw a portrait not so much of an individual but of a loving relationship between generations, which represented, in essence, the importance of history.

#### The Vanna Venturi House: Complexity and Contradiction

In many ways the Vanna Venturi House was intended as a demonstration of the approach to architecture described in *Complexity and Contradiction in Architecture*, and thus it makes sense to consider the main points of its design in the context of Venturi's theory.

On first reading, the most surprising thing about *Complexity and Contradiction* is its rational, conversational tone: speaking in the first person, Venturi made his ideas seem eminently reasonable and accessible. With characteristic modesty, he began the book with a chapter entitled "Nonstraightforward Architecture: A Gentle Manifesto," describing the observations and preferences that guided his work. These he discussed in terms of his personal responses, perceptions, and experiences rather than as pseudo-scientific discoveries that might serve as proof of the validity of immutable rules; the approach was perfectly suited to a generation of readers increasingly anxious about the failure of systems and weary of the language of absolutes.<sup>18</sup> Indeed, Venturi explicitly

rejected the "moral language" of modernism:

*Architects can no longer afford to be intimidated by the puritanically moral language of modern architecture. I like elements which are hybrid rather than "pure," compromising rather than "clean," distorted rather than "straight-forward," ambiguous rather than "articulated," perverse as well as impersonal, boring as well as "interesting," conventional rather than "designed," accommodating rather than excluding, redundant rather than simple, vestigial as well as innovating, inconsistent and equivocal rather than direct and clear. I am for messy vitality over obvious unity. I include the non sequitur and proclaim the duality. . . . I am for richness of meaning rather than clarity of meaning; for the implicit function as well as the explicit function. I prefer "both-and" and "either-or," black and white, and sometimes gray, to black or white. A valid architecture evokes many levels of meaning and combinations of focus: its space and its elements become readable and workable in several ways at once.<sup>19</sup>*

While this discussion focused the reader's attention on the intricate formal language of architectural design, Venturi was also concerned with the ways in which program would be accommodated – order had to give way in the face of functional requirements:

*A valid order accommodates the circumstantial contradictions of a complex reality. It accommodates as well as imposes. It thereby admits control and spontaneity, "correctness and ease" – improvisation within the whole. It tolerates qualifications and compromise. There are no fixed laws in architecture, but not everything will work in a building or city. The architect must decide, and these subtle evaluations are among his principle functions. He must determine what must be made to work and what is possible to compromise with, what will give in, and where and how. He does not ignore or exclude inconsistencies of program or structure within the order.<sup>20</sup>*

This was a rare admission on the part of an architect: Venturi not only acknowledged the limitations of architectural order but intentionally set out to identify and underline them through design. He continued with a series of statements that provide a key to his approach, stressing the need to deal with things as they are rather than as we would wish them to be. This takes him beyond architecture to social planning:

*Mies refers to a need to "create order out of the desperate confusion of our time." Kahn has said "by order I do not mean orderliness." Should we not resist bemoaning confusion? Should we not look for meaning in the complexities and contradictions of our times and acknowledge the limitations of systems? These, I think, are the two justifications for breaking order: the recognition of variety and confusion inside and outside, in program and environment, indeed, at all levels of experience; and the ultimate limitation of all orders composed by man. When circumstances defy order, order should bend or break: anomalies and uncertainties give validity to architecture.*<sup>21</sup>

Ultimately, this cluster of concepts gives rise to one of Venturi's fundamental ideas about architecture and urban planning: that the wall, in particular the facade, acts as a boundary between public and private. As such, it should be treated as a screen that both represents the public face of the institution (or home) and indicates something of the nature of interior space:

*Designing from the outside in, as well as the inside out, creates necessary tensions, which help make architecture. Since the inside is different from the outside, the wall – the point of change – becomes an architectural event. Architecture occurs at the meeting of interior and exterior forces and use of space. These interior and environmental forces are both general and particular, generic and circumstantial. Architecture as the wall between the inside and the outside becomes the spatial record of this resolution and its drama. And by recognizing the difference between the*

*inside and the outside, architecture opens the door once again to an urbanistic point of view.*<sup>22</sup>

In Venturi's architecture, the individual building, with its signifying boundary wall, is seen as part of a flexible community of architectural forms, just as the individual room in a house or building becomes part of an overall network of spaces that interact and intersect. These relationships are dynamic rather than static and transcendent, and thus become fully legible only in the presence of an observer or user. Because the starting point in design is the client, or rather the ever-changing experience of the human user who lives in historical time, architecture cannot remain rigidly systematic; to reflect and respond to complex and contradictory experiences, it must contain these qualities within itself.

At the Vanna Venturi House these principles were given three-dimensional form:

*This building recognizes complexities and contradictions: it is both complex and simple, open and closed, big and little; some of its elements are good on one level and bad on another; its order accommodates the generic elements of the house in general, and the circumstantial elements of a house in particular. It achieves the difficult unity of a medium number of diverse parts rather than the easy unity of few or many motival parts.*<sup>23</sup>

For Venturi, the primacy of the program in shaping the plan, with its irregular (yet clearly rectangular) outer edge and distorted interior spaces, was among his most important innovations:

*The inside spaces, as represented in plan and section, are complex and distorted in their shapes and interrelationships. They correspond to the complexities inherent in the domestic program as well as to some whimsies not inappropriate to an individual house. . . . The contradiction between inside and outside, however, is not total: inside, the plan as a whole reflects the symmetrical consistency of the outside;*

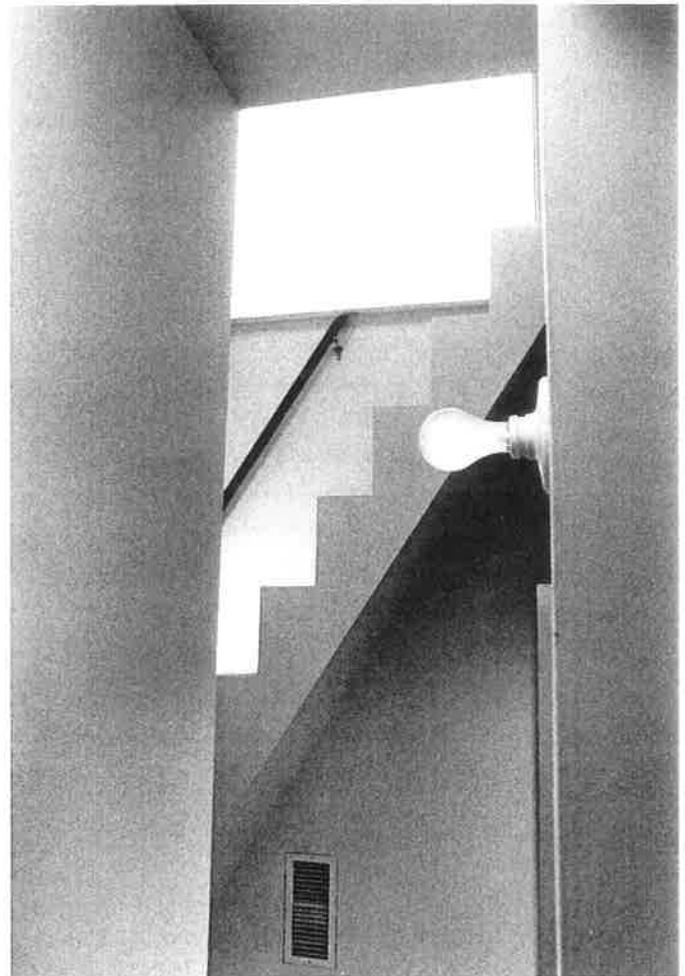
outside, the perforations in the elevations reflect the circumstantial distortions within.<sup>24</sup>

Questions of function and economy clearly took precedence here, followed by spatial composition and the shaping of perceptual experience. In *Complexity and Contradiction*, Venturi discussed elements like the stair and chimney in terms of their function and spatial position without reference to symbolism; his description recalls the tensions created between crowded arches and pilasters in Michelangelo's architecture of the 1520s: *A more violent kind of accommodation occurs within the central core itself. Two vertical elements – the fireplace-chimney and the stair – compete, as it were, for central position. And each of these elements, one essentially solid, the other essentially void, compromises in its shape and position – that is, inflects toward the other to make a unity of the duality of the central core they constitute. On one side the fireplace distorts in shape and moves over a little, as does its chimney; on the other side the stair suddenly constricts its width and distorts its path because of the chimney.*<sup>25</sup>

According to Venturi the stair is meant to be seen as both awkward and efficient: its shape is altered by its position next to the chimney, but because it is wider at the bottom than at the top, it offers both a place to sit and a place to put things before taking them upstairs. This combination of aesthetic and functional thinking is summed up in Venturi's description of the "nowhere stair" (fig. 10), which leads from the studio to the top of the house:

*The little "nowhere stair" from the second floor similarly accommodates awkwardly to its residual core space: on one level, it goes nowhere and is whimsical; at another level, it is like a ladder against a wall from which to wash the high window and paint the clerestory. The change in scale of the stair on this floor further contrasts with that change of scale in the other direction at the bottom.*<sup>26</sup>

FIGURE 10  
"Nowhere stair"



Ultimately, this balance between form and function, as well as the overlapping of architectural elements, spaces, and systems of signification, provides the key to the Vanna Venturi House. In a characteristically layered description, Venturi made his final point about the complexities of the plan by referring not to the plan itself but to the structure: *The exceptional point in the plan refers to the expedient column support, which contrasts with the otherwise wall bearing structure of the whole. These complex combinations do not achieve the easy harmony of a few motival parts based on exclusion – based, that is, on “less is more.” Instead they achieve the difficult unity of a medium number of parts based on inclusion and on the acknowledgement of the diversity of experience.*<sup>27</sup>

The single column (see fig. 7) is, in part, an ironic element: it recalls the systematic grid of *pilotis* in Le Corbusier’s projects of the 1920s, but by eliminating the grid – and at the same time reintroducing the load-bearing wall – Venturi lets the single element both stand in for the absent system and signify its disruption. He thus focuses attention on the complexities of representation in architectural design; his mother’s house is, as he says, both “generic” and “circumstantial,” both broadly significant and specifically meaningful. Using some forms that communicated widely recognized meanings (such as the gable, the stair, or the fireplace) and others that constituted references to a fairly arcane language of architectural history, as well as elements with specific associations known only to his mother and to himself (for example, in the furniture, or in ways in which the doors reminded him of the house he grew up in), Venturi was able to create an image of domesticity that was multilayered and rich in content. It is this complexity at all levels of experience, and his willingness to acknowledge the contradictions that underlie it, that makes Venturi’s mother’s house an extraordinary work of architecture.

### Vanna Venturi: The Client’s Role

Vanna Venturi was born in 1893 and grew up in Philadelphia. Her family was from Apuglia, Italy; because she had to go to work at an early age she did not finish high school.<sup>28</sup> Largely self-educated, she had a lifelong interest in books, and she took a particular interest in history, current events, and biography.<sup>29</sup> She was a socialist, a vegetarian, and a feminist, and she married relatively late, in 1924; her husband, Robert Venturi, Sr., was twelve years older than she, and their son, born the following year, was an only child. The family lived comfortably in Philadelphia, where Robert Venturi, Sr., ran a successful fruit and produce business.

It was Venturi’s father who introduced him to architecture. His friendships with the Philadelphia architects Phineas Paiste and Edmund Brumbaugh (the latter designed a small store for him in 1922) suggest that he encouraged his son to pursue a professional interest in the subject.<sup>30</sup> Yet Vanna Venturi also played a significant role in the development of her son’s intellectual and artistic interests. With her love of fashion (she made many of her own clothes), her interest in antique furniture, and her commitment to social justice, it was she who introduced him to politics, to ethical values, and to art and design. He admired the clarity of her beliefs and her “elegant” tastes. Looking back on his childhood, Venturi described how, like him, Vanna was an outsider: *As a child of immigrants, my mother also did not fit the mold. . . . As a young woman [she] became interested in literature and socialism and liberal causes. She loved the Fabians and Bernard Shaw and the Webbs. Norman Thomas, the socialist, was her choice for President the five times that he ran for that office. . . . Being a pacifist, my mother was attracted to the Quakers because of their stand against war, and so she became a member of the Society of Friends. . . . I never went to a public school: pledging allegiance to the flag – “coercive patriotism,” my mother called*

*it – was anathema to her. So she couldn't send me to a school where that kind of ritual was performed in the morning: this was an expression of her pacifism.*"<sup>31</sup>

Motivated by Vanna Venturi's interests, the family made summer excursions to the socialist community at Arden, Delaware, and to Rose Valley, an early arts and crafts community in Pennsylvania.<sup>32</sup> At the Pritzker Prize award ceremony in 1991, Venturi noted that his mother's "sound but unorthodox positions, socialist and pacifist, worked to prepare [him] to feel almost all right as an outsider."<sup>33</sup> All right or not, as the only child of an older couple with unconventional interests, Venturi learned to compromise, and he learned to care for his parents as they grew older.

At his death, in 1959, Venturi's father had left a modest inheritance, more than enough to live on, and with some of this money his widow purchased a lot at 8330 Millman Street, in the suburb of Chestnut Hill, on which to build a house for herself. Her decision to provide her son with the opportunity to design a house was, according to Venturi, fairly easy – as he put it: "I think it was very simple: she had a son, she loved architecture and he did, and she trusted him. I guess that's it."<sup>34</sup>

In discussing the process of designing his mother's house, Venturi emphasized the deep sympathy, attachment, and understanding that they shared. Having lived together for over thirty-five years, mother and son knew a great deal about one another; moreover, having completed one building already, Venturi felt that he was "reasonably knowledgeable and understanding."<sup>35</sup> He remembered only two incidents during the course of their collaboration as problematic. One occurred when the house was nearly three-quarters completed and he drove her to the site to inspect the building in progress. Looking at the ordinary nineteenth-century house next door, she remarked wistfully, "Oh, isn't *that* a nice house."<sup>36</sup> Apparently the incident passed without further comment; if Vanna Venturi had genuine concerns, she

was surely unusual – as a client and as a parent – in keeping them to herself, but the fact that her son worried about this relatively mild expression of anxiety gives a good indication of the sympathetic relationship between them.

The second problem arose in connection with Venturi's plan to put a marble floor in the entrance and at the dining end of the large room; Vanna Venturi rejected this scheme as ostentatious. Despite Robert's explanation that such floors were found in eighteenth-century farmhouses and served a practical purpose, Vanna wanted none of it, but in the end her son prevailed. Venturi remembered that "when the house was half finished, I said, 'Oh, I really need this marble; I really need to make the distinction between this end of the room and the other end.' I went to her and I said, 'Look Mother, I really want this,' and she said, 'O.K.'"<sup>37</sup> Adjustments had to be made by the contractor (and in the end the marble cracked), but the architect got his way and the client seemed satisfied. In this anecdote, as in the first one, Vanna's tolerance and trust seem extraordinary, suggesting that Venturi's recollection of the process as a positive one is correct. Even the final price – around \$43,000 – which in 1963 was a great deal of money for a house, was agreeable to both of them.<sup>38</sup>

Vanna Venturi's trust in her son was rewarded in her house, and she lived there happily until 1973. Indeed, the house became almost a living human presence, an indispensable part of a three-way conversation between the client, her environment, and the many visitors who came to see it. As Scott Brown recalled:

*The house provided Vanna with company and solace when she was an old woman, living there with an architecture student on the second floor for protection. Carloads, sometimes busloads, of visitors, mainly architecture students, would come by, and we would find her with a seminar seated around the dining table giving lectures on the architecture of the house and the babyhood of its architect.*

*The house filled some long hours for her. As her son put it, "Architecture is the opiate of the mothers."<sup>39</sup>*

The house was designed to be lived in comfortably by more than one person, and at various times Vanna shared it with her caretakers: with her son until his marriage; with her son and daughter-in-law for a period after their marriage; with an architecture student; and finally, at the very end, with a live-in nurse. She entered a nursing home in 1973 and died in 1975; in 1973 the house was sold to Thomas and Agatha Hughes, a professor of history and technology at the University of Pennsylvania, and a potter, respectively, who have lived there ever since.<sup>40</sup>

Vanna Venturi was the central figure in her son's conception of the house: it was lovingly designed to reflect her interests and to meet her needs. But the house projected an image of its client in a broader sense as well. In the often-reprinted, canonical black and white photograph of the house (see fig. 1), she is shown at the center of its overscaled entrance, sitting quietly on a chair in the sun with a pot of flowers beside her and reading a book. Scully compared this modest image to Leonardo da Vinci's well-known illustration of the Vitruvian ideal man inscribed within a circle and a square, citing it as evidence of Venturi's rejection of architectural machismo: *All previous embodiments of human centrality in this diagram had been of the heroic male figure, an athletic, aggressive being who fits into but basically dominates the essential shapes of the world. But here it is Vanna Venturi, seated in her kitchen chair with a pot of geraniums beside her. She is tiny, but the space detonates around her. Directly above her head the gable splits to release her energy beyond the circle and the square to the empyrean. There the rich balance of opposites, or complementarities, which was to shape all of Venturi's later work, achieved its first and still its most compelling image. Contrasted with the traditional male figure, Vanna Venturi is at once antiheroic and femi-*

*nist in meaning. She is stronger than he; at rest, she breaks the mold. It was this combination of subversive attitudes that caused so many architects to hate Robert Venturi so earnestly. He was striking at their heroic image of themselves as godlike creators, an idea fundamentally ridiculous in itself and dangerous to architecture but one which was deeply rooted in romanticism and which late modernism had done everything to encourage. The fact that Vanna Venturi was Robert Venturi's mother fueled the fires. Everybody knew all about mothers in 1960. It was risky for a male to admit that he had ever had one. The truth is that the macho pretensions of architects have always rested upon rather shaky foundations in the modern period. Such could easily be read in the early sixties in their destructive urbanism and brutalist constructions alike. Modernism had trapped them in an unreal and untenable mythology from which they needed release very badly. Venturi went to the heart of the matter with his gentle feminist image, a harbinger of healthier things to come.<sup>41</sup>*

Though exaggerated and poetic, Scully's reading captures a fundamental aspect of the meaning of the house as a loving gesture between a son and his mother. Assuming the traditional parental role of oversight in the home, Robert Venturi used architecture to create an environment in which he could literally watch out for his mother, ensuring her comfort, security, and pleasure in her old age.

#### Postmodernism, Social Activism, and Everyday Experience

Although the Vanna Venturi House is often described as a Postmodern building, it is important to recognize that as a project conceived and designed in the early 1960s, it is significantly different in character and meaning from the many works of architecture, painting, and literature that appeared subsequently, especially those dating from the height of the movement, in the late 1970s and 1980s. Compared to buildings by Michael Graves, Charles Moore,

or Frank Gehry, the Vanna Venturi House seems tame in its use of conventional imagery, applied ornament, and layered space – that is, until we recall that it preceded the Postmodern buildings of these architects by fifteen to twenty years.<sup>42</sup> While the later works of Graves, Gehry, Peter Eisenman, and even Venturi himself were conceived within the context of Structuralist and Deconstructivist notions of history, representation, and subjectivity as presented in the writings of Michel Foucault, Roland Barthes, Jacques Derrida, and their followers (books published in France in the late 1960s and early 1970s, but which appeared in English translation only later), Venturi's earliest buildings drew on other sources for inspiration. These sources, based in the intellectual, artistic, and academic countercultures of Europe and America in the 1950s, opened up the space and offered the raw materials for an interrogation of contemporary values and of the systems (economic, social, literary, artistic) that regulated them. In the history of Postmodernism, the Vanna Venturi house should be viewed as a foundational – yet somewhat ambivalent – first step, and an early manifestation of the erosion of confidence in postwar culture that would result in a torrent of change in the 1970s.

Through Scott Brown – who as early as 1960 was in the process of formulating a theory of populist and socially responsible architecture – Venturi's interests and sphere of reference were significantly broadened. Having studied at the progressive Architectural Association in London during the late 1950s, Scott Brown was influenced by the work of the Independent Group in England and by the populist architectural projects and theories of Peter and Alison Smithson.<sup>43</sup> Her concerns and those of the Independent Group artists overlapped in two significant ways: first, in their fascination with commercial imagery and American consumer culture, and second, in their commitment to a “straight-forward” and antielitist architecture, designed and built, as Scott Brown put it,

“for community life as it is and not for some sentimentalized version of how it should be.”<sup>44</sup> The Smithsons' architectural projects and housing designs of the 1950s focused on urban experience, street life, and the creation of working-class neighborhoods; as artists, they turned away from modernist abstraction to confront mass production and the culture of everyday life. As Scott Brown noted, their appeal for her lay “in combining the Dadaist found-object aesthetic with an interest in community development.”<sup>45</sup>

A collage like Richard Hamilton's *What Is It That Makes Today's Homes So Different, So Appealing?* (plate 3), which he produced for the 1956 Independent Group exhibition, suggests the broad range of artistic ideas, social commentary, and experimental techniques that were being proposed at the time.<sup>46</sup> Using images taken from popular American magazines, Hamilton not only emphasized the randomness and transience of the work of art but, through his choice of sources and subjects, offered an ironic critique of American consumerism, media culture, sexism, and obsession with youth and novelty.<sup>47</sup> Using irony and visual puns he constructed an effective commentary on the shaping of contemporary identity through the detritus of commercial culture. Moreover, he focused attention on the domestic realm and on women's roles as consumers, housewives, and sexual objects. This juxtaposition of disparate images raised numerous questions about class, race, sexuality, authenticity, and the nature of experience in time and space (we realize only very slowly that the surface of the moon hovers over the room) that would later become fundamental to the Postmodernist project.

The combination of artistic experiment, populism, and social commentary represented by the Independent Group's projects was immensely appealing for Venturi and Scott Brown; transposed to an American context, it fueled their own investigations of contemporary archi-

ecture. Through the grass-roots political activities of the early 1960s – disarmament rallies, sit-ins by black students pressing for integrated lunch counters in the South, opposition to “urban renewal,” and so on – they, like many of their colleagues, became increasingly aware of the need to question the certainty with which Americans had congratulated themselves for over a decade. In part, this meant listening to the viewpoints and experience of people unlike themselves, people who were excluded from discussions of urban policy, planning, and design. Widely read books like Michael Harrington’s *The Other America* (1962) and Jane Jacobs’s *Death and Life of Great American Cities* (1961) revealed the deep divisions in American society and opened the eyes of educated, white, middle-class readers (most of whom lived in the suburbs) to ways of living – among poor people, people of color, immigrants – different from their own.<sup>48</sup> For women and men on the American Left, these books and experiences would prepare the way, in a broad sense, for the fundamental concepts of Postmodern theory: the recognition that language and art were both malleable systems of representation that defined cultural values, and the realization that control over these systems was an instrument of power.<sup>49</sup> It is clear from their work in this period that Venturi and Scott Brown were developing a strong sense of the ways in which they, as architects, might make use of these ideas.

Here again it was Scott Brown who led the way: through her exposure to the urban planning department at the University of Pennsylvania, which advocated a fusion of social activism and urban policy-making, she formulated an approach to architecture that confronted the realities of American life. As she noted, “the continued existence of poor people in America was a real discovery for students and faculty in the late 1950s.”<sup>50</sup> In her own work, and in her collaborations with Venturi, Scott Brown made an effort to come to terms with these challenges.

Venturi and Scott Brown (though she was not an official partner in the studio until 1968) implemented their antielitist and antiheroic approach to architecture through what might be called an “architecture of care” in the early 1960s. This architecture, though not explicitly feminist, is characterized by a number of qualities that would become integral to American feminism in the 1970s: first, the validation of individual experience through a focus on the needs of users (including the elderly and children) and on the program; second, the recognition of the importance of routine household chores and of planning for these activities; third, the commemoration, through the language of monumental architectural form, of the mundane, the ordinary, and the apparently inconsequential; fourth, the recognition of the importance of individual and cultural memory, even if this is articulated in colloquial language and commonplace imagery.<sup>51</sup>

We can recognize a number of these qualities not only at the Vanna Venturi House but also in Guild House, the ninety-one-unit elderly housing complex designed for the Society of Friends in Philadelphia in 1960–63.<sup>52</sup> A great deal has been written about the building, yet it is worth noting in this context how much of the description of it in *Complexity and Contradiction* is devoted not only to its “ordinary and ugly” materials and imagery but also to its program and the needs of its occupants.<sup>53</sup>

In the later 1960s and early 1970s Venturi and Scott Brown would extend their research to the commercial strip of Las Vegas (*Learning from Las Vegas*, 1972) and to the American suburbs (*Signs of Life: Symbols of the American City*, 1976), investigations that deepened the Postmodernist tendencies in their work. But in *Complexity and Contradiction*, Venturi offered an explanation that placed his book, and with it the Vanna Venturi House, firmly in an earlier historical moment, one that occupies the middle ground between the realist cultural and social

commentary of the 1950s and the full-scale social and political activism of the later 1960s and 1970s:

*The main justification for honky-tonk elements in architectural order is their very existence. They are what we have. Architects can bemoan or try to ignore them or even try to abolish them, but they will not go away. Or they will not go away for a long time, because architects do not have the power to replace them (nor do they know what to replace them with), and because these commonplace elements accommodate existing needs for variety and communication. The old clichés involving both banality and mess will still be the context of our new architecture, and our new architecture significantly will be the context for them. . . . I am taking the limited view, I admit, but the limited view, which architects have tended to belittle, is as important as the visionary view, which they have tended to glorify but have not brought about. The short-term plan, which expediently combines the old and the new, must accompany the long-term plan. Architecture is evolutionary as well as revolutionary.<sup>31</sup>*

By focusing on the expedient rather than on unitary theory, Venturi's work demonstrates the deep connection between populism, feminism, and liberal activism in the earliest years of Postmodernism. These foundational principles are worth recalling here, especially in light of the commercial and consumerist turn that the Postmodern movement would take in the 1980s.

#### History and Memory

Venturi's commitment to popular imagery was ultimately rooted in his sense of history and in his keen awareness of the vast differences in architectural language that existed at various places and times. History thus provides the final key to Venturi's work and enables us to form a more complete picture of his goals and aspirations.

In 1954, a few years after completing his studies in architecture and architectural history, Venturi won the Rome Prize in Architecture; he lived at the American Academy there between 1954 and 1956.<sup>55</sup> This experience marked a turning point in his education. Travel in Europe and the pleasures of first-hand experience provided him with the opportunity to know and understand a broad range of architectures, from Renaissance Classicism to Elizabethan Mannerism and English Baroque, and the richness and variety of these forms is lovingly – even euphorically – re-created in the profusion of tiny illustrations that dot the pages of *Complexity and Contradiction*. The complex surfaces of Michelangelo's late works and the intricate spatial layering of Palladio's villas made an enormous impression, suggesting ideas that would resurface in Venturi's own work. Moreover, ever conscious of his role as a practicing architect, Venturi also kept a close eye on the present, using his time in Italy to study post-war European architecture. Like the historical forms and compositions observed on his travels, such contemporary devices as the enormous split gable of Luigi Moretti's apartment house on the Via Parioli in Rome (ca. 1952, illustrated in *Complexity and Contradiction*) were incorporated into Venturi's encyclopedic mental portfolio and reused, in varying degrees of literalness and abstraction, throughout his career.

Returning to Philadelphia in 1956 Venturi took a job in the office of the widely respected modern architect Louis Kahn, and he began teaching at the University of Pennsylvania. Through his relationship to Kahn, Venturi came to define his own manner as an independent architect, and in particular to formulate a distinctive new vision of architecture as a system of representation, both contemporary and historical. Kahn, like a number of architects working in the 1950s, was deeply engaged in an effort to reinvest modern architecture with a sense of the past; in many of the buildings he designed during

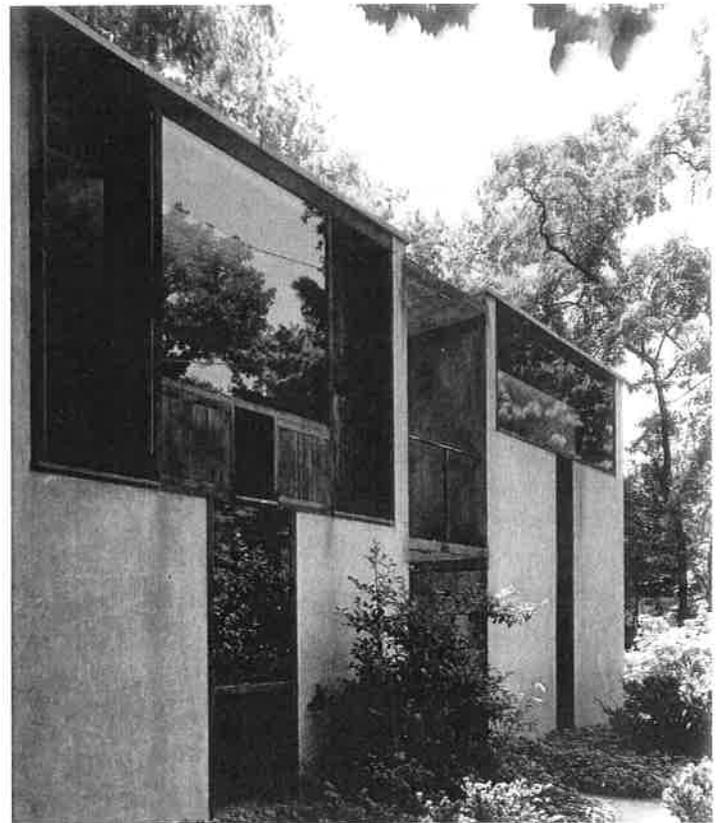
this period, historical forms – monumental arches, vaults, and lintels – are abstracted into a unified system of geometrical elements, recalling both the rigor and the authority of Roman architectural precedents.<sup>56</sup> In Kahn's work these forms are integral to the structure of the building, suggesting a fundamental order in architecture that links the past with the present.

Venturi learned a great deal from Kahn about the power of simple, direct imagery, and he shared Kahn's love and respect for history, but the two architects had very different ideas about the role of history in architecture. Their differences are made plain enough through a comparison of Kahn's Margaret Esherick House (fig. 11) of 1959–61 and Venturi's house for his mother, which is located just down the street from it.<sup>57</sup> In Kahn's building the evident principles of geometry, symmetry, and proportion not only recall the architecture of the classical past and Kahn's own roots in the Beaux-Arts tradition, but also serve to bind the parts of the building to the whole and the interior to the exterior. The "disruptions" in this unifying order – for example, the asymmetrical massing of the two parts of the house and of the window and door openings – create tension in the composition, but this only serves to reinforce, rather than to undermine, the overall sense of rationality and integration. Moreover, true to Kahn's modernist allegiances, there is no hint of surface ornament and no sense of the wall as a planar boundary between interior and exterior. On the contrary, the wall is massive and three-dimensional, evoking, however distantly, the solid, authoritative architecture of antiquity and suggesting that it is a natural expression of the volumes inside.

In the Vanna Venturi House the separate elements appear as fragments and not as parts of a whole; they "pull away from the whole, denying its internal consistency and thus distinguishing themselves in purely representational terms," as Neil Levine has aptly put it.<sup>58</sup> Each part

FIGURE 11

Louis Kahn, Margaret Esherick House, Chestnut Hill, Pennsylvania, 1959–61



– the split window, the chimney, the ribbon window, the enlarged “sash window,” the Palladian window, the arched molding, the concrete lintel – reads as a fragmentary component in an allegory in which its original meaning is altered by the new context.<sup>59</sup> Craig Owens described the way this process works in Postmodern literature and art:

*Allegorical imagery is appropriated imagery; the allegorist does not invent images but confiscates them. He lays claim to the culturally significant, poses as its interpreter. And in his hands the image becomes something other. (allos = other + agoureui = to speak). He does not restore an original meaning that may have been lost or obscured: allegory is not hermeneutics. Rather he adds another meaning to the image.*<sup>60</sup>

Owens makes three further points about allegory that are particularly relevant here: first, that allegory is “consistently attracted to the fragmentary, the imperfect, the incomplete – an affinity that finds its most comprehensive expression in the ruin”; second, that it is “the common practice” of allegory “to pile up fragments ceaselessly” in a strategy of accumulation that appears to be an end in itself; and third, that in the allegorical impulse there is a desire to preserve “the traces of something that was dead, or about to die,” and thus a feeling of melancholy and impending loss – in the latter instance, the allegorical fragment is transformed into a sort of *memento mori*.<sup>61</sup>

In describing his own use of what he called “conventional elements” in architecture, Venturi revealed his understanding of the ways in which meaning, and particularly historical meaning, is communicated through such displaced or recontextualized images:

*Conventional elements in architecture represent one stage in an evolutionary development, and they contain in their changed use an expression of some of their past meaning as well as their new meaning. What can be called the vesti-*

*gial element parallels the double-functioning element. It is distinct from a superfluous element because it contains a double meaning. This is the result of a more or less ambiguous combination of the old meaning, called up by associations, with a new meaning created by the modified or new function, structural or programmatic, and the new context. The vestigial element discourages clarity of meaning; it promotes richness of meaning instead.*<sup>62</sup>

What is striking about the Vanna Venturi House, and about much of Venturi’s other work, is how much emphasis is placed on the fragment – or rather, the series of fragments deployed in hybridized compositions: throughout the house individual elements are encountered sequentially and not as parts of a structured whole. This is a central and fundamental difference between Venturi and Kahn: for Kahn, abstracted historical, specifically classical, references were intended to recall the organic unity and rationality of buildings and of systems of design that connect the culture of the present to that of the past; in Venturi’s work, by contrast, the fragmentary element is removed from its historical context and made to speak in a new relationship to the other elements around it; this is entirely an operation of the present, and of an architecture aware of its own culture and of the limitations of cultural retrieval. Thus, ironically, it is Venturi the historicist, the architect who reintroduced historical imagery into contemporary architecture, who most emphatically draws the line that marks the past as foreign and unreachable.

While the exterior of the Vanna Venturi House makes reference to various traditions in architectural history, the interior mixes the general with the specifically biographical and autobiographical. Some elements – the panel doors, the moldings, the fireplace, the marble floor in the dining area – recall details of vernacular domestic architecture, while others – the vaulted ceiling, the free-

standing column – serve as signs of more monumental precedents. The antique and reproduction furniture is also made to fulfill a double function: like the fragmentary parts of the exterior, each object is read as part of a series of images, but it also functions as an element in a more coherent portrait of the client and of Venturi himself; through the planning and decor of the interior, the “ordinariness” of vernacular forms in general is tied to the specific experiences of an individual life. Since Venturi grew up with the furniture in the house, it represented for him not only his mother’s way of life but also his connection to her and to their shared family past:

*There are things about that house that are just sort of ordinary, that are accepted now, that were very un-ordinary for the time. It was not a historical revival house at all, but it was also not modernist in the sense that it did use familiar forms that symbolized house and shelter. . . . I think in a way that it was sympathetic [to his mother]; it was not right for her to move into a “modern” house. . . . maybe partly that was because this was for my mother and I didn’t want to do something show-off for me that didn’t really relate to her, but fundamentally it was based on a respect for her, and a sentimental liking for this furniture and for her way of life. . . . I knew her well, and I was not trying to put her into something [that was not appropriate for her]. . . . This suited my own interests as an evolving artist, but I was not putting this old woman into a jazzy modern house that she didn’t connect with.<sup>63</sup>*

The Vanna Venturi House represents a rare instance, at least since the advent of modernism, of an avant-garde architect embracing – rather than rejecting – the client’s wish to furnish a house with disparate objects of personal value; the history of twentieth-century architecture is littered with examples (including a few discussed in this book) of the bitter conflicts that resulted from a rigid adherence to the principles of uniformity in interior design.

Venturi’s own emotional attachment to his mother and to the objects with which she surrounded herself ensured that the Vanna Venturi House would be a project of a highly specific nature; it could not have been designed by any other architect for any other client. Yet, through its emphasis on individuality, it served as an eloquent essay on the importance of memory and domestic history not just for women – the traditional conservators of family heirlooms – but as a fundamental principle in architectural design. Venturi’s understanding of the compensatory pleasure of memories – his own, his mother’s, society’s – triggered by the everyday experience of living with old things, stood in stark contrast to the opinions of architects and critics who condemned the popular taste for antiques and period revival interiors in contemporary homes.<sup>64</sup> At the Vanna Venturi House, Robert Venturi was not simply creating meanings as an architect but also as a son, coming to terms with his mother’s past and his own. This process was playful and open-ended: with its fragmentary structure, and with its reliance on individual memory and association, the narrative that he created remained fluid and unfinished. In this way, Vanna Venturi was perpetually present and alive, and the architect/son could be connected to her through the contemplation and recapitulation of his work.<sup>65</sup>

Scully has said that Venturi “touches the core of modesty and intelligence in all of us and endows the rather frightening monster of modern America with a curious sweetness of heart.”<sup>66</sup> In his mother’s house Venturi demonstrated that he – and by extension, we – could stand in a new relationship to history, to ourselves, and to each other, allowing a multiplicity of images, points of view, and experiences to coexist. The house served as a model of intimacy and continuity in a time obsessed with rationalism and the new. With humor, tolerance, and skill, Venturi thus offered up the elements of a new architecture.

- 1 For surveys of Postmodern architecture, see Charles Jencks, *The Language of Postmodern Architecture* (New York: Rizzoli, 1977), and Heinrich Klotz, *History of Postmodern Architecture* (Cambridge, Mass.: MIT Press, 1988). There is a handful of useful critical works that deal with the Vanna Venturi House; these include Stanislaus van Moos, *Venturi, Rauch and Scott Brown: Buildings and Projects* (New York: Rizzoli, 1987), esp. 244–48; Ellen Perry Berkeley, “Complexities and Contradictions,” *Progressive Architecture* 46, no. 5 (May 1965), 168–73; Yukio Futagawa, *Venturi and Rauch: Vanna Venturi House* (Tokyo: Global Architecture/A.D.A. Editions, 1976), 9–17; and Rosemarie Haag Bletter, “Transformations of the American Vernacular: The Work of Venturi, Rauch and Scott Brown,” in *Venturi, Rauch and Scott Brown: A Generation of Architecture*, exh. cat. (Champaign-Urbana, Ill.: Krannert Art Museum, 1984), 2–19.
- 2 Robert Venturi, *Complexity and Contradiction in Architecture* (New York: The Museum of Modern Art, 1966), 22, 46.
- 3 *Ibid.*, 25.
- 4 Denise Scott Brown, “Learning from Brutalism,” in David Robbins, ed., *The Independent Group: Postwar Britain and the Aesthetics of Plenty* (Cambridge, Mass.: MIT Press, 1990), 203–7, esp. 205. See also her “A Worm’s Eye View of Recent Architectural History,” *Architectural Record* (Feb. 1984), 69–81.
- 5 Vincent Scully, Introduction, in Venturi, *Complexity and Contradiction*, 16.
- 6 Robert Venturi, interview with Alice Friedman, May 10, 1996.
- 7 Denise Scott Brown, “On Houses and Housing,” in James Steele, ed., *Venturi, Scott Brown and Associates: On Houses and Housing* (New York: St. Martin’s Press, 1992), 13.
- 8 Venturi, interview with Friedman. See also Frederic Schwartz, ed., *Mother’s House: The Evolution of Vanna Venturi’s House in Chestnut Hill* (New York: Rizzoli, 1992), 21, 22, 25. An architecture student lived in the house in later years.
- 9 In addition to the passages from *Complexity and Contradiction* discussed below, see Robert Venturi, “Diversity, Relevance and Representation in Historicism, or *Plus ça change*. . . Plus a Plea for Pattern All Over Architecture with a Postscript on My Mother’s House,” in Robert Venturi and Denise Scott Brown, *A View from the Campidoglio: Selected Essays, 1953–1984*, ed. Peter Arnell, Ted Bickford, and Catherine Bergart (New York: Harper and Row, 1984), 108–19.
- 10 For the historical sources of the Vanna Venturi House, see Vincent Scully, “Robert Venturi’s Gentle Architecture,” in Christopher Mead, ed., *The Architecture of Robert Venturi* (Albuquerque: University of New Mexico Press, 1989), 8–33.
- 11 Venturi, “Diversity, Relevance and Representation in Historicism,” 118.
- 12 See Todd Gitlin, *The Sixties: Years of Hope, Days of Rage* (New York: Bantam Books, 1987), esp. chs. 1, 2.
- 13 See Deborah Fausch, “Knowledge of the Body and the Presence of History – Toward a Feminist Architecture,” in Debra Coleman, Elizabeth Danze, and Carol Henderson, eds., *Architecture and Feminism* (New York: Princeton Architectural Press, 1997), 38–59, in which she presents a reading of two works by Venturi, Rauch, and Scott Brown where the sense of the past is “embodied” through physical experience.
- 14 Venturi, “Diversity, Relevance and Representation,” 111.
- 15 For a general introduction to Postmodernism, see David Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change* (Oxford, England: Basil Blackwell, 1990).
- 16 See Rosalind Krauss, *The Originality of the Avant-Garde and Other Modernist Myths* (Cambridge, Mass.: MIT Press, 1985), and Carol Duncan, “Virility and Domination in Early Twentieth-Century Vanguard Painting,” in her *The Aesthetics of Power: Essays in Critical Art History* (New York: Cambridge University Press, 1993), 81–108.
- 17 Scully, “Robert Venturi’s Gentle Architecture,” 15.
- 18 Although it was not Venturi’s intention, his words appealed most to people who, like Elizabeth Gordon of *House Beautiful*, feared and hated European modernism as a coercive, antidemocratic, and anti-American approach to design; the best-known spokesman for this antimodernist position was Tom Wolfe in his *From Bauhaus to Our House* (New York: Farrar, Straus and Giroux, 1975).
- 19 Venturi, *Complexity and Contradiction*, 23.
- 20 *Ibid.*, 46.
- 21 *Ibid.*, 46–47.
- 22 *Ibid.*, 88–89.
- 23 *Ibid.*, 117.
- 24 *Ibid.*
- 25 *Ibid.*, 117–19. This description recalls Rudolf Wittkower’s analysis of Michelangelo’s Laurentian Library vestibule in “Michelangelo’s Biblioteca Laurenziana,” *Art Bulletin* 16 (1934), 123–218.
- 26 Venturi, *Complexity and Contradiction*, 119.
- 27 *Ibid.*, 121.
- 28 Schwartz, *Mother’s House*, 17.
- 29 Venturi, interview with Friedman.
- 30 Linda Brandi Cateura, *Growing Up Italian* (New York: William Morrow, 1987), 199.
- 31 *Ibid.*, 196–97.
- 32 Venturi, interview with Friedman.
- 33 Transcript of Robert Venturi’s speech at Pritzker Prize award ceremony, Mexico City, May 16, 1991, 2.
- 34 Venturi, interview with Friedman.
- 35 *Ibid.*
- 36 *Ibid.*
- 37 *Ibid.*
- 38 *Ibid.*
- 39 Denise Scott Brown, “On Houses and Housing,” 13.
- 40 Schwartz, *Mother’s House*, 26.

- 41 Vincent Scully, "Everybody Needs Everything," in Schwartz, *Mother's House*, 39–57, esp. 40–41.
- 42 Frank Gehry's house in Santa Monica, Calif., of 1979 is discussed at length as a work of Postmodernist architecture in Fredric Jameson's *Postmodernism, or the Cultural Logic of Late Capitalism* (Durham, N.C.: Duke University Press, 1991), 107–29, one of the most thoughtful analyses of the movement. See also Suzanne Franck, *Peter Eisenman's House VI: The Client's Response* (New York: Whitney Library of Design, 1994), in which she describes her own experience as a client.
- 43 I am indebted to a recent essay by Mary McLeod, "Everyday and 'Other' Spaces," in Coleman, Danze, and Henderson, *Architecture and Feminism*, 1–37, for providing the outlines of this history and suggesting possible directions for a feminist analysis of Venturi's work. See also David Robbins, "The Independent Group: Forerunners of Postmodernism?" in Robbins, *The Independent Group*, 237–47. For Venturi's discussion of the influence of Pop art, see "A Definition of Architecture as Shelter with Decoration on It, and Another Plea for a Symbolism of the Ordinary in Architecture," *A & U* (Jan. 1978), 3–14, reprinted in Venturi and Scott Brown, *A View from the Campidoglio*, 62–67.
- 44 Denise Scott Brown, "Learning from Brutalism," 203–7; the quotation is on p. 203.
- 45 *Ibid.*, 204.
- 46 For Hamilton, see Robbins, *The Independent Group*, 68–69.
- 47 I am indebted to Patricia Berman for her reading of the Hamilton collage.
- 48 McLeod, "Everyday and 'Other' Spaces," 23, cites Elissa Rosenberg, "Public and Private: Rereading Jane Jacobs," *Landscape Journal* 13, no. 2 (Fall 1994), 139–44, as the source of a feminist reading of Jacobs, noting that it was written from the perspective of the everyday urban experience of a woman.
- 49 See Craig Owens, "The Discourse of Others: Feminists and Postmodernism," in Scott Bryson, Barbara Kruger, Lynn Tillmann, and Jane Weinstock, eds., *Beyond Recognition: Representation, Power and Culture* (Berkeley and Los Angeles: University of California Press, 1992), 166–90.
- 50 Scott Brown, "A Worm's Eye View of Architectural History," 75.
- 51 Scott Brown's commitment to feminism in the 1970s is evident in a number of her writings, notably "Room at the Top? Sexism and the Star System in Architecture," first presented at the Alliance of Women in Architecture, New York, in 1973 and published in Ellen Perry Berkeley, ed., *Architecture: A Place for Women* (Washington, D.C.: Smithsonian Institution Press, 1989), 237–46.
- 52 In particular, see van Moos, *Venturi, Rauch and Scott Brown*, 22–31, and Neil Levine, "Return of Historicism," in Mead, *The Architecture of Robert Venturi*, 58–62.
- 53 Venturi, *Complexity and Contradiction*, 116. In this context, it is notable that Venturi also designed the very modestly programmed headquarters of the North Pennsylvania Visiting Nurses Association in Ambler, Penn. (1961), with an uncharacteristically monumental entrance, and that he used this device to create an image for a largely female institution quite unaccustomed to such architectural attention.
- 54 Venturi, *Complexity and Contradiction*, 49.
- 55 For the details of Venturi's education and early career, see Schwartz, *Mother's House*, 18–21.
- 56 Levine, "Robert Venturi and the 'Return of Historicism,'" 45–67.
- 57 For the Margaret Esherick House, see David B. Brownlee and David G. De Long, *Louis I. Kahn: In the Realm of Architecture* (New York: Rizzoli, 1991), 152–55.
- 58 Levine, "Return of Historicism," 56.
- 59 See Craig Owens, "The Allegorical Impulse: Toward a Theory of Postmodernism," and "The Allegorical Impulse, Part 2," in Bryson, et al., *Beyond Recognition*, 52–69, 70–87.
- 60 Owens, "The Allegorical Impulse," 54.
- 61 *Ibid.*, 55, 56. For an overview of the subject of memory and history, see David Lowenthal, *The Past Is a Foreign Country* (New York: Cambridge University Press, 1985).
- 62 Venturi, *Complexity and Contradiction*, 44.
- 63 Venturi, interview with Friedman.
- 64 See, for example, Edgar Kaufmann, Jr., *What Is Modern Design?* (New York: The Museum of Modern Art, 1950), 7. The book was part of the Introductory Series to the Modern Arts, published by the museum in the 1940s and 1950s.
- 65 In *The Practice of Everyday Life*, Michel de Certeau suggests that there is a similar process at work in the experience of walking in unknown parts of the city: in moving from the familiar to the unfamiliar and back again, the walker re-creates the child's playful experiments with separation from the mother. See *The Practice of Everyday Life*, trans. Steven Rendall (Berkeley and Los Angeles: University of California Press, 1984), 109–10. On children and "found objects," see Walter Benjamin, "Construction Site," in *One Way Street and Other Writings*, trans. Edmund Jephcott and Kinsley Shorter (London: New Left Books, 1979), 52–53, and Graeme Gilloch, *Myth and Metropolis: Walter Benjamin and the City* (Cambridge, England: Polity Press, 1996), esp. 88–89.
- 66 Scully, "Robert Venturi's Gentle Architecture," 33.

*Talk. Talk. And more talk. Nothing stopped with the fact. Nothing just was. Was it this? Or was it that? Might it not be something else? Nothing so simple but that it was divided and subdivided. Nothing so slight but that it warranted consideration. It was all like that.*

Harriet Levy, "Recollections"

Looking back on her life in Paris with the famous Steins, their friend Harriet Levy, a fellow Californian, remembered the sound of people talking. The four Steins (fig. 1) – Michael (1865–1938), his wife Sarah (née Samuels, 1870–1953, known as Sally), Leo (1872–1947), and Gertrude (1874–1946) – all loved to talk, and they talked (and wrote) incessantly – about art, about books, about themselves, their feelings, their lives. Cut off, albeit by choice, from San Francisco's close-knit, voluble Jewish community, they talked to each other, to their friends, to their neighbors, to anyone who would listen. The Steins were curious, confident, and bookish, and they seized on new ideas about art, literature, and life with a single-minded passion and an intense pleasure in knowing that they were on the cutting edge of change.

They were also at pains to explain their discoveries to friends and acquaintances. Their energetic, pioneering efforts as collectors and connoisseurs of modern painting and sculpture, especially the works of Cézanne, Picasso, and Matisse, are well known.<sup>1</sup> From 1905 until the First World War, the open, airy rooms at 27, rue de Fleurus – the home of Leo and Gertrude – and the large salon around the corner at 58, rue Madame – the home of Michael, Sarah, and their young son, Allan – were recognized as centers of contemporary art in Paris, informal galleries where friends and acquaintances could come to look at the pictures and listen to the Steins talk about art.



Gabrielle de Monzie, ca. 1918



Sarah Stein, 1916



Michael Stein, 1916

## Being Modern Together:

### Le Corbusier's Villa Stein–de Monzie

At times it seems that as much as the loquacious Steins said and wrote in their own lifetimes, that mountain of words has since been exceeded a thousand-fold by the outpouring of verbiage generated by their admirers. The Stein era in Paris came to an end with the outbreak of World War I, but since the 1930s curiosity about Gertrude Stein's colorful life, her lifelong lesbian relationship with Alice B. Toklas, and her inscrutable, modernist writing has spawned a virtual cottage industry of studies and biographies, aided no doubt by Gertrude's relentless self-promotion. Yet despite the enormous literature that already exists about this influential family, there is still much more to tell, particularly about Michael and Sarah. Their activities as patrons of art and architecture bear the distinct stamp of Sarah's vibrant personality, her reform-mindedness, her spiritualism, and her proselytizing tendencies. Her commitment to the art of Henri Matisse – as a collector of his work, and as his student

and friend – was unshakable and resulted in the formation of not only the Steins' own art collection but also that of their friends Etta and Claribel Cone in Baltimore, for whom she and Michael acquired numerous pictures.<sup>2</sup>

Far less well known is the pivotal role the Steins played as patrons of the architect Le Corbusier (1887–1965). One of his largest and most important houses, the villa “Les Terrasses” at Garches (plate 1; fig. 2), outside Paris, was built for them and their longtime friend Gabrielle Colaço-Osorio de Monzie (1882–1961) between 1926 and 1928. This house, which Le Corbusier himself viewed as the culmination of his early career, was immediately praised as a milestone in the development of modern architecture, and it has long been recognized as one of the most significant buildings of the twentieth century.<sup>3</sup> For the Steins and their friend, a threesome who lived together as a family from the early 1920s until Michael Stein's death, in 1938, and for their architect, the house represented a watershed, the realization of many of the aspirations and ideals of their years in Paris. Yet very little has been published about the contribution of the Steins and Madame de Monzie as clients, or as participants in the process of building this remarkable work of architecture.

The Villa Stein–de Monzie (figs. 3, 4) is the largest and most luxurious house that Le Corbusier designed in the 1920s. Set far back on its site and approached via a long, straight driveway that ends at the door of an ample garage, the house's pristine white walls and crisp ribbon windows give it the appearance of a modern-day Palladian villa set in a landscape of dark trees. The flatness of the facade and its unified form heighten the sense of imposing monumentality, particularly when the house is viewed from a distance. The gate-lodge at the front of the property underscores the impression of old-world luxury updated with modern conveniences. On the gar-



FIGURE 1

The Steins: from left, Leo, Allan, Gertrude, Therese Ehrman, Sarah, Michael. 1904



FIGURE 2  
Le Corbusier. Villa Stein-  
de Monzie, Garches, France,  
1926–28

den front the walls open up to form a series of wide terraces accessible from the interior and from the garden itself. A roof terrace, complete with a solarium and lookout tower, provides additional outdoor space for sunbathing and exercise, as though it were the upper deck of a large ocean-liner and the inhabitants of the house passengers on a long sea voyage.

Because it was built for a household that included a married couple – and because the man in that couple, Michael Stein, took such an active role in the planning process – Les Terrasses would not appear to fit easily into the broad categories outlined in the introduction to this book. Yet it is included here for several reasons: first, because the complexity of the household group that commissioned it called conventional family structure and gender relations into question; second, because the relationships among the people who were part of that household challenged the clients and their architect to

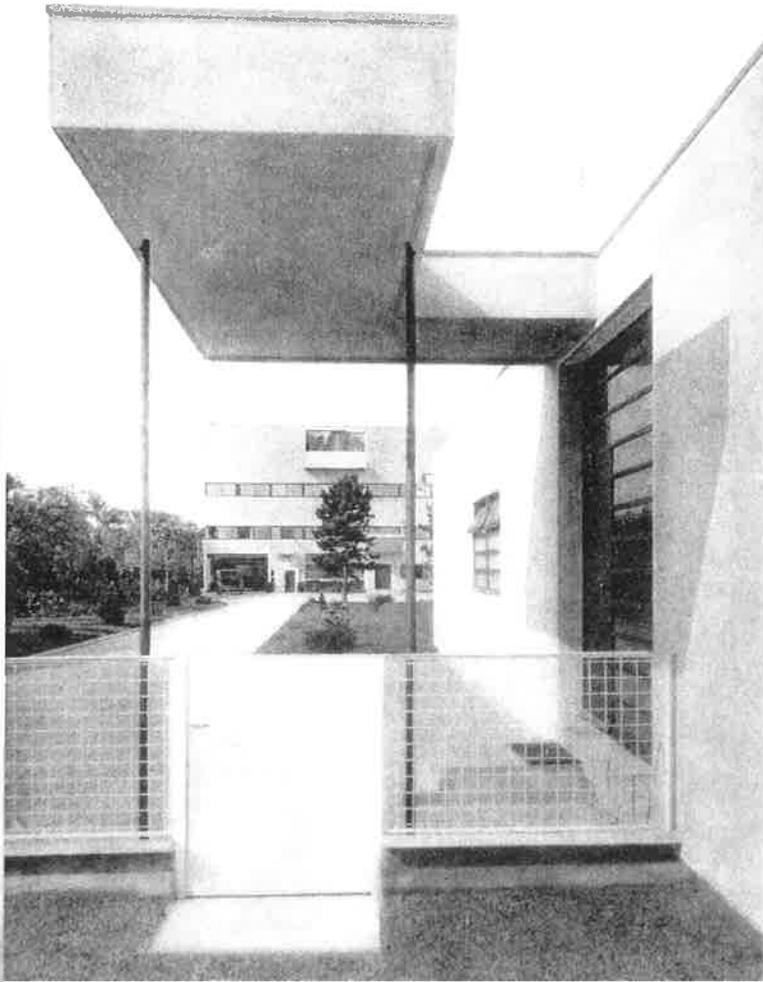


FIGURE 3  
Villa Stein-de Monzie, view  
from the gate-lodge. From  
*L'Architecture vivante*, 1929

conceive of domestic space in a new way; and third, because the house that resulted not only was an unprecedented work of modern architecture but also, like so many of the houses discussed in this book, represented a creative breakthrough for its architect. While the history of the project certainly focuses our attention on the key roles played by women, the story of Les Terrasses is more properly understood as a case in which women and men negotiated their relationships in an unusual way, and sought to represent themselves architecturally in a project that had significant implications for the history of architecture. While the client of record was Gabrielle de Monzie, what is most fascinating about the house is the unconventional balance of power among the three adults who entered into the project as equals and the ways in which Le Corbusier interpreted this relationship in his design.

As James Ward revealed in his 1984 study of Les Terrasses, it was Christian Science that brought Sarah Stein and Gabrielle de Monzie together some ten years before they met Le Corbusier, and the bond forged by their deep commitment to each other motivated them to form a single household.<sup>4</sup> Nevertheless, it was Michael Stein who kept the household together, playing the role not only of Sarah Stein's husband but also of friend, banker, advisor, and caretaker for both women. The relationship between Michael and Gabrielle was in many ways like that of a brother and sister, recapitulating the close family ties of the Stein siblings, Michael, Leo, and Gertrude. Many things between the Steins and Madame de Monzie were shared, but their private lives remained separate. When it came to the design of their new country house, the household demanded a completely original response, one that simultaneously accommodated intimacy and privacy within a balanced and equal allocation of space.

Le Corbusier experimented with various solutions, arriving at a design of unusual complexity, particularly

in the plan and section, where the tension between bilateral symmetry and open, abstract form yields a new approach to the configuration of the domestic interior. (I will discuss this point more fully below.) While the architect had struggled with such questions throughout the 1920s, Les Terrasses represents a turning point and a resolution, the penultimate step in a process that would eventually result in the “classic” design of the better-known Villa Savoye at Poissy in 1929–30. The boldness and success of the Les Terrasses design were the result of the unique combination of circumstances arising from Le Corbusier’s own evolution as an architect and the challenges (and opportunities) presented by the Stein–de Monzie household as a client group.

As Tim Benton suggested in *The Villas of Le Corbusier*, one of the main things that the house is “about” in terms of design is the “continual struggle” on the part of the architect “to arrange the lopsided functions of the brief (two bedrooms for Madame de Monzie and her daughter, one large bedroom for the Steins), while preserving



FIGURE 4  
Villa Stein–de Monzie, garden  
facade. From *L'Architecture  
vivante*, 1929

some degree of privacy for the two.”<sup>5</sup> We are now in a position to go much further with this analysis, and to show how the unique structure of the household, combined with the clients’ commitment to modern architecture, art, and religion, created a framework within which Le Corbusier could develop a new approach to domestic architecture. The Steins and their friends were great letter writers as well as talkers, and the hundreds of documents that survive create a detailed picture of their daily lives and the concerns that preoccupied them and their friend Gabrielle de Monzie. Thus, while none of Madame de Monzie’s own letters survive, the Steins’ volubility and frequent communications – Michael Stein was a particularly loyal correspondent, even when he only had time to send a postcard – enable us to place her, and them, in a social and intellectual milieu in Paris during the 1910s and 1920s. Similarly, although Le Corbusier’s office made very few notes about the project after Sarah Stein’s initial phone call in 1926 (meetings between the architect and the clients were conducted face-to-face in the office or on site), we can document the process of design development and construction based on Michael’s comments; these, plus other evidence, reveal that the house was viewed by the clients and their architect as a progressive alternative to the prevailing norms for art, architecture, and family life.<sup>6</sup> What emerges is an image of a way of life shaped by a nexus of ideas and values, a life deliberately and self-consciously constructed in response to the challenges of the modern world. The Stein–de Monzie household clearly shared many of Le Corbusier’s convictions about modern art, about the latest health and exercise regimens, and about the importance of new technology for the improvement of their own lives and those of others in contemporary society. Thanks to their extraordinary partnership, Les Terrasses became a three-dimensional demonstration of what modern architecture could achieve.



#### The Four Steins

Unlike Gertrude and Leo, who considered themselves the creative equals of their artist friends and set out to break new ground in their chosen fields of literature and art criticism, respectively, Michael and Sarah saw themselves as patrons with a special gift for recognizing and fostering the talents of others. Their passionate commitment to patronage gave them an unusual gift for friendship and kept them connected to a large and loving circle of friends – a group that included the Cone sisters, Henri and Amélie Matisse, and many others, particularly women, who came and went as houseguests, companions, and hangers-on. As collectors, Michael and Sarah concentrated almost exclusively on the work of Matisse, beginning with their first purchase (with Leo and Gertrude) of *The Woman with a Hat* at the Salon d’Automne in 1905.

FIGURE 5

Sculpture class at the Académie Matisse, Hôtel Biron, Paris, ca. 1909. From left: Jean Heiberg, an unidentified woman, Sarah Stein, Henri Matisse, Patrick Henry Bruce. Photograph courtesy The Museum of Modern Art, New York

They also actively promoted his career: in 1908, for example, with Michael's financial backing, Sarah persuaded Matisse to open a school of painting. She attended classes herself (fig. 5) and diligently transcribed the master's words of wisdom to his students; her notes remain one of the best records of his ideas in this period.<sup>7</sup>

The popular Saturday evening gatherings held at 58, rue Madame, the remodeled parish house into which the elder Steins moved soon after their arrival in Paris (fig. 6), provided Sarah with a captive audience for her disquisitions on Matisse's genius. As Harriet described the scene: *The crowds who came to her home on Saturday night to view the paintings were received and entertained by a woman beautifully gowned in original costumes [and] antique jewelry. A hostess who sat upon a couch and did not leave it, who explained the paintings on the walls, the greatness of Matisse, his unique position in the world of art. . . . She seemed to receive joy from the paintings.*<sup>8</sup>

Like her brother- and sister-in-law, Sarah Stein used the open houses as a forum in which to talk about art and ideas, but unlike Leo and Gertrude, who disdained the role of teacher, Sarah was unfailingly didactic, bossy, and insistent that others follow her lead. She demanded



FIGURE 6

The salon at 58, rue Madame, ca. 1909

absolute allegiance and angrily ridiculed any opinion that conflicted with her own. Her friends both adored and hated her – Harriet confessed to having had such a profound desire to murder her after one particularly heated exchange that she was forced to spend an entire day alone in the Luxembourg Gardens calming herself down – but Sarah always kept the upper hand. Michael, by contrast, tended to let others do the talking and struggling, quietly buying and selling pictures, and diligently managing the family finances.

In the early years in Paris especially, the four Steins constantly exchanged ideas and pictures, and they all used similar language to describe the qualities they valued. According to Leo, the acknowledged expert, artists were to be praised for “the elimination of the inessential,” and he taught Gertrude, Sarah, and Michael to focus on matters of style, such as form, color, and composition, in the manner of Bernard Berenson, the art historian, whom the Steins had met in Florence some years before.<sup>9</sup> Yet as each one cultivated a distinctive personality as a collector – Leo favored Cézanne, Gertrude cast her lot with Picasso, and Sarah (followed by Michael) supported Matisse – each developed a set of characteristic critical values and a vocabulary of his or her own.

The Steins shared their love of art, but they also had in common a fondness for the latest theories on health and fitness, and took up stringent new diets and exercise regimens with enthusiasm. Leo and Sarah in particular were convinced that the way to be free of the depressions and anxieties that troubled them was through rigorous physical self-discipline; Gertrude and Michael, though clearly interested, seemed far more content to take life in stride. By 1908 Sarah had embraced the teachings of Christian Science with the same conviction and single-mindedness that Leo reserved for “Fletcherizing” (chewing food repeatedly) and fasting, and both were eager to share their discoveries with the others. Gertrude satirized this tendency in the prose portrait of Leo and Sarah enti-

tled “Two,” written around 1912, when she noted that “sound is coming out of him” and “sound is coming out of her.”<sup>10</sup> Yet Gertrude had her own peculiar enthusiasms: having read and discussed Freud with Leo, she remained devoted to Otto Weininger’s misogynist and anti-Semitic treatise *Sex and Character*, which appeared in 1903, and she devised a system for understanding individual character and sexuality based on Weininger’s theories.<sup>11</sup> Like the others, Gertrude insisted that this new discovery (and each one she subsequently embraced) represented a major breakthrough in modern thought.

According to Harriet, none of the Steins was exempt from a vexing tendency toward self-importance:

*Everything that Gertrude did was important. Importance was attached to all kinds of things in Paris that were without significance in California. . . . What was it that made things that happened to Steins important? Was it just because they happened to Steins? Or was it because they happened to Steins in Paris? Couldn't they have happened to other people? In that case, would they still be important?*<sup>12</sup>

While the four Steins would inevitably drift apart following Leo’s departure from 27, rue de Fleurus, in 1914 and the advent of World War I, their letters show that Gertrude, Leo, and Sarah each remained unshakable in the conviction that their individual passions were paramount: Gertrude was consumed with a need to prove her genius as a writer and by her relationship with Alice; Leo – who made it clear that he was disgusted by Gertrude’s homosexuality – pulled away and immersed himself in art criticism and self-analysis; and Sarah became a Christian Science “practitioner” or healer.<sup>13</sup> For each, the failure of the others to share his or her enthusiasm was an affront that contributed to the widening distance between them. As the First World War came and went, the incessant sound of conversation, so characteristic of the early years in Paris, was stilled by their growing frustration with one another.

### The Steins, Matisse, and Christian Science

Sarah and Michael Stein's career as patrons and promoters of the arts began modestly enough in San Francisco in the 1890s.<sup>14</sup> Following the death of Daniel Stein in 1891, Michael, his eldest child, took over responsibility for managing the family's inheritance and began working in his father's business, the Omnibus Cable Company. When Leo and Gertrude went East to college, Michael remained in San Francisco, marrying Sarah Samuels, the outspoken and academically successful daughter of a wealthy German Jewish merchant, in March 1894. By 1895, the year their son was born, Michael had been promoted to the position of superintendent in the newly formed Market Street Railway company.

The young couple was well off, educated, and up-to-date. They collected art and tried to keep abreast of the latest trends in education, health, and philosophy. Sarah, who described herself in a letter of October 30, 1899, as having "salon-lady propensities," took courses in Italian art, comparative literature, and music, and avidly amassed reproductions of works by Botticelli, Leonardo, and Dürer. In the late 1890s she and Michael began acquiring Chinese paintings and bronzes, and they wrote to Gertrude – who was then a student at Radcliffe College – to ask whether Leo might "have any books on Japan that he no longer cares for . . . as [they] are so much interested in Japanese Art and naturally in the country itself." They enclosed a snapshot of their "modest collection" with the letter, noting that they "recently added a pair of bronzes that are superb." Ever anxious to impress the younger siblings, they could not resist the temptation to brag, adding, "We bought 'em cheap."<sup>15</sup>

The Steins also took an interest in psychology and medicine, and Sarah in particular followed her sister-in-law's progress at Radcliffe (where she studied with the psychologists Hugo Munsterberg and William James)

and later at Johns Hopkins Medical School, with intense curiosity. Her letters from San Francisco are full of questions about Gertrude's course work, news about her own health (troubles with backache and "nervous depression") and descriptions of homeopathic remedies that had been passed on to her by a friend.<sup>16</sup> She was hungry for information and insecure about her own lack of knowledge: in one letter, probably written in November 1896, she begged Gertrude to "Please send Munsterberg's toys right along as I am anxious to experiment on the kid!"; in another, dated August 27, 1899, she noted that she had gone "to a lecture by Professor [William] James," adding, "I only wish I knew a little philosophy!" She was plagued by anxieties about her child's health and yet unsure about the right thing to do as a good parent. She wrote to Gertrude on November 11, 1899:

*Oh Gertrude, I'd give anything to be a Hottentot lady with a few naked babies provided the babies were all O.K. – I am so sick of being a modern mother and particularly a quasi-medical mother who knows enough about collapses and hemorrhages and all kinds of pleasant things to make her hair turn gray and yet be no earthly good to anybody!*<sup>17</sup>

Given these persistent doubts, it comes as no surprise to discover that Sarah would be drawn to the reassuring certainties of Christian Science, nor does it seem odd that she would eventually turn her attention to the work of Le Corbusier, an architect dedicated to healthy living through modern design.

Michael Stein shared his wife's preoccupation with health and diet, and like her, he was anxious to pass on the latest information to friends and family. He wrote to Gertrude on January 12, 1901:

*Don't forget the importance of the Haig diet in connection with affections of the brain and nervous system. I have just received a new book by him "Diet and food in relation to strength and power of endurance." The diet has cured the wife of a friend of mine who had hysteria induced by womb*

trouble and migraines at the same time, wiping out the two complaints; and Sally [that is, Sarah] is now as tough as a trooper without a sign of nervousness.<sup>18</sup>

The Steins had a great deal to talk about, and they were overjoyed when they were reunited as a family in Paris in 1904. Initially Leo took the lead in all things pertaining to art, but Sarah was never far behind. The first signs of her growing independence from the others began to appear in 1906, when she and Michael, anxious to see how their real estate holdings had fared in the San Francisco earthquake, returned home from Paris carrying with them two Matisse paintings, including the *Portrait of Mme Matisse*, which they nicknamed “The Green Stripe.”<sup>19</sup> They clearly delighted in their role as advocates for the new style: in a letter of October 1906, Sarah described how “Mikey sprang the Matisses on one [friend] just for fun.” With Leo and Gertrude safely back in Paris, Sarah could claim authority without having to share center stage.<sup>20</sup>

Moreover, ever enthusiastic about the latest new cure, Sarah became interested in Christian Science at about this time. The new religion was becoming increasingly popular among educated, progressive women like herself, particularly well-to-do Reform Jews.<sup>21</sup> There had been numerous Jewish converts in San Francisco, and there would be many more, drawn by promises of assimilation into “American society” and by the patina of respectability conferred by scientific-sounding doctrine. By the time she returned to Paris later in the year, Sarah Stein had found her new cause.

Christian Science was the discovery of Mary Baker Eddy, whose own spiritual awakening during the last decades of the nineteenth century became the foundation for a religious movement dedicated to individualism, positive thinking, and spiritual renewal. Through her lectures and writings – notably *Science and Health with a Key to the Scriptures* (1875) – Mrs. Eddy preached

a combination of self-help and mind cure that had an uncanny ability to attract converts. Five characteristics of Mrs. Eddy’s new religion contributed to its immense popularity with women like Sarah Stein. First, she promised to empower her followers by giving them the tools to cure themselves through their own mental efforts. Second, she invoked the authority of science to give her theories credibility among educated women and men, emphasizing participation through an activity that was both familiar and comfortable to middle-class people, that is, reading daily selections from the Bible and *Science and Health*. Third, she soft-pedaled questions of Christian dogma, referring to Jesus as a great teacher and leader and, more important, never insisting on the divinity of Christ. This approach gave her writings a modern, pragmatic tone and made it possible for Jewish converts to embrace Christian Science and still feel that they had remained Jewish. She presented an ambiguous, open-ended image of God, who is referred to in her writings only as Mind, Supreme Being, and Principle. Fourth, and of particular importance for progressive women, was Eddy’s insistence that God was both male and female.<sup>22</sup> Thus, she emphasized the role of women in the church, insisting that each service be jointly led by a male and a female Reader. Fifth, she stressed the relationship between the individual and the community, advocating that her followers attend weekly meetings where they could derive inspiration from testimonials to faith and healing and talk to other people about their experiences.<sup>23</sup>

Sarah Stein possessed a number of qualities that predisposed her to embrace Christian Science: she was anxious about her health and that of her family, open to spiritual and aesthetic experiences, and – like the rest of the Steins – self-willed and sure of her own opinions. Sarah could also be a good listener and a sympathetic advisor (as in the case of Matisse, but also to her many

women friends), two qualities that were essential for a Christian Science practitioner. Her biggest challenge was convincing the ever-cynical members of her own family.<sup>24</sup>

Gertrude and Leo remained dubious about their sister-in-law's conversion, to say the least, but with typical Stein panache Sarah began to proselytize and offer advice. One of her first patients was Harriet herself, who had been troubled not only with soreness in her shoulder but also by persistent lameness. During the summer of 1908, when the Steins rented the Villa Bardi in Fiesole, leaving their former summer residence, the Casa Ricci, to Harriet and Alice Toklas, Sarah undertook to cure Harriet through the teachings of Mrs. Eddy; to everyone's surprise she was successful. Two days later Harriet had a relapse and came to Sarah with the bad news. She remembered the incident well:

*Sarah was red with rage. She looked at me as at one who had betrayed her and said "Nothing like that. You walk. For the first time I have convinced Gertrude and Leo of the Truth of Christian Science Healing. The first time they have had any confidence in me as a practitioner. Don't you dare to go back on me. Now walk!" she said and pushed me out of the house. I walked home and have been walking ever since.*<sup>25</sup>

Harriet became convinced (and she would eventually persuade many members of her family back in San Francisco to join her in Christian Science), but Gertrude and Leo remained unmoved – they had enthusiasms of their own.

Christian Science and Matisse's art became Sarah's twin creeds. For her the two were connected, and it is not difficult to see how: they were both modern, accessible, and optimistic. According to Harriet, for Sarah Stein, Matisse "became . . . and remained . . . the one great artist" (she added wryly, "Mike listened to Sarah").<sup>26</sup> Matisse's painting, with its bright colors and "untroubling" subject matter, offered just the sort of positive vision of the world Christian Scientists sought. Indeed, the text of one of Matisse's most famous statements, written in about 1908,

suggests strong affinities with Christian Science teachings: "What I dream of is an art of balance, or purity and serenity, devoid of troubling or depressing subject matter, an art which could be for every mental worker, for the business man as well as the man of letters, for example, a soothing, calming influence on the mind, something like a good armchair which provides relaxation from physical fatigue."<sup>27</sup> In *Science and Health*, Mrs. Eddy had advised her followers to "relinquish all theories based on sense-testimony" and to "give up imperfect models and illusive ideals." She urged them to "form perfect models in thought and look at them continually . . . [and] let unselfishness, goodness, mercy, justice, health, holiness, love – the kingdom of heaven – reign within us, and sin, disease, and death will diminish until they finally disappear." She continued, "The recipe for beauty is to have less illusion and more soul, to retreat from the belief of pain or pleasure in the body into the unchanging calm and glorious freedom of spiritual harmony."<sup>28</sup> Similarly, Matisse wrote that he tried "to put serenity into [his] pictures," and to represent the truer, more essential character of things "underlying this succession of moments which constitutes the superficial existence of beings and things."<sup>29</sup> Matisse was not a Christian Scientist, but such statements enabled Sarah Stein to integrate her spiritual and artistic convictions.

For Sarah and a small circle of friends who gathered around her (including, by 1914, Gabrielle de Monzie) modern art and Christian Science offered two means to the same ends: spiritual enlightenment and relief from the distress of daily life. They embraced abstract art as a simplified image of beauty, using paintings and meditation to transcend physical and psychic pain. Matisse's bold forms and bright colors in particular came to represent an optimistic alternative to the confusion and powerlessness they experienced in the world. Much as the De Stijl artists would link their work to Theosophy, emphasizing

the redemptive value of “pure” form and spiritual clarity in the modern, urban environment, so Stein and her circle found in Christian Science a contemporary philosophy that resonated with, and reinforced, the freshness and clarity of the art they loved.<sup>30</sup> Industrial technology had ushered in a new era in the twentieth century by applying principles of engineering to age-old problems, and Christian Science – like modern art, Freudian psychoanalysis or the latest healthy diet – was promoted as a comparable cure: a pragmatic, logical system that would uncover and explain essential truths. Modern architecture could be discussed in the same terms: in the writings of Le Corbusier, for example, the connection between new materials, simple, abstract shapes and good health was made explicit. (I will return to his writings later in this chapter.) Replacing old habits and misconceptions with positive new ways of thinking and living, these discoveries and the radical changes they promised bore the hallmark of modernism.

For the next decade she would immerse herself in the life of the expatriate Christian Science community.<sup>31</sup> The bohemian world she and Michael had shared with Gertrude and Leo and their artist friends was behind her now, replaced by a far more respectable social whirl of dinners, tea parties, visits to galleries and concerts, attendance at church and at weekly testimonial meetings, and holidays in Brittany and the south of France. In October 1912 Harriet once again assumed her place in the Stein circle, accompanied by her niece Sylvia Salinger (fig. 7), a recent convert to the religion.<sup>32</sup> Sylvia’s letters from this period, preserved in their entirety, offer a wonderfully detailed view of their daily lives. Now the Steins’ “at homes” were attended by English and American Christian Scientists who, like Sylvia herself, peered long and hard at the pictures, trying “to see beauty” in them. When their guests stayed for supper, the talk seldom turned to art. Sylvia had been advised by Sarah to

“rejoice” as a cure for her migraines, and she and the other young people Sarah had taken under her wing preferred to listen to Mike’s impressive collection of Victrola records than to do almost anything else. Shopping, eating, and drinking (wine was served despite Mrs. Eddy’s advice against it) occupied a good deal of time and attention. A Sunday afternoon excursion to an automobile show was as likely as a visit to a gallery.<sup>33</sup> Though Sylvia described her aunt Harriet, in an intriguing rehash of Leo’s old dictum, as wishing only for “an elimination of the non-essential” at Christmas, it is clear that enjoyment of the world and of the material pleasures it had to offer vied with intellectual soul-searching in the circle around the Michael Steins. Gertrude, Alice, and even Leo continue to make appearances in the letters, but they remain at the edge of the picture.

Although he never converted to Christian Science, Michael Stein was naturally inclined to cheerfulness and to a love of material things, and he embraced all that life in and around Paris had to offer. Postcards and letters he wrote to Gertrude and Alice, who were in Spain in the spring and early summer of 1912, reveal his continued preoccupation with physical exercise, which included swimming, hiking, bicycling, tennis, and even horseback riding on the outskirts of Paris. On one occasion in 1912 he and his son were accompanied by Matisse, and another time by Leo (fig. 8). The summers were particularly action packed: photographs taken at Agay, on the Riviera, in 1913 and 1914 show the Steins surrounded by a group of young friends, swimming, diving, and clowning around (fig. 9). In many ways Michael Stein would come to represent the ideal modern man as envisioned by Le Corbusier and other theorists of the time: devoted to art and physical exercise, to motor cars and new technologies of every kind, and rich enough to support the latest offerings of the Paris merchants, artists, and architects.

During the 1920s the Steins and their friend Gabrielle de Monzie would embrace modern architecture in this optimistic spirit, building an enormous new country house that was as distinctive for its celebration of industrial technology – cars, steamships, steel beams, concrete, plate glass – as it was for its extraordinary, stripped-down appearance. Although as Christian Scientists the two women had no particular reason to prefer one style over another – the church seemed to take no position on the matter – like Michael, they were predisposed to embrace the promises of modern architecture.<sup>54</sup> Indeed, the constellation of unconventional ideas about art, spirituality, health, gender, and family life that they brought to the project not only overlapped with Le Corbusier's own ideas but also helped define the concept of their house as it took shape in his mind.



FIGURE 10  
Sarah Stein. *Portrait of Gabrielle de Monzie*, ca. 1918.  
Private collection

#### Gabrielle de Monzie and Le Corbusier

The Steins' decision to hire Le Corbusier is intimately tied to their friendship with Gabrielle de Monzie (fig. 10). She remains an elusive figure, despite the fact that she was part of the Christian Science circle in Paris and played a central role in the Steins' lives over a period of many years. She is mentioned infrequently in their letters, appears in very few photos, and left no written records or letters of her own. Nevertheless, the outlines of her biography are clear. Like the Steins, she was Jewish and well-to-do. She was married to the progressive politician Anatole de Monzie and owned a number of châteaux in the south of France; her close relationship with the Steins seems to have been based at first on her compatibility with their life of leisure and culture, and on her friendship with Sarah, but after her separation and divorce from her husband she increasingly relied on Michael for guidance and business advice.<sup>55</sup> Between 1917 and 1922 Madame de Monzie and the Steins traveled and lived together for extended periods; later she became a permanent member of their household, along with her adopted daughter, Jacqueline. In 1923 they began looking for a country house to share; three years later they joined forces to commission Le Corbusier to design the villa that would become known as Les Terrasses. This extraordinary household, in which women played such a decisive role, would remain intact until Michael's death, in 1938; indeed, the two women would continue living together for some years thereafter, although by the time of Sarah's death, in 1953, Madame de Monzie had moved to her own home in San Francisco.<sup>56</sup>

World War I was a turning point in all their lives. Having vacationed in Agay in the summer of 1914, the Steins stayed on through the winter of 1915, after war was declared. They considered returning to California but instead remained in France, spending much of the war

in resort hotels and country houses far from Paris and the threat of attack by the Germans. The portraits Matisse painted of the couple in Paris in 1916 (plates 2, 3) reveal that they were in the city for at least some of the time and that they kept in touch with the artist. Yet for months on end they lived in the country; whenever they were in one place for any length of time, Madame de Monzie visited Sarah, who probably acted as her practitioner. They also benefitted from Madame de Monzie's hospitality: during the summer of 1918, for example, the Steins lived at the château "La Taillade," near Cahors;<sup>37</sup> from there Michael wrote to Gertrude that it was "just like Bardi, only bigger."<sup>38</sup> He seems to have enjoyed the memory of their happy summers in the Italian countryside. A city dweller all his life, Michael took up gardening and wrote frequent, anxious letters to his sister inquiring about her activities and the welfare of their collections.

By the war's end the Steins were increasingly distressed about life in the city, and they preferred the quiet and relaxation of the country. Visits to Paris, where their son, Allan, had taken a job as a captain in the Red Cross, proved disappointing: "Paris is crowded and unspeakably expensive," Michael wrote in the fall of 1918, "Neither Sally nor I have been well since we are here. I guess we have passed our city days for good." By the following spring it was clear that they would not return to 58, rue Madame: "Paris is more crowded than ever," Michael lamented, "and the price of apartments is something extraordinary."<sup>39</sup> Although they eventually found a place to rent in Passy, on the western edge of Paris, and lived there between 1922 and 1924, the Stein-de Monzie household was frequently on the move, driving long distances in Michael's new Hudson (Allan had become a car dealer after the war), staying at one or another of Madame de Monzie's châteaux, or touring the countryside in search of a villa to buy in the south of France.<sup>40</sup>

Gradually it dawned on them that they might not have to travel quite so far to find the sort of life they were seeking. With a car and chauffeur at their disposal, and frequent train service from the Gare Saint-Lazare between Paris and the far western suburbs, it would be possible to enjoy the pleasures of the garden and good country air without having to give up occasional day trips to the city. In the suburbs they could build a home that was custom-designed to suit them, in a style consistent with their tastes in art and their concerns about healthy living. Thus they turned to Le Corbusier, a young architect with just the sort of approach they found appealing.

It is not difficult to explain how the Steins and Madame de Monzie became aware of Le Corbusier's work or why they chose him as their architect. Their interests and worlds overlapped in numerous ways. Since his arrival in Paris in the winter of 1916–17, Charles-Edouard Jeanneret (he adopted his new name, Le Corbusier, in 1920) had lived and worked as an artist and writer in a milieu the Steins knew well. While Michael and Sarah no longer had strong ties to bohemian Paris, Michael in particular kept abreast of the art market after the war, frequenting the galleries and the salons, acquiring and selling pictures (mostly on behalf of the Cones), and reading the latest art books and journals.<sup>41</sup> Perhaps the Steins knew Jeanneret and Amédée Ozenfant's *Après le cubisme* of 1918 or took an interest in the Purist paintings (their own works and those of Fernand Léger) they exhibited and wrote about. Perhaps they had seen the two young artists at the four auctions (held in June and November 1921, July 1922, and May 1923) of the confiscated collection of their old friend Daniel-Henry Kahnweiler, bidding for Cubist paintings on behalf of a competitor, the wealthy Swiss banker Raoul La Roche.<sup>42</sup> Indeed, in 1923, when La Roche commissioned Le Corbusier to build a double house where his collection

could be displayed (Le Corbusier's brother, Albert, and sister-in-law, Lotti Raaf, lived in the other half) not far from where the Steins and Madame de Monzie were living, they may well have gone over to have a look.

There were other opportunities to notice the architect. Le Corbusier had exhibited a model of his *Maison Citrohan*, a prototype for a mass-production house, at the Salon d'Automne of 1922, and Michael, who had earlier invested in apartment houses in San Francisco, would have found it particularly interesting. Ten years before, at the Salon d'Automne of 1912, he had reportedly been impressed by Raymond Duchamp-Villon's model for a Cubist House because "he saw in it important solutions for the problem of building with cement."<sup>43</sup>

More important, the Steins almost certainly knew *L'Esprit nouveau*, the journal Jeanneret and Ozenfant founded in 1920 and published until 1925; they would certainly have been drawn to it because of its modern approach. It contained articles on many subjects that interested them: art, architecture, construction and building materials, sports, physical fitness, cars, plumbing, household equipment, and so on.<sup>44</sup> The optimistic, authoritative tone of the articles, the focus on health, and the spirit of progressive social reform embodied in *L'Esprit nouveau* all suggest strong affinities with the holistic and aesthetic interests brought together by Sarah Stein and espoused by her husband and friends.

Two major events associated with the journal would have spurred their interest in Le Corbusier's work. The first was the publication, in 1923, of *Vers une architecture*, a highly readable, profusely illustrated book about modern architecture and modern living drawn from Le Corbusier's articles in *L'Esprit nouveau*. The second was the journal's pavilion at the Exposition des Arts Décoratifs in Paris in 1925, a full-scale model house Le Corbusier designed. A startling new building in whitewashed concrete and plate glass, the pavilion suggested the possibilities for

using industrial materials in mass-produced housing. Since it was not only designed by Le Corbusier and decorated with Purist paintings but also endorsed publicly by Madame de Monzie's husband, then minister of public education and the arts, the Stein-de Monzie household had every reason to take an interest in it.<sup>45</sup>

The pages of *Vers une architecture* are filled with the sort of high-minded pronouncements about the links between spiritual and aesthetic experience in architecture that would have attracted the interest of these prospective clients. From the very first page Le Corbusier's text recalls the theories of two of their heroes – Henri Matisse and Mary Baker Eddy:

*The Architect, by his arrangement of forms, realizes an order which is a pure creation of the spirit; by forms and shapes he affects our sense to an acute degree and provokes plastic emotions; by the relationships which he creates he wakes profound echoes in us, he gives us the measure of an order which we feel to be in accord with that of our world, he determines the various movements of our heart and of our understanding; it is then that we experience the sense of beauty.*<sup>46</sup>

Just as *Science and Health* advised readers that the way to happiness was by replacing "sense-testimony" with "perfect models in thought," so Le Corbusier proposed that higher consciousness arises from the perception of ideal forms:

*These forms, elementary or subtle, tractable or brutal, work physiologically upon our senses (sphere, cube, cylinder, horizontal, vertical, oblique, etc.) and excite them. Being moved, we are able to get beyond the cruder sensations; certain relationships are thus born which work upon our perceptions and put us into a state of satisfaction (in consonance with the laws of the universe which govern us and to which all our acts are subjected), in which man can employ fully his gifts of memory, of analysis, of reasoning and of creation.*<sup>47</sup>

For Christian Scientists like Sarah Stein and Gabrielle de Monzie, Le Corbusier's highly legible, elemental architecture could be viewed as the material realization of the harmonies of Divine Mind, visual aids to finding happiness and spiritual harmony. Le Corbusier also emphasized the link between creativity and happiness:

*Art is poetry: the emotion of the senses, the joy of the mind as it measures and appreciates, the recognition of an axial principle which touches the depth of our being. Art is this pure creation of the spirit which shows us, at certain heights, the summit of the creation to which man is capable of attaining. And man is capable of great happiness when he feels that he is creating.*<sup>48</sup>

For Le Corbusier the modern house was both "a machine for living in" and – like Matisse's "good armchair" for "every mental worker" – a retreat and a restorative: "The man of initiative," he wrote, "of action, of thought, the LEADER, demands a shelter for his meditations in a quiet and sure spot; a problem which is indispensable to the health of specialized people."<sup>49</sup> These lofty statements are given a thoroughly modern twist by their inclusion in a text dotted with photographs of machines – cars, airplanes, steamships – and of Greek temples and other classic works from the history of architecture. These images are compared and studied as models of good design (fig. 11).

For prospective clients like the Steins and Madame de Monzie, Le Corbusier's message was inescapably seductive. Here was an architect who understood that they were tired of the city but still cared deeply about contemporary art, that they were people who were accustomed to thinking of themselves as modern consumers, for whom progress was represented by the elegance and efficiency of mass-produced *things* – cars, household objects, furniture, clothes – that could be bought and owned. For these clients, as for a handful of other expatriates, art collectors, and businessmen, Le Corbusier's greatest

appeal lay in his ability to define a suburban way of life and to create an elegant environment in which to enjoy it. In his work the Steins and Madame de Monzie once again found something to believe in.

By the end of 1925 Le Corbusier had backed up the promises of his writings with an impressive group of buildings, including the Villa La Roche–Jeanneret, in Auteuil, the Lipchitz-Miestchaninoff studios, in Boulogne-sur-Seine, and the Pavillon de l'Esprit Nouveau, at the Exposition des Arts Décoratifs. The Stein–de Monzie household made a decision to hire the architect early in 1926; at almost the same moment Gertrude Stein's old friend William Cook, an American painter, and his French wife, Jeanne, also decided to build a house, albeit a much smaller one, and they hired Le Corbusier as well.<sup>50</sup>

#### Les Terrasses

Though the legal contract for the house would ultimately be drawn up between Le Corbusier and Madame de Monzie, the initial contact came in the form of a phone call from Sarah Stein to Le Corbusier's office on May 7, 1926, in which she described the program: four people would share the house, and thus in addition to a large and well-lighted living room and dining room, they would need two bedrooms for Madame de Monzie (one to be occupied by her daughter) and one large bedroom for the Stein couple.<sup>51</sup> What was needed, in effect, was two private suites of equal size rather than the conventional arrangement of "master" bedroom with smaller quarters for children or guests, and the earliest sketches for the house (fig. 12) interpret this unusual program quite literally. The design that was ultimately worked out (fig. 13), with its parallel organization of complex, syncopated rhythms, retains the impress of the initial concept in its balanced composition.

The brilliance of the design lies in the tension between symmetry and irregularity, both in plan and elevation. In a famous comparison between the Villa Stein-de Monzie and Palladio's Villa Malcontenta, Colin Rowe summed up the unique characteristics of the project: "At Garches, central focus is consistently broken up, concentration at any one point is disintegrated, and the dismembered fragments of the center become a peripheral dispersion of incident, a serial installation of interest around the extremities of the plan."<sup>52</sup> While Palladio consistently focuses attention on the central axis, Le Corbusier forces the visitor to confront each element independently. Distinct features such as the gate-lodge, the front entrance with canopy, the projecting balcony on the top floor, the curved wall of the dining room enclosure, or the circular stair are each encountered in turn, yet each is an integrated part of an overall composition. William Curtis thus compared the house to a Purist painting: "To explode the form of Les Terrasses into an axonometric drawing is quickly to grasp how one level differs from another and how real and illusionistic planes are compressed together with curved objects to make an equivalent to a Purist still life inhabitable."<sup>53</sup> Contrasts abound, most notably between

FIGURE 11

Greek temples and cars, from Le Corbusier's *Vers une architecture*, 1923



Parthénon de Grèce (1840-1842)

Le Parthénon est un produit de sélection appliquée à un standard établi. Depuis un siècle déjà, le temple grec était organisé dans tous ses éléments.

Lorsqu'un standard est établi, le jeu de la concurrence industrielle et violente s'exerce. C'est le match; pour gagner, il faut



Voiture de type Ford

Modèle 1917



Chêne Albert Marade

Parthénon de Grèce (1840-1842)

faire mieux que l'adversaire dans toutes les parties, dans le jeu d'ensemble et dans tous les détails. C'est alors l'ordre qui gouverne les parties. Progrès.

Le standard est une nécessité d'ordre apparente et utile à l'homme humain.

Le standard s'établit sur des bases certaines, non pas l'arbitraire.



Voiture de type Ford



FIGURE 14  
Panoramic view of the Villa  
Stein-de Monzie and neighbor-  
ing houses. ca. 1930

the closed, planar surface of the front facade and the open, permeable forms of the garden facade (see plate 1). The serpentine concrete path and loose, varied plantings on the garden side (the work of landscape architect Lucien Crépin) create a further contrast of color, texture, and form.<sup>54</sup> Thus the visitor is forced to confront a sequence of experiences in much the same way that one reads an abstract painting that resists resolution as a unified image.

The site, chosen well after the project was under way, is on a high ridge between Vaucresson and Garches. Le Corbusier's decision to set the house far back on the property enabled him to create the long, formal vista he preferred. Despite the fact that published images of the house present it in dignified isolation, it is fairly close to its neighbors and bordered by trees (fig. 14). Approaching by car from the road, the visitor passes the gate-lodge and proceeds down the drive. The garage and service entrance are encountered first; an open courtyard in front of the house provides just enough space for a car to make a semicircular turn and discharge passengers at the main entrance beyond. From the beginning, then, the parts of the house are experienced sequentially via a series of loops or winding paths. This "promenade architecturale," as Le Corbusier called it, continues on the interior, as one moves through the entrance hall, up a

circular staircase, and into the large living area or salon on the main floor. Here the visitor is confronted by an unusually complex arrangement of spaces and forms: on one side a large window looks out onto the terrace; in front a curved wall forms a low parapet bordering the open space of the hall below; beyond lies the wall of the dining room and a view of the garden. One explores each of these in turn, moving across, through, and eventually up again, via another staircase, to the private living area, and above that to the roof terrace. Throughout this journey one is continually made aware of the central axis – marked by the double-height hall, for example – which one must crisscross in moving about the house. In this way both the interior and the exterior become part of an eloquent, extended elaboration of the symmetry of the program with which Le Corbusier began.

The Steins and de Monzie were clearly committed to modern architecture and willing to pool their resources to finance the project generously. Les Terrasses cost over 1,500,000 francs, making it the most expensive house built by Le Corbusier's office in the 1920s.<sup>55</sup> Moreover, they were very conscious of the leadership role they were playing as patrons of the new style. In a letter to an old family friend in the U.S., written about 1930, Michael made this clear: "We were here all through the war and my son did fine work as a captain in the American Red Cross. Now I have a grandson and live outside Paris in an ultra modern house of which I enclose a postal card. After having been in the vanguard of the modern movement in painting in the early years of this century, we are now doing the same for modern architecture."<sup>56</sup>

In Michael Stein, Le Corbusier had an ideal client: an ever-patient and resourceful collaborator, a man who was interested in construction and in machines, who tinkered with cars and was willing to visit the site every

day as the building was going up.<sup>57</sup> Michael had a lifetime of experience dealing with other people's idiosyncracies, and he coped by anticipating problems and making sure things ran smoothly; besides, he probably wanted to avoid the sort of unpleasant experience Cook had written to Gertrude about the previous summer:

*I have had a real row with both the architects and the contractor. . . of course they are mad but that is the least of my worries as long as the house is going as it should. The architect is somewhat of a temperamental genius and he put my house one corner on my land and the other corner fifty centimetres over on my neighbors land. I thought this was a thing that was just not according to Hoyle and he told me I seemed to be a type absolutely without gratitude. Gratitude be damned says I – what I want is to have the thing fixed up. Well it will cost me ten thousand francs before the thing is finished and he is mad because I have no appreciation of the fact that he got me fifty centimetres of land that I didn't want.<sup>58</sup>*

During his first three years at Les Terrasses, Michael pitched in to design a drainage system to absorb ground water and helped install the oil burner for the central heating, just the sorts of things that clients wait in vain for architects to attend to after a house is "finished." Thus, while he was a man of leisure and already in his mid-sixties, Michael Stein was the kind of modern client for whom the efficient-looking garage (fig. 15) and streamlined roof terrace with its lookout platform (figs. 16, 17) were designed. He and the two ladies were a bit old to fully play the parts that Le Corbusier envisioned for them (an eighty-two-meter running track originally planned for the roof had to be eliminated, and Madame de Monzie was too fearful to venture up to the lookout), but they thoroughly enjoyed the role of modern occupants in an ideal environment. Moreover, they found the

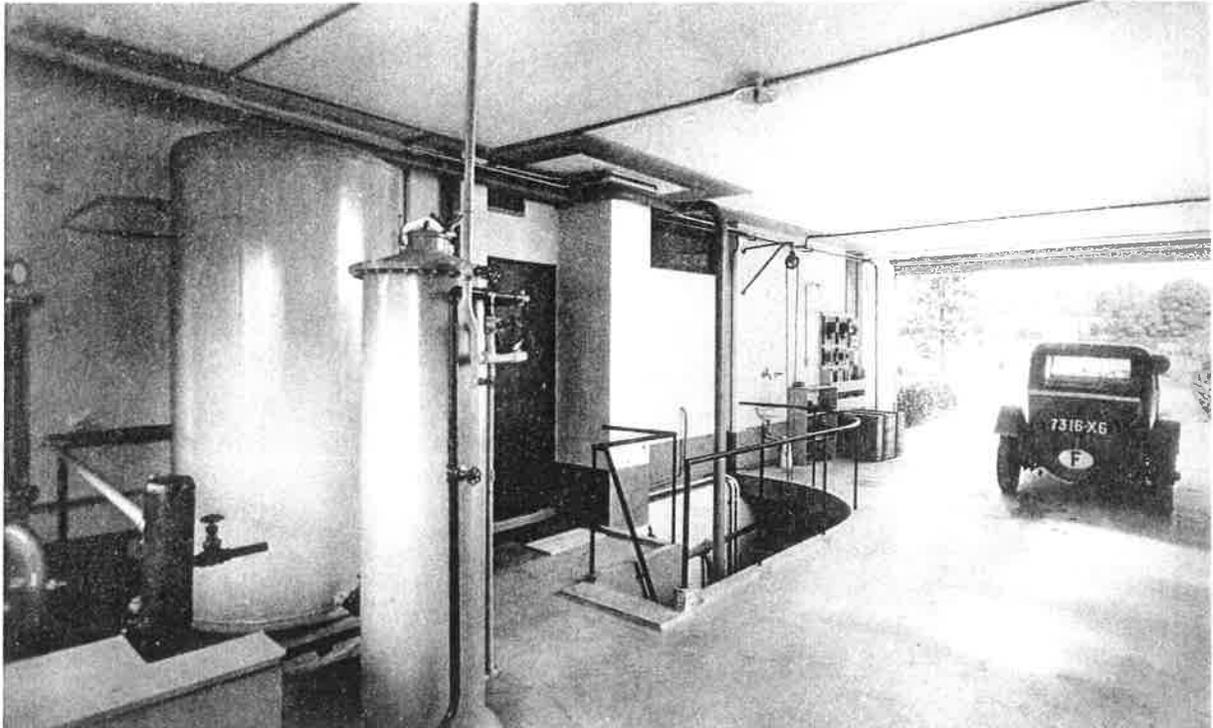


FIGURE 15  
 Villa Stein-de Monzie, garage.  
 From *L'Architecture vivante*,  
 1929

house unexpectedly flexible and accommodating: when the Steins' one-year-old grandson, Danny, came to live with them, he moved into the large second-floor bedroom, while Madame de Monzie relocated to the suite on the top floor. This new arrangement proved to be highly satisfactory.<sup>58</sup>

Letters written by the Steins throughout the period are full of praise for the house and pleasure in their new surroundings. They loved the garden and the terraces and the good air; they relaxed outdoors and entertained friends as they had done on summer holidays. Nicknamed *Les Terrasses* – the name appeared almost immediately on the Steins' new stationery – the house became a place of pilgrimage for artists – Mondrian, El Lissitzky, Man Ray, Matisse – critics, and collectors.<sup>69</sup> In early summer 1929 Michael wrote to Gertrude: "Everything is fine here. We are resting and haven't hung a single picture. The last workmen left today. The Cones are here. Same as ever. . . . I hope you will be back in time to see our roses. The air here is simply fine. It smells like real country. Being so

high we get the air from the ocean that has not touched the ground. Danny spent the whole afternoon here.”<sup>61</sup> With French and American flags fluttering on the roof, Les Terrasses became a haven for old friends on the outskirts of the city; something of the old conviviality of rue Madame was re-created there, but Michael was right to say that they had passed their “city days” for good.

For Le Corbusier, an architect who at age forty was bursting with ideas and desperate for clients who would bring them to life, the commission was a golden opportunity. He compared his experience to pregnancy: in a letter of 1926 to Madame Meyer, a reluctant client who ultimately abandoned her project (many of its best features would be recycled into Les Terrasses), he wailed, “My paternity is suffering! . . . A house which remains on paper is a stillbirth. Let me tell you that my suffering is truly that of an expectant father.”<sup>62</sup> The appearance of the Steins and Madame de Monzie in his life must have seemed like a dream come true.

The house represented an enormous professional turning point for the architect. Writing in *Une Maison – Un Palais* in 1928, he described it as a “type form” for architectural design, a perfect response to the complexities of the domestic program – a “machine for living” that achieved the status of a palace.<sup>63</sup> The house was also a critical success, and Le Corbusier was praised for demonstrating that modern forms and materials could be successfully used in a luxurious, high-budget project.<sup>64</sup>

Where Le Corbusier remained at odds with his clients, however, was on the question of furnishings. Although he had been aware from the beginning that the Steins were intending to bring many of their antique pieces (some acquired years before in Florence) with them, he never quite got used to the fact that the house was filled with heavy, dark furniture (fig. 18). He may not have pressed the point with his clients, but he made his feelings clear a few years later in *Précisions*: “Big

pieces of furniture, understandable at the time of castles or in the rooms of country houses, are a disaster in the modern dwelling.”<sup>65</sup> When he published his work, he preferred to show the rooms completely empty (fig. 19) or as settings for evocative, dreamlike tableaux (fig. 20) suggesting absence rather than the presence of real-life occupants with their own tastes and preferences.

Within months life at Les Terrasses began to assume the familiar rhythms of the prewar years, with excursions to galleries and shops in Paris and Sunday visits from family and friends. Yet time was limited. In September 1929 Michael and Sarah received word that Claribel Cone had died in Lausanne, and with the passing of their old friend and client, things began to change for them both socially and financially. Moreover, the winds of political unrest had begun to blow in Europe, bringing back still-painful memories of the war. As the effects of the worldwide economic depression began to be felt in France, and as Hitler continued his ominous rise to power in Germany, Michael grew concerned, and he set his sights on California. In 1935 he sold Les Terrasses to a Danish banker. The entire household, including Madame de Monzie, her daughter, and Danny Stein, pulled up stakes and moved to Palo Alto, leaving bewildered friends and family behind. Gertrude Stein described her astonishment at this sudden turn of events in *Everybody’s Autobiography*, published two years after their departure: *Let me tell you about my brother. As I said he had lived in France as long as I had he had a son he had a grandson here, he had his wife and friends he seemed reasonably content and happy. About five years ago he said he wanted to go back to California but why I said what’s the matter you’ve lived here so long what’s the matter, oh he said you don’t understand, he said I want to say in English to the man who brings the letters and does the gardening I want to say things to them and have them say it to me in American. . . . And he has sold his house, it was a bad time*

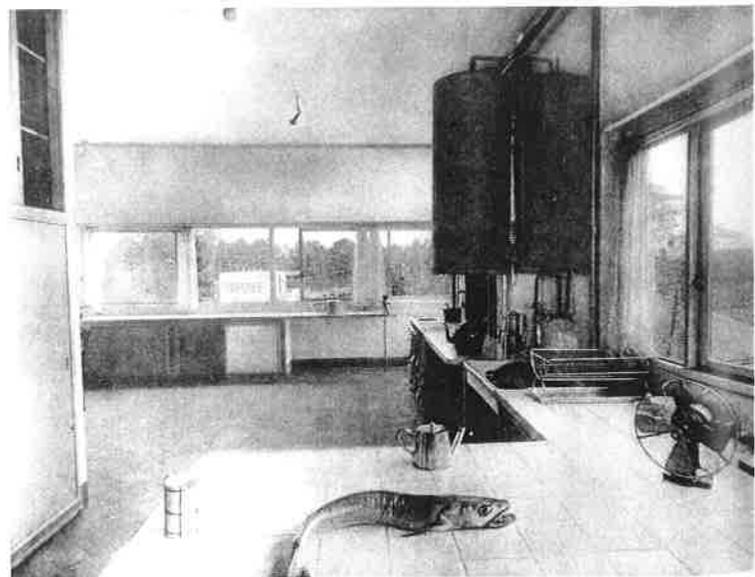
to sell and nobody could sell anything but he wandered around until he saw a man who looked as if he was looking for a house and he was and my brother said why not buy mine and he did and in a week they were gone.<sup>65</sup>

By 1938 Michael Stein was dead from cancer. His last years were spent gardening, taking long walks, and reassuring everyone that he was going to get better. Some months after his death Sarah wrote to Gertrude to say that the ever-cheerful Mike “had smiled his way out.”<sup>67</sup> His family never recovered from the loss. Though Sarah had found an adoring audience among the students and professors at Stanford University, without Michael her enthusiasm waned. Her finances were stretched and she was forced to sell her paintings to support herself.<sup>68</sup> By the time she died, in 1953, Sarah Stein’s life had become diminished and difficult.

Little is known about Gabrielle de Monzie’s life in California. She became active in the Christian Science Church, moved to San Francisco, and died in 1961.<sup>69</sup> Obscured by her famous friends, and almost completely unknown, she can now be recognized as a patron of enormous importance in the history of modern architecture. Had it not been for the life, and the vision, she shared with the Steins, the house at Garches would never have been built.

FIGURE 20

Villa Stein–de Monzie, kitchen.  
From *L'Architecture vivante*, 1929



- 1 For the Stein family and circle, see *Four Americans in Paris: The Collections of Gertrude Stein and Her Family* (New York: Museum of Modern Art, 1970); James Mellow, *Charmed Circle: Gertrude Stein and Company* (New York: Praeger, 1974); Linda Simon, *The Biography of Alice B. Toklas* (Garden City, N.Y.: Doubleday, 1977); Linda Wagner-Martin, *Favored Strangers: Gertrude Stein and Her Family* (New Brunswick, N.J.: Rutgers University Press, 1995); Shari Benstock, *Women of the Left Bank: Paris 1900–1940* (Austin: University of Texas Press, 1986); and Brenda Wineapple, *Sister Brother: Gertrude and Leo Stein* (New York: G. P. Putnam's Sons, 1996), which features the best discussion to date of Leo and Sarah. The Steins' correspondence is held in the Collection of American Literature, Beinecke Rare Book and Manuscript Library, Yale University, New Haven (hereinafter referred to as YCAL). Unless otherwise noted, letters written by the Steins cited in this chapter are in the collection of YCAL.
- 2 See Brenda Richardson, *Dr. Claribel and Miss Etta: The Cone Collection of the Baltimore Museum of Art* (Baltimore: The Baltimore Museum of Art, 1985).
- 3 Le Corbusier viewed Les Terrasses as a turning point in his career; in 1959 he wrote on a drawing of the house, "This drawing... expresses the final flowering of the modest but passionate effort of 1918–25 – the first round of new architecture to be manifested." See Tim Benton, *The Villas of Le Corbusier* (New Haven: Yale University Press, 1987), 164–89, esp. 170. For the history of the Villa Stein–de Monzie, see Benton, and William Curtis, *Le Corbusier: Ideas and Forms* (London: Phaidon, 1986); Loren Soth, "Le Corbusier's Clients and Their Parisian Homes," *Art History* 6, no. 2 (1983), 188–98; "Le Corbusier and P. Jeanneret," *L'Architecture vivante*, 2ème série, 1929; and Willy Boesiger and Oscar Stonorov, eds., *Le Corbusier and Pierre Jeanneret: Oeuvre Complète 1910–1929* (Zürich: Editions Dr. H. Girsberger, 1937), 140–49.
- 4 James Ward, "Le Corbusier's Villa Les Terrasses and the International Style" (Ph.D. diss. [University Microfilms], 3 vols., New York University, 1984). The household is discussed in part 1, ch. 2.
- 5 Benton, *The Villas of Le Corbusier*, 166. The bilaterally symmetrical plan is discussed (though only in formal terms) by Colin Rowe, "The Mathematics of the Ideal Villa," in his *The Mathematics of the Ideal Villa and Other Essays* (Cambridge, Mass.: MIT Press, 1976), 1–28. The essay was first published in 1947.
- 6 "Villa Stein–de Monzie à Garches," document no. 159, H1(4), Fondation Le Corbusier, Paris.
- 7 For Matisse's school, see Alfred H. Barr, Jr., *Matisse: His Art and His Public* (New York: The Museum of Modern Art, 1951), esp. 116–23, and Hélène Seckel, "L'Académie Matisse," in *Paris–New York, 1908–1968* (Paris: Gallimard, 1991), 316–20 (1st ed. Centre Georges Pompidou, Paris, 1977).
- 8 Harriet Levy, "Recollections," unpublished memoir written around 1950, typescript in the collection of Albert Bennett. I am grateful to Mr. Bennett for granting me permission to quote from this text. A second copy is in the Bancroft Library, University of California at Berkeley. For Levy's anger at Sarah Stein, see p. 13.
- 9 The family's tastes in art have been written about extensively; see Wineapple, *Sister Brother*, 214–21.
- 10 Wineapple, *Sister Brother*, 333–36; Janet Flanner, ed., *Two: Gertrude Stein and Her Brother and Other Early Portraits* (New Haven: Yale University Press, 1951).
- 11 For Otto Weininger, see Allan Janik and Stephen Toulmin, *Wittgenstein's Vienna* (New York: Simon and Schuster, 1973), 71–72.
- 12 Levy, "Recollections," 36.
- 13 The citation occurs in a letter from Leo Stein to Gertrude Stein (hereinafter referred to as L. Stein and G. Stein, respectively): "I dislike quite as intensely and probably more deeply than you do hygiene all forms of homosexuality so it must be understood that except when I am away from the house or have gone to bed, you and Alice except when you are in one of your rooms must be as Browning has it 'of friends the merest,'" undated (1910?).
- 14 The story of the Steins' life in California is told in Wineapple, *Sister Brother*, 20–48, 65–67, 102–3.
- 15 Sarah Stein (hereinafter referred to as S. Stein), letter to G. Stein, Oct. 30, 1899.
- 16 Sarah's best friend was Adele Jaffa, a homeopathic physician; see Wineapple, *Sister Brother*, 78–82.
- 17 S. Stein, letters to G. Stein, Nov. 1896 (?), Aug. 27, 1899, Nov. 11, 1899.
- 18 Michael Stein (hereinafter referred to as M. Stein), letter to G. Stein, Jan. 12, 1901.
- 19 For Sarah's San Francisco visit, see Simon, *Toklas*, 22–25.
- 20 S. Stein, letter to G. Stein, Oct. 8, 1906.
- 21 For Jewish conversions to Christian Science, see John J. Appel, "Christian Science and the Jews," *Jewish Social Studies* 31 (Apr. 1969), 100–121; Samuel N. Deinard, *Jews and Christian Science* (Minneapolis: Samuel N. Deinard, 1919); and Max Wertheimer, *Why I Left Christian Science* (1916), reprinted in Gary Ward, ed., *Christian Science: Controversial and Polemical Pamphlets* (New York: Garland Press, 1990), 389–446.
- 22 In the Christian Science version of the Lord's prayer, God is addressed as "Father-Mother God, all harmonious"; Mary Baker Eddy, *Science and Health with a Key to the Scriptures* (Boston: The First Church of Christ, Scientist, 1875), 16; reprinted in 1994.
- 23 For the history of Christian Science and the role of Mrs. Eddy, see Rennie B. Schoepflin, "Christian Science Healing in America," in Norman Gevitz, ed., *Other Healers: Unorthodox Medicine in America* (Baltimore: Johns Hopkins University Press, 1988), 192–214; Stuart E. Knee, *Christian Science in the Age of Mary Baker Eddy* (Westport,

- Conn.: Greenwood Press, 1994); and Robert David Thomas, *With Bleeding Footsteps: Mary Baker Eddy's Path to Religious Leadership* (New York: Knopf, 1994). See also Anne Braude, "The Perils of Passivity: Women's Leadership in Spiritualism and Christian Science," in Catherine Wessinger, ed., *Women's Leadership in Marginal Religions: Explorations Outside the Mainstream* (Urbana and Chicago: University of Illinois Press, 1993), 55–67.
- 24 Although Christian Science had been presented rather critically in a series of articles by Willa Cather and Georgine Milmine in 1907–8 in *McClure's Magazine*, which the Steins read, it was treated far more positively by William James in *The Varieties of Religious Experience*, a book to which both Gertrude and Leo were devoted. See Willa Cather and Georgine Milmine, *The Life of Mary Baker G. Eddy and the History of Christian Science* (Lincoln: University of Nebraska Press, 1993); and William James, *The Varieties of Religious Experience: A Study in Human Nature* (Cambridge, Mass.: Harvard University Press, 1985), 83–99.
- 25 Levy, "Recollections," 47.
- 26 See *ibid.*, 8. For Sarah Stein's relationship with Matisse, see also Annette Rosenshine, "Life Is Not a Paragraph," unpublished typescript, Bancroft Library, 97. Matisse came to Sarah's defense when Gertrude failed to mention her role as his patron in *The Autobiography of Alice B. Toklas* (1933); see Georges Braque et al., *Testimony Against Gertrude Stein, Transition Pamphlet*, no. 1 (supplement to *Transition*, no. 23) (The Hague: Servire Press, 1935), 3.
- 27 Henri Matisse, "Notes d'un peintre," *La Grande Revue* 2 (Dec. 25, 1908), 24, 731–35, trans. Jack Flam, "Notes of a Painter," in Flam, *Matisse on Art* (Berkeley and Los Angeles: University of California Press, 1995), 30–43, esp. 42. See also Roger Benjamin, *Matisse's "Notes of a Painter": Criticism, Theory and Context, 1891–1908* (Ann Arbor: UMI Research Press, 1987), and John Elderfield, *Henri Matisse: A Retrospective* (New York: Abrams, 1992), esp. 17–18.
- 28 Eddy, *Science and Health*, 247–49.
- 29 Flam, *Matisse on Art*, 39. Flam relates this statement to Henri Bergson's *Creative Evolution* (1907); see pp. 33–34.
- 30 For De Stijl and modern theory, especially Theosophy, see Reyner Banham, *Theory and Design in the First Machine Age* (London: Arch Press, 1960), 150–60.
- 31 For Sarah's and Gabrielle's involvement with the Christian Science Church, see Ward, "Le Corbusier's Villa," 21 n. 7, 26 n. 29.
- 32 For Sylvia Salinger, see Albert S. Bennett, *Just a Very Pretty Girl from the Country: Sylvia Salinger's Letters from France, 1912–1913* (Carbondale: Southern Illinois University Press, 1987). I am grateful to Mr. Bennett for sharing his knowledge of Christian Science as well as his mother's photographs and papers, and for allowing me to quote from the letters.
- 33 For Sarah Stein's letter about Sylvia's spiritual cure, see Bennett, *Salinger*, 39; the quotation about Harriet Levy is on p. 47; for the visit to the automobile show, see p. 143.
- 34 Paul Ivey, "Christian Science Architecture: Reform in America and Britain, 1910–1930," paper presented at the annual meeting of the Society of Architectural Historians, Philadelphia, 1994. Other notable patrons of architecture who were also Christian Scientists include Frank Lloyd Wright's clients Darwin Martin and Avery and Queene Ferry Coonley, who claimed that they saw "the countenances of principle" in Wright's work; see Frank Lloyd Wright, *An Autobiography* (New York: Longmans Green, 1932), 185; reprinted in Bruce Brooks Pfeiffer, ed., *Frank Lloyd Wright: Collected Writings*, vol. 2 (New York: Rizzoli, 1992), 218.
- 35 Daniel Stein, telephone interview with Alice Friedman, Jan. 22, 1997. I am grateful to Mr. Stein for his help with my research. James Ward's extensive search of the documents and interviews with Mr. Stein revealed only the barest outlines of Mme de Monzie's biography. Gabrielle de Monzie was the daughter of a Dutch father and a South African mother (Ward, "Le Corbusier's Villa," 28); she married Anatole de Monzie in 1904 (29), separated from him in 1922 (33), was divorced in 1927 and reassumed her maiden name, Colaço-Osorio (58), and died in 1961 (28).
- 36 D. Stein, telephone interview with Friedman.
- 37 The properties owned by Mme de Monzie, her husband, and her extended family were researched by Ward, who provides a detailed picture of the relationship between the Steins and Mme de Monzie in this period; see Ward, "Le Corbusier's Villa," 32 and ch. 2.
- 38 M. Stein, letter to G. Stein, June 1918.
- 39 M. Stein, letter to G. Stein, June 26, 1918; "Tuesday," late fall 1918 (?); Apr. 17, 1919.
- 40 See Ward, "Le Corbusier's Villa," 56 n. 139.
- 41 A friend of the Steins, Therese Ehrman Jelenko, remembered that the Steins collected works of art for the Cones in the 1920s, storing them in their basement in Passy and then shipping them to the U.S. Jelenko, "Reminiscences," typescript of recorded interview, ca. 1965, Bancroft Library, 9.
- 42 See Russell Walden, "New Light on Le Corbusier's Early Years in Paris: The La Roche-Jeanneret Houses," in Walden, ed., *The Open Hand: Essays on Le Corbusier* (Cambridge, Mass.: MIT Press, 1977), 116–61.
- 43 Walter Pach, *Queer Thing, Painting: Forty Years in the World of Art* (New York: Harper and Brothers, 1938), 142–43. See also Hélène Seckel, "L'Armory Show," in *Paris—New York, 1908–1968*, 376–406, esp. 393. Sylvia Salinger wrote to her family (Nov. 14, 1912) about seeing the house at the Grand Palais with its full-scale mock-ups of individual rooms: "They are completely furnished, even to the books on the shelves. It is a splendid way to get ideas"; Bennett, *Just a Very Pretty Girl*, 27.

- 44 See Stanislaus von Moos, ed., *L'Esprit nouveau: Le Corbusier et l'industrie, 1920-1925* (Zürich: Museum für Gestaltung, 1987).
- 45 See Mary McLeod, "Urbanism and Utopia: Le Corbusier from Regional Syndicalism to Vichy" (Ph.D. diss., 2 vols., Princeton University, 1985), ch. 1, esp. p. 67, and Philippe Boudon, *Lived-In Architecture* (Cambridge, Mass.: MIT Press, 1972), 11. Letters from friends and family of Gertrude Stein refer to Anatole de Monzie in passing: Mildred Aldrich to G. Stein, July 20, 1926, YCAL; M. Stein to G. Stein, Tuesday 1929 (?), asks Alice to send "a typed copy of de Monzie's letter" if she has time; Rose Ellen Stein to G. Stein, June 16, 1945, writes: "I was interested that de Monzie was around enough to be coming to see you. I thought he was completely beyond the pale politically and I had a feeling that he would be liquidated or about to be."
- 46 Le Corbusier, *Towards a New Architecture*, trans. Frederick Etchells (London: Architectural Press, 1927), 7.
- 47 *Ibid.*, 20-21.
- 48 *Ibid.*, 205-7.
- 49 *Ibid.*, 89, 24. See Beatriz Colomina, *Privacy and Publicity: Modern Architecture as Mass Media* (Cambridge, Mass.: MIT Press, 1994), esp. 207-8, on the marketing of the International Style to "the department store public, middle-class and mainly women."
- 50 See M. Stein, letter to G. Stein, 1926 (?), where "Jeanneret" is referred to as "the architect of Cook," and M. Stein, letter to G. Stein, July 20, 1926.
- 51 The contract is dated Nov. 10, 1926; Mme de Monzie made the down payment on Nov. 22, 1926. Stein-de Monzie, dossier 1, Fondation Le Corbusier.
- 52 Rowe, "The Mathematics of the Ideal Villa," 12. For a discussion of Le Corbusier's planning, see also Kurt Forster, "Antiquity and Modernity in the La Roche-Jeanneret Houses of 1923," *Oppositions* 15-16 (Winter-Spring 1979), 130-53.
- 53 Curtis, *Le Corbusier*, 81.
- 54 See Benton, *The Villas of Le Corbusier*, 174.
- 55 *Ibid.*, 175.
- 56 M. Stein, letter to Mr. P. G. Byrne, n.d. (1930?).
- 57 Michael wrote to Gertrude, "The house is at a stage where I have to go out every day"; M. Stein, letter to G. Stein, n.d. (summer 1927?).
- 58 William Cook, letter to G. Stein, Sept. 8, 1926, YCAL. For the cost of the house, see Benton, *The Villas of Le Corbusier*, 175.
- 59 In a film by Pierre Chénel, *L'Architecture d'aujourd'hui*, of ca. 1930, Le Corbusier cast himself in the role of homeowner at Garches, hopping out of a car at the front door, smoking on the terrace, and bounding up the stairs to the lookout platform (a copy of the film is in the collection of The Museum of Modern Art, New York). By contrast, home movies made in the early 1930s show a portly Michael Stein, dressed completely in white as though just having returned from a day of tennis or cricket, proudly showing off his villa to family and friends (the home movies are in the collection of YCAL). For the running track, see Benton, *The Villas of Le Corbusier*, 169. For Mme de Monzie's fear of heights, see du Pasquier, letter to Le Corbusier, July 2, 1927, Stein-de Monzie, dossier 1, Fondation Le Corbusier; in the same letter he mentions "rumor has it that the house is to be called 'Mont'la-d'sus'" (Up You Go!). Additional information on the use of the house was provided by D. Stein, telephone interview with Friedman.
- 60 Man Ray visited and took Danny's photograph (S. Stein, letter to G. Stein, May 27, 1929); Carl van Vechten came with his wife (S. Stein, letter to G. Stein, Aug. 11, 1930); Mondrian and El Lissitzky visited (see photograph on p. 234 of Jacques Lucan, ed., *Le Corbusier, Une Encyclopédie* (Paris: Centre Georges Pompidou, 1987); and the Cones came and went (S. Stein, letter to G. Stein, May 27, 1929).
- 61 M. Stein, letter to G. Stein, early summer 1929.
- 62 Le Corbusier, letter to Mme Meyer, Feb. 24, 1926, dossier Meyer, Fondation Le Corbusier; quoted by Benton, *The Villas of Le Corbusier*, 144.
- 63 Le Corbusier, *Une Maison - Un Palais* (Paris: Crès, 1928; reissued Paris: Editions Connivences, 1989), 66-72, esp. 68-69.
- 64 *Ibid.*; see, for example, Siegfried Giedion, "Le Problème du luxe dans l'architecture moderne," *Cahiers d'art* 5-6 (1928), 254-56.
- 65 Le Corbusier, *Précisions* (1930), trans. Edith Schreiber Aujame (Cambridge: MIT Press, 1991), 109. For Le Corbusier's presentation of the interiors, see Jacques Lucan, "The Search for the Absolute," in Carlo Palazzolo and Riccardo Vio, *In the Footsteps of Le Corbusier* (New York: Rizzoli, 1991), 197-207.
- 66 Gertrude Stein, *Everybody's Autobiography* (New York: Random House, 1937), 14. For the later history of the house, see Ward, "Le Corbusier's Villas," 65-74.
- 67 S. Stein, letter to G. Stein, Oct. 13, 1938.
- 68 Through the foresight of Elise Stern Haas, a devoted friend, a number of paintings, including the portraits by Matisse, were purchased and then donated to the San Francisco Museum of Modern Art in memory of the Steins. See Elise Stern Haas, "The Appreciation of Quality," transcript of an interview with Harriet Nathan, Regional Oral History Office, 1979, Bancroft Library.
- 69 Ward, "Le Corbusier's Villas," 41 n.92, 28 n.41.

**Week 10.** Precedent + Typology



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## MIA 502 – DESIGN PROJECT, part 1

(30 points)

### PROGRAMMING – Precedent & Typology (Assignment #5)

#### 1.0 Objectives:

The objectives for this assignment are as follows:

- 1.1 To broaden and deepen student understanding of the building ‘type’, relevant to their capstone project, as necessary for the development of a complete *design program*.
- 1.2 To sharpen student understanding of historical and design precedents as they relate to the selected building type.
- 1.3 To deepen student understanding of typical spatial features, and relevant elements of the physical setting *specific* to the selected building type.
- 1.4 To enhance student understanding of various *precedent & typology methodologies* as research techniques, exploring the strengths and limitations of the method.

#### 2.0 Guidelines & Format:

The following guidelines should be followed for this exercise:

- 2.1 Present ‘high-level’ analysis and findings during a 20 minute presentation in a manner and format determined by the student employing media of their choice; provided that the information presented becomes integral to the student’s final program document. (11” x 17” format)
- 2.2 A competent response would include:
  - (i) a Title Page or sequence;
  - (ii) a synopsis/summary of spatial features and specific elements of the physical setting;
  - (ii) a brief recap of methods of information-gathering actually used by the student during this phase of study;
  - (iii) possible methods could include some or all of the following:  
Literature review (authoritative texts, trade publications, mass circulation media), expert testimony/opinion, focus groups, visual analysis...etc.
  - (iv) One of the methods of information gathering *must* involve the researcher’s direct observation, and include recording methods such as activity mapping or traffic mapping,
  - (v) a brief discussion of the strengths and weakness of the various methods.

**Week 12.** Program Presentation



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## MIA 502 DESIGN PROJECT, Part 1

(50 points)

### PROGRAMMING – Final Program Document

#### 1.0 Objectives:

The objective for this assignment is to prepare and present a professional-grade programming document that clearly, concisely and thoroughly identifies the important aspects of the “design problem” that must be resolved during the Design Phase in Quarter 2.

#### Behaviorally-based Issues & Aspects

- 1.1 To identify and describe the social and cultural aspects of the target demographic relevant to the project, including general expectations for anthropometrics/proxemics, universal/inclusive design, and similar issues.
- 1.2 To identify and describe the particular behavioral aspects of the design problem, by documenting and analyzing the *specific* activities and events proposed to occur inside the facility.

#### Spatially-based Issues & Aspects

- 1.3 To identify and describe the spatial aspects of the design problem, by systematically itemizing and describing all of the rooms, areas and spaces of the project.
- 1.4 To ensure a clear understanding of which existing features and elements of the building must remain unaltered, and which ones may be revised.

#### Programming Concepts & Design Principles

- 1.5 To uncover and test programming concepts useful for project design such as: activity/service grouping, user orientation, flexibility, user flow, and security.
- 1.6 To uncover and document design concepts useful in developing the project ‘type’ such as: overall spatial organization, spatial definition & spatial enclosure, circulation & wayfinding, See Frank Ching’s *Form, Space and Order*.

#### 2.0 Guidelines & Format:

The following guidelines should be followed for this exercise:

- 2.1 Prepare and deliver a 20-minute presentation using the visual information gathered during the Typology assignment, and the visual data tools discussed in Pena & Parshall’s *Problem Seeking*.
- 2.2 Prepare a final hard-copy program document using the 11” x 17” landscape format.
- 2.3 The Program Presentation & Document must include substantive responses to the elements described in Section 1.0 of this assignment,; summarize design and historic precedents derived from prior assignments; and be structured using the ‘5-step x 4-consideration’ problem statement & information management matrix developed by Pena & Parshall, see p. 26 & 27.