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# Environmental persuasion and Roman Catholic Church interior design after Vatican Council II, 1963-present: A case study of Notre Dame Chapel, Omaha, Nebraska

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INTERIOR DESIGN AFTER VATICAN COUNCIL II, 1963 - PRESENT:

A CASE STUDY OF NOTRE DAME CHAPEL, OMAHA, NEBRASKA


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# INTRODUCTION

For an environment to produce a change in attitude, or at least begin that transformation, it is necessary to view it as part of the communication/persuasion process. Environments both reflect communication and modulate it, channel it, control it, facilitate it, or even inhibit it (Rapoport, 1982). Environmental meaning is often expressed through signs, materials, colors, forms, sizes, furnishings, landscaping, maintenance, and even in some instances, by people themselves (Bachelard, 1969; Blomeyer, 1979; Cralik, 1976). Therefore, spatial meanings or messages can be conveyed by walls or other sharp breaks, or by transitions (Reed, 1974). Thus, environment can produce a sense of "belonging" (Brebner, 1982) which adds to the comfort felt in the milieu. All people seem to share a need for comfort in their environment, but it is significant that people seem to define "comfort" or "belonging" according to perceptual filters that are definitely their own (Broadbent, Bunt, and Jencks [Eds.], 1980).

The influence of environmental surroundings is a universal experience. In an intimate dinner shared with spouse, family, or long-time friend, for example, the selection of the restaurant could be as important as the selection of the wine to be enjoyed. The colors, sounds, moods, and lighting of the room could provide the setting for warm words, deep thoughts, and future plans. Often, the quality of the food is secondary to the setting. What is important is "the place"; the place

that somehow acts as the catalyst of new love, new thoughts, and new
dreams. Conversely, the same intimacy would be impossible in a crowded
elevator or a busy airport. Those environments urge people to move on or
to keep silent or to pull into their secret selves more deeply. From
these experiences, the vital function of physical environment and its
effects on behavior becomes obvious. According to O'Donnell and Kable
(1982, p. 93), "The study of environment and behavior . . . is a study
of change . . . change that grows out of a process in which people play
a central role."

Environment works its influence on people and vice-versa. This
influence is of particular interest to Roman Catholic Church leaders, who
in the wake of Vatican Council II (1962-1965), have begun to explore more
closely the relationship between architectural design and the interaction
of the congregation.

Since the late 1960's, when Roman Catholic liturgical practice took
on the challenge of revitalization and renewal, there have been dramatic
changes in the design and structure of church buildings, especially with
regard to interior design. Moving from the traditional setting of front
altar, communion rail, wooden pews and long aisles, designers and church
pastors opened the interior space to a free-form, often unstructured,
design which was intended to allow the environment to interact with the
congregation (Vosko, 1981).

These new settings for sacred spaces made demands not only on the
believers but also on those concerned with liturgical environment, such
as pastors, architects, and parish councils. This environment for

worship is something which takes into consideration those people who work together in their worship and just how they see and develop that environment as a particular expression of their culture and personality. Sacred space does not strictly demand the "how" of prayer. Rather, this space should be an expression of the faith and prayer lives of the people and should help the growth of those people by giving them the ability to celebrate sacred rituals (called sacraments) and the other church events in an integrated style (Quinn, 1977). This means that both the rituals and the space depend on the people engaged in them and how they understand themselves (Vosko, 1981).

Changes in design and environment did indeed occur. It was hoped that by creating a new atmosphere for worship, the Church teaching on "people as Church," as opposed to Church meaning a "building," would become part of what the persuasive element of environment should provide.

The impact of these changes has not been examined in Omaha. This thesis will examine an example of a church structure which underwent dramatic change in compliance with the new directives of a changing Church. That structure is the Notre Dame Chapel in Omaha, Nebraska.

CHAPTER I

SURVEY OF LITERATURE

A. Non-Verbal Research

Studies in non-verbal communication are just now demonstrating that environment can have a definitive effect on a person's behavior and attitude (Rapoport, 1982). Albert Mehrabian states implicit communication deals primarily with the transmission of information about feelings and like-dislike or attitudes (1981, p. 3). Individuals in any number of professions involved with the varied dimensions of environmental design often make decisions that change the physical environment in such a way that the behavior of the inhabitants is or can be directly affected by what they feel or their attitude about the changes (Heimstra and McFarling, 1978). A common finding among researchers in non-verbal is that environment takes on an entirely new dimension when viewed for its persuasive effects (O'Donnell and Kable, 1982). Considering the intentional and unintentional impact of the environment leads to the conclusion that environments are designed the way they are for very specific purposes and can produce the type of stimuli that the designers really envisioned (Holahan, 1982). Environment, therefore, acts on people, people act on environment, and people interact with one another. Reception of environmental stimuli will seemingly, then, influence behavior and set attitudes within the framework of a particular environment.

Environmental impact studies focused on the familiarity concept in environment (Nattin, 1975), while others sought to explain different reactions to different environments by different people (Becker, 1977; Sovik, 1973, Huffman, 1986; Rambusch, 1986). Albert Mehrabian has done extensive research in this area of implicit communication of emotions and attitudes. His theory of pleasure-displeasure, arousal-non-arousal, and dominance-submissiveness are of central importance in theories of non-verbal environmental influence. Each of these qualities is a composite of several interrelated behaviors, which together describe a unified theme. People differ from one another in terms of how much of each of these qualities they consistently exhibit across a variety of situations (1981, p. 107). By applying these theories to the environment and how its occupants react to it, there can be beneficial or adverse effects of environments on social interaction (1981, p. 110). In some very subtle though persistent ways, people's surroundings affect their implicit behavior and social interaction (Ibid., p. 110). Put simply, some rooms are avoided and others are sought. Mehrabian's "environmentally facilitated approach" refers to one important effect of spaces in which people meet and/or interact. That is, his research refers to the extent to which a setting facilitates mutual sensory stimulation among persons within it and is measured in terms of the spatio-temporal proximity or by the number of communication channels available to the individuals in that setting (Ibid., p. 112).

Familiar or long-term environments often influence behavior and attitudes, leading to the notion that environment and people are involved

in a sort of inter-play (O'Donnell and Kable, 1982). The favorite chair, the "Linus blanket," the handmade sweater which is worn daily, all have individual meaning for individual people. An old rocker can "say" many things. To some it is where "grandma told stories"; to others, it is a recollection of a young president killed in his prime; and to still others, it is an uncomfortable reminder of lean days and bad economics. Thus, environment takes on the messages received.

With this approach to environment as an agent for changes in feeling, it is important to see that environment can possibly produce different responses. Literature focuses on the change phenomenon as it pertains to environment and its influence (Zeisel, 1973). Authors point out that perception of environment remains in a sort of "idle" position or "neutral" stance until the environment is colored with unfamiliarity or newness, at which point the individual suddenly shifts from neutral to an entirely new level of awareness and concern (Abelson, 1959; Gibson, 1968; Rapoport, 1982). Areas that attract people and hold them in close proximity lay the groundwork for mutual affiliation (Mehrabian, 1981). For example, when a rural American is given the opportunity to travel to New York City, the change in environment can be dramatic and frightening. When a native New Yorker is placed on a farm in an isolated rural setting, the lack of activity may become over-whelming.

With this understanding of environment having the possibility of influencing attitudes or feelings, the idea of messages coming from the environment takes on a more specific and direct meaning.

In an open, free environment, uncluttered by any sensual
distractions, the individual becomes more able to focus on the self
(Ekman, 1976) and on those individuals who may be sharing that non-
threatening, non-interfering environment. Mehrabian concluded (1981,
p. 119) that the environmental arrangement even of furniture and decora-
tive objects can facilitate interaction if they provide an excuse for
people to engage in a similar activity in close proximity to one another
(Ibid., p. 120). He concludes further that the environmentally
facilitated approach does indeed affect social interaction. Mehrabian
argues that we react emotionally to our surroundings. The nature of our
emotional reactions can be accounted for in the terms already noted here.
Thus, how arousing the environment made us feel, how pleasurable we felt,
and how dominant we are made to feel all determine environmental impact.
Arousal here refers to how active, stimulated, frenzied, or alert you
are; pleasure refers to feelings of joy, satisfaction, or happiness; and
dominance suggests that you feel in control, important--free to act in a
variety of ways.

Mark L. Knapp proposed (1978, pp. 87-89) a similar framework for
classifying perceptions of interaction environments. His perceptual
bases are similar to Mehrabian's theories. He offers the following
framework to determine environmental classification: (1) Formal/Informal
Continuum; (2) Perceptions of Warmth; (3) Perceptions of Privacy;
(4) Perceptions of Familiarity; (5) Perceptions of Constraint; and
(6) Perceptions of Distance. These categories will be defined and dis-
cussed within the context of this investigation in Chapter III. Knapp's

theories lay the framework for the specific study of Church environments. The theories of non-verbal communication within the context of environment and space relate to the changes in ecclesiastical design experienced by the Roman Catholic Church from the mid-1960s to the present. This correlation and interfacing is the focal point of this study. Investigation of the ecclesial dimension of research done in this area follows.

### B. Roman Catholic Church Environmental Research

The vast and sweeping changes called for in the Roman Catholic Church by the Second Vatican Council in the 1960s rang with a resounding urgency throughout the Catholic world. For believers to change their theological perspectives appeared bad enough to some traditional Catholics, but to change environments that were built to stay the same seemed unthinkable to some for these were the "places where faith became concrete" (Baker, 1982, p. 482).

The problem was that the perception people had of their sacred space was often tied to an image of history or to some childhood memory.

> Virtually every Church edifice of any size, Catholic or Protestant, that has been erected during the past one hundred and thirty-five years has been designed on the basis of historicist assumption (Smith, 1979, p. 258).

Noteworthy here is that "the changes in architectural arrangements were truly expressions of changes in liturgy and theology," according to theologian Robert S. Brightman (1976, p. 77). It appears concepts of church environment in the twentieth century rested on dated theology and older practices of liturgy.

The renewal movement in the Catholic religion called for the primacy of people over things. The changes, especially in Roman Catholic theology and liturgy, called for more than just spiritual and intellectual shifts. They called for a shift in environment so that instead of being "watchers" behind the protection of the darkened theater, the faithful would become involved and participating. The "House of God" was now also the "House of the Church," and with that new approach the visual surroundings and forms were not only formative but also directly expressed the underlying theology. The environment itself was called to preach (Kacmarcik, 1981). Visual shapes are formative, and individuals are either formed or not by the art and environment they experience (Kacmarcik, 1981, p. 363). New designs in church environment reveal that prayer and contemplation, silence and stability, community and hospitality, are all components of what the individual is called to be in this new direction (Seasoltz, 1983, p. 105).

The church building is a sacred space designed so as to express the Christian life of those who gather there and to deepen the faith life of all who worship there (Ibid., 1983, p. 109). Like their counter-parts in the non-verbal environmental sphere, Church designers now had to look at what impact, if any, space and art, architecture and design, color, objects and perception all had on the occupants of those sacred spaces. No longer could people simply "go" to church; they were called to "be" the church. To go and only view the action was to deny that he or she was the action. Church environment, while reflecting that God dwells there also calls people to understand that God dwells within the people

of the assembly as well. It becomes clear that the theological
orientation and liturgical practices determine (or, once again, should
determine) the architectural setting (Quinn, 1977); that is, form is
shaped by function (Brightman, 1979, pp. 79-80). What was and is needed
is an understanding that buildings as well as people need change (Davies,
1978). People are convinced mainly by experience, and that always seems
to come later, in the actual use of a building, a space, or an environ-
ment (Kacmarcik, 1981, pp. 363-364). When church environment is seen
in the new light of a community called to share God's love with each
other (Schlichting, 1983), then it helps people to understand that they
are all basically equal, even with the main "actor," the priest, and not
meant to be in competition with each other (Torvend, 1983); the gifts and
ministries of all should be accepted and confirmed (Seasoltz, 1983,
p. 108). A church building, like the people it serves, is a _living_
thing, and it is at its best when its form and style are determined by
the people who worship in it (Frank, 1962).

Certain elements are necessary for the environment to speak (or _not_
to speak) to a worshiping congregation. The Bishops' Committee on the
Liturgy (1978) states that the liturgical celebrations of the faith
community (Church) involve the whole person. They are not purely
religious or merely rational and intellectual exercises but also human
experiences calling on all human faculties: body, mind, senses, imagi-
nation, emotions, memory (Quinn, 1978, p. 2). The leaders of the
Catholic Church in its Bishops' Committee looked for criteria to judge
music, architecture, and the other arts in relation to public worship.

Searching for viable means to establish these criteria, the bishops first

turned to the new ideas of worship as outlined in Vatican Council II.

Common traditions carried on, developed and realized in each Church

community, make liturgy an experience of the Church which is both local

and universal (Vosko, 1981). Tradition furnishes the symbol language of

this liturgical action, and with structures and patterns refined through

the centuries of Church experience, gives the old meanings of action

new life in our time, our place, with our new understandings, talents,

competencies, and arts (Quinn, 1978). Liturgy, then, is a celebration of

a particular community at a given place and time, executed with the best

resources of talent and art in light of the holy traditions passed on.

Liturgy and environment were seen to impact on one another. This

action/space relationship seems to involve not only the Church, but also

non-verbal communication as well.

Environmental influences were taken into serious consideration by

the Church's bishops as they formulated the new definitions of liturgy,

art, and space:

> As common prayer and ecclesial experience, liturgy
> flourishes in a climate of hospitality: a situation
> in which people are comfortable with one another,
> either knowing or being introduced to one another;
> a space in which people are seated together, with
> mobility, in view of one another as well as the
> focal points of the right, involved as participants
> and not as spectators (Quinn, 1978, p. 4).

This "hospitality" concept is closely aligned to Knapp's category of

"warmth" so again the connection between Church needs and environmental

influence factors emerges. The demands of hospitality require a manner

and an environment which invite contemplation (seeing beyond the face of

the person or the thing, a sense of the holy, the numinous mystery). A simple and attractive beauty in everything that is used or done in liturgy is the most effective invitation to this kind of experience (McManus, 1986). The bishops felt that one should be able to sense something that is seen and heard, touched, smelled, and tasted in liturgy (Olson, 1983).

Every word, gesture, movement, object, and appointment must be "real" in the sense that it belongs to the individual worshiper as part of what he/she actually is as a person. These actions in liturgy and, indeed, the setting itself must come from the deepest understanding of ourselves (Quinn, 1978, p. 5). Liturgy is therefore identified as an important personal-communal religious experience. People bring all that they are to a group of believers who hopefully will share who they are as well. This means the environment must be conducive to warmth and unity (Steinbruck, 1983). It must be of quality and appropriateness (Quinn, 1978, p. 6). In this, environment must clearly serve (and not interrupt) ritual action which has its own structure, rhythm and movement (Quinn, 1978).

The Church document Environment and Art in Catholic Worship (1978) makes it very clear as to what is being expected from Church designers and builders:

> By environment we mean the larger space in which
> the action of the assembly takes place. At its
> broadest, it is the setting of the building in
> its neighborhood, including outdoor spaces.
> (This relates to Knapp's environmental component
> called "natural environment.") More specifically
> it means the character of a particular space and
> how it affects the action of the assembly
> (Quinn, 1978, p. 7).

The elements which the bishops pointed out as important environmental influences contributing to the overall experience of liturgy in its personal-communal dimension were the seating arrangement, the placement of liturgical centers of action (altar, book stands, music centers), temporary decoration, light, acoustics, and spaciousness (Quinn, 1978, p. 7). They concluded the environment is appropriate when it is taste- ful, when it is hospitable, and when it clearly invites and needs an assembly of people to complete it. Knapp again speaks to this when he delineates the presence or absence of other people, and architectural and design features, including movable objects (1978, p. 89). People become a living dimension of the total environmental experience, and thus a church is only a building until it breathes with a congregation of believers. Furthermore, environment is appropriate when it brings people close together so that they can see and hear the entire liturgical action and when it helps people feel involved and become involved. "Such an environment works with the liturgy, not against it" (Quinn, 1978, p. 7).

For the bishops, the entire congregation is an active component in the liturgy. There is no audience, no passive element, in the liturgical celebration (Torvend, 1983). A dimension of the environmental require- ment in Catholic worship, then, becomes the assembly of believers, the people themselves. The uniqueness of each person's color, texture, movement, and response adds to the beauty of the environment, for the assembly seeks its own expression in an atmosphere which is beautiful, amidst actions which examine the entire human experience (Huffman, 1986). Liturgical buildings and spaces should have a witness value which speaks

of the totality of the mystery of God's presence with us and in us.
Thus, environment and people come together to worship as one.

Because there is action, there is a need for a space for the action
(the stage must be set). Such a space acquires a sacredness from the
sacred action of the faith community which uses it. As a place, then,
environment becomes quite naturally a reference and an orientation point
for believers (Mauck, 1986). The church as a place must not dominate
over the people who are worshiping there. It does not have to look like
anything else, past or present (Quinn, 1978, p. 12). It is meant to be a
"skin" for liturgical action (1978, p. 12).

The document presented by the Bishops' Committee on Environment
and Art pulls this investigation to a tighter, more narrow focus when it
speaks of church space renovation:

> In the renovation of these spaces for contemporary
> liturgical use, there is no substitute for an
> ecclesiology that is both ancient and modern in the
> fullest sense. Nor is there any substitute for a
> thorough understanding of ritual needs in human
> life and the varied liturgical tradition of the
> Church. With these competencies, a renovation
> can respect both the best qualities of the original
> structure and the requirements of contemporary
> worship (Quinn, 1978, p. 13).

A call has been made for specific changes for specific reasons. No
longer satisfied to allow massive environments to overwhelm and hide
congregations, the bishops called for environments and people to inter-
face and become hospitable.

The renovation at Notre Dame Chapel in Omaha, Nebraska, is an
attempt at following this new direction in environmental design. The
question remains as to how to determine if the renovation actually

accomplishes what the Bishops' Committee on Environment and Art intended. Likewise, is there a link between what environmental experts see as typical of the impact of space, and what was hoped for in the renovation of the Chapel?

CHAPTER II

CASE STUDY

1.  The Notre Dame Chapel, Omaha, NE

A.  Pre-Remodeling Description

Notre Dame Chapel, built in 1950 according to liturgical and architectural norms popular in that period, reflected what the ideas of "church" were meant to convey to those who gathered there to pray. Theologically, the idea of God was shrouded in mystery and "other-worldliness." The presence of the Almighty was seen to be awesome, fearful, and intensely private. So concerned with the transcendence of God were theologians and Church leaders, that even architecture reflected this need to "set God apart" and keep that presence as mystical as possible (see Appendix C, p. 57).

Specifically, Notre Dame Chapel was constructed with a long, rather narrow nave that placed the altar area some fifty feet away from the congregation. The pews, made of dark oak, were arranged in a typical theatrical manner. All of them faced the altar and all of them were firmly nailed to the marbled floor. The colors of the room ranged from a medium shade of blue on the walls to a lighter blue on the vaulted ceiling. The colors allowed for a feeling of massive and extremely distant space.

Floors were a combination of tile (gray and blue) and off-white marble. There was no carpeting in the nave at all, but part of the altar area did have dark blue carpet near the table.

Large plaster statues of saints were encased in two side altar areas to the right and left of the main altar. Likewise, a large crucifix some ten feet in height hung just behind the main altar. Atop that, yet another statue of a saint was placed in an alcove near the ceiling. Along the walls on either side of the nave plaster plaques (stations) depicting events in the life of Christ were hung at varied intervals.

The distancing of the congregation from the altar and the priest was maintained by a fixed-marble communion rail positioned about ten feet in front of the first row of pews. Aisles up to the rail and near the side walls of the nave offered the only avenue of movement during the services.

The lighting fixtures were large lantern-like glass and metal containers which were suspended from a single gold metal chain from the high ceiling. Six of these fixtures provided the necessary artificial light when the natural light from ten large, narrow windows was insufficient for the services.

There was no gathering space for hospitality or greeting as the entrance of the Chapel opened to the office and reception area of the Convent. Once the services began, the "actor"/priest prayed in Latin to a watching "audience"/congregation. This was typical of the liturgy of the period, and the space reflected that need to distinguish the sacred from the secular. Once that understanding changed with the new

theology of Vatican Council II in the mid-1960s, a need for renovation
and renewal surfaced within the community.

## B.   Post-Remodeling Description

The nearly two-year project of renovation began in the winter of
1978 and ended with a dedication ceremony in May of 1980.  The long nave
of the building allowed for a division of space between the devotional,
private, formal area and the liturgical or open, communal, informal area.
The trend in liturgical thinking since Vatican II has been described as a
"definite break with the traditional pattern of rigid, precise, rubrical
direction" and an openness to "choice, alternatives, and variations"
(Archives, 1980, L-1).

Some special considerations about the role of the people within the
space were taken into account.  The Document Environment and Art in
Catholic Worship offered this rationale:

> The most powerful experience of the sacred is found
> in the celebration and the persons celebrating,
> that is, it is found in the action of the assembly;
> evidence is found in early architectural floor plans
> which were designed as general gathering spaces,
> spaces which allowed the whole assembly to be part
> of the action (Quinn, 1986, p. 8).

Thus, when envisioning new space, the renovation committee envisioned the
role of the "new" worshiper.  Environment and persons were to respond
together.

Since people were now to take a much more active role in the
worship services, decisions about the over-all design were based on the
"new activism."  That is what lead to the decision to unfasten the
stationary pews, altars, communion rails and side statues of the old

environment. The public nature of the community's celebration of the Mass and other religious events was to be reflected in a more open, casual, flexible and contemporary design. This was to add to a sense of action coming from the people and not just from the minister. Recall, the new directives point out that the congregation and environment should together form the worshiping unit.

At the chapel's rear doors a "Hospitality Area" is the first encounter with the new design. The hospitality area provides a place for welcoming and greeting and contains the works of art The Sower and Memorial Candle crafted by Sr. Margaret Proskovec, N.D. The Sower is a six-panel, appliqued fabric design portraying the biblical story of the sower and the seed. The sower (Jesus Christ) scatters the seed of God's Word, with some seed falling on the roadside, some among thorns, some amid rocks, and some on fertile soil. The fertile hillside is reflected in the last panel which represents the Notre Dame community, in whom the seed grows and bears fruit. Memorial Candle burns perpetually as a prayerful reminder of the Notre Dame Sisters in Czechoslovakia where the community began. Made of pieces of scrap metal welded together, the candle stand bears symbols of Christ's suffering before He died and the suffering of the Czech Sisters. Railroad spikes are arranged in a form that suggests the crown of thorns worn by Christ, an image reflected in the (gear) shape above it. Images of Christ's suffering are carried to the top portion of the stand in the form of three small crosses. These lead upward to three rectangular plaques representing the communist flag, the national flag of Czechoslovakia, and the international symbol of the

Notre Dame Congregation (from the booklet prepared by the planning committee, 1980).

The Narthex (actual entrance to the Chapel) speaks of entry into the gathering place of the Christian Community. Here the presence of water and a large white Easter Candle (used during Holy Week services and during Baptisms) remind the worshipers that it is through the rituals of Baptism and Confirmation that they first become members of the Christian Assembly. The document of <u>Environment and Art</u> indicates "the Easter Candle occupies a central location in the Assembly during the Easter season and a place at the baptismal font thereafter" (Quinn, 1986, #90, p. 24).

The aim of the larger liturgical space was to facilitate and provide an appropriate setting for the public worship and common prayer of the faith community (Booklet, 1980). A striking feature of this space is the total flexibility (mobility, openness) of all elements in the environment allowing for change in the liturgical centers of action. This includes the altar (see Appendix D, p. 58), reader's stand (ambo), chair of the presider (priest), seating arrangement, decoration and lighting, all of which affect the action and involvement of the assembly. Recall in Chapter I the ideas of "hospitality" and "appropriateness" as presented by the document (Quinn, 1986, #24, p. 7). It is clear by the design that the goal of the architecture, and the outcomes expected were combined to give an uncluttered, clean, and moveable environment which would help the congregation feel more involved and participatory. "Such an environment works with the liturgy, not against it" (<u>Ibid.</u>).

The use of the old space began to unfold into the new space. The nave/altar area was divided into two separate spaces, each with its own function and purpose (see Appendix E, p. 59). The arrangements of simplified art objects became flexible. Materials used in the two spaces were soft and meant to convey warmth. The lighting of the areas became brighter and more flexible with the installation of a new track-lighting system. The colors used in the liturgical/celebration environment were subdued, earth-tones in carpet and cushions so that the off-white walls would form a free-standing atmosphere.

Certain furnishings and articles of worship in the liturgical environment stand out. The altar and ambo (reader's stand) were designed by Brother William Woeger of the Archdiocese of Omaha Liturgy Office. Both are constructed of solid oak and reflect the mandate of the bishops' document which states "all furnishings taken together should possess a unity and harmony with each other and with the architecture of the place" (Quinn, 1986, #67, p. 18).

> The holy table, therefore, should not be elongated
> but square or slightly rectangular, attractive,
> impressive, dignified, noble table, constructed
> with solid and beautiful materials in pure and simple
> proportions (Quinn, 1986, #72, p. 20).

The ambo or lectern is a standing desk for reading the Scripture or preaching. It represents the dignity and uniqueness of the Bible and of reflection upon the work it contains (see Appendix F, p. 60).

Also contained in the liturgical space is a large processional cross which is carried into the public worship space as a sign of gathering the assembly of worshipers. Overhead, hanging from suspended

rods near the ceiling, are four Church seasonal banners which reflect in four different colors (green, or white, or red, or purple) the seasons or feasts of the Liturgical Church Year adding to the festivity of the liturgical space.

Apart from this community/liturgy environment, yet contained within the superstructure of the building is the Eucharistic Chapel (see Appendix G, p. 61). This area is specifically designed and is separated from the major space by a metal grille so that a distinction can take place between the celebration of the Mass or other communal events and the reservation of the Blessed Communion wafers called the Eucharist. Doors of the grille are closed and the Bible removed at the time of the celebration of Mass. The rationale behind this design was found once again in the bishops' document:

> Active and static aspects of the same reality cannot
> claim the same human attention at the same time.
> Having the Eucharist (Communion wafers) reserved
> in a place apart does not mean it has been relegated
> to a secondary place of no importance. Rather, a
> space carefully designed and appointed can give proper
> attention to the reserved sacrament (Quinn, 1986,
> #78, p. 21).

Proper attention was also given to the Bible as it is enthroned within a wooden, decorated triptych to the right of a large copy of an Eleventh Century Medieval Italian wooden cross which is the central visual piece within the space. The reserved sacrament of communion wafers is likewise enthroned in the left wooden, decorated triptych (see Appendix H, p. 62). This area is used for private, formal, permanent devotions and is not considered to be part of the more active major environmental space. The

effect of this environment is a quiet, private, warm enclosure that calls for individual prayer and devotion from its occupants.

## 2. Philosophy on Space

### A. Church Philosophy

A position different in a rather basic way from what have been the customary suppositions of Christians in respect to their places of worship was called for after Vatican II. E. A. Sovik, noted architect and author, has said "we should no longer build places specifically devoted to the cultic event, or structures which have what is thought of as ecclesiastical character" (1973, p. 7). Rather, church design today must reflect a fresh approach to what we consider "functional liturgical space" (Ibid.).

New philosophies on liturgical space occurred with the teaching of the Vatican Council on what worship was supposed to be in a renovated church. Their essence is that it is a single unified space, and though it may be articulated into zones or functional areas related to the various liturgical functions--a place for the choir, a place for God, a place for baptism and so on--it is no longer comprised of nave and chancel (Ibid., p. 31).

What does this mean practically and where does this position Church space? A house of worship is not a shelter for an altar; it is a shelter for God and people. It is not the table that makes a sacrament; it is the consecration of the Eucharist by the priest, and what the people do as worshipers. The things are adjuncts, conveniences, symbols, utensils.

The atmosphere of holiness is not assured by things or by symbols or by buildings, but by Christian people (Ibid., p. 33). People change and as such demand that "things" change with them. Sovik claims the principle now operative is that change is to be continual, and continually responsive to changes of people, occasion, and cultural circumstance (Ibid., p. 35).

> What this ultimately means is that there can be no
> more church building in the sense that is meant
> when we talk about "houses of God," shrines,
> temples, naves, chancels, or sacred edifices. We
> need to return to the non-church (Ibid., p. 39).

The philosophy of space for the Church hinges on the premise that it isn't buildings that need change but the people, and the renewal of buildings is only a means to help people understand the church and their faith in light of the demands of Vatican II. Flexibility in design also becomes an important consideration since environment will change according to the needs of the people using and interacting with it. The keynote of this type of design is hospitality, warmth, and openness.

The environment for worship is something which takes into consideration those people who are working together in their worship and how they use and perceive that environment as a specialized elaboration of their culture (Vosko, 1981, p. 5). People are seen as interlocuters with their environments. To create a space now with little or no reference to people's proxemic needs would be unfair and dishonest (Ibid., p. 6). The philosophy is summed up clearly in the document on Environment and Art in Catholic Worship:

> There are elements in the environment, therefore,
> which contribute to the overall experience, e.g.,
> the seating arrangement, the placement of liturgical

centers of action, temporary decoration, light,
acoustics, spaciousness, etc. The environment is
appropriate when it is beautiful, when it is
hospitable, when it clearly invites and needs an
assembly of people to complete it. Furthermore, it
is appropriate when it brings people close together
so that they can see and hear the entire liturgical
action, when it helps people feel involved and
become involved (Quinn, 1986, p. 7).

## B. Non-Verbal Philosophy on Space

Of the many researchers involved with environmental impact, three

seem to take the lead in offering a rationale for the philosophy of

space. Mark Knapp, Albert Mehrabian, and E. T. Hall have presented

theories which are very appropriate for the present study.

Knapp's framework for classifying perceptions of interaction

environments are very important for the purposes of environmental

analysis. The perceptual bases of formality, warmth, privacy, familiar-

ity, constraint, and distance all tie in with the non-verbal philosophy

of space. Knapp suggests once we have perceived our environment in a

certain way, we may incorporate such perceptions in the development of

the messages we send. And, once the message has been sent, the environ-

mental perceptions of the other person have been altered. Thus, we are

influenced by and influence our environments (Knapp, 1978, p. 87).

Mehrabian argued that we react in an emotional way to our

surroundings (1976). He sees the nature of our emotional reactions

accounted for in his terms of how _arousing_ the environment makes us feel,

how _pleasurable_ we may feel, and how _dominant_ we are made to feel.

Environments, according to Mehrabian, can produce high or low arousal in

the individuals interacting with it.  Thus, as with Knapp, Mehrabian sees

environment as an _active_ force in non-verbal communication.

E. T. Hall, Knapp, and Mehrabian all share similar philosophies.

Hall has suggested that the environment can be divided into three basic

categories:  fixed-feature, semi-fixed, and dynamic (Hall, 1972, p. 210).

Dynamic being the type of space that changes as people change; semi-fixed

features are those which enable people to "increase or decrease (their)

interaction(s) with others, and to control the general character of

(their) trans-actions, to some degree" (_Ibid._, p. 210).  People do this

most often by arranging or re-arranging furniture and other objects in

the assigned environment (similar to Knapp's "formality/informality"

category).  Fixed-feature includes two phases:  "internal, culturally

specific configurations, and external environmental arrangements such as

architecture and space layout" (_Ibid._).  As one could surmise, depending

on the desired result, how we structure our environment can include all

three of Hall's categories.  As with Knapp and Mehrabian, Hall presents

environment and space as dynamic factors in the communication process.

For all three researchers, space can be seen as impacting on certain

responses from the individual within its confines.

## C.  Summary

The two-year renovation of the Notre Dame Chapel was completed in

May of 1980.  Guidelines used for the remodeling came from a document

entitled _Environment and Art in Catholic Worship_ which was published by

the American Bishops' Committee in 1978.

The twenty-eight-year-old chapel had been built to conform to the style of churches of the early 1950s. It had a long nave with two sets of pews facing forward which directed the attention of the worshipers to the large fixed main altar. Two side altars containing large statues of saints flanked the main altar. The entire focus of the chapel was forward and fixed. The style of worship and the style of architecture were tied together in such a way as to allow for little or no interaction among worshipers.

With the new theology of worship given by Vatican Council II in the mid-1960s, people were seen as active participants in liturgical celebrations and could no longer simply be "spectators." Using that as a basis for re-design, the nuns and architects used the specific instructions given by the 1978 Bishops' Document Environment and Art to renovate the chapel.

Since the document called for feelings of community, hospitality, warmth, and participation, the chapel had to be restructured to allow for more interaction within the worshiping community. The altar, ambo, pews, and candles all became flexible. The colors used were earth-toned and somewhat neutral, depending on light and time of day. The entire area was divided into two spaces, one for public worship and one for private devotion.

With the removal of the fixed features of the chapel (altars, statues, pews, crosses) the area became very flexible. This allowed for the altar and ambo to be moved according to different ceremonies. The pews also could be rearranged to provide for a different atmosphere.

These changes were made in order to align the chapel more closely with what the Bishops' Committee stated was current design. The purpose of these changes was to give the chapel an atmosphere of shared worship in a warm and comfortable environment.

CHAPTER III

METHODOLOGY

Chapters I and II showed that environments are structured for particular preferences and, in return, some people structure environments according to what they consider as appropriate for some expected outcome (Hickson and Stacks, 1985, p. 23). What is the impact of a changed environment on the people who most often use that space? Postulating that environments and people interact, what impact, if any, did the renovated Notre Dame Chapel have on the people who worship there?

## A. Knapp's Categories

Mark Knapp has concluded that the environment is perceived in six ways (1978). Using his system, the Notre Dame Chapel space will be analyzed in terms of these six perceptual features. One dimension along which environments can be classified is a formal/informal continuum. Reaction here may be based on the objects present, the people present, the functions performed, or any number of other characteristics. The greater the formality, the greater the chances that the communication behavior will be less relaxed and more superficial, hesitant, and stylized (Knapp, 1978, p. 87).

Knapp also presents the perception of warmth which contends environments which make us feel psychologically warm encourage us to linger, to feel relaxed, and to feel comfortable. It could include such

combinations as the drapery color or wall coverings, paneling, carpets, furniture textures, chair cushions, soundproofing, etc. Next, he offers the perception of privacy which claims enclosed environments usually suggest greater privacy and that sometimes the objects in the setting will add to the perceptions of privacy--for example, personal items and individual spaces. With greater privacy, we will most likely find close speaking distances and more personal messages, designed and adapted for the specific other person rather than just any person in general (Ibid., p. 88).

The perception of familiarity adds yet another dimension to this investigation. Unfamiliar environments cause people to be cautious, deliberate, and conventional in their response to them. They will probably proceed slowly until they can link this unfamiliar environment with one they already know. Becoming familiar with an environment provides more of an interplay with it and a feeling of acceptance.

Part of the total response to an environment is based on the perception of whether a person can leave it and just how easily that can be accomplished. The intensity of these perceptions of constraint is closely related to the space available to people (and the privacy of this space) during the time they will be in the environment (Ibid., p. 88). Some environments, like riding in an automobile during a trip, are seen to be only temporarily confining; others, like a prison, seem more permanently confining.

Knapp also discusses the perceptions of distance. He suggests that sometimes our responses within a given environment will be influenced by how close or far away people must conduct their

communication with another person (Ibid., pp. 88-89). Actual physical distance or psychological distance (some barrier which clearly separates people in close proximity) is reflected in this category. Distance and familiarity work together to provide a perception for people when an environment appears to be too close and they need some avenue of escape, for example, nervous laughter, less eye contact, or cold silence.

Knapp states that generally, more intimate communication is associated with informal, unconstrained, private, familiar, close, and warm environments (Ibid., p. 89).

## B. Framework

In order to determine the impact of a liturgical environment ("the setting") on those who worship there ("the actors"), the following devices will be used to evaluate the impact of a changing environment. Using Knapp's frameworks, an instrument using the semantic differential and a Lickert-type scale producing a quantitative analysis of the alleged impact will be administered. In combination with this instrument a qualitative interview will be given to a group of individuals who use the chapel for worship. This qualitative analysis will reflect the quantitative measure in the type of questions asked and the intended result.

Responses will be studied to determine what impact the renovation may have had on the worshipers there.

## C. Populations Involved

A group of approximately seventy people will participate in this study. Fifty-seven of them will be nuns who use the chapel daily for

public and private worship.  Eleven participants will be lay people who use the chapel on weekends for Mass.  Two participants will be priests who regularly (at least five times a month) say the Mass in the chapel.

Questionnaires will be given all seventy participants and eight of the nuns will be interviewed for qualitative input.

CHAPTER IV

RESULTS

Seventy scales based on Knapp's framework for classifying

perceptions of interaction environments (1978), as well as 8 personal

interviews which contained nine qualitative questions that reflected the

quantitative scale (see Appendix A) were administered.  This quantitative

scale was a Lickert-type instrument consisting of six questions which

incorporated Knapp's six perception bases.  These perception scales were

given a numerical value between 1 and 5 on a bi-polar and reversed-

polarity rating ("1" representing at times the "highest" rating and for

other items the "lowest," and "5" representing at times the "highest"

rating and for other items the "lowest" rating) (See Appendix B).  The

reversed polarity was used in order to avoid a patterned response and to

stimulate the subjects' thinking.

Very Formal_____:_____:_____:_____:____:Very Informal

The following question was asked concerning the perception of

formality:  "Is the Chapel in your opinion formal or informal?"

Frequency responses (see bar-graph on p. 34) recorded were:  7 on line 2;

22 on line 3; 23 on line 4; 18 on line 5.  It appears that the majority

of the seventy respondents feel the renovated chapel tends to be

"informal" as opposed to "formal."  Knapp states that such a reaction may

KNAPP'S CATEGORY
OF FORMALITY
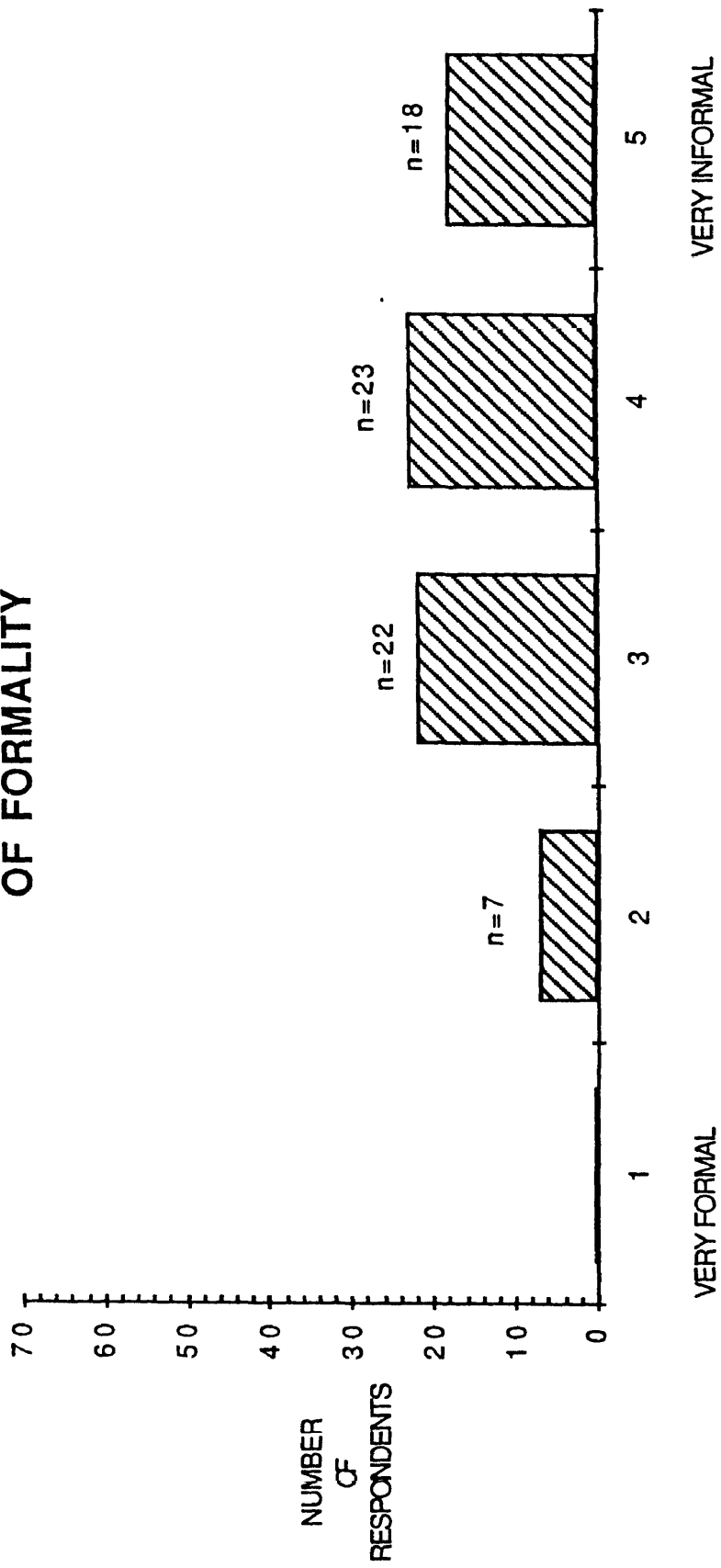
be based on factors like the objects present, the people present, the functions performed, and other characteristics (1978, p. 87).

This perception of informality also arises as content analysis of the interviews is made. When asked, "How would you describe the formal or informal impact of the Notre Dame chapel?", the following responses were given by the eight nuns interviewed: "not imposing," "informal, casual, comfortable," "not too severe, just pleasing," "an informal space of invitation to worship together," "informal in its flexibility of space," "close to the action," "centers of action change." The following descriptors were also used: "visibility," "non-dominating," "no rigidity," "friendly," "formal, but pleasing," "simply informal." These qualitative evaluations fall into the area of informality reflected in the quantitative scales and exhibit a similar perception of the environment. The over-all conclusion of the subjects' perception of formality is that the chapel tends to be an informal space for worship and prayer.

Very Warm_____:_____:_____:_____:_____:Very Cold

Knapp's classification on the perception of warmth followed. "Does the chapel make you feel comfortable with a sense of warmth?" was the question asked the subjects. Frequency responses recorded for the perception of warmth were: 28 on line 1; 20 on line 2; 14 on line 3; 3 on line 4; 5 on line 5 (see bar-graph on p. 36). The tendency of the seventy respondents was to perceive the chapel as "warm" with 62 marking lines 1-2-3. This tendency would indicate the perception of

KNAPP'S CATEGORY
OF WARMTH
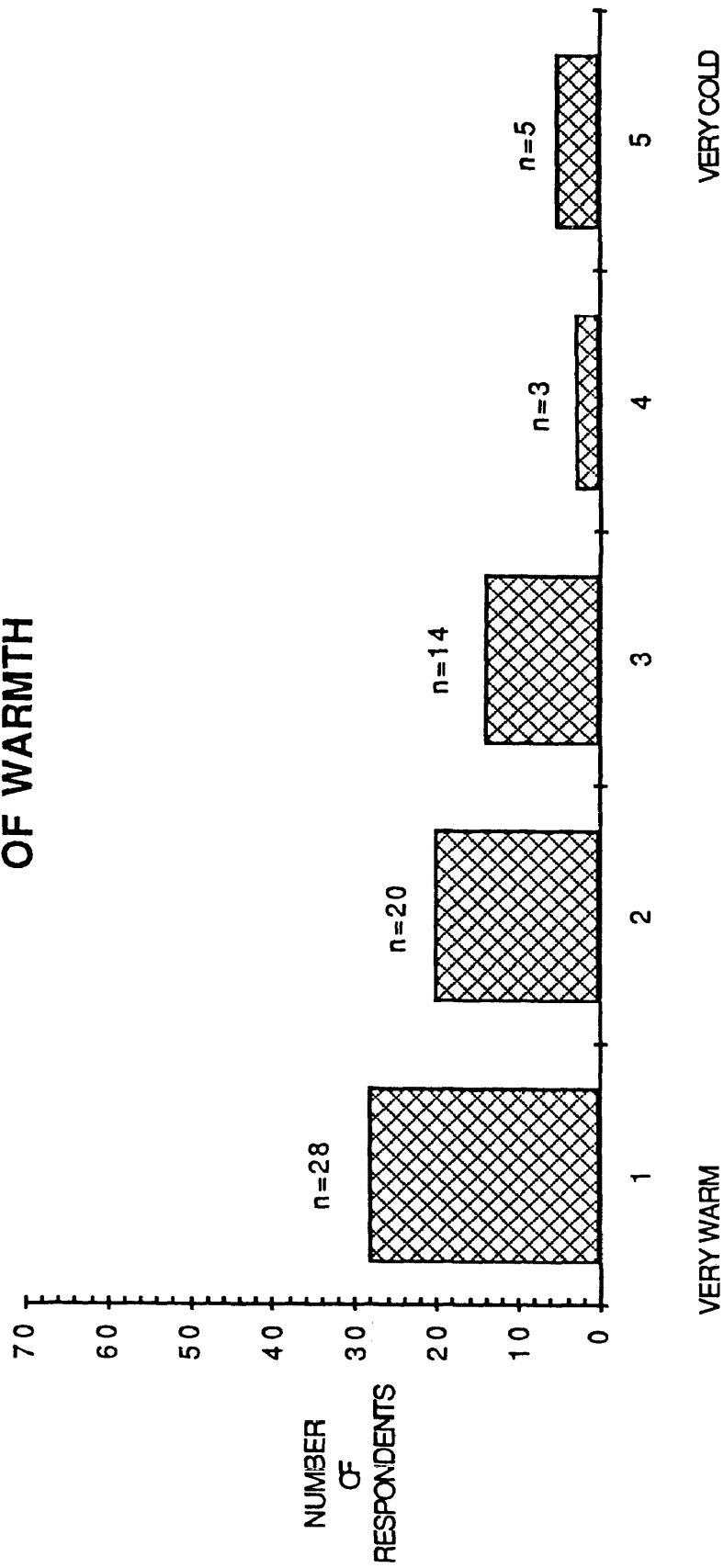
warmth is present. Knapp states "environments which make us feel psychologically warm encourage us to linger, to feel relaxed, and to feel comfortable" (1978, p. 88). He says that several factors influence this perception including color of the walls, paneling, carpeting, texture of the furniture and so on.

The eight nuns responding to the question of warmth ("Do you feel that the Notre Dame chapel is comfortable or uncomfortable?") provided these statements of perception via the interview. The chapel provides: "color, warmth because of the color of the hangings," "warmth because of the color of the rug and all the wood that is used"; "trees, wood, and color all provide warmth"; "the light from the windows gives a feeling of warmth"; comfortable especially at Christmas and other feasts when color is significant in banners, flowers, etc."; "comfortable because it is not crowded and there is easy communication and contact with each other." Analyzing the content of these representative responses suggests that the chapel is warm and comfortable (hospitable) since they fall into the area of warmth as measured in the quantitative scale. The over-all conclusion, then, from both quantitative and qualitative measurement is the chapel tends to be perceived as warm by its occupants.

Very Private_____:_____:_____:_____:_____:Very Public

The public or private atmosphere of the chapel was investigated. The following question was asked: "Does the chapel give you a feeling or sense of privacy?"

This scale provided the following frequency responses: 2 on line 1; 10 on line 2; 19 on line 3; 23 on line 4; 16 on line 5 (see bar-graph on p. 39). The majority of respondents perceived the chapel as a public space which is somewhat unusual for the type of atmosphere intended. Knapp states with a greater degree of privacy the tendency is to find close speaking distances and more personal messages (1978).

In addition to this scale, the following qualitative responses were representative of the people interviewed. When asked, "Is it (chapel) an open space for worship, or do you feel you can have a feeling of privacy there?", the nuns responded, "I would not choose the chapel area for private prayer, I do that in my room,"; "I can center within myself by looking down, I can have a 'private privacy'"; "it's very private after 9:00 p.m.!," "it's public, but I can enter myself," "it is not conducive to private prayer," "privacy is only attainable in the devotional space strictly speaking." "I feel sufficient privacy," "nuns are trained to tune out others and noise, so I can go there for private prayer." These statements suggest the space can be private or public depending on the needs of the individual worshiper. The quantitative results suggest the chapel is public, while the qualitative responses point out that a combination of public and private space is available to the worshiper.

Very Unfamiliar_____:_____:_____:_____:_____:Very Familiar

The perception of familiarity was then measured and analyzed. When asked "Does the chapel seem familiar to you; do you know how to act there?", the following frequency responses were recorded with line "1"

KNAPP'S CATEGORY
OF PRIVACY

NUMBER
OF
RESPONDENTS

n=2

n=10

n=19

n=23

n=16

1
2
3
4
5

VERY PRIVATE

VERY PUBLIC
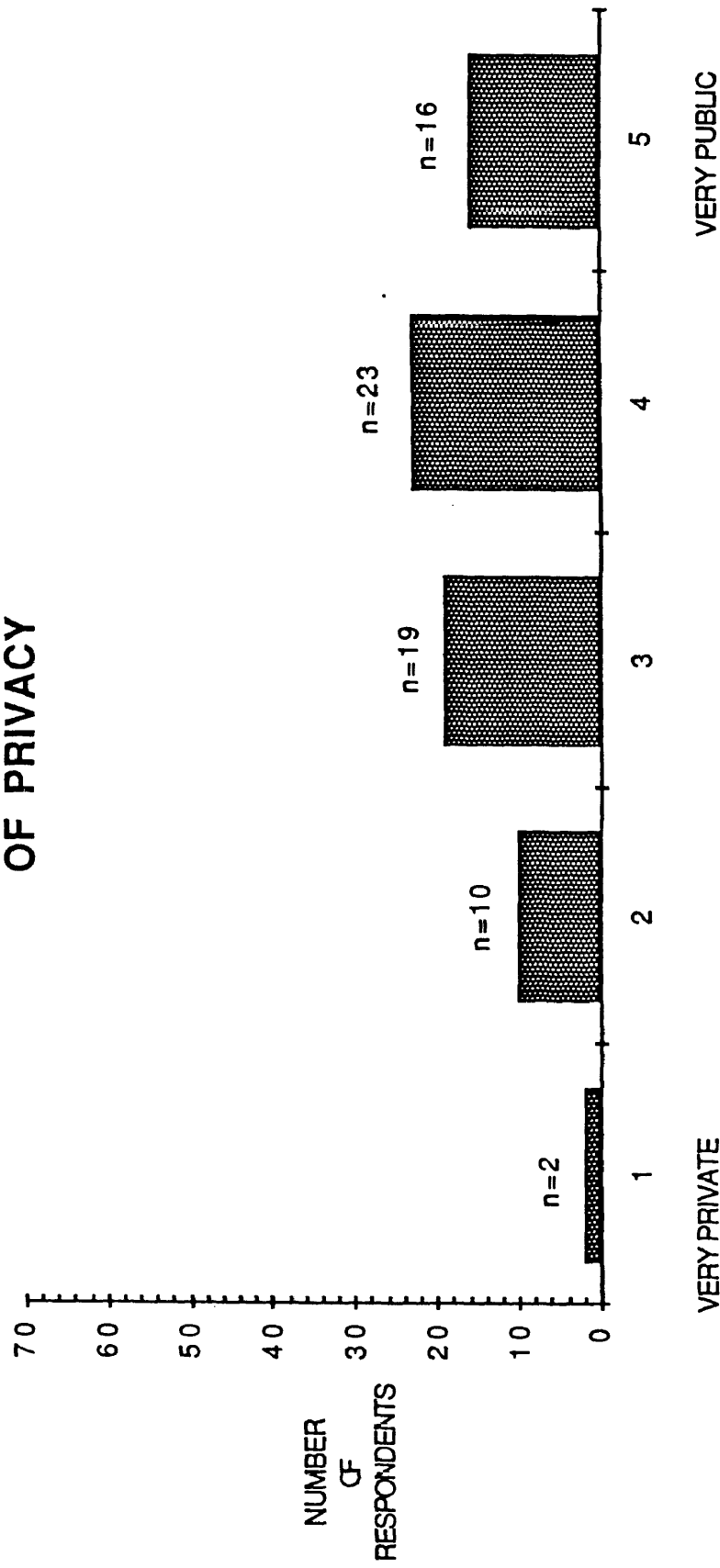
being very unfamiliar and line "5" being very familiar: 4 on line 1; 5 on line 2; 12 on line 3; 18 on line 4; 31 on line 5 (see bar-graph on p. 41). The vast majority (61 from line 3 and higher) of the seventy participants perceived the chapel as familiar to them. This would appear to be an appropriate response to a church environment. Knapp claims that when a person considers an environment unfamiliar, they hesitate to move too quickly, they are more cautious until they begin to associate the unfamiliar with the familiar (1978, p. 88).

Responding to the question "Does the chapel seem familiar to you?" the nuns answered: "I have freedom to act any way I want to there and hope people allow me that freedom"; "a switch in our attitude about environment and theology reflects our switch in familiarity"; "we do the worship so it is very familiar"; "we now believe that Jesus is in the Assembly so we are very familiar with the chapel, it conveys Christ in us": "very familiar, it's home to me"; "at home and at ease in the chapel"; "familiar and warm," "invites participants to enter into the action." The chapel is seen to be a familiar, non-threatening environment to these respondents and this perception of "knowing" the chapel is apparent in these representative responses. Analysis of these statements provide a sense of awareness as to what type of behavior is expected when one enters this environment. The qualitative evaluation points to familiarity.

Very Constrained____:____:____:____:____:Very Unconstrained

The following question on constraint was asked: "When I am in the chapel do I feel constrained or unconstrained?" The bi-polar scale had
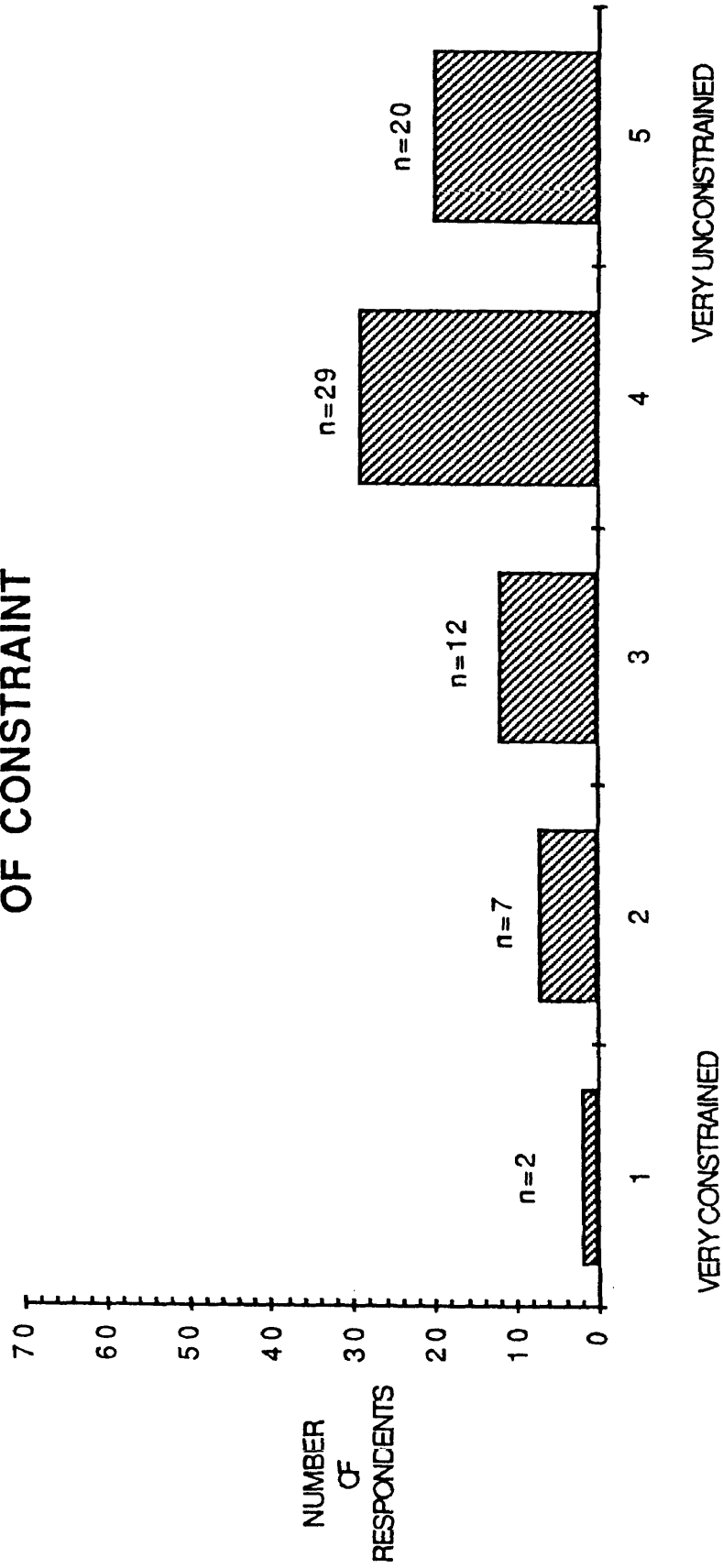
KNAPP'S CATEGORY
OF FAMILIARITY
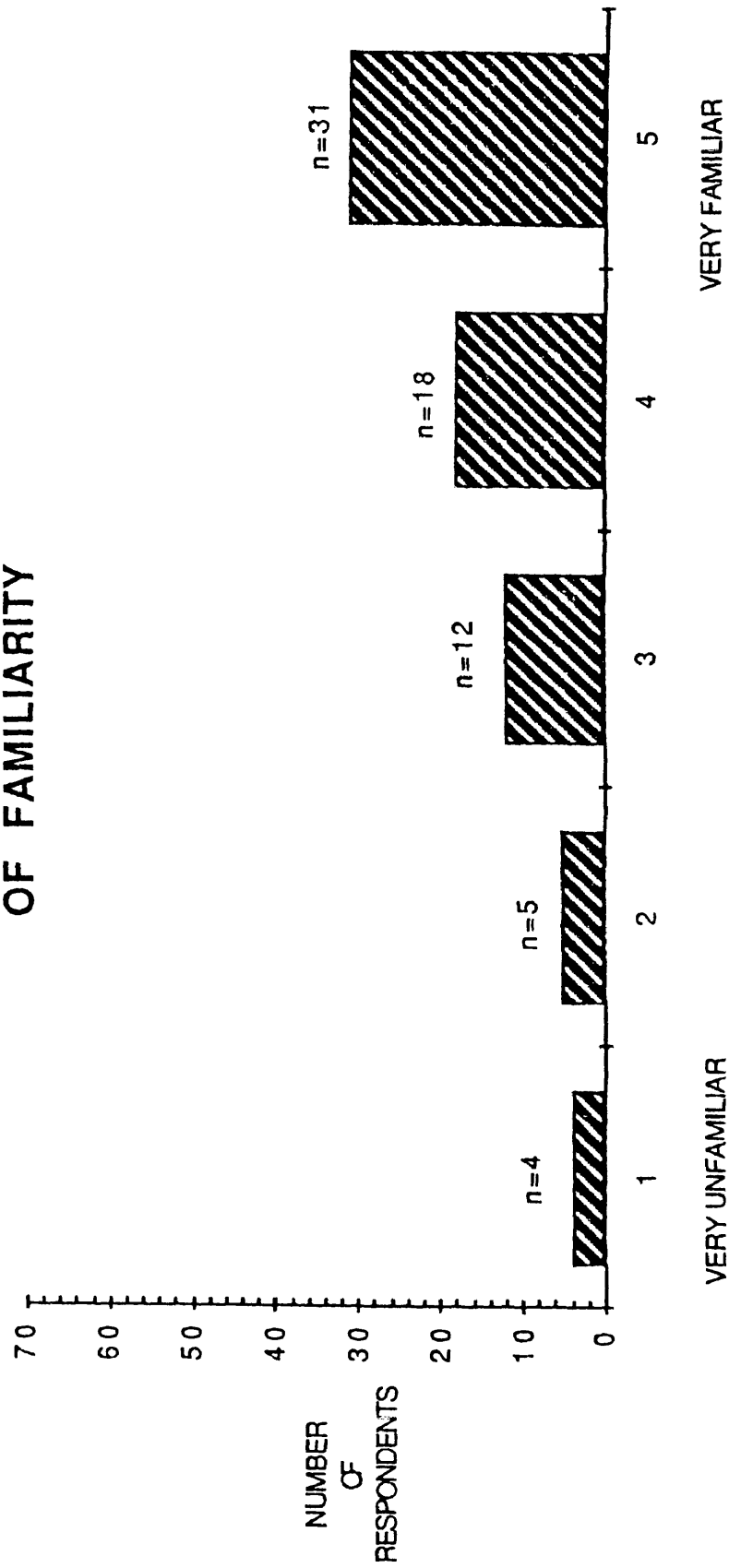
"1" representing very constrained, and "5" representing very

unconstrained. Constraint according to Knapp, indicates how easily we

perceive our ability to leave a particular environment (1978). The

frequency responses given for this category were: 2 on line 1; 7 on line

2; 12 on line 3; 29 on line 4; 20 on line 5 (see bar-graph on p. 43).

The high tendency of the seventy respondents was toward the "uncon-

strained" category. It appears that for the majority of respondents, the

chapel is easily entered and exited.

The question of ease of movement was asked the nuns who were

interviewed. Again, their responses were similar to the quantitative

measure: "I feel no constraint at all"; "I am constrained because we

face one another"; "a visitor felt very constrained because she came late

to Mass and felt everyone was watching her," "we all have different

schedules, so coming and going in chapel is normal, we feel no constraint

about the space," "it depends on how well you know the people," "it

depends on how the space is arranged," "it is easy to leave, we give each

other that freedom and so does the space." The over-all conclusion here

is that the chapel is not a confining, prison-like space but rather open

and flexible depending on the needs of the worshipers to come and go as

they so choose.

Uncomfortable                                        Comfortable
with Distance_____:_____:_____:_____:_____:with Distance

The final category of perception was that of <u>distance</u>. The

question "Does there seem to be a <u>distance</u> <u>between</u> <u>people</u> there?" was

KNAPP'S CATEGORY
OF CONSTRAINT

NUMBER
OF
RESPONDENTS

n=2    n=7    n=12    n=29    n=20

1    2    3    4    5

VERY CONSTRAINED    VERY UNCONSTRAINED

asked with "1" representing uncomfortable with the distance and "5"

representing comfortable with the distance. The frequency of responses

for the seventy participants on the category of distance were: 5 on line

1; 4 on line 2; 8 on line 3; 14 on line 4; 39 on line 5 (see bar-graph on

p. 45). The large number (over 75%) indicates the chapel provides

a good, comfortable distance both physically and psychologically. The

responses of the nuns interviewed were once again similar to the scaled

responses. To the question "How do you feel about this distancing

or lack of it in the chapel?" the following representative responses were

given: "I feel close to everyone as I can see everyone," "there is

distance between age groups, but some of that is unavoidable as some are

wheel-chair bound"; "distance is quite natural--it is easy to adjust to";

" I don't feel any distance whether I am in the pew alone or more members

are present with me"; "I feel free to move around to fill in the gaps";

"I feel very comfortable with the distance between people"; "some

arrangements afford more distance because more pews are added"; "the

height of the space allows for a sense of freedom, spaciousness"; "seeing

and facing others brings me into closeness with them which is something I

like." Content analysis here indicates the respondents' sense of "good"

or "right" distancing between people in the chapel. The closeness of the

seating and the face-to-face arrangement are seen as positive factors in

the perception of the environment.

It should be noted here that various demographics were analyzed and

the differences in age, sex, and whether lay or religious did not demon-

strate any significant differences in responses, thus aggregate totals

offered the clearest results.

KNAPP'S CATEGORY
OF DISTANCE
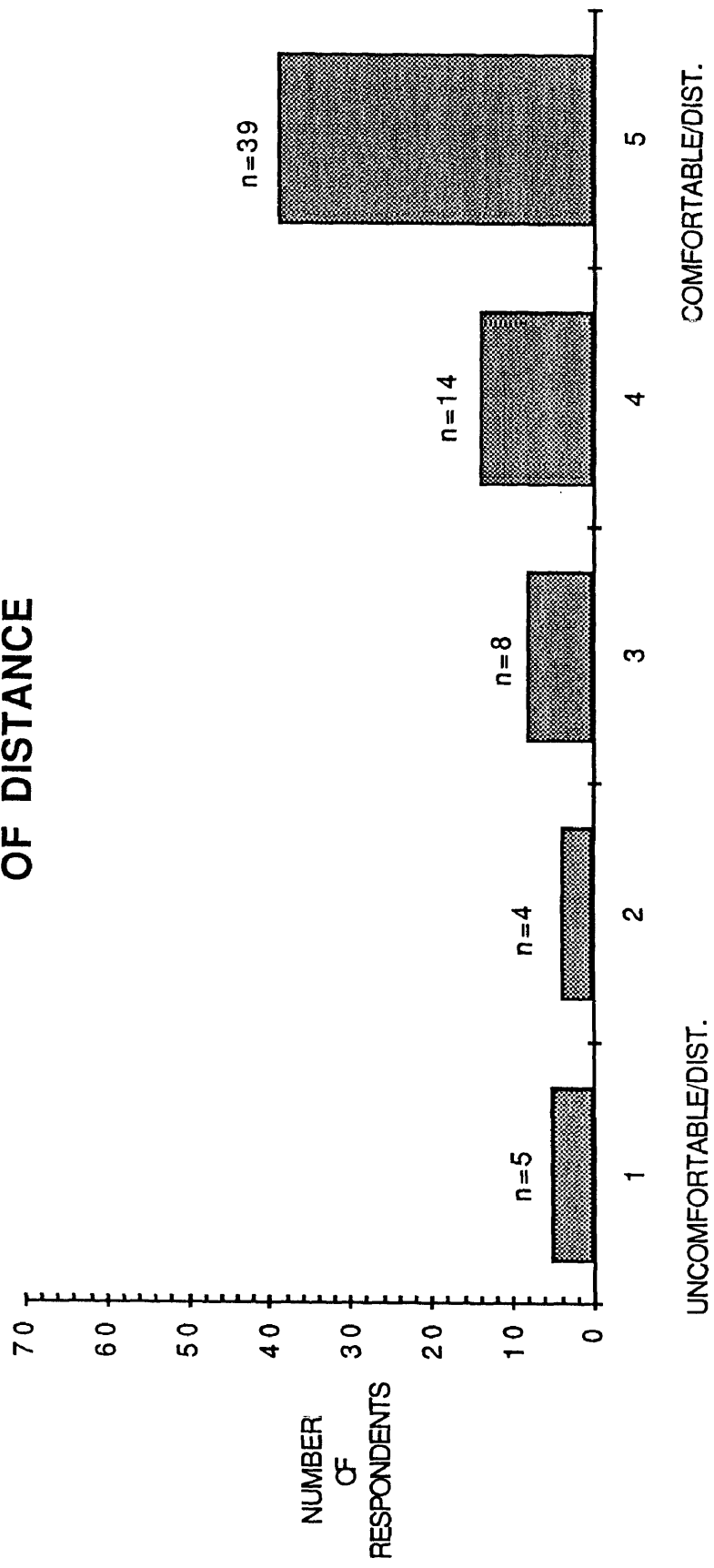
CHAPTER V

DISCUSSION

## Summary

The combined quantitative frequency of responses and qualitative evaluation of the perceptions of interaction environments at Notre Dame Chapel provided a clear image of what seventy worshipers saw the chapel to be since the renovation.

Using Knapp's six perception categories as a framework, the investigation of the chapel from a non-verbal point of view was accomplished. The subjects provided some data as to the impact the chapel now has on the majority of people who worship there.

The bar-graphs provide their data of frequency of responses and point out that for most of the people who participated in this study, the chapel was perceived as generally being informal, warm, public, familiar, unconstrained and comfortably distant.

The eight nuns who were interviewed separately provided qualitative data which appeared to reflect what the scales indicated as to the six perceptions of environment. Content analysis of their statements lead to the same conclusion about the chapel as provided by the frequency of responses.

Conclusions

The Notre Dame Chapel would appear to be considered an environmentally correct space with the renovation project of 1978-80. Attempts were made in the Documents of Vatican Council II and the directives presented by the Bishops' Committee on Environment and Art to clarify the role of sacred space and its usage. Roman Catholic Church leaders called for a renovation of environment which would enable worshipers to be more than simply spectators at a religious event. The concepts of "hospitality," "warmth," "closeness," and the indwelling of God in the people of the assembly had to be conveyed in the new environments for worship. If the environment did not impact on these categories, then the space was not accomplishing its task.

Knapp's framework for classifying perceptions of interaction environments proved a good basis for studying the chapel from a non-verbal point of view. Using his six perceptual bases of formality, warmth, privacy, familiarity, constraint, and distance, a link was established between the categories outlined by the Church documents and the non-verbal researchers.

If the Notre Dame Chapel was to do what the directives suggested, it should enable worshipers to be more aware of their role in worship, sense a closeness to the people around them, feel the presence of God within people as opposed to just space, and finally help the people feel involved and close. The results of this study point out that for seventy worshipers who normally use the chapel, the renovation did accomplish what the designers set out to do. The environment of the sacred space

speaks to its participants in the way the Bishops' Committee on Environment and Art had recommended. The Notre Dame Chapel accomplishes its task.

## Implications for Future Research

The results of this study support the theory that environments can have a predictable impact on people. It appears that the two disciplines of theology and non-verbal communication tie together to formulate impact studies. The sparsity of previous research in this area is perhaps a weakness of this study. Future research that has a client-based environment analysis could do well to use Knapp's categories as a framework or reference for deeper investigation.

Future research could study the impact of environments using Mehrabian's (1976) schema of arousal, pleasure, and dominance and the emotional reaction one has to his/her surroundings. This would add to Knapp's categories and lend another dimension to research in this area of environmental impact.

Another recommendation is that future research look more to the universal church experience and not just the American Catholic Church. Torvend (1983) found that the American church experience is unique in that experimentation and change happened much more quickly here than in other areas of the world. According to Deitering et. al. (1983), what happens in the American Catholic Church is not necessarily what happens in the church of South America, Africa, or other Third World countries. Future research could study the impact of environmental change in areas where theology and architecture are not at the current level of progress

seen in the United States. Doing this would determine if environmental impact is unique to the modern, American Catholic Church, or a phenomenon which is discernable on a broader level.

Perhaps a study of the environmental impact of sacred space before renovation and then after the completion of the work could provide an interesting analysis of negative/positive reaction to such renovation. Could an environment in a church cause people to seek another church or even denomination? Such a study would help church leaders determine the types of environments which positively impact on worshipers.

Finally, a study using Knapp's categories of environmental perception could be used to analyze a congregation whose church has not undergone any modern renovation to determine the impact, if any, of non-renovated church environments.

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APPENDIX A

Dear worshiper at Notre Dame Motherhouse Chapel:

First of all, let me thank you for your time and effort in helping me complete my research for my Master's Thesis. With your assistance I will finish a study of the impact of environments on those who are involved with them.

I am interested in your reactions and feelings when you participate in Liturgical Celebrations at the Chapel (especially at Holy Mass). With that in mind, will you kindly answer the following question about the atmosphere of prayer and holiness, community and sharing which you may experience while in the Lord's House:

WHERE ON THE FOLLOWING SCALE WOULD YOU RANK YOUR FEELINGS
WHEN YOU ARE AT PRAYER WITH THE COMMUNITY IN CHAPEL?
(PLEASE PLACE A CHECK AT THE SPACE THAT REFLECTS YOUR FEELINGS)


VERY FORMAL____:____:____:____:____:VERY INFORMAL

(IS THE CHAPEL IN YOUR OPINION FORMAL OR INFORMAL?)

VERY WARM____:____:____:____:____:VERY COLD

(DOES THE CHAPEL MAKE YOU FEEL COMFORTABLE WITH A SENSE OF WARMTH?)

VERY PRIVATE____:____:____:____:____:VERY PUBLIC

(DOES THE CHAPEL GIVE YOU A FEELING OR SENSE OF PRIVACY?)

VERY UNFAMILIAR____:____:____:____:____:VERY FAMILIAR

(DOES THE CHAPEL SEEM FAMILIAR TO YOU: DO YOU KNOW HOW TO ACT THERE?)

VERY CONSTRAINED____:____:____:____:____:VERY UNCONSTRAINED

(WHEN I AM IN THE CHAPEL DO I FEEL CONSTRAINED OR UNCONSTRAINED?)


I AM UNCOMFORTABLE WITH                           I AM COMFORTABLE WITH
THE DISTANCE BETWEEN                              THE DISTANCE BETWEEN
MYSELF AND OTHERS      ____:____:____:____:____: MYSELF AND OTHERS

(DOES THERE SEEM TO BE A DISTANCE BETWEEN PEOPLE THERE?)


YOUR RANGE OF AGE:

20-30____30-40____40-50____50-60____60-70____70-80____OVER 80____

DO YOU BELONG TO THE NOTRE DAME COMMUNITY? YES____NO____

DO YOU WORSHIP IN THE CHAPEL AT LEAST ONCE A WEEK? YES____NO____

THANK YOU SO MUCH AND GOD'S SPECIAL BLESSINGS ON YOU.

APPENDIX B


The following are the qualitative questions used in the interviews given on March 23, 1988, at Notre Dame Motherhouse in Omaha, Nebraska. The respondents represent a stratified proportionate sample of the convent community who worship at the chapel.

1. In what age range would you place yourself:

   20-30_____30-40_____40-50_____50-60_____60-70_____70-80_____Over 80_____

2. How long have you been a member of this community?

3. If not a member of this religious community, how long have you been a regular (that is, a weekly) participant in religious celebrations here?

4. There is usually a sense of formality in any given environment. How would you describe the formal or informal impact of the Notre Dame Chapel?

5. We usually want our environments to provide a sense of warmth or hospitality. Do you feel that the Notre Dame Chapel is comfortable or uncomfortable? Why?

6. In times of prayer, there could be different needs for privacy or a more open attitude. Describe how Notre Dame Chapel makes you feel. Is it an open space for worship, or do you feel you can have a feeling of privacy there? Please try to be specific.

7. Does the chapel seem familiar to you? In other words, do you know how to act there, or does it cause you to feel like you are not sure what is going on around you?

8. When you have to leave the chapel for any reason, does the room and its arrangement give you the feeling that it is easy to leave, or does it seem very restrictive to you?

9. Environments often place distances between people. Does there seem to be a distance between people in the chapel, or are others in a position of being very close? How do you feel about this distancing or lack of it in the chapel?

APPENDIX C

Pre-Remodeling Chapel

APPENDIX D

Post-Remodeling Altar

APPENDIX E

Post-Remodeling Spaces

APPENDIX G

Post-Remodeling
Eucharistic Chapel

APPENDIX H

Post-Remodeling Triptychs