

ARCHITECTURAL EVANGELISM: EXAMINATION OF PLACE CONSTRUCTS HELD BY CHURCHED AND UNCHURCHED INDIVIDUALS

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Abstract

In recent decades, the exterior design of Protestant churches has undergone radical reformulation under the influence of the church growth architectural design theory known as *architectural evangelism*. Presupposing that churched and unchurched individuals hold differing place constructs, architectural evangelism seeks to attract unchurched individuals to the church by changing the exterior design from church typologies to secular typologies. In doing so, as the theory proposes, when an unchurched individual is exposed to a typology they are more familiar with, a different place construct formulation occurs—a place construct rooted in conceptions of comfort and the perception of community-based activities. Noting the widespread influence of architectural evangelism, this paper explores the foundational claims of the design theory, namely: 1) Do churched and unchurched individuals have different church place constructs, and 2) Does the exposure to exterior church design elicit certain connotations and perceptions of community activity?

INTRODUCTION

The Protestant church building in the United States of America is a regular part of the built environment. With approximately 325,000 Protestant churches across 3,007 counties in America, churches are a frequently identifiable typology in America's built environment (Grammich 2012). However, in recent decades, churches have intentionally designed buildings to not look like a church by adopting secular typologies for the church – creating a celebrated 'new' church architecture (Anderson 1992; Miller 1999; Trueheart 1996). This design trend, colloquially referred to as *architectural evangelism*, puts forth the notion that church and unchurched individuals hold different church place constructs, and thus in order to attract unchurched people to the church, buildings must be designed in a way—namely through the use of secular typologies—that will elicit a place construct rooted in conceptions of comfort and perceptions of community activity (Niermann 2016).

Yet despite all the media attention, and widespread influence (including two monthly periodicals, regional and national conferences, national design awards, and specialized design firms), there has been little empirical investigation into the underlying assumptions of the design theory, or its efficacy of design prescriptions. Within the last ten years only two research groups have studied the claims of architectural evangelism (Barna Research Group 2014; Lifeway Research Group 2008). However, both studies only tested for unchurched preferences between limited sets of images, and failed to examine the underlying assumptions and the nature of place constructs. It is therefore the aim of this study to examine architectural evangelism's church place constructs assumptions. Namely, this study will examine the notion that 1) church and unchurched individuals hold differing church place constructs, and 2) exposure to differing exterior to exterior church designs elicit certain connotations and perceptions of community activity.

Influence of Evangelism on Protestant Church Design: Architectural Evangelism

American Protestantism fundamentally allows for freedom in architectural expression due to a number of factors including being the religious position held by the majority of the population (Johnson 2009), its relationship with governmental and institutional structures (Berger 2008), the denial of sacredness of space stemming from its theological foundation of the priesthood of all believers (Erickson 1998; Grudem 1994), and the affirmation of the church defined as its congregants and not its building (McGrath 2008; Renn 2014; White 1964). However, despite these spatial freedoms, the historic development of Protestant church design has produced prototypical forms across Protestantism and within denominations (Fiddes 1961) These prototypical formulations, arguably, were primarily developed through the reflection on the relationships between liturgy, worship praxis, and space (Kieckhefer 2004; Williams 2005; Seasoltz 2005). (Niermann 2016, pg. 10)

Although the creation of American Protestant architectural form is deeply indebted to considerations of worship, another factor has also historically influenced the use of space—namely the missionary/evangelistic call to reach non-Christians with the gospel message. In response to this call to reach non-Christians, historically, churches would physically re-locate to unchurched areas. To aid in these missionary and re-location efforts, churches adapted and appropriated a variety of architectural forms beyond the normative church design. (Loveland 2003; Niermann 2015; Kilde 2002). One of the more recent, and most influential, missionary theories affecting church design is known as *Church Growth theory*.

Church Growth theory, developed by Donald McGavran and Americanized by his students at Fuller Theological Seminary, sought to utilize sociological tools to gain an understanding of the social, linguistic, and cultural context of a setting. From this understanding, evangelistic tactics could be designed and subsequently evaluated, in the ultimate aim of discovering replicative, effective, and contextual means of evangelism

(Rainer 1993). This approach was adopted by several prominent evangelical megachurch pastors in America—most notably Robert Schuller, pastor of Crystal Cathedral in Garden Grove, California (Schuller 1974); Rick Warren, pastor of Saddleback Church in Lake Forest, California (Warren 1995); and Bill Hybels, pastor of Willow Creek Church in South Barrington, Illinois (Hybels and Hybels 1995). The application of Church Growth theory reoriented the church from service to its churched members, to the needs of the unchurched as a means to create a place they would be attracted to. This reorientation included all aspects of the church from music to preaching, and included architectural design.

In line with Church Growth tactics, adopting pastors developed sociological studies (e.g., Strobel 1993) and began to develop the principles of architectural evangelism. The ultimate aim was the creation of an environment in which it is possible for the unchurched person to not feel threatened by eliciting a different church place construct. As a heading in a 1996 Willow Creek Leadership Conference brochure read, “Traditional church forms can be barriers to our communicating with unchurched people.” Therefore, the question for church architecture became how to design a building that would remove barriers, and in doing so, present the gospel to unchurched individuals in a familiar setting to them, such as a modern office building (Robinson, 1992, p. 78). The answer was secular-based church design which de-emphasized worship and religious symbolism; emphasized community activity; and sought to elicit connotations of comfort, approachability, warmth, invitation, etc.

Architectural evangelism seeks to reorient the churches’ material culture for unchurched individuals instead of churched individuals. In doing so, it presupposes that churched and unchurched individuals hold differing place constructs. Furthermore, its design prescriptions are undergirded by an understanding of unchurched place constructs which is primarily oriented around either positive or negative conceptions of the church, focused on perception of activities of the church, and elicited by architecture facades.

Place Constructs

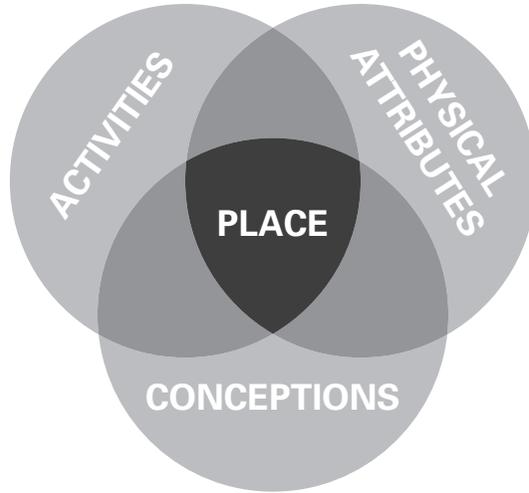
The concept of 'place' is a commonly discussed idea within the fields of social science, environmental psychology, and human geography. These discussions attempt to delineate a difference between 'space' as a certain location, and 'place' which encompasses both location and its interactions with people on the physical, symbolic, and functional level. Due to the widespread use of the concept of place across disciplines, there are variations within its specific definitional formulation and approach.

In one formulation, place is articulated within a phenomenological framework, emphasizing subjective interpretation of a space. Design theorists (e.g., Norberg-Schulz 1980) and humanistic geographers (e.g., Tuan 1977) who employ a phenomenological framework seek to demarcate 'place' from 'placelessness' through a mode of individual experience, known as 'sense of place.'

In another formulation, primarily utilized in the empirical traditions of the social sciences, place is understood in more analytical terms. In contrast to a subjective, bracketed analysis of a sense of place, this formulation often tests empirically the extent to which differing dimensions of environmental meaning do or do not correspond. In early formulations these empirical tests sought correlations with the three primary dimensions developed by Osgood, Suci, and Tannenbaum (Osgood 1957): evaluation, potency, and activity (EPA) (Canter 1969; Collins 1969; Hershberger 1969). However, as further empirical investigation focused specifically on the relationships between people and the built environment, Osgood's primary dimensions were refined. This refinement is best represented by the work of Canter (1986, 1988, 1991), who offers the most developed analysis of place within the empirical formulation initially presented in *The Psychology of Place* (1977). Canter proposes that place is best defined as the intersection of three fundamental components: actions, conceptions (or meanings), and the physical environment (See Figure 1). In addition to these three components, Canter also proposes that these three fundamental components of place are defined in terms of the "shared aspects of experience" (Canter, 1986, 218). These shared aspects of experience,

as Canter explains, are most often defined or constructed via the social roles and rules of a setting (Groat 1999; Sime 1995; Groat 2006). (Niermann 2016, pg 31-32)

Figure 1: A Visual Metaphor for the Nature of Places (Canter 1977).



Although both approaches aim to understand place, there remains a critical difference between the approaches. Namely, where the phenomenological based understanding of place locates its understanding within the individual subjective perceptions, the empirical approach locates place understanding at the center of the shared aspects of experience defined by social roles and rules.

This distinction is significant in relation to the evaluation of the ML [missiological logic] proposals for unchurched church architecture. Although the ultimate aim is for an individual to feel comfortable with the place of the church, the ML is based in broad sociological and demographic analysis, thus the ML seeks to alter place constructs at the group level of the unchurched. The motivation is to alter the shared 'rules' of church architecture and redefine the shared 'roles' of the unchurched. Therefore, Canter's model of place serves as a useful tool in evaluating the relationship between the exterior design of the church (physical attributes) and church

/ unchurched perceptions of the church (perceived actions and conceptions). Consequently, this proposal utilizes Canter's model of place as the theoretical foundation for understanding, categorizing, and analyzing the exploration between the exterior of Protestant church design and place constructs as held by the church and unchurched. (Niermann 2016, pg 33)

METHOD

Research Design

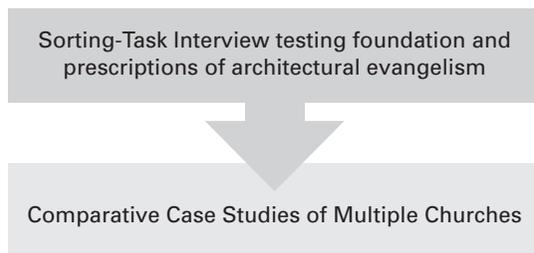
This article explores the foundational claims of architectural evangelism, namely: 1) Do church and unchurched individuals have different church place constructs, and 2) Does the exposure to exterior church design elicit certain connotations of comfort and perceptions of community activity, as the theory suggests?

A study of architectural evangelism presents two competing levels of analysis. First, it must be noted that the design prescriptions are intended to be a universal set of guidelines for churches in America. However, churches in America are not universal, but rather are a socially embedded institutions, situated in different contexts, serving particular communities. These competing realities of the theory and its application call for a research design that considers both the intention and application of the theory.

This study utilizes image-based, free-sorting task interviews to explore church and unchurched place constructs. Furthermore, the study utilizes nested case study design within a survey (Yin 2009, 63). The aim of this research methodology is to consider both the intended universality of design prescriptions, and understand the context specific situation of the local church (See Figure 2).

Figure 2: Nested Comparative Case Study Design

A CASE STUDY WITHIN A SORTING-TASK INTERVIEW



The case study design utilized four churches in two locations – Southeastern Michigan and Southern California. In each location, two churches were selected – one that had adopted the tenets of architectural evangelism in their architecture, and one that had not. In all cases, churches were selected that had a worshipping population between 500 and 1500. Further, each of the selected churches self-affiliated with Evangelical Protestantism – the trans-denominational movement which has the highest adoption rate of architectural evangelism.

Participants

A total of 50 individuals—25 churched and 25 unchurched—from each case study location was recruited for a total of 200 participants. Participant recruitment started with churched participant recommendations from the case study church leadership. In addition, churched participants were recruited through posted notices within church facilities, email requests, and snowball recommendations. Unchurched individual recruitment began with online posing within community forums and continued through snowball recruitments. The study included 48% male and 51% female participants. Additionally, efforts were made to recruit participants that matched the socio-economic demographic breakdown of the local case study setting. Participant age, gender, and ethnicity demographics are shown in Table 1.

In order to control for regular experience with different architectural approaches, the church participants were drawn from the established case study churches. Additionally, the church participants were selected

Table 1: Research Participant Demographics

M1	Male		Female	
Age	Unchurched	Churched	Unchurched	Churched
20-29	3	3	3	4
30-39	3	4	2	3
40-49	2	2	2	2
50-59	1	1	2	1
60-69	2	2	3	3
70-79	1		1	
TOTAL	12	12	13	13
M1 Churched: 92% Caucasian, 4% Asian, 4% Black M1 Unchurched: 92% Caucasian, 4% Hispanic, 4% Asian				
M2	Male		Female	
Age	Unchurched	Churched	Unchurched	Churched
20-29		1	2	
30-39	3	3	4	5
40-49	4	4	2	2
50-59	2	2	2	2
60-69	2	2	1	2
70-79	1	1	2	1
TOTAL	12	13	13	12
M2 Churched: 92% Caucasian, 4% Hispanic, 4% Other M2 Unchurched: 92% Caucasian, 4% Hispanic, 4% Asian				
C1	Male		Female	
Age	Unchurched	Churched	Unchurched	Churched
20-29	1	2	1	
30-39	4	4	4	5
40-49	2	1	3	2
50-59	3	2	3	3
60-69	1	1	3	3
70-79		1		1
TOTAL	11	11	14	14
C1 Churched: 52% Hispanic, 36% Caucasian, 8% Asian, 4% Other C1 Unchurched: 56% Hispanic, 36% Caucasian, 4% Asian, 4% Black				
C2	Male		Female	
Age	Unchurched	Churched	Unchurched	Churched
20-29	1		4	4
30-39	3	3	1	1
40-49	1	1	2	2
50-59	2	1	1	2
60-69	2	3	2	2
70-79	3	4	2	2
TOTAL	13	12	12	13
C2 Churched: 44% Hispanic, 44% Caucasian, 8% Asian, 4% Black C2 Unchurched: 56% Hispanic, 32% Caucasian, 8% Black, 4% Asian				

to mirror the demographic makeup of each case study church's total population.

The unchurched participants were drawn from within each case study church's direct geographic proximity. Furthermore, the recruitment of the unchurched was done so that there was matching age and gender demographics that corresponded with the church participants.

Image-Based Free Sorting Task Interview

One of the primary foundations of architectural evangelism is that the church and unchurched hold different constructs of church architecture. Thus, for example, according to the theory, a church individual would see ecclesiological elements for their spiritual significance and would have connotative connections of welcome, community, security, and hope. However, the unchurched would see these same elements as barriers for their participation, as unwelcoming, and as off-putting. To explore this foundational claim, participants were asked to complete an image-based, free-sorting task interview.

Within the tradition of empirical investigations of place perceptions, the testing of *a priori* cognitive structures—often via semantic differentials (Osgood 1957)—is a common practice. This approach utilizes a rating scale of predefined bipolar contrasting adjectives to measure the connotative meaning and people's reactions to objects, places, and concepts.

However, in efforts to understand place constructs, apt criticism has been leveled against the approach of using *a priori* testing and cognitive structures. As Canter, Brown, and Groat (1985) argue, the use of *a priori* structures restricts explorations of people's understanding of place. By predefining response categories, respondents are no longer free to respond within the full scope of their cognitive constructs.

Instead, Canter et al. (1985; Groat 1982) point to the established use of sorting tasks in psychological research, which removes the *a priori* construct structure, allowing for participants to respond freely and the researcher to fully explore place constructs (Rosenberg & Kim, 1975). Further, as Groat argues (1982), the sorting procedure offers other advantages beyond eliminating *a priori* structures, including its relatively less time-consuming process, its flexibility in being either a verbal or nonverbal measure, and its

efficacy in investigating multi-attribute domains.

Therefore, with the aim to explore church and unchurch constructs free of *a priori* assumption, an image-based, free-sorting task was utilized. The interviews were administered in a one-on-one interview format, each lasting approximately 45 minutes. Each participant was provided with a set of 25 church exterior photographs representing a range of architectural church design approaches within America. The images were selected according to the design's use of four architectural characteristics 1) Use of Ecclesiological Elements (strong, moderate, none); 2) Historic Styling (historic, non-historic); 3) Roof Design (pitched, flat); 4) Compositional Hierarchy (pre-modern, mixed, post-modern). The images were selected to create a multiple instanced, fully crossed set of each combination of sub-categories.

After becoming familiar with the images, participants were asked to complete a free-sorting exercise. In other words, participants were asked to sort the images into groups, such that images within a singular group were considered similar in some significant way. For sake of clarity, the interview prompt asked participants to use the most significant criterion, or the criterion that came to mind first. Within each criterion, participants sorted the images into any number of sub-categories, leaving out any images if they did not fit in any sub-category. After the sorting was completed, the interview asked the participants to identify and describe what criterion described the sort, and what sub-categories the images were sorted into. Participants were asked to complete at least one free-sorting exercise, and then were prompted to complete two more free sorts using different criterion, if they were willing.

All criterion and categories were recorded. Additionally, all qualitative explanations of the criterion and categories were recorded.

Analysis Approach

The analysis of the free sorting data occurred in two parts. First, the construct criteria generated by the free-sorting tasks were submitted to a content analysis utilizing the foil of Canter's three primary categories within his model of place (See Figure 1).

To conduct the analysis, each sorting criterion (or construct) and utilized

sub-categories were ordered into like groups. To ensure that similarity between categories was maintained, the content analysis was completed again by a colleague familiar with the research. Subsequently, the results of both analyses were compared for consistency. In the present case, 92% of the ordering was consistent, with the remaining 8% reassigned based on consensual agreement. Following the above ordering of the sorting data, a second content analysis was completed, ordering the condensed categories into the three sections of Canter's model (i.e., physical attribute, conceptions, and activities). To ensure reliability and consistency with the second content analysis, a colleague familiar with the research also completed the ordering into Canter's model. A comparison of the second content analysis results found 98% agreement. The one criterion ordering that differed was resolved through consensual agreement.

The three elements of Canter's model of place—physical attributes, conceptions, activities—were used to categorize the participants' sorting constructs, as described above. "However, Canter's model also recognizes the importance of the overlapping relationships between these three elements, namely, between physical elements and conceptions, between physical elements and actions, and between conceptions and actions," (Niermann 2016, pg. 85). For example, the category "looks like a church" potentially reads as a physical element or a conception. To order questionable criterion into the proper element of Canter's model, the sub-categories—and verbal explanations of sub-categories—were reviewed. Returning to the example of "looks like a church" participants, in nearly all cases, participants began and completed their explanation of the category through description of physical features and not through conceptions. Therefore, the construct was identified as "Physical Element." Thus, via this approach, each construct's use was placed in a primary section of Canter's model.

The results of the content analysis were subdivided by demographic and case study location, and submitted to a frequency of use analysis via descriptive statistics. The intent of this analysis was to explore the similarities or differences in place constructs between the churched and unchurched.

Secondly, a Multidimensional Scalogram (MDS) analysis was completed to explore the underlying construal process, or constructs,

that the respondents freely brought to the research stimuli. “MDS is a multivariate analysis approach which utilizes graphing to examine patterns of responses in data—and in this case in the use of sorting criterion. In an MDS analysis, the relationship between all respondent responses is plotted in a two dimensional space such that the closer the points are together on the plot, the more similar they are in their pattern of response (Zvulun 1978).” (Niermann 2016, pg. 92-93). The MDS analysis explored the fundamental claim that churched and unchurchd hold different place constructs.

RESULTS

Frequency of Use Analysis

Distribution of Criterion between Churched and Unchurchd.

Results show that when comparing churched and unchurchd individuals, there is a difference in frequency of sorting criteria use – as understood through Canter’s model of place (See Table 2). Overall, churched individuals utilized sorting criterion with a frequency of 56.7% physical attributes; 41.1% Conceptions; and 1.8% Perceived Actions. This stands in contrast to the frequency of use by unchurchd individuals. Unchurchd individuals utilized sorting criteria with a frequency of 86.5% physical attributes; 13.1% conceptions; and 0.4% perceived actions.

Notably, churched individuals had a more balanced frequency of criterion use between physical attributes and conceptions, whereas unchurchd individuals were had a more disproportionate use between physical attributes and conceptions – with a much higher frequency of physical attribute criteria.

Although there is an observable difference between churched and unchurchd frequency of use between physical attributes and conceptions, there is a similarity between groups in that the perceived actions category is rarely used. In both cases, the frequency of use was less than 2%.

Distribution of Criteria between Case Studies. When comparing frequency of criterion use between case study locations, little significant difference was observed, and when differences occurred, it was isolated

Table 2: Frequency of sorting criteria used by churched and unchurched.

SORTING CRITERION	CH (M)	CH (C)	CH (T)	% CH	UN (M)	UN (C)	UN (T)	% UN
PHYSICAL ATTRIBUTES								
Style	37	35	72	25.5%	36	39	75	26.6%
Ecclesiological Feature(s)	11	10	21	7.4%	15	20	35	12.4%
Looks Like a Church	11	11	22	7.8%	14	13	27	9.6%
Building Material	2	4	6	2.1%	13	5	18	6.4%
Aesthetic Quality	4	5	9	3.2%	7	6	13	4.6%
Building Typology	1	2	3	1.1%	8	7	15	5.3%
Building Shape	1	4	5	1.8%	9	4	13	4.6%
Country vs. City	4	3	7	2.5%	3	11	14	5.0%
Window Design	2	4	6	2.1%	3	8	11	3.9%
Size	-	5	5	1.8%	5	6	11	3.9%
Color	-	1	1	0.4%	5	5	10	3.5%
Landscaping	3	-	3	1.1%	2	-	2	0.7%
Total Physical			160	56.7%			244	86.5%
CONCEPTIONS								
Interest in Entering / Attending	15	18	33	11.7%	8	5	13	4.6%
Welcoming	15	17	32	11.3%	2	5	7	2.5%
Cost of Construction	2	2	4	1.4%	5	6	11	3.9%
Warmth	4	6	10	3.5%	2	2	4	1.4%
Conservative or Liberal	1	-	1	0.4%	2	-	2	0.7%
Spiritual Directed	4	4	8	2.8%	-	-	-	0.0%
Family Friendly	1	4	5	1.8%	-	-	-	0.0%
Age of Congregation	1	4	5	1.8%	-	-	-	0.0%
Open vs. Closed	1	3	4	1.4%	-	-	-	0.0%
Sense of Belonging	2	2	4	1.4%	-	-	-	0.0%
Effective Ministry	1	3	4	1.4%	-	-	-	0.0%
Denomination	1	1	2	0.7%	-	-	-	0.0%
Optimism / Hope	1	-	1	0.4%	-	-	-	0.0%
Humbleness	1	1	2	0.7%	-	-	-	0.0%
Relevant	-	1	1	0.4%	-	-	-	0.0%
Total Conceptions			116	41.1%			37	13.1%
ACTIVITIES								

(M) – Michigan Case Studies; (C) – California Case Studies; (T) – Total (CH) – Churched; (UN) – Unchurched; N = 563 Sorts

to the difference between only churched or only unchurched populations. For example, within the churched population, the sorting criterion of 'Size' was utilized 5 times for the California case study churches, and not at all for the Michigan cases. However, there was an equal use between the unchurched populations for 'Size.'

Some minor differences are observable in the following instances. Unchurched individuals from California utilized 'Ecclesiological Features' and 'Country vs. City' more frequently than unchurched individuals from Michigan, and unchurched individuals from Michigan utilized 'Building Material' more frequently than unchurched individuals from California. Additionally, churched individuals from Michigan utilized 'Landscaping' more frequently, while churched individuals from California utilized 'Building Shape' and 'Family Friendly.'

Frequent Criterion Use. The highest frequency use of any criterion overall was 'style.' This criterion was frequently utilized as the first sorting criterion—grouping the images into groups such as 'modern,' 'traditional,' and 'mixed.' The number of sub-categorization categories varied between individuals ranging from two simple categories of 'modern' and 'traditional,' to a sort consisting of 6-8 subcategories that included groupings such as 'contemporary,' 'urban contemporary,' 'futuristic,' 'traditional-country,' 'traditional-city,' 'traditional-historic,' 'historic,' 'classical,' 'nostalgic,' 'Old-American,' 'Old-European,' 'Gothic,' 'Cathedral Style,' etc. Constituting approximately one-quarter of all the sorts, the 'style' criterion was the primary mode in which individuals understood and categorized church architecture.

'Ecclesiological Features' and 'Looks like a Church' were also frequently used as sorting criteria. 'Ecclesiological Features' was an observation of the use, or prominence, of ecclesiological features in the design of the churches. This included the sorting criterion such as 'displays a cross' or 'has a steeple,' and often was implemented looking at multiple ecclesiological features at once with the individual sorting by 'prominent feature' and sorting into subsequent groups of 'cross, steeple, bell tower, none.' A second similar but distinct sorting criterion was used, most often phrased as 'looks like a church.' Although during the verbal processing of the sort, participants would mull over the use of ecclesiological elements, the groupings

ultimately formed according to 'yes looks like a church,' 'no does not look like a church,' and 'mixed'.

'Building Typology' was also a frequent criterion and was used more often by unchurched than church individuals. The 'Building Typology' criterion category included the sorts in which individuals sorted the images into groups according to the building's perceived base typology. Examples of these subgroups include 'church,' 'office building,' 'store,' 'sports arena,' 'government building,' 'school,' 'jail,' 'lodge,' and 'barn.' Within all four cases, unchurched individuals utilized this sorting criterion more often than church individuals.

Breadth of Criterion Use. Church individuals not only used conception criteria more than the unchurched, they also had a larger variety of criteria. The use of conception criteria by the unchurched is limited to the same four criteria: 'Interest in Entering,' 'Welcoming,' 'Cost of Construction,' and 'Warmth.' These categories are also used by the church. But in addition, church individuals used additional categories such as 'Family Friendly,' 'Open vs. Closed,' 'Sense of Belonging,' 'Denomination,' 'Age of Congregation,' 'Effective Ministry,' 'Conservative vs. Liberal,' 'Spiritually Directed,' 'Denomination,' 'Optimism / Hope,' 'Humbleness,' and 'Relevant.' The increased variety of church individuals' conceptual categories demonstrates a more developed level of conceptualization of church architecture. Church individuals extrapolated building design observations into perceptions of ministry approach, congregation population, and theological orientation. This is a level of conceptualization not observed in unchurched individuals' responses.

Use of 'Comfort' Criterion. One of the key observations in the frequency of use analysis is the absence of the criterion 'comfort' for the unchurched. The theory of architectural evangelism places a heavy emphasis on the comfort of the unchurched as it relates to architectural form. However, in the 282 free-sorting exercises completed by unchurched individuals, not once was the criterion of 'comfort' directly utilized.

Readers should note that the criterion of 'Welcoming' was utilized on average 2.5% of the time by the unchurched. However, the subcategories of the 'Welcoming' sorts did not express ideas of comfort. Subcategories of unchurched 'welcoming' included 'Cold/Modern,' vs 'Warm/Established'

and 'Boring/Plain,' vs 'Warm/Welcoming.' Other sub-groupings included 'Inviting/Warm' vs. 'Not Inviting.'

Additionally, the unchurched did utilize the category 'Interest in Entering.' However, similar to 'Welcoming,' this criterion did not have the connotation of comfort. Instead, the sorting groups often took the formation of 'Interested in entering to see inside,' or 'Interested to see if beautiful inside,' 'Catch eye – go see,' and 'Draws me to it.' The connotation of the 'Interest in Entering' criterion arguably is based on observations of physical attributes and not on conceptions of comfort.

MDS Analysis

The frequency of criterion use analysis reveals key differences and similarities between how churched and unchurched individuals understand church architecture. However, this analysis has an *a priori* assumption of the separation of groups (churched and unchurched). In order to explore fully whether there is a difference between the use of place constructs between churched and unchurched individuals, the analysis needs to be carried out at the individual level—without *a priori* assumptions. (Niermann 2016, pg. 92)

To do so, a MDS of individual participant's sorting criterion was completed, graphing participant-to-participant relationships in two-dimensional space. Within this two dimensional graph, points representing individuals were placed in relation to all other individuals, as determined by their use of sorting criterion. Thus, if a point A is closer to point B than point C, point A and B are more similar in their use of sorting criterion. Following, once all points—or individuals—were plotted, the graph was examined for spatial patterns. If a spatial pattern is observable, then it indicates there is an underlying segmentation to the results (Borg, Groenen, and Mair 2013). Specifically in this case, any spatial patterns would indicate an underlying difference in how individuals use sorting criterion, and thus indicate a difference in place constructs. Thus, if churched and unchurched respondents understand church architecture differently, we would expect an observable spatial partitioning between

churched participants and unchurched participants.

The MDS analysis was carried out at the case study level (see Figure 3-6). In each graph, each point represents an individual participant (P), with P1 – P25 representing churched individuals and P26 – P50 representing unchurched individuals. Each participant was graphed based on their use of sorting criterion, as it related to all other participants. Thus, as described above, points that are closer in proximity, in either the x or y dimension, are more similar. The graphs were subsequently analyzed for any spatial patterning.

Figure 3: MDS Analysis; Use of construct groups – Michigan 1
1-25 Churched Participants; 26-50 Unchurched Participants;
Normalized Stress = 0.08820

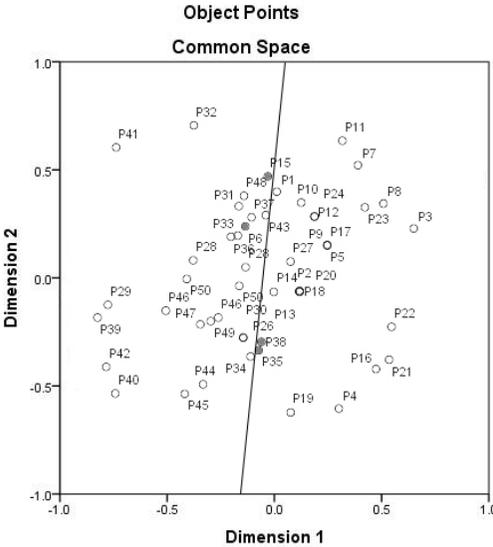


Figure 4: MDS Analysis; Use of construct groups – Michigan 2
 1-25 Churched Participants; 26-50 Unchurched Participants;
 Normalized Stress = 0.09150

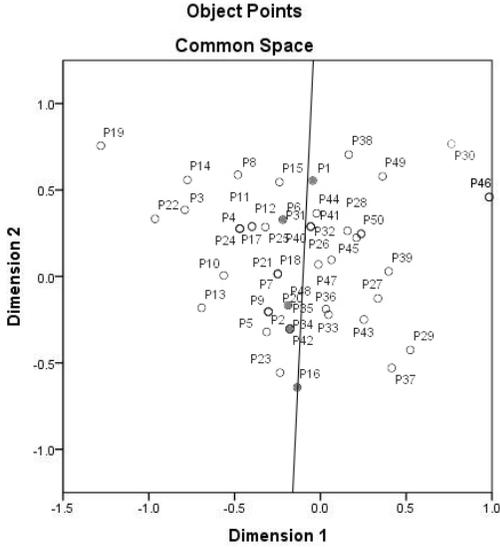


Figure 5: MDS Analysis; Use of construct groups – California 1
 1-25 Churched Participants; 26-50 Unchurched Participants;
 Normalized Stress = 0.08078

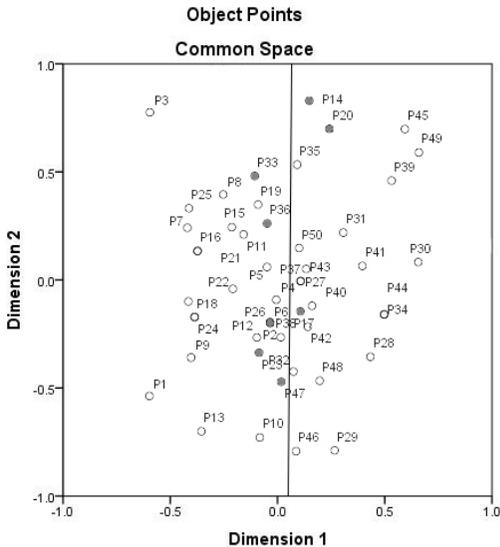
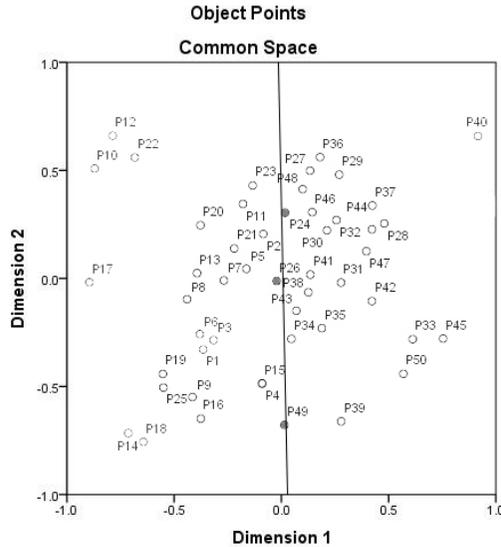


Figure 6: MDS Analysis; Use of construct groups – California 2
 1-25 Churched Participants; 26-50 Unchurched Participants;
 Normalized Stress = 0.08872



An analysis of the MDS plots demonstrates that there is a generally distinguishable spatial partitioning between churched and unchurched participants such that a diagonal line can be drawn between the groups. Or in other words, there is a distinct spatial pattern between P1 – P25 individuals and P26 – P50 individuals, with the groupings occupying distinct horizontal halves of the graph.

As demonstrated by the graphs, there are a few exceptions to the spatial patterning such that, for example, one or two participants from the one group fall on the other side of the line (indicated by colored marker). However, there remains a strong general spatial pattern, suggesting that there is a distinguishable difference in how churched and unchurched individuals conceptualize and understand church architecture. Further, since this demarcation can be found in all four case studies, the results of the present MDS analysis suggests that there is generally a consistent difference in how churched and unchurched individuals conceptualize and

understand church architecture. (Niermann 2016, pg. 94)

These results support the frequency of use analysis above, and ultimately support the foundational presupposition of architectural evangelism that churched and unchurched people understand church architecture differently.

DISCUSSION

The objective of this study was to examine whether the foundational presupposition and design prescriptions of the influential design theory, architectural evangelism, were valid. Specifically, this study aimed to test the claim that churched and unchurched individuals hold different church place constructs.

Both the frequency of use analysis and the MDS analysis of the free-sorting task data suggests that there is validity to the assumption that churched and unchurched individuals hold different place constructs for the church. Thus, the results suggest that architectural evangelism's presupposition has validity. However, the results also suggest that architectural evangelism's understanding of the unchurched place constructs may be in error. The content analysis and frequency of criterion use analysis results demonstrated that despite the aim of eliciting connotations and perceived actions through exposure to church facades, the unchurched individuals' place construct is not rooted in conceptions or activities. The unchurched church place constructs are primarily rooted in physical attributes.

Furthermore, the specific intentions of architectural evangelism to elicit connotations of comfort and perceptions of community-based activities may also be ineffective. Not once in the free-sorting task did the unchurched participants use the sorting criterion of 'comfortable' when considering the exterior design. Although 'comfortable' may be considered more applicable to an interior setting, one of the basic presumptions of architectural evangelism is that a major interaction of unchurched individuals to the church is in the viewing of its building's exterior design—and thus the exterior design also plays a large role in creating perceptions of comfort. Therefore, the design goal of communicating comfort via secular typology design for the exterior may be either misaligned with unchurched constructs,

or may be a misapplied interior concept to an exterior design consideration. Additionally, in only one instance did an unchurched individual utilize a perceived action criterion, 'Marriage Ceremony,' which is arguably not a community-based activity. Again, these findings suggest that the intent to create a church that is 'comfortable' or centered on 'community activities' does not align with the place construct of unchurched individuals when exposed to the exterior of church buildings.

The findings above begin to call into question the efficacy of architectural evangelism's exterior design prescriptions. However, the study has limitations, and thus the topic needs further exploration for a more definitive evaluation. Although the study sought to consider the effect of this intended universal American theory on the local context through an embedded case study design, more studies with additional locations in America are needed. Additionally, more detailed studies are needed to understand the correlations between architectural design features and elements of individuals' place constructs.

Despite these limitations, this study confirms earlier limited studies of architectural evangelism's approach to exterior design of churches (Barna Research Group 2014; Lifeway Research Group 2008), and extends the findings, calling into question the efficacy of architectural evangelism's exterior design prescriptions as a means to elicit intended unchurched perceptions. Although architectural evangelism has had a major influence on a prominent building typology in America, the findings suggest that if the intention is for churches to reach out to unchurched individuals, a better understanding of unchurched individuals' church place constructs is needed.

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About the Author

Matthew Niermann, Ph.D., is an architect and scholar who focuses on contextual compatibility of architectural design solutions in relation to both formal and symbolic aesthetics. His degrees include the following: Ph.D. Architectural Design – University of Michigan, M.S. Architectural Design and Research – University of Michigan, M.Arch – University of Illinois, B.S. Architectural Studies – University of Illinois, Th.M. Missiology – Gordon-Conwell Theological Seminary, M.A. Theology – Gordon-Conwell Theological Seminary, and M.A. Christian Apologetics – BIOLA University. Rooting his work in empirical investigations, Matthew explores the intersections of built form; aesthetic perception, interest and preference; and correlated perceptions of role and place. This theoretical and empirical aesthetic work is combined with Matthew’s previous advanced graduate work in the areas of Christian Theology, Missiology, and Philosophic Apologetics, to inform his current research into the missiological function of Protestant church buildings in the United States of America. He can be contacted at mniermann@calbaptist.edu.