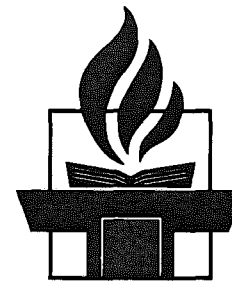


Reformation
& Revival



A Quarterly Journal for Church Leadership

Volume 4, Number 4 • Fall 1995

When it happens to me that the song moves me more than the thing which is sung, I confess that I have sinned blamefully and then prefer not to hear the singer.

Augustine

It may have been easier for the Corinthians to eat meat offered to idols than it is for us to enjoy popular culture innocently.

Ken Myers

Try telling someone from the Barry Manilow School of Liturgy that something is schlock and they will regard you as an arrogant elitist.

Ken Myers

Congregational Singing and Acoustics

P. J. Janson

Some time ago, the building committee at our church decided to install carpet in the sanctuary. I prepared a comprehensive submission, complete with supporting documentation, requesting that the committee reconsider their decision, paying particular attention to how music would be affected by the introduction of sound-absorbing materials. This plea, however, fell on deaf ears, and carpet was installed the next month.

The carpeted floor resulted in a reduced sound reflection, which in turn meant that the choir has found it more difficult to sing. Sopranos have difficulty hearing the basses, altos, and tenors. Indeed, many have found that except for their neighbor on the left and right, it has become difficult to hear one's own section. It is clear that this poses difficulty in the choir, as their ability to sing as a group has been compromised, and their intonation has suffered as a consequence.

The change in acoustics not only affected choral singing, but indeed all music that is part of the worship service—and in particular congregational singing.

J. Ferguson comments on how acoustics and congregational singing are inextricably linked:

A basic requirement for vital congregational music and worship is a live acoustical environment. Music takes on a warmth and comes alive in a room that has resonance. Congregational singing is always better in such rooms, as each individual loses sense of self and is freed to join the resonant sound of other singers. In a real way the resonant room contributes to the sense of community that is essential to congregational worship.¹

It is noteworthy that nearly everything in worship is sound-related: Scripture reading, prayers, the words of the sacraments, sermon, and of course the corporate event of congregational singing. The question, then, is, how does the worship space accommodate these activities effectively?

In the Reformed tradition, the church building is “a functional place, in which the Christian community may meet together as a *corporate* expression of their common life in Jesus Christ.”² No one will argue that the introduction of carpet in a church will affect the acoustics, but the difficulty lies in the word “acoustics.” Good acoustics will mean something different for an office, a concert hall, and a church building. It is the *function* of the room which determines what good acoustics are. In this respect, the Protestant church is functionally an “auditorium”—a room where one *hears*—but also a room where everyone is involved in performing music, where all present corporately make a joyful noise unto the Lord in song. The acoustics of the church building must, therefore, aid the sound to carry throughout the building.

Regarding sound, there are three main factors to consider:

Resonance (which amplifies sound), Reverberance (which prolongs the sound after the original sound has ceased), and Reflection (which assists in distributing the sound to the various sections of the building).³

Reflection requires the absence of sound-absorbing materials such as carpets and drapes, especially around the source of the sound. In the case of singers, this means that they should not stand on or near a carpeted floor. Since the whole congregation is involved in congregational singing, they also should not stand on or near a carpeted floor. *Reverberation* should be such that no multiple echoes are produced. *Resonance* is the quality that brings depth and fullness to the sound being produced.⁴

Theologically, one might argue that sound-absorbing materials have no place in a setting where the Word of God is proclaimed through sermon and song. God’s Word should not be absorbed by inanimate objects, but it should be spread so that it may be absorbed by people. Functionally speaking, the church building should have reflection, which assists in dis-

tributing the sound of God’s Word to the various sections in the building, and resonance, which *amplifies* the sound and gives it fullness.

A minister I know, who preaches in a carpeted church, has said that he is quite exhausted after preaching a sermon. I think that if his church decided to remove the carpet, he would feel considerably less tired. One might ask, “Why doesn’t he just use a microphone?” It is true, this may indeed solve the minister’s problem. However, we should also recognize that the use of an electronic amplification system has been necessitated by the installation of carpet. It simply deals with eliminating one of the symptoms, but it does not take away the cause—and the diminished corporate experience in singing still remains.

That everything going on in the service is sound-related is no mere accident. The etymology of the word sound is instructive in this regard. It is derived from the German (*ge*)*sund*, which in turn comes from the Dutch *gezond*. The latter word is indubitably derived from the Greek *isanio*. While *isanio* is frequently used for physical healing, its intent is spiritual healing, or the ongoing work of salvation of Christ in His church. It is therefore no coincidence that *isanio* (or some form thereof) is found in Scriptures, and is translated as “to heal” (Matt. 13:15; John 12:40; Acts 28:27, Heb. 12:13; 1 Peter 2:24). The Dutch word *gezond* means “health.” Health, in turn, is derived of the Dutch *heil* (salvation), and is also related to the English “hale,” from which we get our word “holy.” It seems that the suppression of sound can be dangerous to our health.

The etymology of the word “acoustics” is also noteworthy. “Acoustics” is derived from the Greek *akouo*, meaning “to hear.” This can mean either a sensational perception, or the thing perceived; the difference is between merely perceiving the sound and actually understanding the message. Or, to say it in other words, the former concerns itself with the scientific

transmission of sound, the latter with the symbolic circumstances under which it occurs, for symbolism and meaning are ultimately connected. The Greek philosopher Aristoxenus of Tarentum postulated that sound is discerned by the two faculties of "hearing and the intellect" (intellect meaning here the spirit and heart of man). William Flemming writes:

The importance attached by the Greeks to the role of music in health and life is found in certain linguistic images that are still in current use. To them a happy person was like a well-tuned lyre. When the body and soul were in a proper state of attunement, a person was well and health thus meant being in a harmonious condition.... When individuals were tense they were said to be "high-strung"; or when too relaxed or depressed, they were "low" and needed a "tonic" to tone or tune them up. When things reached a really critical state, the patient was said to be all "unstrung." Still another Greek word connected with health was *katharsis*, which Aristotle used in reference to the function of sound as a purging of the emotions through the experience of music and drama.⁴

Sound is also symbolic of salvation and holiness, and our worship services are a rehearsal of God's plan of salvation. The Bible shows us salvation as a present reality, a new relation with God made effective by the preaching of the Gospel and its reception in faith. An artificial reality (i.e., a carpeted building, with the often necessary artificial amplification system) does not reflect this. Our worship services need to take place in a building which allows sound to do its work unhampered.

Admittedly, it is true that Christian worship does not require a specific building per se. One can worship both in reverberant, cathedral-like churches, and in churches that have wall-to-wall carpet. However, it is easily forgotten that the inherent symbolism of a church building is important in religion.⁵

The church was a sacred space separated from its profane environment. Built of stones held together by mortar, it symbolised the members of the church bound together by love. The windows were symbols of the Holy Scriptures [for] they excluded calamities (wind and rain) but admitted the light (of the Word).⁶

Certainly in the old churches, such symbolism is present in considerable measure. That they face east (toward the Light), for instance, is common knowledge. Baptismal fonts are traditionally in the form of an octagon, having eight sides, for the number eight symbolizes regeneration and rebirth.⁷ Not only theologically and functionally, but also symbolically can we conclude that sound absorbing materials are inappropriate in the worship space.

However, the symbolical implications of the worship space have become less and less significant, as most churchgoers are less and less familiar with the meaning of the symbols. In some areas of twentieth-century life, coherent symbolism is still actively employed. E.g., a red light means "stop"; an inverted triangle means "yield." Yet, in our church experience, congregational members may struggle to connect the symbol of the triangle with the Trinity. Many will be surprised to learn that the octagonal shape of baptismal fonts in older churches is connected with renewal.

There is a sense in which the church is a "word in stone" (or wood, as the case may be), for it is a concrete statement of the faith. In a Roman Catholic church, the centrality of the altar immediately reveals the importance of the faith. In a Baptist church, the dedicated baptismal space is a clear testimony to their faith. In a Reformed church, the centrality (and often size) of the pulpit instantly conveys the centrality of the Word.

The introduction or presence of carpeting may well be a reflection of our times: we live in an individualistic society. For choir and congregational singing alike, the introduction of carpet in the church means an increased individuality. One's

voice tends to stand out, and one is less likely to feel part of a corporate singing body. The opportunities and length of congregational singing in the worship service will likely become minimized.⁸ However, the worship service is not an individual affair, but a *corporate* expression (cf. quotation above).

Another reason to install carpet in a church may be to create a more hospitable setting, a more intimate liturgy, a church that has a family spirit. The church building is then seen chiefly as a “house” of the local community, which needs facilities for social activities. A. Reil observes:

Through the ages, building churches has been the chief art of architecture. Architects, who passed their knowledge on from one generation to the next, created spaces that were of inimitable quality, both artistically and acoustically. If we were to put a profile of a church from each style period on paper or on slides, we would discover that there has been a drastic change. From the Gothic period to the present, the profile has changed from very high and narrow, to very low and wide. If we would show these profile slides in rapid succession, we would see the church literally collapsing.⁹

The internal decorating is one of many symbols that reflect a change perception about the function of worship. The words of the hymn “Before Jehovah’s Awful Throne” no longer speak to us the way the hymn writer intended. The hymn “Let All Mortal Flesh Keep Silence” similarly speaks of a “more remote God”—in any case, not a God we would address in our prayers with “Dear Lord.”

C. André speaks of worship as a “festive and solemn celebration,” where we “find God and His salvation.”¹⁰ In a real sense, we are privileged to be in the presence of the incarnate Christ every Sunday, as Jesus said: “Where two or three are gathered together in my Name, there I am in the midst of them” (Matt. 18:20). Time as we know it is momentarily dissolved—

and Scripture teaches that those moments where one witnesses the mighty deeds of God are invariably associated with song. At Christ’s incarnation 2000 years ago, the angels sang. At creation, the morning stars sang (Job 38:7). In heaven, the celestial choir sings without ceasing. Singing is our lifeline with eternity, and our lifeline to God. Each time we voice the doxology of God, each time we praise the great Triune God, we experience heaven here on earth—and the angels in heaven sing with us! This concept is well expressed in the liturgy of, for instance, the Lutheran church: “And so, with the Church on earth and the hosts of heaven, we praise your name and join their unending hymn. . . .”

It is significant that Martin Luther considered music next in importance to theology, and that both he and John Calvin considered congregational singing as a *resounding sermon*. If, as J. H. Nichols and L. J. Trinterud observe, the church building is “a functional place, in which the Christian community may meet together as a *corporate* expression of their common life in Jesus Christ,”¹¹ then serious consideration needs to be given to the acoustics that will optimize the *resounding sermon*. Just as the strings on a guitar produce very little sound on their own and need the resonance of the wood, so each congregational member joins with his fellow Christians in a corporate fashion, and with the supportive acoustics of the church building they can proclaim God’s Word while singing His praise.

Endnotes

- 1 Ferguson, J. *Worship Blueprints: Guide to Planning for Worship Music* (Minneapolis: Augsburg Publishing House, 1983), 14.
- 2 Nichols, J. H., and Trinterud, L. J. *The Architectural Setting for Reformed Worship* (Chicago: Presbytery of Chicago, 1960), 19.
- 3 “Report on Acoustics as Applied to Church Buildings”

(n.p.: The Canadian College of Organists, 1958), 7.

4 The reader is referred to the pamphlet by S.R. Riedel, *Acoustics in the Worship Space* (St. Louis: Concordia Publishing House, 1986).

5 Fleming, W. *Art and Ideas*, 8th ed. (Toronto: Holt, Rinehart and Winston, Inc., 1991), 46.

6 The importance of symbols is well documented in the confessions of the Protestant Reformation (e.g., *Westminster Confession, Heidelberg Catechism, Belgic Confession, Canons of Dordt*), which recognize the sacraments as symbols of something internal and invisible.

7 Vander Ploeg, S. "Chorale Preludes for Organ and Solo Wind Instruments" (New Westminster: Typewritten, 1985), 20.

8 E.g., the eighth day of the week commences a new week. The eighth sentence of the Beatitudes repeats the first. E.g., V.F. Hopper, *Mediaeval Number Symbolism* (New York: Columbia University Press, 1938).

9 It may be interesting to observe one Sunday how many minutes a congregation is active in song, and for how long people are passive as listeners in the worship service.

10 Reil, A. "The Organ and Its Relation to Acoustics," *Reformed Music Journal* VII:2 (April 1995), 33.

11 Andre, C. "Does God Still Do Great Things to Us," *Diakonia* V:3 (March 1992), 79.

12 Nichols, J. H., and Trinterud, L. J. *op. cit.*, 19.

Author

Dr. P. J. Janson is Assistant Professor of music at Augustana University College, Camrose, Alberta, Canada. He earned his Ph.D. degree from the University of Victoria (British Columbia), and is co-editor of *Reformed Music Journal* and a regular contributor of articles and music compositions for organ.
