

Divine Air. Johann Nikolaus Forkel's (1749-1818) Justification of Church Music

This paper is concerned with a particular episode in the history of ideas on the relation of music and air. Today, the notion of air in a musical context is often aligned with that of *ambience* (environment).¹ Ambient music is typically characterized as «drifting or simply existing in stasis rather than developing in any dramatic fashion», where «[s]tructure emerges slowly, minimally or apparently not at all». ² From the perspective of the listener it is music «to swim in, to float in, to get lost inside». ³

Johann Nikolaus Forkel's (1749-1818) defense of church music, as presented in the introduction to the second volume (1801) of his *Allgemeine Geschichte der Musik* (1788-1801), provides the focal point of the present article. Here, we find a similar concern with such aspects as air, immersion and mood or state of mind, and the inner connection between them. However, thematic similarities between Forkel's text and twentieth-century writings on ambient music are somewhat deceiving. Forkel's ideas on church music reception have, in a sense, more in common with those that today are associated with ambient music's ugly cousins: music used in shopping malls, elevators, telephones – often collectively labeled Muzak, after the company that first utilized its commercial potential – or the various forms of mood music typically advertised with specific therapeutic purposes. These are types of “ambient music” that are unashamedly marketed as means for achieving practical goals,

¹ The word «ambience» (derived from the French *ambiance/ambient*) is defined as a «particular environment or surrounding influence», or «the atmosphere of an environment», XUHUA CHEN, *An English Dictionary with AB Index and Frequency*, [s.l.], Xuhua Chen, 2010, p. 24.

² DAVID TOOP, *Ocean of Sound. Aether Talk, Ambient Sound and Imaginary Worlds*, London, Serpent's Tail, 1995, p. XII; Toop, as well as other commentators, has traced these musical characteristics and their aesthetical underpinnings back to the music of turn-of-the-20th-century composers such as Claude Debussy, Erik Satie and Gustav Mahler. See, for instance: MARK PRENDERGAST, *The Ambient Century. From Mahler to Trance – The Evolution of Sound in the Electronic Age*, London, Bloomsbury, 2000, pp. 4-16.

³ BRIAN ENO, *Ambient Music*, in *Audio Culture. Readings in Modern Music*, ed. by Christopher Cox and Daniel Warner, New York, Continuum, 2006, pp. 94-97: 95.

influencing the behavior of those who are located within the space of its sonic dissemination.

Yet, Forkel's ideas cannot be properly understood without acknowledging the way in which they are positioned within a specific historical context and rhetorical environment. They are advanced as answers to a set of questions that have since been silenced. The purpose of this article is to unearth those questions that prompted Forkel to develop his ideas on church music reception, as well as to identify the resources with which the solutions to these questions could be reached. Neurophysiological ideas are of particular importance to Forkel's theoretical synthesis. As the science in-between physics and psychology, neurophysiology provided Forkel with a bridge to connect the human soul with the air surrounding the sensing body, and a basis on which to reach a theological justification of church music.

Johann Nikolaus Forkel⁴ was a German musician and writer on music who today is particularly renowned for being the first biographer of Johann Sebastian Bach and for having written the two volumes that some regard as the first modern history of music.⁵ His claim to the title of inventor of modern music historiography has been defended with the assertion that he is the first to connect the phenomena of music to a philosophy of history. The philosophy of history is in this context to be understood, following Karl Löwith's definition, as «a systematic interpretation of universal history in accordance with a principle by which historical events and successions are unified and directed towards an ultimate meaning».⁶

The introduction to the second volume of Forkel's *Allgemeine Geschichte der Musik* assumes the form of an extensive argument in support of the importance of *Figuralmusik* in Christian worship.

⁴ Forkel was born in Meeder (Coburg), in what today is the very northern end of Bavaria, on the border to Thuringia. He spent most of his life in the city of Göttingen, which at the time was part of the Electoral State of Hannover (officially *Kurfürstentum Braunschweig-Lüneburg*). Forkel held various musical positions at the University of Göttingen from which he received an honorary doctorate of philosophy in 1787. A detailed bibliographical sketch is found in: HEINRICH EDELHOFF, *Johann Nikolaus Forkel. Ein Beitrag zur Geschichte der Musikwissenschaft*, Göttingen, Vandenhoeck & Ruprecht, 1935, pp. 15-36.

⁵ Vincent Duckles justifies Forkel's claim to the title of originator of modern music historiography with the assertion that he, «more than any of his predecessors[,] [...] felt called upon to examine the roots of his beliefs as an historian», VINCENT DUCKLES, *Johann Nikolaus Forkel. The Beginning of Music Historiography*, «Eighteenth-Century Studies», 1, 3 (1968), pp. 277-290: 278; see also: WOLF FRANCK, *Musicology and Its Founder, Johann Nicolaus Forkel (1749-1818)*, «The Musical Quarterly», XXXV, 4 (1949), pp. 588-601.

⁶ KARL LÖWITH, *Meaning in History. The Theological Implications of the Philosophy of History*, Chicago, University of Chicago Press, 1949, p. 1.

Figuralmusik refers to vocal music in several parts, typically with instrumental accompaniment, requiring professional (or at least learned) musicians and singers. Forkel wants to demonstrate that this kind of music has an important role to play in the Christian worship, one that places it on an equal footing with the sermon and congregational singing. The introductory chapter has much in common with the tradition of the *encomium musicae*, the speech of praise in favour of music.⁷ All the defining traits of the classic *encomium* are present here. Music is associated with a great age and universal distribution, being practiced by all people who have wandered the earth.⁸ It has always served the noble purpose of strengthening social bonds among people. In primitive societies it delivered an important contribution towards the formation of the first states.⁹ The issue of the abuse of music is given extensive treatment. Forkel enumerates the different causes behind what he perceives as a present decline in the musical life of the church and suggests remedies for bringing it back on its proper track.

However, the introduction has just as much the character of an *apologia*, a speech in defense of music. It seems evident that there is an antagonistic interlocutor lurking in the background, whose objections Forkel seeks to refute. Although this antagonistic position or its representatives are never explicitly mentioned, their presence could nevertheless be inferred from his arguments. Forkel's introduction could therefore be read as a reply to a position whose presence in the contemporaneous readers' consciousness must have been taken for granted.

I suggest that the antagonistic interlocutor is to be found in the context of the so-called «worship wars»,¹⁰ which raged in the Lutheran church from the second half of the 17th through the 18th centuries.¹¹ The controversies were most fundamentally concerned with the implementation of the ideals of the Lutheran reformation. Was the service of the Lutheran church conducted in accordance with the recommendations of the Bible? And, if not, what steps would have to be taken in order to complete the ecclesial reformation

⁷ The link between the encomium of music and early (German) music historiography has been investigated in: BERNHARD JAHN, "Encomium Musicae" und "Musica Historica". *Zur Konzeption von Musikgeschichte im 17. Jahrhundert an Beispielen aus dem schlesisch-sächsischen Raum* (Scherffter, Kleinwechter und Printz), «Daphnis», XXX, 3-4 (2001), pp. 491-511.

⁸ Cf. JOHANN NIKOLAUS FORKEL, *Allgemeine Geschichte der Musik*, 2 vols., Leipzig, Schwickert, 1788-1801, II, p. 2.

⁹ Cf. *Ibidem*, p. 3.

¹⁰ I borrow the term from a book by Joseph Herl: JOSEPH HERL, *Worship Wars in Early Lutheranism. Choir, Congregation and Three Centuries of Conflict*, Oxford – New York, Oxford University Press, 2004.

¹¹ These controversies have been comprehensively documented in: JOYCE L. IRWIN, *Neither Voice nor Heart Alone. German Lutheran Theology of Music in the Age of the Baroque*, New York, Peter Lang, 1993; J. HERL, *Worship Wars in Early Lutheranism*, cit.

initiated by Luther? From the beginning, music would be one of the central issues of these debates.

The usefulness of music was generally acknowledged by almost all parties involved. The Bible as well as several of the most authoritative sources in the Lutheran tradition, including Luther's own writings, would give ample textual support to the use of music in worship.¹² Luther stresses the divine nature of music by emphasizing that it «is not an *inventio*, a work of humankind, but a *creatura*, a work of God».¹³ Music causes happiness, and happiness is a sign both of divine presence and a corresponding absence of the devil.¹⁴ It would thus have been very difficult to advocate for the total abolishment of music in church without contradicting the opinions of its founder.

The contentious issues concerned the proper use of music, especially the questions of what kind of music to be performed and who should perform it. The main line of demarcation separated those who advocated for the abolishment of the use of *Figuralmusik* – thereby allowing only congregational singing in church – from those who advocated for keeping *Figuralmusik* on the basis that it provided a valuable supplement to the sermon and congregational singing. This simple dichotomy could be qualified by pointing to dividing opinions on questions of repertoire, style, use of instruments, etc., which in reality made the issue more complex than a simple dichotomy can convey. However, for the present purpose the basic dichotomy of congregational singing and *Figuralmusik* will suffice.

Both sides in the worship wars could find support for their cause in the Bible as well as in the writings of Luther. Biblical passages urging the whole world to sing would be utilized by the critics of *Figuralmusik*.¹⁵ Its apologists could point to several verses, especially in the Psalms, that called for the singing of a new song or to the skillful use of instruments.¹⁶

¹² Cf. J. L. IRWIN, *Neither Voice nor Heart Alone*, cit., p. 13.

¹³ ROBIN A. LEAVER, *Luther on Music*, in *The Pastoral Luther. Essays on Martin Luther's Practical Theology*, ed. by Timothy J. Wengert, Grand Rapids – Cambridge, William B. Eerdmans, 2009, pp. 271-291: 278.

¹⁴ Luther's theology of music is constructed over a metaphysical framework in which divine and diabolical forces are connected to the emotional life of humans. The devil is the enemy of happiness and joy, and his presence causes sadness and despair. All happiness and joy emanate from God, and everything that is of God is happy and joyful. Robin A. Leaver has shown that these ideas are repeatedly expressed throughout Luther's writings. Music enters the picture through its «profound connection between “the sound of music” and the “word of theology”: both repel the devil», ROBIN A. LEAVER, *Luther's Liturgical Music. Principles and Implications*, Grand Rapids – Cambridge, William B. Eerdmans, 2007, p. 93.

¹⁵ As, for instance, in Psalm 66.

¹⁶ As, for instance, in the section from Psalm 33 that reads: «Give thanks to the Lord with the lyre; make melody to him with the harp of ten strings! Sing to him a new song; play skilfully on the strings, with loud shouts», Psalm 33: 2-3, quoted according to the *English Standard Version* of the Bible, <http://biblehub.com/psalms/33.htm>, accessed October 31st 2015.

Likewise, Luther's scattered remarks on music could, as Joyce L. Irwin has remarked, «lead in different directions depending on the perspective of the interpreter».¹⁷ One passage from the Luther's writings that could be used in support of congregational singing is found in the lectures on the psalms. Luther takes the first sentence in psalm 95: «o come, let us sing to the Lord» as point of departure, and makes it an emblem of the divine effect of music. Music invites everyone to join in. However, it is not only the participants present in the musical space who are invited in. More important, the psalm «can, not without sense, also be called “invitatory” for the reason that the Holy Spirit is invited in the same way».¹⁸ Later proponents of congregational singing would elaborate upon this association between singing and the Holy Spirit.

The text that more than any other would settle the arguments of the church music debates during the second half of the 17th century and into the 18th century was the *Wächterstimme aus dem verwüsteten Zion* (1661) by the Rostock-based theologian Theophilus Großgebauer (1627-1661).¹⁹ It has been called «an enormously influential and controversial book»,²⁰ having «a more divisive effect in the discussion of the proper role of church music than any other work of the age in Germany».²¹ Großgebauer's ideas anticipate those of the pietism movement of the 18th century in that they emphasize the essentiality of a personal involvement with the Holy Spirit. Christian worship is centered on the presence of the Holy Spirit. The relevant unit of worship is not the praying or singing for him-/herself in lonely isolation, but rather the congregation, the assembly of Christians gathered together in prayer and song.

The Apostle tells us: There are Psalms, hymns and spiritual songs: the H[oly] Spirit uses these means as his wagon with which he travels into the hearts and fills them with all the fullness of God.

When someone sings psalms in spirit, as Paul tells us, this cannot edify the congregation; however, when the whole congregation sings, and people essentially speak to one another through psalms, this improves and fills [them] with the Spirit.

¹⁷ J. L. IRWIN, *Neither Voice nor Heart Alone*, cit., p. 7.

¹⁸ R. A. LEAVER, *Luther on Music*, cit., p. 280.

¹⁹ THEOPHIL GROSSGEBAUER, *Wächterstimme Auß dem verwüsteten Zion. Das ist: Treuherzige und nothwendige Entdeckung, auß was Ursachen die vielfaltige Predigt des Worts Gottes bey Evangelischen Gemeinen wenig zur Bekehrung und Gottseligkeit fruchte, und warumb Evangelische Gemeinen bey den häutigigen Predigten des heligen Wortes Gottes ungeistlicher und ungöttlicher werden?*, Frankfurt am Main, Wilden, 1661. This work was later included in *Id., Drey Geistreiche Schrifftten*, Frankfurt – Leipzig, Wilden, 1667.

²⁰ J. HERL, *Worship Wars in Early Lutheranism*, cit., p. 118.

²¹ J. L. IRWIN, *Neither Voice nor Heart Alone*, cit., p. 79.

No more beautiful harmony than this can be invented: and it is nothing less than an exemplar and foretaste of the eternal gathering in Heaven.²²

St. Paul's objection to the kind of privatization of worship he identified among the Corinthians is used in analogy to the current state of music as practiced within the Lutheran church.²³ The differentiation of labor in the worship – between a passive congregation and a small group of active musicians and singers – is here placed into a biblical framework.

While the singing of psalms could be legitimized as a means of evoking a divine presence, the opposite (although related) opinion, that active participation is the consequence and manifestation of this presence, could also find textual support. In Luther's preface to the *Bapst Gesangbuch* of 1545, the acceptance or decline of the invitation to sing along is taken as an indication of the presence or absence of true faith. Luther argues that the joy brought about by Christ's redemption of mankind compels the true believer to sing: «And whoever does not want to sing and speak of it shows that he does not believe and that he does not belong under the new and joyful testament, but under the old, lazy, and tedious testament».²⁴ Participation in song has here attained the role of a sign of true faith, to be displayed in front of the assembly.

As mentioned, there are also passages in Luther's writings that more easily lend themselves to the defense of *Figuralmusik*. Forkel repeatedly evokes the authority of Luther for this purpose. In rounding off the introductory chapter to the second volume of his music history, he quotes Luther's *Encomion Musices* (1538) in its entirety (covering three pages). This is done, he states, for the purpose of showing «that Luther [does] not merely [call for] congregational singing, but with the warmest zeal urges for the use of artificial music, i.e. figural music».²⁵ Interestingly, Forkel quotes Luther's statement in the preface to the *Bapst Gesangbuch* approvingly. He agrees with Luther that the Christian religion is a religion of

²² «Der Apostel sagt: Es sind Psalmen, Lobgesänge und geistliche Lieder: diese Mittel braucht der H[eilige] Geist als seinen Wagen, darauff er in die Hertzen einzeucht, und es mit allerley Gottes Fülle erfüllet. Wann jemand Psalmen singet, wie Paulus redet, im Geiste, das kan die Gemeine nicht bauen; wann aber die gantze Gemeine im Sinne singet, und gleichsam einer zu dem andern durch Psalmen redet, das bessert und machet voll Geistes. Keine schönere Zusammenstimmung kan erfunden werden, als eben diese: und ists nichts anders als ein Fürbild und Vorschmack der ewigen Versammlung im Himmel», TH. GROSSGEBAUER, *Drey Geistreiche Schrifften*, cit., p. 194 (My translation; all subsequent translations from German sources are my own unless otherwise indicated); Großgebauer here refers to a passage from *Ephesians* 5:18-19, which reads: «And do not get drunk with wine, for that is debauchery, but be filled with the Spirit, addressing one another in psalms and hymns and spiritual songs, singing and making melody to the Lord with your heart», quoted according to the *English Standard Version* of the Bible, <http://biblehub.com/esv/ephesians/5.htm>, accessed October 31st 2015.

²³ The verses referred to are from *1 Corinthians* 14.

²⁴ Luther, quoted in: R. A. LEAVER, *Luther on Music*, cit., pp. 276-277.

happiness and that the happiness caused by Christ's redemption of mankind should be expressed through music. Qualifying Luther's call for universal participation, however, he adds:

This Christian happiness cannot be caused and maintained by mere congregational singing; it requires pure, clear and flexible voices and skillful melodies or modulations befitting the holy word, which are present only in *Figuralmusik* and cannot be performed by an entire congregation but only by skilled and educated singers and musicians.²⁶

Forkel's objections to congregational singing are partly based on its relative poverty of means of expression and partly on the inability of the congregation to properly communicate these expressions. If not properly communicated from mouth to ear, music will lose the effect inherent in its design. Invoking again the authority of Luther, Forkel claims that the quality of congregational singing in church has declined to the point that it «often [is] more howling than singing and [that it] has degenerated into what Luther in his time already called lazy congregational singing, wherein no life, no reassurance, in short, no expression exists».²⁷ As we see, the main concern is with the way in which the expression of Christian happiness is to be properly communicated and maintained. This type of expression differs from the more or less spontaneous or ecstatic expression of the true believer's bliss as described by Luther. It is a calculated and deliberate form of expression residing in the music itself, rather than emanating from the hearts of the performers. Seen from the perspective of Großgebauer and his followers, this represents one of the most problematic aspects of *Figuralmusik*. What does it really express, if not the sincere religious sentiments of those performing the music? This kind of music – where expression merely resides in the sound – might run the risk of being called empty or theatrical.²⁸

In his *Historie der Kirchen-Ceremonien in Sachsen* (1732), the theologian Christian Gerber (1660-1731) launched an attack on the theatricality he claimed was currently

²⁵ «Man wird daraus sehen, daß Luther nicht bloß auf den Choralgesang, sondern mit dem wärmsten Eifer auf den Gebrauch der künstlichen Musica, das heißt, der Figuralmusik dringt», J. N. FORKEL, *Allgemeine Geschichte der Musik*, cit., II, p. 76; Forkel's assessment seems to be based on the fact that Luther in this text explicitly endorses both instrumental music and sung polyphony.

²⁶ «Diese christliche Freudigkeit kann durch den bloßen Choralgesang nicht bewirkt und unterhalten werden; es sind dazu reine, klare, geläufige Stimmen und geschickte den heiligen Worten angemessene Melodien oder Modulationen erforderlich, die nur bey der Figuralmusik Statt haben und nicht von einer ganzen Gemeinde, sondern nur von geübten und gebildeten Sängern und Spielern bewirkt werden können», *ibidem*, p. 16.

²⁷ «Daher kommt es denn, daß er [der einfache Choralgesang] jetzt in unsern meisten Kirchen seine Erbaulichkeit größtentheils verloren hat, oft mehr Geheul als Gesang, und zu dem herunter gesunken ist, was Luther schon zu seiner Zeit den *faulen Choralgesang* nannte, worin kein Leben, keine Zuversicht, kurz kein Ausdruck herrscht», *ibidem*, p. 15.

contaminating the services of the Lutheran church. «Theatricality» here refers both to religious plays and *Figuralmusik* in the so-called cantata style. The cantata style originated in Italy and reached the German-speaking lands through such sacred genres as the church cantata and the «operatic» passion plays. His objections to theatricality can be said to apply to all kinds of music that contain the dichotomy of professional (and thus potentially insincere) performers and musical expressions. Theatricality, in all its forms, has no purpose other than to stir the passions in order to increase the fame of actors and musicians. He illustrates this point with an anecdote:

And so, a year ago, we saw in this vicinity how rooming preachers of repentance, with their theatrical performances, frequently moved people to tears; thereafter, [these people] for the most part went straight to the pub, got themselves drunk, and picked up where they had left off.²⁹

This illustrates the weakness of theatricality. The impact on the congregation is only temporary. It wears off with the silencing of the music or the end of the play. Gerber sees the reasons for the pervasiveness of theatrical practices in the motivation of the musicians. He accuses them of arousing passions in the congregation out of self-promotion, to show off their skills. They stand in front of the congregation like a false clergy, entertaining the senses rather than glorifying God and encouraging devotion. Gerber even insinuates that they lead the congregation into idolatry:

O, even he who knows only the first letters of Christianity abhors all such theatrical affairs with disgust and instead seeks to change the theatre of his heart and to establish Christianity within his soul.³⁰

²⁸ Joyce L. Irwin has shown that devotionally inclined writers often expressed the conviction that «the outward song should issue from the inspired heart», and that some writers were even inclined «to place audible music in the position of a non-essential by-product», J. L. IRWIN, *Neither Voice nor Heart Alone*, cit., p. 109.

²⁹ «So haben wir vor einem Jahre hier in der Nähe gesehen, wie die damals hier herum wallende Buß-Pre-diger mit ihren theatralischen Vorstellungen die Leute häufig zum Weinen bewegt, welche doch grossen Theils so gleich darauf in das Wirths-Hauß gegangen, und sich vollgetruncken, und es wieder angefangen, wo sie es gelassen hatten», CHRISTIAN GERBER, *Historie der Kirchen-Ceremonien in Sachsen, nach ihrer Beschaffenheit in möglichster Kürtze mit Anführung vieler Moralien und specialen Nachrichten*, Dresden – Leipzig, Raphael Christian Sauereßig, 1732, p. 288.

³⁰ «O wer da nur die ersten Buchstaben des Christenthums weiß, hat an allen solchen theatralischen Händeln einen Anscheu, und suchet vielmehr das Theatrum seines Hertzens zu verändern, und das Christenthum inwendig in seiner Seele zu gründen», *ibidem*, p. 289.

Musicians are like Aaron, who in *Exodus* 32:1-6 and upon the request of the Israelites (/congregation) constructs an idol in the form of a golden calf. This connection between theatricality and idolatry has a long history in theological discourse.³¹

An important contribution to the re-evaluation of musical sound was provided by Georg Motz (1653-1733) in his *Die Vertheidigte Kirchen-Music* (1703). Here the cantor and director of Tilsit's music school introduced what has been described as a new twist on the traditional Lutheran thesis of music's divine origin, assigning the Holy Spirit an important role already at the stage of composition.³² Motz writes: «Artistic compositions are not [the result of] foolish whims; they come from the Holy Spirit and not from a worldly spirit».³³ His idea represents a significant step in the direction of making the sound of (church) music holy in itself and thus independent of such concomitant circumstances as the devotional sincerity and moral character of the performing musicians. Motz's book was directly addressed to Gerber's critique of church music and subsequently refuted by Gerber in an open letter published in 1704. Here Gerber maintains that music could not serve as praise of God if performed by godless people or people of another religion, nor if it distracted the congregation from paying attention to worship.³⁴ In contrast to Luther's thesis that music in general is a divine *creatura*, Motz's thesis concerns church music specifically, raising the possibility that musical styles, and even individual musical compositions, could be holy in themselves and that some styles are holier than others.

Forkel was well acquainted with the Motz-Gerber debate, as is evident from the bibliographical summary given in his *Allgemeine Litteratur der Musik* (1792) under the heading: «Writings by enemies of church music and church musicians, followed by their

³¹ As Michael O'Connell has shown, similar accusations of idolatrousness and popishness characterized post-reformation English debates on the theatre: MICHAEL O'CONNELL, *The Idolatrous Eye. Iconoclasm, Anti-Theatricalism, and the Image of the Elizabethan Theater*, «English Literary History», LII, 2 (1985), pp. 279-310.

³² JOYCE L. IRWIN, *German Pietists and Church Music in the Baroque Age*, «Church History», LIV, 1 (1985), pp. 29-40: 38.

³³ «Künstliche compositiones [sic] sind keine närrische Einfälle; Sie kommen von dem Heil[igen] Geist, und nicht aus einem Weltgeist her», GEORG MOTZ, *Die Vertheidigte Kirchen-Music, oder Klar und deutliche Beweis, Welcher Gestalten Hr. M. Christian Gerber, Pastor in Lockwitz bey Dreßden, in seinem Buch, welches Er Unerkandte Sünden der Welt nennet, in dem LXXXI. Cap. da Er von dem Mißbrauch der Kirchen-Music geschrieben, zu Verwerfung der musicalischen Harmonie und Bestrafung der Kirchen-Music zu weit gegangen*, [no publisher information], 1703, p. 37.

³⁴ Cf. J. HERL, *Worship Wars in Early Lutheranism*, cit., p. 122.

refutations ».³⁵ Motz is here described as «a very learned man who knew how to challenge his opponents with true and thorough and philosophical knowledge».³⁶

Forkel takes up the idea of the holy style introduced in Motz's writings. Although he does not inform the reader exactly by what musical features the holy style could be recognized, he makes clear that it represents the antithesis of the styles utilized for comic operas and various dance forms (of which he mentions minuets and polonaises).³⁷ The power of church music hinges on the holy style: «If [it] is lost, all higher properties of art, the representation of the highest, purest, moral sentiments will be lost together with it».³⁸ Again, this notion of a holy style accentuates the importance of communication in Forkel's theology of music. If music carries a holy content in sound – analogous to the holy word of the Bible – it places a great amount of responsibility on the shoulders of the musicians. Distortion of the holy sounds could almost be likened to distortion of the holy words by heretics. The church is therefore in need of trained musicians. These serve as transmitters, whose religious convictions, devotional sincerity and moral makeup are irrelevant. The whole system of musical communication – including the composer, musician, air and nerve receptors – mediates between God and the soul. The composer is placed in a particularly privileged position, in direct contact with God, or at least in a position to impart His sanctioned design on the congregation, analogous to a priest giving a sermon.

For Großgebauer and his followers, the mouth was the instrument through which the Holy Spirit was evoked, or through which its presence was made manifest. In Forkel's theology of music, the priority of the mouth is substituted with that of the ear. The members of the congregation are now expected to participate in the worship with their ears, rather than their mouths. Forkel had to show that the ear could take the central place, formerly taken by the mouth, in the Lutheran worship. Several biblical passages link the presence of the Holy Spirit to the (non-conventional) use of the vocal organ. The section from *Ephesians* 5:18-19 paraphrased by Großgebauer has already been mentioned. Another instance is found in the passage from the *Acts of the Apostles* (2:2-4) that reads:

³⁵ «Schriften von Feinden der Kirchenmusik und Kirchenmusiker, nebst den Widerlegungen derselben», JOHANN NIKOLAUS FORKEL, *Allgemeine Litteratur der Musik oder Anleitung zur Kenntniß musikalischer Bücher, welche von den ältesten bis auf die neusten Zeiten bey den Griechen, Römern und den meisten neuern europäischen Nationen sind geschrieben worden*, Leipzig, Schwickert, 1792, pp. 155-158.

³⁶ «Der Verf. [Motz] war ein sehr gelehrter Mann, der seinen Gegner mit ächten und gründlichen und philosophischen Kenntnissen zu bestreiten wußte», *ibidem*, p. 156.

³⁷ Cf. J. N. FORKEL, *Allgemeine Geschichte der Musik*, cit., II, p. 24.

³⁸ «Ist dieser heilige Styl verloren, so sind mit ihm zugleich auch alle höhern Eigenschaften der Kunst, die Darstellung der höchsten, reinsten moralischen Gefühle verloren», *ibidem*, p. 50.

Suddenly a sound like the blowing of a violent wind came from heaven and filled the whole house where they were sitting. They saw what seemed to be tongues of fire that separated and came to rest on each of them. All of them were filled with the Holy Spirit and began to speak in other tongues as the Spirit enabled them.³⁹

The dethronement of the mouth would be achieved by substituting one paradigm of divine communication for another. As Richard C. Allen explains, in physics there are «two alternatives for explaining how one body affects another body at a distance. The first is to imagine that a parcel is mailed from one body to the other. The second is to imagine that both bodies are placed within a continuous medium or field».⁴⁰ An agent could therefore be regarded as a first mover in a series of chain reactions spreading through a continuous medium, or as a force that is inherent in the medium itself, affecting the bodies immersed in it (in which case the distance is only deceptively so). This dichotomy could also serve to illustrate the different ways in which the workings of the Holy Spirit have been understood throughout the history of Christianity. The biblical accounts and later depictions of the Holy Spirit as a dove descending from heaven serve to illustrate how a notion of a «mailed» form of action at a distance has been an established part of the *pneumatological* imagination.⁴¹ Großgebauer's «wagon of the Holy Spirit» called forth by the singing congregation belongs to this paradigm. However, the second alternative – where a continuous medium acts as a channel – plays an important role in the history of pneumatology. We have already encountered it in the above passage from *Acts of the Apostles* where the Holy Spirit travels in the form of (or at least is accompanied by) «a sound like the blowing of a violent wind».

The Christian notion of the Holy Spirit is developed from the Hebrew *ruach hakodesh*, literally meaning divine air in motion (*ruach* being used to denote phenomena as wind and breath as well as spirit/soul). Likewise, in the New Testament, the equivalent Greek word, *pneuma*, has approximately the same range of denotation.⁴² This is more than a terminological coincidence. It points towards a perceived inner resemblance among the phenomena and reveals how invisible phenomena such as the spirit and soul have been made tangible with the help of the physical imagination throughout the history (and pre-history) of

³⁹ *Acts of the Apostles* 2:2-4, quoted from the *New International Version* of the Bible, <http://biblehub.com/niv/acts/2.htm>, accessed October 31st 2015.

⁴⁰ RICHARD C. ALLEN, *David Hartley on Human Nature*, Albany, State University of New York Press, 1999, p. 93.

⁴¹ Most notably in the accounts of the baptism of Jesus given by all four evangelists: *Matthew* 3:16; *Mark* 1:10; *Luke* 3:22; *John* 1:32.

⁴² Cf. VELI-MATTI KÄRKKÄINEN, *Pneumatology. The Holy Spirit in Ecumenical, International, and Contextual Perspective*, Grand Rapids, Baker Academic, 2002, p. 25.

Christianity. This connection between air in movement and the Holy Spirit would continue to hold throughout the centuries. A notion of a «holy wind» as the form in which God traverses physical space, is repeatedly encountered in the religious literature of the 17th and 18th centuries. An opinion paraphrased in a publication from 1748 reads: «When [God's Spirit] works externally, it is called a wind or breath of God: when it works internally in Man, it is called the Holy Spirit».⁴³ Although such a statement taken literally might be seen as approaching heresy, it nevertheless provided a conceptual tool for grasping the workings of the Holy Spirit as an invisible force traversing space and influencing its subjects.⁴⁴

Just as the link between singing (or more generally the use of the vocal organ) and the Holy Spirit could lend support to the legitimacy of congregational singing, the association of the Holy Spirit with air in movement provides Forkel with a basis from which *Figuralmusik* could be defended. With the development of fluid mechanics in the 17th and 18th centuries, air attained the status of a uniform, translucent medium through which the things of the world are transported to our sensory organs. Acoustics, as the science that deals with the study of mechanical vibrations in elastic media, was among the new sub-disciplines of natural philosophy that emerged from this new paradigm. The phenomenon of sound, in its physical form as vibrations in the medium of air, obeys the general laws of mechanics. From the acoustical viewpoint, music could be described as the art of manipulating air. This idea forms the basis on which Forkel builds his musical theology. He remarks that air, in addition to being the medium of sound, is the fluid in which the human body finds itself immersed, and which furthermore connects the body to the things of the world, both to other human bodies and inanimate objects:

⁴³ «Wenn [der Geist Gottes] äusserlich wücket, so heisset er ein Wind oder Blasen Gottes: wenn er innerlich in dem Menschen arbeitet, so heisset er der heilige Geist», JOHANN LORENZ VON MOSHEIM, *Anderweitiger Versuch einer vollständigen und unpartheyischen Ketzergeschichte*, Helmstaedt, Christian Friedrich Weygand, 1748, p. 322.

⁴⁴ One instance is found in a 1749-publication, where the author, Evermodus Brauner, printed a sermon on the theme «Der von dem HERRN ausgehende heylsame Wind Der Heilige Geist» («The salutary Wind of the Holy Spirit emanating from the Lord»). Although he warns about the heretical position of worshipping the wind as God (with reference to the practice of the ancient Persians), he nevertheless explains that the notion of a Holy Wind is biblically sanctioned (with reference to the above-mentioned passage from the *Acts of the Apostles* (2:2-4), EVERMODUS BRAUNER, «*Inventa una pretiosa margarita*», *Kostbares gefundenes Perlein. Das Wort Gottes Welches Aus Göttlicher Heiliger Schrift, H. H. Vättern, Geistlichen, und Weltlichen Scribenten, unterschiedlichen Sitten-Lehren, samt Heilsamen Merckwürdigkeiten und Darüber gemachten Moralischen Reflexionen, Ausgesucht, gefunden, und Auf verschiedenen Canzlen vorgetragen worden*, Lintz, Frantz Antoni Ilgerm, 1749, p. 270.

Man himself is surrounded by air, or the medium of sound; he lives in it as if he were in his element. He inhales air, exhales air, and through it is connected to everything in the world, just as all other bodies, which like he are surrounded by air, are connected to him. Moreover, his solid parts are connected and spanned through nerves and tendons, which in a way makes him himself a kind of musical instrument. And finally, he has received from nature a special organ, which makes him capable of perceiving all changes in the air surrounding him.⁴⁵

Nerves are the medium through which the soul connects to the surrounding air. One should note the passive character of sound reception sketched out here, as illustrated in Forkel's description of man as «a kind of musical instrument». This metaphor was common in the neurological theories current in Germany at the time.⁴⁶ Forkel takes this music-derived metaphor of the nervous system and brings it back into the musical context. Nerve receptors serve as mediators between air and the soul, transmitting vibrations of the air to the soul where they manifest themselves as passions and sentiments:

That is to say, the passionate ideas of the soul are inextricably connected with certain movements in the nervous system or the more delicate parts of the body, which we may call animal spirits and which are sustained and strengthened by the perception of these movements. These corresponding nerve vibrations occur in the body when a passionate idea has been aroused in the soul, just as, conversely, passionate ideas arise when the corresponding vibrations have been stirred in the body. The effect is reciprocal. [...] Since nothing can influence the vibrations of the nervous system as powerfully as sounds, the reciprocal relationship between the movements of air and nerves sufficiently explains the power and force that individual tones alone can have on the human heart. [...] The reciprocal relationship between the vibrations of air and nerves is thus the basis and primary cause of all musical expression and of all effects that can be generated through music.⁴⁷

Forkel's notion that each passionate idea has its psychological counterpart in the vibration of animal spirits (*Lebensgeister*) associated with specific nerve fibers reveals his familiarity with the neurophysiological theories current at the end of the 18th century.⁴⁸ Precursors of the vibration theory of nerve function can be traced as far back as the ancient

⁴⁵ «Der Mensch selbst ist allenthalben mit Luft, oder mit dem Vehikel des Schalles umgeben; er lebt darin wie in seinem Elemente. Er athmet Luft ein, haucht Luft aus, und hängt durch sie mit allem, was in der Welt ist, zusammen, so wie alle andere Körper, die eben so wie er mit Luft umgeben sind, mit ihm zusammenhängen. Außerdem sind seine festen Theile mit Nerven und Sehnen verbunden und überspannt, wodurch er gewissermaßen selbst eine Art von musikalischem Instrument wird, und endlich hat er von der Natur noch ein besonderes Organ erhalten, welches ihn fähig macht, alle Veränderungen der ihn umgebenden Luft gewahr zu werden», J. N. FORKEL, *Allgemeine Geschichte der Musik*, cit., II, p. 10.

⁴⁶ Caroline Welsh has shown that by «the middle of the eighteenth century, musical string instruments had become a privileged metaphor in the newly developing speculative theories of nerve and brain physiology», CAROLINE WELSH, «Stimmung». *The Emergence of a Concept and Its Modifications in Psychology and Physiology*, in *Traveling Concepts for the Study of Culture*, ed. by Birgit Neumann and Ansgar Nünning, Berlin – Boston, De Gruyter, 2012, pp. 267-289: 270-271.

Greek and Roman theories of hearing.⁴⁹ In the 17th century it was taken up and popularized by René Descartes (1596-1650) and later by Isaac Newton (1642-1727) as well as a number of other natural philosophers.⁵⁰ By the middle of the 18th century, it reached widespread recognition through the writings of David Hartley (1705-1757) who merged the nerve vibration theory with a psychology of association.⁵¹ Hartley's ideas were disseminated throughout the German-speaking lands by a number of advocates, most notably Melchior Adam Weickard (1742-1803).⁵²

Forkel appropriates these neurophysiological ideas for his own purposes and combines them with an acoustic conception of music and an arousal theory of expression.⁵³ The human body is accordingly extended into the surrounding space. Music, by virtue of being an art communicated through aerial vibration, can thus speak directly to the heart from afar. The mechanism through which this is accomplished is that of resonance. The nerves are like the strings of an instrument that vibrate sympathetically when exposed to aerial vibration of a frequency corresponding to that of the strings. However, if music were to be defended as a worthy embellishment of the Christian worship, it would have to do more than simply arouse temporary emotions in the audience. It is here that the notion of

⁴⁷ «Die leidenschaftlichen Vorstellungen der Seele sind nemlich mit gewissen Bewegungen im Nervensystem, oder in den feinem Theilen des Körpers, welche man Lebensgeister nennen kann, unzertrennlich verbunden, und werden durch Wahrnehmung dieser Bewegungen unterhalten und verstärkt. Diese entsprechenden Nervenerschütterungen entstehen im Körper, wenn vorher in der Seele eine leidenschaftlichen Vorstellung erweckt war, so wie umgekehrt in der Seele die leidenschaftliche Vorstellungen entstehen, wenn vorher im Körper die verwandten Erschütterungen erregt worden sind. Die Wirkung ist gegenseitig. [...] Da nun die Erschütterung des Nervensystems durch nichts so mächtig bewirkt werden können als durch Töne, so erklärt sich aus dem gegenseitigen Verhältniß der Luft- und Nerven- Bewegungen die Kraft und Gewalt hinlänglich, welche schon einzelne Töne auf das Herz des Menschen haben können. [...] Das gegenseitige Verhältniß der Luft- und Nervenerschütterungen ist daher der Grund und die erste Ursache alles musikalischen Ausdrucks, und aller der Wirkungen, die durch Musik hervorgebracht werden können», J. N. FORKEL, *Allgemeine Geschichte der Musik*, cit., II, pp. 10-11.

⁴⁸ Caroline Welsh has suggested that Johann Jakob Engels's *Über die Musikalische Malerei* (1780) might have been the source for Forkel's theories on music and nerve vibration. Cf. CAROLINE WELSH, «Töne sind Tasten höherer Sayten in uns». *Denkfiguren des Übergangs zwischen Körper und Seele*, in *Romantische Wissenspoetik. Die Künste und die Wissenschaften um 1800*, ed. by Gabriele Brandstetter and Gerhard Neumann, Würzburg, Königshausen & Neumann, 2004, pp. 73-89: 80-82.

⁴⁹ Cf. STANLEY FINGER, *Origins of Neuroscience. A History of Explorations into Brain Function*, Oxford – New York, Oxford University Press, 1994, pp. 108-109.

⁵⁰ Cf. WES WALLACE, *The Vibrating Nerve Impulse in Newton, Willis and Gassendi. First Steps in a Mechanical Theory of Communication*, «Brain and Cognition», LI, 1 (2003), pp. 66-94.

⁵¹ Cf. S. FINGER, *Origins of Neuroscience*, cit., pp. 336-337.

⁵² Cf. CAROLINE WELSH, *Die «Stimmung» im Spannungsfeld zwischen Natur- und Geisteswissenschaften. Ein Blick auf deren Trennungsgeschichte aus der Perspektive einer Denkfigur*, «NTM Zeitschrift für Geschichte der Wissenschaften, Technik und Medizin», XVII, 2 (2009), pp. 135-169: 147-148.

⁵³ Arousal theories of musical expression were common in the 18th century. They are based on the principle that music expresses an emotional content by virtue of arousing it in the soul of the listener. See PETER KIVY, *Mattheson as Philosopher of Art*, «The Musical Quarterly», LXX, 2 (1984), pp. 248-265: 250.

the holy style becomes important. The passionate states of the soul are to be regarded as mere building blocks with which more wide-ranging modifications of the soul can be achieved, granting that these are combined wisely and according to the design prescribed by the holy style.

As the passionate states of man are manifold, and as each of them is associated with its own vibrations of the nerves (and thus is distinct from other [states]), so music is capable, through the purposeful use of the mentioned means, every time to select its tones with such an effect on the nerves as is akin and appropriate to the impression of a certain state of mind. Music therefore has the power not only to arouse with individual tones sympathetic feelings of joy, compassion, mourning, and consolation but also to foster and maintain inner sentiments of the soul or entire attunements of the mind, and thus to exert a strong influence on morality and improvement of the will.⁵⁴

We have now arrived at the core of Forkel's defense of church music. The ultimate purpose of religious music is to combine the passionate states in such a way that they evoke a complete (re-)attunement of the mind. This attunement refers to a fundamental and lasting change in the orientation of the soul, facilitating it for a life in line with the will of God. *Figuralmusik* can do more than simply instill devotion and prepare the soul for the word of God: it can, solely through the means of aerial vibrations, exert the same effect on the human soul as a perfectly composed and delivered sermon.

Johann George Sulzer introduces the idea of an attunement of the mind (*Gemüthsstimmung* or *Stimmung des Gemüthes*) in his *Allgemeine Theorie der Schönen Künste* (1771-1774) under the entry «Tone: Speaking Arts» (*Ton: Redende Künste*):⁵⁵

It is one of the mysteries of human nature that the same thing affects us quite differently depending on the state in which we find ourselves. This state, which one might call the attunement of the mind, also produces the distinct tone in the expression of speech.⁵⁶

⁵⁴ «Da die leidenschaftlichen Zustände der Menschen mannichfaltig sind, und jeder derselben mit eigenen Nervenerschütterungen vergesellschaftet ist, wodurch er sich von andern unterscheidet, so wird die Musik durch den zweckmäßigen Gebrauch der erwähnten Mittel vermögend, ihre Töne jedesmal von einer solchen Wirkung auf die Nerven zu wählen, wie sie den Eindrücken eines gewissen Gemüthszustandes ähnlich und angemessen ist. Sie hat es dadurch in ihrer Gewalt, nicht nur durch einzelne Töne schon sympathetische Gefühle der Freude, des Mitleids, des Trauerns und des Trostes zu erregen, sondern auch innere Empfindungen der Seele, oder ganze Gemüthsstimmungen zu befördern, zu unterhalten, und eben dadurch auf Sittlichkeit und Besserung des Willens kräftig zu wirken», J. N. FORKEL, *Allgemeine Geschichte der Musik*, cit., II, p. 11.

⁵⁵ Cf. C. WELSH, «*Stimmung*», cit., p. 274.

⁵⁶ «Es gehört unter die Geheimnisse der menschlichen Natur, daß einerley Sache gar sehr verschieden auf uns würket, ja nachdem wir uns in einer Lage befinden. Diese Lage, die man auch die Stimmung des Gemüthes nennen könnte, bringt also den verschiedenen Ton in dem Ausdruck der Rede hervor», JOHANN GEORGE SULZER, *Allgemeine Theorie der Schönen Künste in einzeln, nach alphabetischer Ordnung der Kunstwörter auf einander folgenden, Artikeln abgehandelt*, 2 vols., Leipzig, Weidmanns Erben und Reich, 1771-1774, II, pp. 1159-1160.

The attunement of the mind, then, involves the conditioning of the receptive faculties, so that to allow an idea or impression to have a distinct impact on the mind of the recipient depending on its attunement. This explication is consistent with the way in which the word is defined in encyclopedias and dictionaries around the turn of the 19th century. In the *Wörterbuch der Deutschen Sprache* of 1808, «*Gemüthsstimmung*» is defined as «the state of the mind when it is particularly sensitive to one or the other type of impressions». ⁵⁷ A re-attunement of the mind involves a reconstitution of the receptive faculties, where the receptiveness towards certain forms of impressions is heightened, while other impressions are muted. It is not surprising, then, to find the terminology widely used in a theological context, where it was employed to account for central concepts of moral conduct, such as devotion, virtue/sin, conversion etc. ⁵⁸ Music, by virtue of being a tool for tuning the mind, does not merely work to change the physical environment of air, but also, and more importantly, the moral ambience. The holy style refers to a certain progression of passionate states and sentiments, which, through its refined form of emotional speech, causes a complete re-attunement of the mind. Morality and the will are improved through a musical retuning of the receptive faculties in such a way that the good things and virtuous acts appear desirable, whereas the bad things and sinful acts appear unpleasant and thus are avoided.

Forkel's vibration theory of attunement of the mind has something in common with the theory of association proposed by the most famous advocate of the idea of nerve vibration, the English philosopher David Hartley. ⁵⁹ Hartley proceeds from Isaac Newton's ideas about a vibrating subtle spirit (*ether*), which Hartley seeks to integrate into a psycho-

⁵⁷ «Die Stimmung des Gemüthes, der Zustand des Gemüthes, da es für die eine oder die andre Art der Eindrücke besonders empfänglich ist», *Wörterbuch der Deutschen Sprache*, ed. by Joachim Heinrich Campe, Braunschweig, Schulbuchhandlung, 1807-1811, II (1808), p. 306.

⁵⁸ A dictionary published in 1797 defines devotion (*Andacht*) as «die Stimmung des Gemüths zur Empfänglichkeit Gott ergebener Gesinnungen. Wenn nemlich das Gemüth durch irgend etwas fähig gemacht wird, solche Gesinnungen anzunehmen, die dem Willen Gottes gemäss sind, so ist der Zustand, worin das Gemüth sich befindet, Andacht» («[Devotion is] the tuning of mind to the receptivity of sentiments subservient to God. Namely, if the mind is enabled by something to adopt sentiments that are in accordance with the will of God, then the state in which the mind finds itself is that of devotion»), GEORG SAMUEL ALBERT MELLIN, *Encyclopädisches Wörterbuch der Kritischen Philosophie, oder Versuch einer fasslichen und vollständigen Erklärung der in Kants kritischen und dogmatischen Schriften enthaltenen Begriffe und Sätze, mit Nachrichten, Erläuterungen und Vergleichen aus der Geschichte der Philosophie begleitet, und alphabetisch geordnet*, Züllichau, Friedrich Frommann, 6 vols., 1797-1804, I, pp. 203-204; Wilhelm Martin Leberech de Wette (1780-1849) explains in his *Christliche Sittenlehre* (1819) that virtue and sin could be seen as different attunements of the mind: «Die Tugend ist die harmonische Stimmung des Gemüths [...]. Sünde dagegen ist [...] die von Leidenschaften und Wollust getrübe Stimmung des Gemüths» («Virtue is the harmonious attunement of the mind [...]. Sin, however, is [...] the attunement of mind clouded by passions and voluptuousness »), WILHELM MARTIN LEBERECHE DE WETTE, *Christliche Sittenlehre*, 3 vols., Berlin, G. Reimer, 1819-1823, II: *Allgemeine Geschichte der christlichen Sittenlehre*, tome 1 (1819): *Geschichte der vorchristlichen und altkatholischen Sittenlehre*, p. 222.

logical theory of association of impressions and ideas derived from the philosophy of John Locke (1632-1704). The basic neurophysiological principle was

that external stimuli caused small backward and forward motions, or oscillations, like the “trembling of sounding bodies”, within the sensory nerves. The vibrating particles in the nerves were postulated to lead to diminutive vibrations (“vibratiuncles”) in the soft, “medullary substance” of the brain, which he believed was the seat of the rational soul.⁶⁰

Although Hartley presumed that these vibrations in the nervous system would normally fade and die away after some time, there was nevertheless the possibility, as Stanley Finger points out, that «repeated exposure to a particular vibration could change the medullary substance so that it would be more likely to vibrate in a specific way when disturbed again and again».⁶¹ Repeated overlap of two distinct vibrations would lead to modifications in the medullary substance so «that if just one vibrated, it would still be capable of triggering the vibratory changes of the other». Furthermore, he «argued that a given sensation could bring forth many ideas, not just as a result of being synchronous but because of other associationistic principles and the physics of resonance, simple ideas could be turned into very complex idea by such mechanisms».⁶²

While Hartley’s theory of association accounts for the way in which complex ideas emerge from simple impressions through daily exposure to the environment, Forkel’s theory of church music deals with the transformation of passionate states into attunements of the mind, the latter referring to the pre-conceptual framework in which the world is encountered. Furthermore, while Hartley and the associationistic tradition place the individual soul at the center, the individual resides in the background in Forkel’s account. The musical impressions to which the congregation is exposed are fundamentally shared and preprocessed. This involves an interesting reversal of the psychological priority between environment and soul from that which is prevalent in the empiricist tradition to which

⁵⁹ A comprehensive discussion and historic contextualization of Hartley’s theory of nerve vibration is provided in: R. ALLEN, *David Hartley on Human Nature*, cit., pp. 83-129.

⁶⁰ S. FINGER, *Origins of Neuroscience*, cit., p. 336.

⁶¹ *Ibidem*, p. 337.

⁶² *Ibidem*. In Germany Hartley’s theory of nerve vibrations was popularized by the physician and philosopher Melchior Adam Weickard, who supplemented Hartley’s theory of vibration with the notion of a tuning (*Stimmung*) of the nerves. Hartley’s complex of idea was envisioned by Weickard, as Caroline Welsh has shown, «as a group of fibres which had acquired the same “*Stimmung*”, i.e., they were tuned in harmony with each other so that all fibres belonging to one cluster resonated as soon as one of them was set in motion». Welsh maintains that this idea of tuning differs from Hartley’s cluster of vibrations in that the former «allowed for the idea of “retuning” (*Umstimmung*). [...] Like different musical keys, a specific *Stimmung* of the brain would automatically enhance particular chains of association not common in another *Stimmung*», C. WELSH, «*Stimmung*», cit., p. 272.

Hartley belongs. The human nervous system is extended out into the surrounding environment through its direct casual connection with the fluid medium of air. Holy music transforms the physical space of everyday life into «a theater of the heart». The ambience of everyday life is substituted with an orderly and carefully designed emotional environment, in which the individual members of the congregation disappear. The central part of the collective nervous system of this super-personal being resides in the air. In this divine ambience, emotional states are associatively combined and transmitted out to the periphery of the system, that is, the individual soul. *Figuralmusik*, then, earns its justification on the ground that it could accomplish the wonders traditionally associated with the Holy Spirit by purely natural means.