The Early Baroque Toccata and the Advent of Tonality
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How did tonal music originate? An investigation of the form and tonal structure of some early Baroque keyboard works suggests some insights not only into one of the primary questions of historical musicology but into how we understand tonality itself. Italian composers of the early seventeenth century recognized that the stile moderno and the seconda pratica stood in contrast to older types of composition. Yet, while the new manner of counterpoint was essential to certain genres, such as monody and the continuo madrigal, composers seem to have made no fundamental break with the past in their conceptions of the theory and practice of composition. The methods of composing (and improvising) polyphony that had been codified by Zarlino in the sixteenth century continued to form the basis of musical training, despite the innovations in dissonance treatment found in the seconda pratica. While later treatises like Christopher Simpson’s Division-Violist (London, 1659) eventually provided instruction in the improvisation of variations over a basso ostinato—a technique essential to Baroque variation forms, including the keyboard partita and the strophic aria—it seems clear that for musicians of the early seventeenth century most of the musical innovations that we recognize as typically Baroque, such as the harmonic basis of the new approaches to counterpoint, remained unarticulated intuitions hidden beneath the official doctrines of Renaissance theory.¹

Thus, while harmonic progressions and perhaps other manifestations of tonality can be found at the surface of most early Baroque works, the essential structures often remain those of sixteenth-century music. To be taken seriously a composer evidently had to demonstrate his competence in the older style; hence two of the first three publications by the keyboard composer most closely identified with the emerging Baroque, Girolamo Frescobaldi, contain austerely contrapuntal ricercars and fantasias written in four-part open score.² These works look back to models that precede even Palestrina and Lasso, to the continuous style of imitative polyphony characteristic of the post-Josquin generation. They differ substantially, not only in notational appearance but in form, expressive character, and degree of popular appeal (at least for modern audiences) from Frescobaldi’s work in the new genres: toccatas, variation sets (partite), and dances written in two-staff keyboard format.

The toccatas and partitas, together with similar compositions by Frescobaldi’s followers, constitute one of the most eccentric and baffling repertories of Western music. With their


² Il primo libro delle fantasie a quattro (Milan, 1608) and Ricercari et canzoni franzese (Rome, 1615).
Baroque extravagance of gesture and freedom of form, they are particularly uncongenial to listeners predisposed toward more regularly patterned works. One likely reason is that these compositions were not conceived as integral works for public performance in concert or recital; they were meant either for service in the liturgy or for the private delight and edification of students and musicians. Hence the composer’s allowance in his prefaces for separate performance of individual sections of certain pieces; one or two compositions even include indications of the alternative cadences at which the music can be brought to a halt. Such designs cannot have been simply concessions to liturgical necessity or to the tendency of players to skim through collections, arbitrarily selecting brief portions of individual pieces for momentary playing. Rather, they are an expression of a basic element in the aesthetic of composition and performance in Frescobaldi’s time. As Frederick Hammond suggests, “The emphasis in Girolamo’s prefaces on the sectional independence of both toccatas and variations raises the question of whether they were intended as cumulative entities or were conceived as merely additive structures.” While one might discern large-scale planning in certain revisions, such as those of the Romanesca variations, in most cases the formal designs do seem to be additive—which does not imply that they are “merely” so.

A more fundamental difficulty for the modern analyst or critic is the pitch-structure of the music, which, as Hammond re-affirms, is “neither clearly tonal nor clearly modal.” To put it that way, however, is to suggest a dichotomy between two distinct systems of pitch organization, neither of which necessarily rules out the other in any repertory, before or after the age of common practice. From our vantage point we can discern certain symptoms of a transition toward tonality in theoretical thought, such as the emergence of what have been called “tonal types” in late

3 As in the ricercars in the *Fiori musicali* (Venice, 1635). Frescobaldi refers to the practice in the prefaces to the *Fiori musicali* and to the first book of toccatas and partitas (Rome, 1615–16). Anthony Newcomb interprets Frescobaldi’s remarks as primarily a concession to practical considerations (*duttilità d’uso*) in “Guardare ed ascoltare le toccate,” in *Girolamo Frescobaldi nel IV centenario della nascità: Atti del Convegno Internazionale di Studi* (Ferrara, 9-14 settembre 1983), ed. Sergio Durante and Dinko Fabris, Quaderni della Rivista Italiana di Musicologia a cura della Società Italiana di Musicologia, vol. 10 (Florence: Leo S. Olschki, 1986), 284. His argument that the toccatas are organic unities, not “centi,” derives primarily from a view of each toccata as an elaboration of “un paradigma procedurale flessibile” (p. 286) defined largely by the motivic and rhythmic elements employed in successive sections.


5 Ibid., p. 153. Newcomb’s discussion of harmony and tone structure appears to slight the modal aspects of the music. For example, the “chiaro disegno tonale” of one section of Toccata 9 (Bk. 1) can be discerned only by stressing certain fleeting perfect cadences (e.g., to d at m. 36) over equally fleeting plagal ones (to e at m. 31, to a at m. 32). Since this work is analyzed as being essentially in A minor, the cadence to A major in m. 46 is understood as a “surprise”—a “rinuncia alla cadenza frigia sul Mi” (p. 293)—although it can also be heard as a simple plagal arrival on the chord of the *finalis*. 

An arbitrary additive design would not be entirely inappropriate in a style that aims at spontaneity and constant improvisatory surprise. But to leave it at that would imply that Frescobaldi took an even more cavalier attitude to such matters as the coherence of the pitch structure than may actually have been the case. A search for Frescobaldi’s conception of tone structure in its simplest form might begin with two toccatas belonging to a special sub-genre in which the entire piece is built upon a small number of successive pedal-points. The fifth toccata in Frescobaldi’s second book of toccatas and partitas (Rome, 1627) consists of a series of free improvisations over the sustained bass tones G, C, F, A, and D, concluding in a single G-major chord. Hammond summarizes this as “two rising fifths (G, C, F) and two falling fifths (A, D, G) linked by a mediant relationship.” But while Hammond is careful to avoid assuming the presence of common-practice tonality, this description, especially the mention of a “mediant relationship,” may nonetheless raise undue expectations in a tonally oriented reader. For the score bears no key signature, and the tone structure...
structure of the work has at least as much to do with “Mixolydian” (mode 7 or 8) as “G major.”

This is apparent in the three “rising fifths,” whose goal is the tone one whole step below the final, F-natural. Even the very opening of the piece suggests a distinctly non-tonal pitch organization in its insistence on F-natural and on the tonally non-functional C-sharp. (Ex. 1)

The peculiar mannerism of the raised fourth degree is fairly common in music of this period. It occurs again in this toccata above the note C, and elsewhere in Book 2 at the beginnings of Toccatas 3 and 11. The device should serve as a warning that a chromatic sign like <raised fifth degree> has quite different functions in pre-tonal and in tonal music.

Music written well into the seventeenth century, not only in the polyphonic genres of the stile antico but in the free genres of the stile moderno, frequently employs homophonic passages replete with what, for want of a better term, we may designate modal chord successions: series of consonances that do not fall into any of the archetypal cadential patterns that define harmonic function. The tones of a modal chord succession are derived from the diatonic gamut available in the “tonal type” or “pitch-key mode” of the work—more loosely, its modal scale. The bass may, as in Frescobaldi’s toccata, proceed largely through the leaps characteristic of tonal bass lines; as

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8 It bears repeating that a mode as such is merely a category in which a monophonic melody or a single part from a polyphonic composition can be placed. To assign a polyphonic piece to a mode on the basis of the mode of its tenor was standard practice in the sixteenth century. But the meaning of “mode” becomes unclear—it approaches the status of a diatonic scale—when it is applied to pieces like a toccata which are not conceived as fabrics of independent real voices. The “pitch-key modes” mentioned previously seem to be scales of this sort, not true modes.

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11 My understanding of harmonic function here is essentially that of Riemann: harmonic functions are derived from generalized cadential progressions. Hence function is absent from a series of chords that does not refer to a paradigmatic cadential succession.
By “available pitches” and “permissible chromatic inflections” I do not refer to
limitations imposed by any system of keyboard temperament; Frescobaldi uses
enharmonic equivalents and knew keyboard instruments having more than twelve keys to the octave.
Restraints on the use of enharmonic equivalents or extreme sharps or flats probably arose from an
ingrained sense of the types of chromaticism—the particular sets of accidentals—appropriate to
each genre and each “pitch-key mode.”

“realized” in the toccata, each bass tone generates a triad which is arpeggiated in the upper
voices. But the notes of the triads, and the passing tones that embellish them, are mostly drawn
from the “white” notes of the keyboard and not from the major or minor scales of successively
tonicized keys. Even the B-flats appearing frequently in the section over the bass note F are best
understood like the ficta flats imposed for euphony in sixteenth-century compositions with F as
final; the clearest proof of this is the easy manner in which the accidental is omitted and B-natural
allowed to stand, especially in ascending figures. Thus the pedal tones represent neither functional
triads in the key of G major nor secondary key areas related to a tonic key. Instead the music over
each of the pedal points has a distinct modal character—it represents something analogous to a
modus commixtus in sixteenth-century music—determined by the available diatonic pitches and
their permissible chromatic inflections.12

The last pedal point, on D, prepares the closing sonority in what would seem to be a clear-cut
instance of a dominant-tonic succession at a level of deep structural significance. The final
cadence itself is certainly a functional progression from V to I. The section on D likewise
commences in a D-major sonority that might be understood as a dominant harmony prolonged
through the entire section. Yet the major third arises as a so-called Picardy third in the final chord

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of the cadence of the preceding section. Thus, despite the Picardy third, the tonality at the beginning of the pedal on D is really D _minor_; to use modal terminology, the two most active voices in mm. 54–7 delineate mode 2, the Hypodorian, as they approach the cadence on D. (Ex. 2)

In fact the section over the D pedal constitutes a period of prolonged ambiguity in which the third of the triad oscillates several times between the “natural” minor and the “ficta” major. Such “indecisiveness”—to borrow a term used somewhat differently by Carl Dahlhaus[^13]—is in fact a defining characteristic of the tone structure of this and similar pieces, which for the most part employ a “modal” scale but usually end in a tonal V–I cadence. It is a reflection of Frescobaldi’s genius that the chromaticism implicit in the tone structure of the work as a whole is literalized in the final section, not only in the oscillations between F-natural and F-sharp but in the chromatic points of imitation, which represent the affective climax of the piece. It would be an over-simplification to describe this section in Schenkerian terms, as prolongation of the dominant; rather it prolongs an implied chord on D that is simultaneously major and minor. The major form emerges as (pre-)dominant toward the end of the section, closing the piece in a functional harmonic progression. The latter, however, does not reflect a deeper structure, nor is it the realization of something strongly implied in the preceding portion of the work, as would probably be the case in a fully tonal composition.[^14]

Such harmonic twists, establishing the functionality of a prolonged sonority only in the approach of a cadence, are common in Frescobaldi’s toccatas. They represent an important accomplishment of Frescobaldi and perhaps other early Baroque composers: the shaping of pieces and the creation of structural tensions through the gradual assertion of harmonic functionality at important articulations. This process differs from the tonal procedure of passing between tonal stability and instability—a procedure essential to any modulation—in that here the passage is one into and out of tonality itself.[^15]


[^14]: A comparable process occurs at the end of the other pedal toccata, Toccata 6, where the penultimate pedal note C bears a chord that shifts from major to minor and back to major prior to the final F. In addition, an earlier pedal-point also on C shifts from major to minor in preparation for the following pedal-point on G, which bears a chord of G minor; thus the function of the chord on C shifts from V to iv of ii.

[^15]: I would not, however, apply the loaded term “atonal” to the non-tonal or weakly tonal passages in Frescobaldi’s music, as Edward Lowinsky did to certain chromatic passages in sixteenth-century polyphony; see _Tonality and Atonality in Sixteenth-Century Music_ (Berkeley and Los Angeles: University of California Press, 1962).
Ex. 2. Frescobaldi, Toccata 5, Book 2, mm. 54–71

There are good reasons for regarding all of Frescobaldi’s toccatas as being based on the type of tone structure found in the pedal toccatas. In the pedal toccatas the motion from each pedal-point to the next is accomplished through the introduction of conventional cadential formulas into the upper parts at the end of each pedal note. Thus the immediate passage from one bass tone to the next is strongly implied, becoming a genuine functional progression—indeed, one of great urgency and expressive power—even though the bulk of each pedal-point is heard in relation only to itself. In Frescobaldi’s other toccatas, in which each successive harmony is prolonged only briefly, harmonic functionality continues to operate only near the surface, if at all; one might say that from time to time brief sequences of chords are promoted from modal chord successions to tonal harmonic progressions, particularly at cadences. The greater complexity of the non-pedal toccatas raises the possibility of their containing more sophisticated, multi-level tonal structures characteristic of later tonal music—modulations, in other words. But descriptions of formal designs in these works that imply the presence of modulation in the tonal sense must be closely examined.

Toccata 11, from the same collection as the pedal toccatas, proceeds from an opening on G (very similar to the opening of the pedal toccata) to what we would call a half-cadence ending on an E-major chord. Should we understand this passage in tonal terms, as modulating to A minor and ending on V/ii\(^{16}\) (Ex. 3) The first phrase (mm. 1–5) elaborates a succession of sonorities that end

Ex. 3. Frescobaldi, Toccata 11, Book 2, mm. 1–21

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\(^{16}\) Hammond, p. 175, implies an even more elaborate tonal hierarchy in which the music passes to “a cadence not on a degree closely related to the finalis (I, IV, V, V of V), but on VI established as V of v of v.”
on the same E-major chord as the section as a whole. Despite numerous chromatic inflections, the
tones of the upper lines seem to be drawn primarily from the diatonic scale, which is that of mode
7 or mode 8 (not G major), as m. 3 shows. Hence the chord on D that is prolonged from the
second half of m. 3 through m. 4 is of the “indecisive” variety, simultaneously major and minor,
with the major third arising as a chromatic inflection in the ascending alto and bass lines. This
D-chord probably has no dominant function; it is simply part of the modal chord succession
G–d/D–a–E, in which only the last two chords strongly suggest a tonal relationship, that is, a
half-cadence in A minor.

In at least two other passages the opening section of the toccata tonicizes A minor, if only briefly;
this occurs in mm. 14–15 and at the end. In each case the tonality is defined through its dominant.
Elsewhere, one or two triads likewise emerge as recurring points of arrival, though without
behaving as functional harmonies except in the most local contexts. The tone structure of the
piece might be likened to a constellation of focal triads, one of which, the triad built on the final,
ultimately serves as a final tonal center. But this tone center, the G-major chord, does not join
with any other triad (e.g., its dominant) to form a simple bipolar axis such as often occurs in tonal
music. In the opening section the principal focal triad is not even that on the final, G, which is
avoided after the opening measures. It is instead the A-minor triad, together with its dominant E
major; phrases dominated by these sonorities seem to alternate primarily with passages centered
on the D-minor triad. At the end of the piece the triad on G emerges as the final tone center in a
passage in which harmonic functionality—the “dominantness”—of the chord on D emerges
through multiple repetitions of a cadential formula.

The moments of coalescence around a particular tone center seem to correspond with points in
the toccatas that Hammond describes as involving the establishment of a sort of “focus.” Similar
types of momentary consolidation are achieved by the occasional sequence, by the regular
repetition or imitation of a motive, or by the temporary establishment of a regular harmonic
rhythm. Most such moments of “focus” are nothing more or less than passages in which tonality is
clearly established. Yet the focal triads themselves do not necessarily correspond with the most
closely related keys in the tonal sense. The importance of A or E as a centric tone in pieces with G
final, such as Toccata 11, is not freely transposable. The note E has no analogous role in works of
Frescobaldi with D final, and chords on E do not for part of the constellation of focal triads in
such pieces. Despite local manifestations of tonality, the choice of focal triads in a given work
remains dependent on the final.

Toccata 11 as a whole has a peculiar character from a tonal point of view because the focus on
chords on D and G, E and A, and elsewhere on C and F, occurs only at the most superficial level.
The recurring A-minor chords in the first section clearly relate to one another, as the E-major
chord in bar 22 echoes the one in bar 5, but they do not define a tonality except very
locally—within the space of a bar or two. The piece does not modulate from G major to A minor
in the course of the opening section, but rather it slides fluidly from a phrase dominated by one
center to a phrase tending toward another. Hence the impression that the toccatas create of
fleeting moments of stability or clarity linked by rhapsodic, unpredictable improvisations. The

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17 Frescobaldi, 178.
points of stability coincide with the establishment of local tonics, but because these tone centers do not fall into a large hierarchic tonal design they resemble the non-functional “poles of attraction” that Stravinsky, speaking presumably of a very different repertory, described in his Poetics of Music.\(^{18}\)

In the course of the seventeenth century, modal chord successions were nearly eliminated while the hierarchic tonal designs underlying binary and ternary form became commonplace. But the historical development was not a linear one. A number of Frescobaldi’s younger contemporaries go considerably farther than he in combining locally tonal procedures with strange and eccentric devices that can be understood as logical extensions of some of Frescobaldi’s. Several works by Michelangelo Rossi have become famous for such exotica as the chromatic scale in parallel thirds that forms the climactic ending of his Toccata 7.\(^{19}\) But perhaps the most striking feature of some of Rossi’s toccatas is their movement between extremely distant keys through very sudden tonal shifts.

Toccata 7, which begins and ends in D minor, makes a flying leap at m. 15 out of the scale of B-flat to the chord of E major. (Ex. 4) In mm. 13–14 the key is certainly B-flat; afterwards it is A. Yet the design of the piece depends not on these keys as such but on their role as representatives of sharp and flat areas: not key areas, but sections of the the diatonic gamut that have been altered by sharps and flats, respectively. Only the fundamental idea of leaving from and returning to a chord on the final is comparable with later tonal designs. None of the changes of key is confirmed; keys are touched upon and then forgotten. While the harmonic rhythm is generally quicker and the periods of established tonality longer and more frequent than in Frescobaldi, harmonic functionality has not reached very deep beneath the surface.

Hence when A major is tonicized in m. 16, it does not sound like or function as the structural dominant. Nor is the D major that succeeds it to be identified with the piece’s “tonic” (D minor). Both are part of an excursion into a “sharp” world distinct from the “flat” domain of the opening and closing sections. In the passage back to the “tonic,” the chord of D minor serves as a pole of attraction, the object not of a modulation but of a more chaotic process in which sharps are gradually shed and flats appear in their place. D minor is established at the very end in a way

\(^{18}\) Bilingual edition with English translation by Arthur Knodel and Ingolf Dahl (Cambridge, Mass.: Harvard University Press, 1970), p. 47. From the context, Stravinsky appears to be presenting a general theory of tone structure in Western music and not merely a description of his own procedure, which is how the passage is usually read. Stravinsky’s terms pôle sonore and complexe sonore need not be restricted to polar pitches or pitch-class-sets, as the English translation implies.

\(^{19}\) What I call a scale in thirds is notated in terms of a keyboard tuned without enharmonic equivalents; hence it contains diminished fourths, such as g#/c. The dating of Rossi's sole keyboard print has been a matter of some controversy, but the first edition seems to have appeared no later than 1634. See Alexander Silbiger, “Michelangelo Rossi and His Toccate e Correnti,” JAMS 36 (1983): 18–38, and the subsequent exchange with Gregory Butler in JAMS 36: 544–5 and 37: 437–9.
Ex. 4. Rossi, Toccata 7, mm. 13–16

Ex. 5. Rossi, Toccata 7, mm. 79–87
The editorial numbering of Froberger's suites has no chronological basis. On stylistic grounds the piece seems to be later than the five suites of the autograph collection dated 1649, and perhaps coeval with those of the 1656 collection. Most of Froberger's music is, in fact, tonal in a strong or profound sense of the word, employing modulation to functionally related keys as a basic structural principle. Yet occasional works, even some in binary form, recall the more weakly tonal procedures of Frescobaldi or Rossi.

The first half of an Allemande in D major concludes in an unexpected, and by eighteenth-century standards unprepared, cadence to F-sharp minor. The F-sharp minor chord in m. 11 is hardly a mediant in the tonal sense; it is the result of an expressive turn away from the expected E major at the last possible moment, in the measure preceding the cadence. An unsympathetic listener might say that Froberger simply did not understand that a distant modulation requires a special type of preparation and subsequent confirmation. But this would be missing the point. For Froberger reserves the right to depart altogether from tonal relationships; F-sharp represents such a departure, although within a measure after the double-bar the music returns to ordinary tonality.

Such passages are rare in Froberger's music. They probably occur for the same special expressive purposes that led earlier composers to use chromaticism or unusual harmonies, such as F-sharp minor. Even when duly tonicized, F-sharp minor and other distant areas are not quite keys at all in Froberger's music, in the same sense as, say, D major. Ricercar 6, bearing a signature of four sharps, is certainly not in C-sharp minor, despite its conclusion on a chord of C-sharp (with Picardy third). It is, rather, in a sort of transposed Phrygian pitch-key mode, as the frequent flattening of the second degree suggests. Thus the D-natural in the final cadence is not the flattened second degree of a tonal scale but an integral element of the piece's tone structure. The absence of a strong tonicization of C-sharp anywhere in the piece, except in the closing cadence of each section, is not a mark of Froberger's failure to understand tonality, but of his invention here of an unprecedented tone structure—a real case of Baroque modality, not the spurious modality suggested to some modern writers and editors by the use of "incomplete" key signatures for some minor keys.

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21 The expressive character is not necessarily pathetic; there is at least an element of parody or bizzaria in many of the more recherché ricercars on chromatic subjects by Froberger and later composers.

22 The piece comes last in the autograph collection dated 1658.
Ex. 6. Froberger, Suite 20, Allemande, mm. 1–11

Es. 6: J. J. Froberger, Suite XX, Allemande, miss. 1-12.
The question in such pieces is not of the presence or absence of tonal principles. It involves asking at which structural levels modal as well as tonal principles operate, how they interact, and to what degree the piece has the deeply hierarchic structure characteristic of tonal music in the eighteenth and nineteenth centuries. The evolution of such structures—in particular, the increasing use of genuine modulation and secondary tonicization—represents the real development of tonality.