

RESEARCH ARTICLE

Holding Time: Pedal Points and Formal Scale in Bach's Well-Tempered Clavier, Book I

Arnold Whittall^{1,*} and Stephen Owen²

¹Department of Music, King's College London, London, United Kingdom

²Department of East Asian Languages and Civilizations, Harvard University, Cambridge, United States

Correspondence: a.whittall@kcl.ac.uk

Abstract

Pedal points are usually defined by pitch persistence, yet duration alone does not explain why some anchors sound structurally decisive while longer repetitions recede into texture. This article studies sustained and reiterated bass supports in the C-major, C-minor, E-flat-major, and B-flat-minor prelude-and-fugue pairs from Book I of J. S. Bach's *Well-Tempered Clavier*. Each pedal episode is heard as a four-part process: preparation, anchoring, contrapuntal or harmonic activity above the anchor, and release. The comparison shows that pedal function depends on the contrast between local motion and tonal restriction. In the C-major pair, patterned continuity makes cadential anchoring a change in temporal weight; the C-minor pair opposes motoric drive and rhetorical arrest; the E-flat-major pair uses anchoring to negotiate unusually broad sectional scale; and the B-flat-minor pair allows low-register persistence to gather retrospective force within chromatic density. Prelude-fugue pairing further demonstrates that a repeated pitch can act as accompaniment in one context and as formal memory in another. Pedals in these works do not stop musical time. They divide it into parameters moving at different rates.

Keywords: J. S. Bach; pedal point; temporality; register; fugue; formal function

1 Introduction

A pedal point presents a productive contradiction. One pitch persists while the music around it changes. Traditional definitions emphasize the sustained or reiterated note, normally in the bass, against which other voices produce consonance and dissonance. That description identifies the object but not its temporal effect. A long bass note may stabilize a cadence, intensify dissonance, prolong expectation, recall an earlier tonal region, or simply belong to a repeating accompaniment. The same pitch behaviour can therefore support different formal functions.

This article asks how Bach makes persistence audible at more than one scale. The selected preludes and fugues differ in texture, proportion, affect, and contrapuntal density. Their comparison shows that an anchor becomes formally meaningful through its entrance and departure. Preparation establishes a rate of harmonic and registral change; the pedal restricts one parameter while allowing others to continue; release restores, redirects, or closes motion. Pedal function is consequently relational rather than durational.

The problem bears on broader accounts of musical time. Schenkerian prolon-

gation distinguishes structural continuity from surface events [1]. Theories of form identify functions through their position in directed processes [2]. Studies of Bach's invention demonstrate that motivic activity and tonal planning cannot be separated [3], while scholarship devoted to the *Well-Tempered Clavier* supplies the work-specific analytical context [4]. A semiotic approach to musical meaning further supports asking how a local sonority acquires significance through relation and position [5]. Pedal points provide a focused site at which these perspectives meet.

The article first defines anchor, field, release, and aftermath, then compares four prelude-fugue pairs, and finally discusses preparation, parameter-specific motion, formal memory, and performance limits. Its contribution is to explain pedal function as a temporal process rather than a property determined by duration alone.

The analysis of pedal points is situated within Bach's compositional development and learned practice. Wolff connects the keyboard works to the composer's institutional, pedagogical, and intellectual environments [6]. Jones traces the changing compositional procedures through which Bach generated continuity and large-scale design [7].

2 Anchor, Field, Release, and Aftermath

The corpus comprises BWV 846, 847, 852, and 867 from Book I of *The Well-Tempered Clavier* in the cited score [8]. Each prelude is read with its fugue, not because the pair forms a single continuous composition, but because shared tonic and adjacency invite comparison of temporal strategies. The four keys also provide contrasting textures: arpeggiated regularity, motoric and improvisatory contrast, sectional breadth, and chromatic saturation. General scholarship on Bach's keyboard music provides context for relating notated structure to instrument and genre [9].

An anchor episode is identified when a pitch remains literally sustained, is reiterated in the same register, or governs successive sonorities strongly enough to be heard as a stable support. Four features are then recorded. Preparation describes the texture and harmonic pace before the anchor. The field comprises the voices and harmonies heard above it. Release identifies the first convincing change of bass support or tonal function. Aftermath asks whether the released pitch disappears, returns, or remains active in memory. Eighteenth-century compositional theory supplies historical context

for this attention to bass, counterpoint, and harmonic implication [10].

This vocabulary avoids treating every repeated bass as a pedal. Patterned accompaniments often retain a pitch because the figuration cycles through it, but persistence becomes structurally marked only when surrounding processes cause the listener to hear restriction as restriction. Conversely, a relatively brief anchor can be decisive if it occurs at a formal boundary. Duration is evidence, not definition.

The analysis is score based. It discusses notated register, rhythm, texture, and harmonic implication but does not claim that all performances create identical perceptual hierarchies. Tempo, articulation, instrument, tuning, and pedalling affect the salience of persistence. Those variables belong to performance analysis and are acknowledged below.

3 BWV 846: patterned continuity and cadential weight

The C-major Prelude establishes an unusually consistent arpeggiated surface. Successive harmonies occupy a recurring figural frame, so the listener measures time through regular renewal. Bass change is one of the principal signs that the harmonic field is advancing. When support becomes more stationary near points of cadential emphasis, the effect is not simple stasis. The accompaniment continues to articulate pulses, but the bass ceases to contribute the same degree of directional change.

This separation of rates gives the closing process weight. Surface motion remains plentiful; tonal distance contracts. The anchor therefore feels stronger than its notation alone would predict because it is heard against a long history of patterned harmonic succession. Preparation is distributed across the prelude: regular figuration trains attention to the bass as a quiet measure of change.

The Fugue produces persistence differently. Contrapuntal entries and episodes make voice identity mobile, and bass support must be heard within imitation rather than beneath an invariant accompanimental pattern. A Schenkerian approach to fugue supports examining how contrapuntal events participate in larger tonal spans [11]. A closing pedal gathers subject-related activity over a tonal foundation whose stability becomes progressively harder to ignore. The pedal does not suspend counterpoint. It turns counterpoint into evidence of controlled arrival. Heard after the Prelude, the Fugue converts the idea of anchored continu-

ity from accompanimental condition to contrapuntal culmination.

4 BWV 847: motion, interruption, and rhetorical arrest

The C-minor Prelude places rapid, regular activity beside a later change of tempo and rhetoric. Its motoric opening encourages hearing by accumulation: the repeated figural energy seems capable of extending itself. The subsequent loosening of that continuity makes bass persistence newly conspicuous. An anchor within or near the rhetorical closing region does not merely prolong harmony; it marks the point at which measured drive yields to a more declamatory sense of time.

Preparation here is therefore textural. The significance of a pedal lies in contrast with a surface that has made forward motion feel almost automatic. Dissonances above the support can intensify while the underlying tonal space narrows. This is the opposite of simple relaxation. Harmonic confinement increases pressure because upper voices continue to seek resolution against a bass that refuses to move.

The Fugue presents a related problem at higher contrapuntal density. Subject entries keep redistributing attention among voices, so an emerging bass anchor competes with recognizable melodic events. Its formal force is confirmed by aftermath: once the pedal has concentrated the tonal field, release is heard not as one more contrapuntal move but as completion. The C-minor pair thus dramatizes pedal time as arrested propulsion. Stationarity becomes audible because rhythmic and imitative activity remain insistently alive.

5 BWV 852: anchoring across sectional breadth

The E-flat-major Prelude is expansive and internally differentiated. Changes of texture and contrapuntal disposition make its formal scale broader than that of the compact, continuously arpeggiated C-major Prelude. Comparative work on unity in Bach's instrumental designs provides a useful context for relating local continuity to larger span [12]. In such a design, an anchor can do more than intensify a local cadence. It can connect sections whose surfaces imply different ways of moving.

Low-register persistence supplies a common gravitational reference when upper voices change density or imitative behaviour. The effect resembles a hinge: the bass limits harmonic departure while

the texture negotiates a shift of character. Because the prelude contains several levels of continuity, pedal function must be heard in relation to sectional memory. The listener compares not only adjacent harmonies but the present anchoring with earlier ways the tonic and dominant regions were established.

The Fugue sharpens this retrospective dimension. Subject and countersubject produce continuity through recurrence, whereas a pedal concentrates continuity in one pitch and register. Near formal closure, these two modes intersect. Imitative identity continues above a support that recalls the tonal ground from which the fugue has ranged. The anchor is thus both present-tense restriction and memory of origin. Its release does not erase that memory; it allows the final cadence to sound as the consequence of accumulated return.

6 BWV 867: register inside chromatic density

The B-flat-minor pair places anchoring within a darker register and more saturated chromatic environment. Here a bass pitch may remain functionally important even when surrounding semitonal motion complicates its immediate harmonic interpretation. Register helps preserve identity. A low recurring support occupies a distinct acoustic location, allowing the ear to retain it while upper voices thicken the field.

In the Prelude, persistence can therefore operate as resistance to chromatic dispersal. The anchor does not remove ambiguity; it gives ambiguity a point of reference. Preparation often consists of increasing harmonic density rather than straightforward approach to a cadence. When the support finally releases, the change can feel large even if the bass moves by a small interval, because the earlier pitch has accumulated registral and temporal weight.

The Fugue extends this process through contrapuntal memory. Subject entries make pitch-class and intervallic relations recur in changing voices, while a later bass anchor offers a different kind of recurrence: fixed register. These two memories—motivic and registral—are not identical. Their interaction helps explain why the closing span can sound inevitable without sounding static. The subject continues to articulate process; the pedal gathers that process into a bounded tonal field.

7 Preparation matters more than length

The four pairs demonstrate that a pedal's duration has no stable formal meaning. A long anchor may pass with little emphasis if the preceding texture has already normalized bass repetition. A shorter anchor can control a transition when it interrupts an established rate of change. Preparation determines the listener's baseline and therefore the perceptual size of the restriction.

Three preparatory conditions recur. Harmonic preparation points toward a dominant or tonic field before the bass settles. Textural preparation changes density or figuration so that persistence enters as contrast. Registral preparation makes a low pitch newly salient by approaching, vacating, or repeatedly recalling its acoustic space. These conditions can reinforce one another, but their balance differs across the corpus.

Release is equally diagnostic. If the bass moves and the surrounding texture immediately resumes an earlier pattern, the pedal may function as interruption. If release coincides with cadential completion, the pedal behaves as accumulation. If the pitch returns after apparent release, it may connect distant portions of the form. Analysis should therefore define the entire episode rather than isolating the held note.

8 Discussion

Pedal passages make musical time plural. Rhythmic attack can remain rapid while harmonic motion slows; contrapuntal entries can multiply while the bass narrows tonal space; registral expansion can continue over a fixed pitch. The listener consequently receives incompatible cues about movement. Rather than cancelling one another, these cues create the characteristic tension of an active surface held by an immobile support.

This account avoids equating harmonic stability with perceptual rest. In the C-minor pair, for example, constraint can intensify rhetorical pressure. In the B-flat-minor pair, a stable register can make chromatic movement more, not less, palpable. The pedal serves as a reference against which other parameters disclose their rate.

The principle also clarifies the relation between prelude and fugue. Preludes often foreground a characteristic surface whose repetitions establish local temporal norms. Fugues distribute identity among voices through imitation. A pedal introduced into these textures reorganizes

different kinds of continuity. Pairing allows the same tonic field to be heard first through figuration and then through contrapuntal agency, revealing that persistence belongs to texture as much as harmony.

9 Retrospective hearing and formal memory

An anchor frequently acquires its strongest meaning after it has ended. Release makes the earlier restriction measurable. A later return can then recall not simply a pitch but the temporal condition associated with it. This is why pedal points participate in formal memory even when they are not thematic.

The memory is multiscalar. Locally, dissonance and resolution define the pedal span. At an intermediate level, the anchor shapes a cadence or sectional boundary. Across the entire piece, its register and tonal function may recall an opening support or prepare the final restoration of tonic. Prelude-fugue pairing adds another horizon, since comparable pitches and functions occur within contrasting textures.

Such retrospective hearing is analytically valuable because it explains why the end of a pedal is not merely the end of a note. The listener has learned a relation between fixed support and moving field, a process compatible with cognitive accounts of tonal expectation and grouping [13]. When either element returns, it can reactivate the relation in altered form.

10 Conclusion

Pedal points in the selected Bach pairs are best understood as temporal processes rather than isolated held notes. Preparation establishes an expectation of change; the anchor restricts bass motion while other parameters continue; release reveals the scale of the restriction; and later events can convert the episode into formal memory. The C-major pair derives weight from patterned continuity, the C-minor pair from the opposition between drive and arrest, the E-flat-major pair from sectional breadth, and the B-flat-minor pair from registral persistence within chromatic density.

These differences support a single precise conclusion: musical stationarity is parameter-specific. A bass can remain fixed while rhythm, counterpoint, register, and dissonance move at independent speeds. Bach uses that separation to make tonal support audible as action. The pedal holds time only by allowing other forms of time to pass over it. Be-

cause this score-based study does not test performance or perception, future work should compare editions, recorded realizations, and listener judgments of anchoring and release.

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