Hans Abrahamsen's Second Period: An Analysis of Wald

by

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Biographical Sketch

Here is the biography.

Acknowledgements

Here are the acknowledgements.

Abstract

Here is the abstract.

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Introduction

Danish composer Hans Abrahamsen's piece for large ensemble, Wald (2009), is a "series of variations" building on the opening of his earlier piece for woodwind quintet entitled Walden (1978). This return to his own music stemmed from a crisis in Abrahamsen's compositional life, between 1991 and 1999, when he took an extended break from composing. During this time, Abrahamsen experienced debilitating writer's block; he wrote that he was "paralyzed by the white paper" and "felt that his music had become so complex that he no longer had the tools to create what he tried to imagine." While he slowed in producing new compositions, he did not stop working. Throughout this period, which he calls the "fermata" of his compositional life, Abrahamsen found inspiration in arranging and orchestrating other composers' works as well as his own earlier pieces. This period of reflection and contemplation provided the necessary catalyst for a new stylistic period, one built upon the foundations of his first period but extended beyond it to new territory.

A precocious composer, Abrahamsen had written a well-received body of work by age 27 (1979) and he was a prominent figure associated with the Danish "New Simplicity" movement. This movement, largely a reaction against Darmstadt serialism, sought to "establish a perceptible sense of form and to evolve a new relationship with past musical styles and objects." Abrahamsen's pieces of this first period, including *Ten Preludes for String Quartet* (1973), *Stratifications* (1975), *Winternacht* (1976-78), and *Walden* (1978), blended the clarity of expression and economy of musical materials associated with "New Simplicity" along with elements of neo-classicism, neo-romanticism, and collage-like polystylism. Later first period works, like *Six Pieces*

¹Robin, "Hans Abrahamsen: Fame and Snow Falling on a Composer."

²Molleson, "A Composer for the Season."

³Ernste, "Hans Abrahamsen's Winternacht: Reflections on an Etching by M.C. Escher," 8.

(1984) for horn, violin, and piano, and *Märchenbilder* (1984), and *Lied in Fall* (1987) show a greater sense of chromaticism and denser, more granular textures, perhaps revealing the influence of his teacher György Ligeti.

The musical style of Abrahamsen's second period is deeply informed by the groundwork he laid during the period of his "fermata." He returned to his older works and reorchestrated them for alternate ensembles, most notably the woodwind quintet *Walden* and septet *Winternacht*. He arranged and orchestrated works by Charles Ives, Carl Nielsen, Per Nørgård, and Maurice Ravel for ensembles ranging in size from woodwind quintet to chamber orchestra. Most importantly, Abrahamsen found inspiration in a set of canons by J.S. Bach⁴ that he arranged with a distinctly Minimalist aesthetic. These canons would have a significant impact on several postfermata works.

Abrahamsen's "fermata" ended with the Concerto for Piano and Orchestra (1999-2000); this piece initiated a fertile period of artistic synthesis that combined the practice of returning to previous works (and referencing other composers' works) with new innovations in compositional technique. In this second period, Abrahamsen returned to previous works in two ways: first, arrangement for larger ensembles, and second, starting from an existing germinal motive and expanding upon it significantly. For instance, Abrahamsen recasts the first four movements and eighth movement of Ten Studies for Piano (1984-98) for orchestral forces in Four Pieces for Orchestra (2004) and in the final movement of the Piano Concerto, respectively. Air (2006), for solo accordion, is a reworking and development of material from his first piece for accordion, Canzone (1978), and Air further serves as a point of departure for the String Quartet No. 3 (2008).

⁴BWV 1072-1078.

⁵Abrahamsen, "String Quartet No. 3" Program note.

Beginning with *Schnee* (2006-08) and *Wald* (2008-09), Abrahamsen's style crystalized into one based on tightly constrained musical materials, microtonal sonorities, repeating material delineated by repeat signs, frequent changes of meter, tempo modulations, and complex polyrhythms. The two works are drastically different in scope and instrumentation: *Schnee* lasts an hour and is scored for nine musicians, while *Wald* lasts eighteen minutes and is scored for fifteen musicians. Abrahamsen has nonetheless indicated that *Wald* is a "twin piece" to *Schnee*, and indeed they share not only the aforementioned characteristics but also clearly articulated forms and symmetrical ensemble seating plans.

While Schnee has gained greater notoriety, due in part to its dramatic hour-long length, Wald better exemplifies the synthesis of Abrahamsen's second period, where previous materials are recast and further developed within the context of these new compositional resources. It consists of seven variations based on the beginning of his woodwind quintet Walden (1978), and Abrahamsen has indicated there are additional connections to Robert Schumann's Waldszenen.⁷ The thematic material appearing in both Walden and Wald is a rising perfect fourth horn call that elicits responses from other instruments.⁸ The horn call repeats but has a slower periodicity than the other responses leading to a gradual change in the order of call and response. The passing of material around the instruments of the ensemble figures prominently throughout the work, and Abrahamsen controls this feature through the symmetrical arrangement of the ensemble into six groups. With these characteristics in mind, Wald represents an excellent case study to discuss the features of Abrahamsen's second period.

⁶Abrahamsen, "Wald" Program note.

⁷Ibid. Program note.

⁸Ibid. Program note.

Part 1: Historical Context

Part 2: An Analysis of Walden

It is important to note that the horn has a special significance for Abrahamsen. He was born with cerebral palsy which affects the right side of his body. He walks with an uneven gait and has only two functional fingers on his right hand, which left him unable to pursue most instruments with professional proficiency. Since the French horn can be played with only the left hand, it became his principle instrument early on and inspired some of his first compositions. In the first ever public performance of his own music in 1969, Abrahamsen performed a piece called *October* on horn and piano using both instruments with his left hand and played "natural harmonics of the horn directly into the open strings of the grand piano to create resonance" while the pedal was held down by an assistant.

Beyond Walden and Wald, Abrahamsen has featured the horn in other works. Most notable is his Six Pieces (1984), for horn, violin, and piano, which he wrote as a companion piece to accompany the Danish premiere of Ligeti's Horn Trio. 12 Six Pieces revisits six movements from the piano work Ten Studies where Abrahamsen "tried to 'conjure up' instrumental parts inside the piano movement." 13

Beyond Abrahamsen's personal and musical relationship with the horn, the instrument has historical and referential aspects connect it to his music and heritage.

more on horn's connection to German/Danish culture, German romanti-

⁹Robin, "Hans Abrahamsen: Fame and Snow Falling on a Composer."

 $^{^{10}}$ Ibid

¹¹Abrahamsen, "Left, Alone" Program note.

 $^{^{12}\}mathrm{Abrahamsen},$ "Six Pieces" Program note.

¹³Ibid.

cism, and hunting

Background and Instrumentation

Abrahamsen composed Walden in 1978 on a commission from the Funen Wind Quintet. This original version is scored for a standard woodwind quintet of flute, clarinet in A, oboe, French horn, and bassoon. In 1995, Abrahamsen created an arrangement of the piece for the Calefax Reed Quintet scored for oboe d'amore, clarinet in A, bass clarinet in Bb, bassoon, and alto saxophone. The reed quintet arrangement has some notable differences from the original, including tempi adjustments, new descriptive markings, re-metered movements, and changes in orchestration. The changes in orchestration will be discussed in greater detail below, but the majority of changes involve Abrahamsen's reassignment of instrumental lines. For instance, while both versions have a clarinet in A, the 1995 version clarinet performs the flute material from the 1978 woodwind quintet, while the alto saxophone in reed quintet performs the clarinet material from the original version. Table 1 gives an overview of the instrumental reassignments between these two versions. In the following discussions of Walden, the score for the original woodwind quintet will be the referenced version except where noted.

Table 1: Walden Orchestration Comparison.

Wind Quintet		Reed Quintet
Flute	\rightarrow	Clarinet in A
Oboe	\rightarrow	Oboe d'amore
Clarinet in A	\rightarrow	Alto Saxophone in Eb
Horn in F	\rightarrow	Bass Clarinet in Bb
Bassoon	\rightarrow	Bassoon

Abrahamsen's first period works are often inspired by or make references to art, literature, poetry, or other music.¹⁴ For instance, the first and fourth movements of Winternacht (1976-78) are dedicated to Austrian poet Georg Trakl, while the second is inspired by Dutch graphic artist M.C. Escher, and the third, the most neo-classical in nature, is dedicated to Igor Stravinsky. Walden is deeply inspired by nature and also connected to the literary work of the same name by Henry David Thoreau.¹⁵ These references and allusions provide lenses through which to view Abrahamsen's compositional methods and aesthetic statements. Walden's program note touches on some of these references, including the connection between Thoreau and the kinds of musical material found in the piece:

The title is taken from the American philosopher and poet Henry David Thoreau's novel from 1854 about living in the woods, which Thoreau did for two years. His stay there was an experiment, an attempt to strip away all the artificial needs imposed by society and rediscover man's lost unity with nature. In that particular sense his novel is a documentation of social inadequacy and a work of poetry (Utopia) as well.

All thought Thoreau himself never completed any actual social analysis he was way ahead of his own time in his perception of the economy and cyclic character of Nature, today known as ecology. His ideas are particularly relevant now that pollution caused by society has reached alarming proportions.

Walden was written in a style of re-cycling and "new simplicity." A lot of superfluous material has been peeled away in order to give space to different qualities such as identity and clarity. Various layers are encountered in the quintet such as the organic (growth, flowering, decay), concretism (mechanical patterns) and finally the descriptive (distant horn calls and other ghost-like music of the past enter our consciousness like a dream). Walden consist of four movements.

In a 1985 interview with musicologist Erling Kullberg, ¹⁶ Abrahamsen noted that

¹⁴Ernste, "Hans Abrahamsen's Winternacht: Reflections on an Etching by M.C. Escher."

¹⁵Abrahamsen has borrowed titles for other compositions, including *Märchenbilder* (1984) from the viola and piano duo by Robert Schumann and *let me tell you* (2014) from the novel by Paul Griffiths.

¹⁶Kullberg, "Konstruktion, Intuition Og Betydning I Hans Abrahamsens Musik."

he found the title of *Walden* after he had completed the piece, which is true for many of his works.¹⁷ Nevertheless, the connection between Thoreau's rejection of excess and Abrahamsen's compositional processes in this piece is a fitting one. Abrahamsen's use of limited harmonic collections, recurring musical gestures, and interconnected movements exemplify these aspects of stripping away and recycling, which not only increases cohesion but also imparts a strong sense of identity and distinguishability to musical elements.

The qualities of organicism, concretism, and descriptive reflect how the material unfolds in each movement. Organicism is central to the first and second movements where motives develop gradually through additive processes like melodic expansion and rhythmic augmentation and diminution. Concretism perhaps applies most to the third movement for its use of "mechanical patterns" via heterophonic polyrhythms and slow legato oscillating patterns that compress in speed, ascend in register, and coalesce into an interlocking sixteenth-note texture. The description, "ghost-like music of the past," is relevant to both the horn calls in the first and third movements as well as the contrapuntal texture in the fourth movement, which is stylistically reminiscent of Baroque music.

Form

Walden is comprised of four movements without titles that differ in duration, tempo, and compositional techniques yet retain a strong sense of cohesion, musical restraint, and clarity.

Unlike much of Abrahamsen's other music, the score for Walden contains remarkably little interpretative markings beyond isolated instances of descriptions like

¹⁷Abrahamsen, "*Ten Studies*" Program Note.

lontano, giocoso, or calmo. The reed quintet version includes some additional tempo markings like "Moderato fluente" (first movement), "Alla marcia" (second movement), "Andante" (third movement), and "Allegretto giocoso" (fourth movement). The lack of textual description underscores the strong vein of classicism that runs throughout Abrahamsen's first period works and perhaps aligns this piece more with the performance practice of Classical period works.

Abrahamsen in part shapes the overall proportions of the work by successively decreasing the duration of each movement, a technique he has used in both first and second period works. For instance, the movements or sections of Winternacht, Schnee, and Wald also decrease in duration over time, while the sections of Märchenbilder expand over time. Table 2 shows this proportional relationship and lists the tempo and movement timing present in the score as well as the timings found in 1994 recording of the Scandinavian Wind Quintet. 19

Table 2: Walden Movement Proportions.

Movement	Tempo	Measures	Duration in Score	Duration on Recording
I.	J = 63-66	67	3:35	2:57
II.		30	3:10	2:51
III.	J=52	32	2:30	2:33
IV.	J = 112	28	1:00	1:04

The form of each movement is mostly fluid and continuous and does not lend itself to classical formal patterns and instead is best described as through-composed. The formal continuity present throughout can, however, be parsed into several sections delineated by changes in harmonic collection or texture. but share melodies, motives, gestures, and harmonies

¹⁸Abrahamsen, "Märchenbilder" Program note.

¹⁹Abrahamsen, Wind Quintets.

The first movement of Walden contains three different dichotomies that play out over the course of the movement: 1) harmonic ambiguity to harmonic clarity, 2) heterophony to homophony, and 3) ensemble as soloists to ensemble as subsets. The beginning features the quintet performing music that is harmonically ambiguous and articulated heterophonically, but by the end the quintet is performing harmonically clear and homophonic musical material. The form of the first movement unfolds over four short sections. The first features a call and response pattern that gradually transforms over four phrases via a process of rhythmic displacement. The second section consists of a heterophonic canon between flute, clarinet, and bassoon, while the oboe and horn continue calling. The third section continues the heterophonic canon in the flute, oboe, and clarinet, while the horn and bassoon periodically interject a staccato interval. Finally, the fourth section introduces a homophonic three-octave melody paired with the increasingly insistent staccato gesture before abruptly transitioning into a tutti repeated chord.

The second movement reuses much of the same musical materials from the first movement: a transposed version of the three-octave melody, a melodic motive in the oboe, and the horn and bassoon staccato punctuation. Abrahamsen presents these materials in a precise cyclical configuration using retrograde and filtering procedures and balanced phrasing. Since the music unfolds more or less continuously, its formal sections are primarily revealed by how various cycles repeat and the changes made upon a new cycle starting. This movement is less about development than it is about transformation through decay and removal.

The third movement can be audibly segmented into two principle sections with a short "coda" that crossfades out of the second section. The two primary sections both employ strict rhythmic procedures of augmentation and diminution or compression.

The polyrhythmic and heterophonic opening first section, quite similar to the opening of the eighth movement of Ligeti's *Ten Pieces for Wind Quintet* (1968)²⁰, gradually slows down over ten measures, while the second section accelerates over 16 measures. The concluding "coda" is defined by a muted, triadic horn call evoking allusions to hunting.

Walden's fleeting, polytonal finale features a composite texture of a duo of flute and bassoon in 3/4 and a trio of oboe, clarinet, and horn in 6/8. The two subsets begin in distant tonal key centers (C# minor in the duo, Eb major in the trio) but modulate toward one another and join in D major by the end. While the music spins out in a continuous fashion, both the duo and trio have mostly clear and balanced classical phrasing. The movement "stops suddenly at the end like a music box cutting out."²¹

Figure 1 gives a diagram of each movement including significant section and phrase divisions as well as characteristic features for that section.

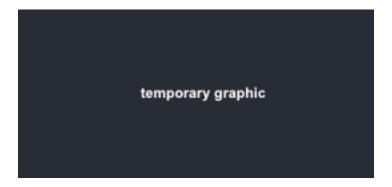


Figure 1: Formal overview of Walden movements

 $^{^{20}}$ Thomas, "Something Amiss with the Fairies. Gavin Thomas on the Elusive Music of Hans Abrahamsen," 272.

²¹Ibid., 268.

Process and Materials

Abrahamsen's use of strict processes, limited musical materials, and intermovement relationships are defining characteristics of Walden. These processes and compositional techniques pertain to the domains of rhythm (displacement, retrograde, augmentation, diminution/compression, consistency in subdivisions), pitch (canons, retrograde, limited harmonic collections, limited intervallic motion), and orchestration (texture, subsets, layers, phrasing). An examination of these elements will illustrate the economy of musical materials associated with Abrahamsen's work in general but will additionally provide a foundation from which to make comparisons to Wald.

Rhythmic Displacement and Subdivision

Rhythmic displacement is an important process in Walden involving a repeated phrase or gesture gradually moving out of phrase or alignment with other instruments. It not only shapes the opening of the work but also serves as the basis for Wald. The process/technique is linked in some ways to the music of American minimalists, particularly Steve Reich. While Abrahamsen does not embrace the same aesthetic as the American minimalists, Abrahamsen was familiar with Reich's music, 22 and he would more fully explore this notion of minimalism during his "fermata" and in some of his second period works, particularly Schnee.

The first movement opens with four phrases separated by grand pauses. All four phrases contain different rhythmic configurations of only two motives: a single rising Bb-Eb horn call and three rising D-F echoing responses in the flute, clarinet, and bassoon. Each instrument articulates their motive with a consistent rhythmic sub-

²²find citation

division: the flute and horn in triplet eighths, the clarinet in quintuplet sixteenths, and the bassoon in quarter notes. Figure 2 shows the first two of these phrases. include some additional language on the importance of subdivision treatment throughout



Figure 2: Horn call and responses

Over the course of this first section (mm. 1-17), the echoing responses shift in their rhythmic position by fixed amounts causing displacement both with one another and the horn call. The Bb-Eb horn call consistently enters within beat four, while the bassoon enters 5 quarter notes earlier, the clarinet 4 quarter notes, and the flute 3 quarter notes plus one triplet eighth-note. By the fourth phrase, the horn call is isolated from the responses having rotated to the end (see Figure 3).

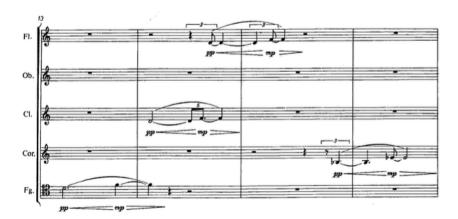


Figure 3: Horn motive phrase four

This process breaks down the initial call and response relationship. more on what this does and what it says about the process being applied to a horn call motive

connect macro process over longer phrases/gestures to micro process over short phrase Another instance of displacement or rotational rhythmic process occurs briefly between measures 5-7 in the third movement. While the flute and horn are engaged in a polyrhythmic repetition of F-G-Ab, the oboe, clarinet, and bassoon articulate two similar motives: 1) a rising or falling major second or major third and 2) a single, isolated tenuto or staccato note. The trio repeat their respective motives a different number of times in different rhythmic subdivisions, the clarinet three times in sixteenth-notes, the oboe five times in quintuplet sixteenth-notes, and the bassoon four times in quarter-notes. With each repetition, the oboe pattern shifts one quintuplet sixteenth-note earlier, the clarinet pattern shifts one sixteenth-note later, and the bassoon pattern shifts earlier by one quarter-note. Figure 4 highlights the trio's rhythmic displacement during this passage. Abrahamsen uses the same process

later on in the flute and horn, for instance in measures 15-17, the flute oscillates between two notes that ascend in register and with each oscillation the pattern shifts earlier by one quintuplet eighth-note.

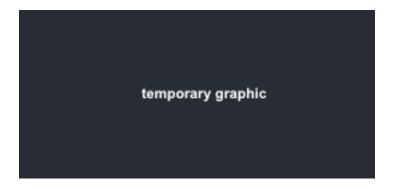


Figure 4: Rhythmic displacement in Walden III

Closing statement on rhythmic displacement and mis-aligned patterns of differing lengths

Augmentation, Diminution, Canon, and Retrograde

Augmentation, diminution, canon, and retrograde are four techniques Abrahamsen uses, often in interconnected ways, throughout Walden. Augmentation and diminution refer to the way Abrahamsen uses rhythmic processes to increase or decrease the length of motives and phrases. Again there is a connection between the macro and micro levels; the same way that the movement proportions of Walden successively compress mirrors the processes happening on the local phrase or motivic level as well. Three examples from the first three movements will illustrate these techniques and also demonstrate how Abrahamsen uses them in tandem with canon and retrograde techniques.

Abrahamsen constructs the second and third sections of the first movement with prolation canons. The first passage, from measures 21-38, has the canon in the

trio of flute, clarinet, and bassoon, while the second passage, from measures 42-56, substitutes the oboe for the bassoon. Both passages consist of fourteen instances of three motives separated by short rests: 1) a two-note legato ascending or descending interval (minor 2nd, major 2nd, or minor 3rd), 2) a ascending or descending interval punctuated with a staccato note, or 3) a single sustained pitch (see Figure 5). The first two motives are identifiable by their long-long and long-short profiles, while the third motive, present in only the first canon, functions as a **cadential** point between phrases.



Figure 5: Flute mm. 21-38 motives and durations

The first canon emerges organically from the preceding section's call and response using the same D-F echoing response. The passage can be segmented into three phrases, each concluding with an instance of a longer sustained F. The flute plays the shortest rhythmic durations, the clarinet plays an augmentation of these rhythms, while the bassoon plays an even greater augmentation rhythms.

The trio remains in their separate rhythmic subdivisions carried over from the first section (bassoon in quarters, clarinet in quintuplet sixteenths, flute in triplet eighths), and these subdivisions enable a duration ratio of 1:2:4 for the prolation canon to unfold. For every one quarter note in the bassoon, the flute plays two triplet eighth-notes, and the clarinet play four quintuplet sixteenth-notes. These duration

ratios include the short rests between instances of the motives, which are appended to the motivic instance (refer to Figure 5 for how the rhythms are segmented). Figure 6 plots the durations for each motive and clearly shows the ratio of 1:2:4 maintained for the entirety of the canonic passage.

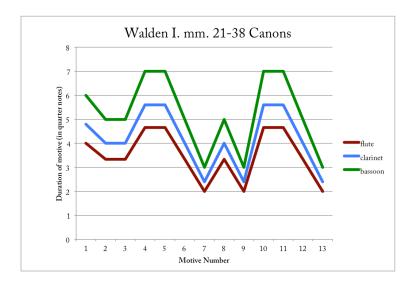


Figure 6: Walden I. mm. 21-38 prolation canon speeds

Figure 7 shows a corresponding graph for the canon from measures 42-56. This second canon generally maintains the prior augmentation relationship (flute with shortest values, clarinet augmenting flute, oboe augmenting clarinet), but the ratio between voices is not static as before. It begins with nearly the same rhythmic/duration values, but the instruments change rhythmic subdivisions over the course of the passage (e.g. the oboe begins in quarter note divisions at mm. 42, changes to quintuplets in mm. 47, and changes to triplets in mm. 52). There is a general trend toward shorter motive durations over the course of the passage, and this perhaps contributes to an increase in event energy, also enhanced by the staccato repeated notes in the horn and bassoon, and prepares the entrance of the homophonic melody in measure 57.

concluding passage on the differences between these two augmentation

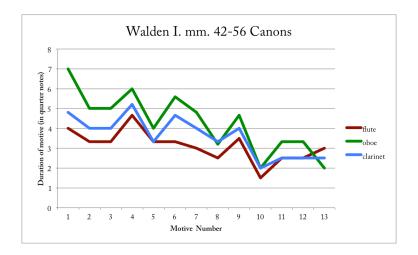


Figure 7: Walden I. mm. 42-56 prolation canon speeds

canons and why it's important

Another instance of diminution, canon, and retrograde occurs throughout the second movement, which in many ways is a study in periodicity and cyclical organization. Abrahamsen re-reads or recombines the first movement's homophonic melody, the staccato major 6th, and the oboe's F#-C# motive. The staccato major 6th is articulated by the clarinet and horn every 2 bars from mm. 2-26. On top of this background punctuation, the flute and bassoon occupy the middleground with a transposition and elongation of the first movement's homophonic melody. The first movement's homophonic melody (mm. 57-61) uses only pitches G-A-Bb, contains seven instances of the motives from the first and second canon, and is abruptly cut off by the introduction of the tutti D major chord. The re-reading of this melody in the second movement is transposed a perfect fifth lower to C-D-Eb and performed in retrograde, making it twice as long.

This nine-measure melody undergoes three cycles (mm. 1-9, mm. 10-18, mm. 19-27) with each successive cycle filtering out motivic instances. By labeling all motivic instances from 1-14, the second cycle removes all odd-numbered motives, while the

third cycle removes all motives but multiples of three (another way to think of this is the second cycle removes every other motive and the third removes every two motives). Figure 8 shows the three flute and bassoon cycles from measures 1-27 and highlights the retrograde and filtering process. While this process is not necessarily a classic rhythmic augmentation, it does create an increasing amount of rest between motives contributing to a sensation of an augmentation. Considering Abrahamsen's usage of the word "decay" in his program note, the process is analogous to a type of decay by removal. It's as if we are presented with a perfect symmetrical flower, and over time the flower decays with the petals falling off one by one.



Figure 8: Walden II. Flute and bassoon mm. 1-27 cyclical retrograde melody

One final instance of augmentation and diminution in this same passage of the second movement occurs in the oboe's melancholy, expressive melody. From measures 1-26, the oboe performs seven phrases whose proportions compress and expand over time. The phrases consist of three ordered motives: 1) a leaping, descending two-note interval, 2) an angular ascending triadic figure, and 3) a single accented sustained tone. The process of phrase length diminution and augmentation can be seen in Table 3. As a consequence of this process, phrase three and four, the two most compressed phrases, do not contain instances of the third motive and have truncated versions of the first and second motive.

Table 3: Walden II oboe melody phrase durations

Phrase	Duration
1	15 J
2	$9 \ 1/2$
3	$6 \ 1/2$
4	$4 \ 1/3$
5	$9 \ 1/2$
6	$9 \ 1/2$
7	$9 \ 1/2$

concluding section on oboe augmentation and diminution

The final third passage of augmentation and diminution comes from measures 1-26 in the third movement. This passage can be divided into two sections, an augmentation of rhythmic values from measures 1-10 and then a diminution of rhythms from measures 10-26. Abrahamsen constructs both sections from polyrhythmic textures where individual voices change in rhythmic subdivision to accelerate or decelerate their repeated patterns. For instance, the opening of the movement features the flute, clarinet, and bassoon playing a polyrhythm of 10:7:4 (quintuplet thirty-seconds, over septuplet sixteenths, over sixteenths) that slows twice, once in measure 5 to a polyrhythm of 8:5 (for flute and horn) and again to 6:3 at measure 8 (for flute and clarinet). The process reverses from mm. 10-26, this time engaging the entire ensemble in the slow and deliberate acceleration to an interlocking angular sixteenth-note texture. One way to measure the increasing energy produced by this section is to track the number of articulations or attacks per measures. Figure 9 plots each instrument's number of attacks from measures 11-26.

This graph expresses the overall increase in the number of events over the course of this passage, and also illustrates how the flute and bassoon are the primary driving instruments at the end while the other three instruments change to long held notes.



Figure 9: Walden III mm. 11-26 attacks per measure

something on why this is useful

conclusion on augmentation, diminution, canon, and retrograde processes

Harmonic Collections and Connections Between Movements

After this four phrase rhythmic displacement process finishes, the oboe enters for the first time with a falling F#-C# perfect fourth motive, and the second section follows. The second section features the oboe and horn working as one layer, while the flute, clarinet, and bassoon articulate a heterophonic, canonic texture. The oboe and horn remain in a consistent 5-measure rhythmic relationship. For 2 measures, the horn performs the rising perfect fourth call, now elongated by the addition of a F (Bb-Eb-F), while the oboe continues with the falling perfect fourth motive for 3 measures.

Harmonically, the endings of the first, second, and third sections are characterized

by subtle changes in harmonic language that act as a transition to the next section.

Connections to Other Music

As with much of Abrahamsen's music, there are intersections between Walden, earlier pieces, and later pieces. Abrahamsen completed Walden and Winternacht in the same year (1978) and both share similar compositional features. The two works each contain four movements that successively decrease in duration, returning musical material between movements, and a final movement that is polystylistic, polytonal, and clearly references older musical styles. In the case of Winternacht, the first movement serves as a "kind of overture" that foreshadows the music to come in the third and fourth movement. Figure 10 shows one example of this from the first and third movements. The first movement contains a section where Stravinskian rhythms articulated in the strings crossfade with material from a previous section. The same material, recast in a different tempo and meter, serves as the basis for the third movement. The way in which this and other sections return throughout Winternacht is like the difference between a door being temporarily opened and catching a glimpse of a room versus being inside the room.

An additional connection between Winternacht and Walden can be heard in the presence of a similar horn call in both works. Figure 11 compares the two. The triadic nature of this horn motive calls to mind a natural horn, or more specifically a German Jagd Horn (hunting horn). In his dissertation on Ligeti's Hamburg Concerto, composer Anthony Cheung discusses

Walden does not have large sections of music that return in the same fashion as in Winternacht. Instead several movements contain recurring gestures or otherwise

²³Ernste, "Hans Abrahamsen's Winternacht: Reflections on an Etching by M.C. Escher."



Figure 10: Winternacht Material from Movement I Returning in Movement III



Figure 11: Winternacht and Walden Triadic Horn Calls

similar material that retain particular musical identities. For instance, in measure 18-20 of the first movement, the first entrance of the oboe is a descending F# to C# perfect fourth. This same musical motive reappears in the second movement in measures 5-6, 15-16, and 24-25, as well as at the climax of the third movement in measures 26-27. Another case can be found in the close relationship between the ending of the first movement and beginning of the second movement. Towards the end of the first movement, a C# and E staccato repeated-note gesture appears in the bassoon and French horn while a new homophonic texture and melody arises in the trio of flute, oboe, and clarinet. The staccato repeated-note gesture grows in assertiveness and abruptly cuts off this melody and transforms into a tutti punctuated chord articulated by the entire quintet. In a way, the second movement picks up where this prior melody left off. Abrahamsen presents it directly at the beginning of the second movement transposed a perfect fifth lower and shortly thereafter the staccato C# and E gesture returns in the clarinet and horn.

The opening section of the first movement of *Walden* also serves as the germinal material for *Wald* which was written many years later.

Part 3: An Analysis of Wald

Background and Instrumentation

Abrahamsen completed Wald in 2009 as a result of a co-commission from the Asko|Schönberg Ensemble (Netherlands) and the BBC for the Birgmingham Contemporary Music Group (United Kingdom). Asko/Schönberg and conductor Reinbert de Leeuw gave the world premiere on January 14, 2010 at the Muziekgebouw aan't IJ in Amsterdam, while the BCMG and composer/conductor George Benjamin gave the UK premiere on August 6, 2010 at the Royal Albert Hall in London during the 2010 BBC Proms.

The piece is scored for a sinfonietta ensemble of fifteen musicians: bass flute, English horn, bass clarinet, bassoon, French horn, trumpet, bass trumpet, percussion, harp, piano, 2 violins, viola, cello, and double bass. more on the use of unique doublings The musicians are seated in a non-standard semi-circle configuration of four groups of duos and two groups of trios with the piano occupying the central position outside of any group. Figure 12 shows the tree-like diagram of this seating plan. This seating arrangement is intimately connected with the way Abrahamsen handles orchestration and the transference of material over the course of the work and will be discussed in greater detail later on.

more on the broader implications/suggestions of this seating arrangement and its tree-like shape

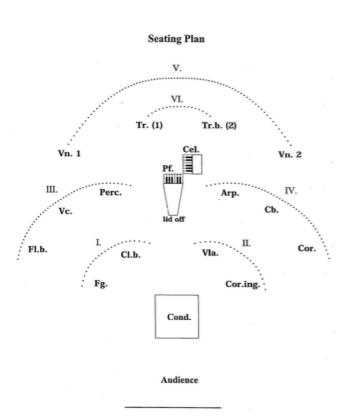


Figure 12: Wald seating plan.

Connections to Other Music

Form

The form of Wald consists of an introduction and seven variations whose successive durations decrease over the course of the work. The listing of durations in Table 4, measured from the only commercially released recording by Asko|Schönberg Ensemble,²⁴ shows that this decrease is not linear but illustrates Abrahamsen's affinity for compressing global proportions, as seen earlier in Walden and other works.

Table 4: Wald Formal Proportions.

Section	Duration
Introduction	3:10
Variation 1	2:38
Variation 2	2:09
Variation 3	2:35
Variation 4	2:00
Variation 5	1:39
Variation 6	1:31
Variation 7	1:18

The variations are juxtaposed with little to no transitional material. Their boundaries and subsections are clearly demarcated in the score through the use of different tempi, meters, descriptive markings, and double bar lines. Table 5 gives a comprehensive list of every tempo change and descriptive marking that accompanies a new subsection or variation.

²⁴Abrahamsen, *Hans Abrahamsen: Walden/Wald*.

Table 5: Wald Tempo and Descriptive Markings

Section	Measures	Tempo	Descriptive markings
Intro	mm. 1-108	Tempo I	Allegro con brio "wie aus der Ferne"
	37	Tempo II J = 66	("as from a distance") Poco meno ma maestoso
	73	Tempo III ↓. = 100	poco grottesco e ironico Allegro vivace e agitato "aufgeregt" ("excited")
Var 1	91 mm. 109-267	Tempo IV	Meno mosso, soave e fluente
	109	Tempo I J. = 92	Allegro con brio ma un poco piu mosso ancora "wie aus der Ferne" (vot "as from a distance")
	171	Tempo II $J = 77$	(yet "as from a distance") Poco meno maestoso ma un poco piu mosso ma poco lamentoso
	238	Tempo III	Allegro vivace e piu agitato "sehr aufgeregt" ("very excited")
Var 2	254 mm. 268-408	Tempo IV $\lambda = 88$	Meno mosso, soave e fluente
, car -	268	Tempo I J. = 94	Allegro con brio ma sempre poco piu mosso
	322	Tempo II $J = 82$	Un poco meno ma ancora piu mosso lamentoso e melancolico
	382	Tempo III $J. = 100$	Allegro vivace e agitato "wieder aufgeregt"
Var 3	402 mm. 409-442	Tempo IV	("excited again") Meno mosso, soave e fluente
	409	J=32	Adagio misterioso ("Nachtmusik")
Var 4	mm. 443-473 443	J = 32	Stesso tempo
Var 5	mm. 474-581 474	J. = 64	Con nuova energia "Wie ein plötzliches Erwachen" ("Like a sudden awakening")

Section	Measures	Tempo	Descriptive markings
	490	J = 144	Vivo furioso
			("vielleicht eine Jagd")
			("perhaps a hunting")
	522	J=165	Presto volante
			("galoppierend, immer vorwärts")
			("galloping, always forward")
	562	J. = 132	Più mosso
Var 6	mm. 582-594		
	582		Andante mesto
Var 7	mm. 595-605		
	595		Piu lento

This table highlights variations and sections that are musically connected by these indications, but does not describe the full extent of their relationships. There are interrelated sections and variations across the piece that are not captured by this table. The entire form of the work can be grouped in the following way:

Part A: Introduction, Variation 1, Variation 2

Part B: Variation 3 and Variation 4

Part C: Variation 5

Part D: Variation 6 and Variation 7

The introduction establishes the primary motivic and harmonic material, while variations 1 and 2 are very close re-readings of the introduction with differences in proportion, orchestration, and motivic development. These three sections, grouped as Part A, each contain four subsections differing in tempo, harmony, and activity. Variation 3 and 4 contain the quietest, calmest, and most introverted music, while Variation 5 functions as the climax, with the loudest, most chaotic, and texturally dense music. Variations 6 and 7 are harmonically related to the fourth part of Part A and contain similar harmonic material with different orchestrations.

Spatial Layout

Abrahamsen's arrangement of the 15 musicians into a semi-circle of six symmetrical groups guides his approach to orchestration. Throughout the variations, the six groups exchange musical ideas in a way that is balanced and symmetrical: phrases performed by one group of instruments are answered by phrases from the corresponding symmetrical groups. A brief examination of the first sections of the introduction (measures 1-36) illustrates this process.

Introduction, Variation 1, and Variation 2

short section describing the interrelationships of the Introduction, Variation 1, and Variation2

describe how each of the variations has four discrete sections without any transition

Table 6: Wald Intro, Var 1, and Var 2 Sectional Proportions.

	Section 1	Section 2	Section 3	Section 4
Introduction	duration	duration	duration	duration
Variation 1	duration	duration	duration	duration
Variation 2	duration	duration	duration	duration

Section 1

Like Walden, the first section of the introduction features four phrases where the rising perfect fourth motive and three echoing motives undergo rhythmic displacement. Each of the four phrases features a specific collection of instruments from Group III

and Group IV (see Figure 3). Furthermore, each phrase repeats verbatim from the extensive use of repeat signs, characteristic of Abrahamsen's second period works. These phrases alternate lengths of 9 measures and 8 measures following an unrepeated 2 measure intro:

$$\frac{3}{8}$$
 2 mm. ||: 9mm. :||: 8mm. :||: 9mm. :||: 8mm. :||

This alternating structure determines the motives that the instrumental groups perform as well as their harmonic material, which consists of only a D4-G4 dyad and a 1/6th-tone flat D4-G4. The 9-measure phrases feature the bass flute performing the rising perfect fourth motive equally tempered and colored by bisbigliando trills. The trio of instruments from Group IV (horn, bass, and harp) perform the echoing motives with the 1/6th tone flat intonation. These characteristics flip in the 8-measure phrases: the horn (seated symmetrically opposite the bass flute) performs the fourth motive with the 1/6th flat intonation while the trio of instruments in Group III (bass flute, cello, and percussion) perform equally tempered echoing motives. Unlike Walden, as the group exchanges material and the motivic displacement occur, the echoing motives increase in duration; for instance, the horn's repeated note gesture in the first phrase is doubled rhythmically when compared to its reappearance in phrase 3 (measure 23). Like the global form, this durational transformation is not strictly linear, but nonetheless gives an aural sensation of a ritardando.

These aspects of Abrahamsen's tight, almost obsessive, control over orchestration, harmony, form, and motivic development are evident throughout *Wald*. The piece is uniquely situated in his output as it directly follows his landmark work *Schnee* and builds upon the new techniques there and in the *Piano Concerto*. It is a work highly representative of his second period style where materials from an earlier work are revisited and developed in a markedly different direction, one informed by new

approaches to timbre and development.

Section 2

The second section of the introduction contrasts the first by way of tempo, meter, rhythmic activity, pitch collection, and orchestration, but it retains the same basic principle of gradual displacement and expands it to both motivic ordering and pitch ordering. Like the first section, the second begins with 2 unrepeated measures and then repeats four phrases verbatim that alternate 8-measure and 9-measure lengths:

The starting 2 measures abruptly break the perfect fourth pedal point as the pianist performs punctuated <123678> clusters. The two violins of Group V that were previously alternating repetitions of the D4-G4 and 1/6th tone flat D4-G4 dyads begin exchanging dyads a half-step higher and lower (C#4-F#4 and Eb4-Ab4). The bass flute and horn (the most active of the first section) rest during the second section. The rest of the ensemble joins in articulating one of two motives: the calling perfect fourth gesture now harmonized as <123> and <678> clusters and a chromatically ascending percussive line.

Again the presentation of these two motives is largely connected to the ensemble seating plan. During the 8-measure phrases, Group I and Group VI play the perfect fourth motive, with the bassoon and bass clarinet (Group I) playing in equal temperament and the trumpet and bass trumpet (Group VI) playing a 1/6th tone flat intonation. The ascending chromatic line is fully presented by the harp, and additionally doubled in Group II, where the viola and English horn alternate each note of the line. The roles flip symmetrically during the 9-measure phrases (e.g. Group I divides the chromatic line while Group II plays the perfect fourth motive).

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As is the case with the first section, these two motives gradually change position

over the course of the four phrases. Additionally, the order of the pitches in the

chromatically ascending line also undergoes a rotational procedure. With each phrase,

the pitch class 6 moves forward one position (with the exception of phrase 3 where

it occurs simultaneously with 2), and during the final phrase, pitch class 7 also shifts

forward one position creating a series of chromatically ascending perfect fourths:

Phrase 1: <1 2 3 6 7 8>

Phrase 2: <1 2 6 3 7 8>

Phrase 3: <1 6 3 7 8 >

< 2

Phrase 4: <1 6 2 7 3 8>

Section 3

Section 4

Variation 3 and Variation 4

Variation 5

In a radio interview with the BBC prior to the UK premiere of Wald at the 2010

BBC Proms, Abrahamsen described how a variation from Beethoven's Diabelli Vari-

ations provided the inspiration for the transition between Variation 4 and Variation

5:

A piece that has inspired me a lot for this piece is Beethoven's *Diabelli* Variations. I cannot remember the number of the variation but they are

very short variations, very fast. And then there comes, a little over the middle of the piece, a very long variation and it's around four and half

middle of the piece, a very long variation and it's around four and half minutes. And it dies out, very low in the low register, and then suddenly

Beethoven "Dah! (sings excitedly)". And that moment has given

me the impulse that this slow variation of 4 and 5 is a kind of, I have written Night Music. And it's kind of the woods spirits have some kind of talks together, and then suddenly the morning comes and nature wakes. And its a little frightened.

While the variation is not quite the four and half minutes that Abrahamsen mentions, Variation 20 from *Diabelli Variations* fits this description. It is not surprising that Abrahamsen found inspiration from this variation given Beethoven's use of the perfect fourth in the beginning of Variation 20 and the perfect fourths found throughout *Wald*. Figure 13 shows the three staves of Variation 20 and highlights the perfect fourth opening, the quiet dynamic, slow tempo, and emphasis on low register.



Figure 13: Beethoven's *Diabelli Variations* Variation XX.

Variation 6 and Variation 7

Appendix

Chronological List of Works

Year	Title	Duration	Instrumentation
1970	Skum	14:00	orchestra
1971	Rundt om og Ind Imellem	10:00	hn, 2trp, tbn, tba
1972	$EEC\ sats$	10:00	orchestra
1972	Efterår	5:00	vc, fl, gtr
1972	Landskaber	8:00	fl, ob, cl, bn, hn
1973	10 Præludier	20:00	string quartet
1973	Flowersongs	11:00	three flutes
1973	Glansbilleder [Scraps]	4:00	cello and piano
1973	Universe Birds	4:00	10 sopranos or 5 sopranos
1974	Gush	4:00	alto saxophone
1974	Symfoni	14:00	orchestra
1975	Stratifications	8:00	orchestra
1976	October	6:00	horn and piano
1976	Danmarks-sange	10:00	soprano and va, fl, cl, perc, pf
1978	Canzone	9:00	accordion
1978	Winternacht	13:00	fl, cl, cnt, hn, pno, vn, vc
1978	Walden	11:00	fl, ob, cl, bn, hn
1981	Nacht und Trompeten	11:00	orchestra
1981	String Quartet No. 2	15:00	string quartet
1984	$M\"{a}rchenbilder$	14:00	sinfonietta
1984	Seks stykker	14:00	vn, hn, pf
1985	Zwei Schneetänze	4:00	4rec, or fl, cl, vn, vc
1987	Lied in Fall	14:00	cello and chamber orchestra
1987	Winternacht	13:00	fl, cl, perc, pno, gtr, vn, vc
1988	Storm og Stille	3:00	cello, or vn, va, vc
1990	Capriccio Bagateller	4:00	violin
1990	Aarhus Ragtime	3:00	chamber orchestra
1990	Hymne	3:00	cello or viola
1992	Efterårslied	6:00	soprano, vn, vc, cl, pno/hpd
1995	Walden	11:00	ob, 2cl, bn, asx
1998	$Ti\ studier$	21:00	piano
1999	Two Pieces in Slow Time	7:00	2hn, 3trp, 3tbn, 2tba, 2cnt, 2perc
2000	Siciliano	6:12	cello
2000	Concerto for Piano and Orchestra	15:00	piano and chamber orchestra
2004	Fire Stykker for Orkester	17:00	large orchestra
2005	Three Little Nocturnes	9:00	accordion and string quartet

Year	Title	Duration	Instrumentation
2006	Air	9:00	accordion
2006	Schnee, Canons 1a & 1b	17:00	fl, cl, ob, 2pno, perc, vn, va, vc
2008	Schnee	57:00	fl, cl, ob, 2pno, perc, vn, va, vc
2008	String Quartet No. 3	12:00	string quartet
2009	Efterårslied	6:00	ca, pno/hpd, vn, va, vc
2009	Traumlieder	14:00	vn, vc, pno
2009	Wald	18:00	sinfonietta
20??	Kharon	7:00	trombone
2010	Liebeslied	3:00	bs fl, ob, bs cl, perc, pno, vn, va, vc
2010	Ten Sinfonias	20:00	orchestra
2011	Double Concerto	22:00	violin, piano, and string orchestra
2012	Flowersongs	10:00	fl, ob, and cl
2012	String Quartet No. 4	20:00	string quartet
2013	Schneebilder	20:00	vn, va, vc, pno
2013	Let me tell you	30:00	soprano and orchestra
2014	Bamberger Tanz	4:00	orchestra
2015	Left, alone	18:00	piano and orchestra

List of Arrangements

Year	Arrangement	Duration	Instrumentation
	Bach: 8 Canons	20:00	
	Bach: Befiehl du deine Wege	5:00	
2012	Nielsen: Commotio	21:00	
1988	Nielsen: Fantasistykker, op. 2	6:00	ob, vn, va, vc
	Nielsen: Festpræludium	3:00	
2010	Nielsen: Symfoni Nr. 6	32:00	
1990	Nielsen: Three Piano Pieces op. 59 posth.	10:00	
1989	Ravel: Le Tombeau de Couperin	20:00	
2011	Debussy: Children's Corner	18:00	
1988	Satie: Trois Gymnopedies	12:00	ob and string quartet
2012	Ligeti: Arc-en-ciel	4:00	
2012	Ligeti: En Suspens	2:15	
????	Nørgård: Surf	5:00	
	Schumann: Kinderszenen, op.15		wind quintet
1998	Weyse: Fire Aftensange	20:00	mezzo-soprano and orchestra

List of Related Works

Work	Related Work
Flowersongs (1973)	Ten Preludes (1973) VIII
Flowersongs (1973)	Schnee (2006-08) Canon 2A
Winternacht (1976-78) IV	Nacht und Trumpeten (1981)
Ten Preludes (1973)	Ten Sinfonias (2010)
Six Pieces (1984) II	Concerto for Piano and Orchestra (1999-2000) I
Ten Studies (1984-98)	Six Pieces (1984)
Ten Studies (1984-98) I-IV	Four Pieces for Orchestra (2004) I-IV
Ten Studies (1984-98) II	Concerto for Piano and Orchestra (1999-2000) I
Ten Studies (1984-98) VIII	Concerto for Piano and Orchestra (1999-2000) IV
Canzone (1978)	Air (2006)
Air (2006)	String Quartet No. 3 (2008)
Walden (1978) I	Wald (2008-09)
Schnee (2006-08)	Wald (2008-09)
Schnee (2006-08)	Double Concerto (2010-11) IV
Schnee (2006-08) Canon 1A	let me tell you (2013) I
Traumlieder~(2009)	Six Pieces (1984)
Liebeslied (2010)	Double Concerto (2011) I

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