A COMPARISON OF THE VARIATION TECHNIQUE EMPLOYED
BY BEETHOVEN AND COPLAND

THESIS

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By

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CHAPTER I

BIOGRAPHY

Aaron Copland

Aaron Copland was born of Russian-Jewish parents on November 14, 1900. Harris Kaplan, his father, had acquired the American equivalent of his name when an immigration official at the British port of entry wrote it on his papers, and from then on the family name was "Copland." Sarah Mittenthal and Harris Copland met at a family social gathering in New York and were married in 1885. They lived in the upper stories of his department store in Brooklyn which remained the family home until 1924 and was where Aaron, the youngest of five, was born.

Delicate Aaron presented a picture of a shy, sensitive child, seemingly not particularly interested in athletics or strenuous activities. A little later, however, when he became a more active child, he still did not excel, but was depended upon by the other boys for guidance and advice when any judgments were required. It appears that even at this early age there was an expression of the leadership qualities so characteristic of Copland in later years.

Though not from a family which had produced any musicians, Aaron was subjected to a number of early musical influences
through synagogues, social activities, and family amateur endeavors. Still he claims, "The idea of becoming a musician was entirely original with me." He claims, "The idea of becoming a musician was entirely original with me." His brother and sister did, however, study violin and piano for a time, his sister at the Metropolitan Opera School. When she brought home programs and librettos, Aaron, even at this age, was eager for knowledge and insisted that she tell him everything that had occurred.

His first music lessons came from his sister who claimed that he mastered in six months all that she had learned in eight years. For about a year and a half the eleven-year-old worked by himself and then begged his parents to let him study with a professional teacher. When they finally consented, he went alone to choose an instructor and settled, after several inquiries, on Leopold Wolfsohn.

"The idea of becoming a composer seems gradually to have come upon me sometime around 1916 when I was fifteen years old," Copland said once. Realizing that he must study harmony to become a composer, he, with Wolfson's help, went to the noted Rubin Goldmark in the fall of 1917. With Goldmark he studied harmony, counterpoint, and composition, the latter including song forms, and "good old" (Copland's phrase) sonata form. Goldmark was excellent for the aspiring young composer.

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1Aaron Copland, Our New Music (New York, 1941), p. 212.
2Ibid., p. 213.
for he "had an excellent grasp of the fundamentals of music and knew very well how to impart his ideas."\(^3\) At Goldmark's suggestion, Copland changed to Victor Wittgenstein for piano. Wittgenstein said that the boy had a unique type of mind and "always analyzed music much more than the other students."\(^4\)

When, in 1918, he graduated from high school, his family reluctantly consented to aid his pursuit of musical studies on a trial basis for a given length of time. They were hesitant because of the meager results in the other children and they naturally assumed that Aaron's enthusiasm would die out, too, and they wanted for him a more solid course of study. For quite a while this decision had been a source of much frustration for him, for he felt that he could not do justice to college work and musical studies and still receive the satisfaction he desired in music.

A friend, Aaron Schaffer, seven years his senior, was the source of inspiration in his forthcoming desire to go to Paris to study. He wrote enthusiastic letters from the French capital about the intellectual and artistic stimuli there. When the given period was over and Aaron still persisted in his desire for a musical career, the family agreed to send him to Europe.

\(^3\)Ibid., p. 213.

for a year. Because he was prompt in applying, he was given one of nine scholarships for the inaugural session of the School of Music for Americans at Fontainebleau in the summer of 1921 and stayed on for his year of European study promised by his parents, which, as it happened, extended to three years.

During his study at Fontainebleau with the conservative Paul Vidal, he heard of Nadia Boulanger. He considers his introduction to her and her acceptance of him as a pupil as the most important musical event of his life. Her first full-fledged American composer, he studied composition, orchestration, and score-reading. In addition to these and the further study of piano, Copland, while in France, found a new talent—an ability to write effective, accurate, and appealing musical criticism. This was to be greatly influential in helping others toward an understanding of his own music and of American music generally.

In the spring of 1924 Boulanger asked Serge Koussevitsky (just before he came to be the conductor of the Boston Symphony) to look at Copland's works. Their introduction proved to be an important step in the development of the young composer, for Koussevitsky became his friend and his artistic mentor in America. "Although it is dangerous to ascribe a composer's successful development to a single set of external circumstances, it is safe to say that no influence was more responsible
for Copland's present position in American music than Koussevitsky's championship.\(^5\)

For her first performance in America, Boulanger suggested that Copland write an organ work. This he agreed to do despite the fact that "I had written only one work in extended form before then, that I had only a passing acquaintance with the organ as an instrument, and that I had never heard a note of my own orchestration."\(^6\)

With Boulanger as soloist, the *Symphony for Organ and Orchestra* received its first performance on January 11, 1925, at Aeolian Hall with the New York Symphony Orchestra conducted by Walter Damrosch. In his first year back home he had scored an artistic success and his family must have felt assured at this point that their son was certainly serious and settled in the pursuit of a life as a composer.

Providing a yearly stipend of $2,500.00 and giving the recipient complete freedom to do his work, the first Guggenheim Fellowship in musical composition was awarded to Aaron Copland, to begin in October, 1925. He was given financial security stability for still another year when, in the following year, the fellowship was renewed.


\(^6\)Copland, *op. cit.*, pp. 221-222.
Paul Rosenfeld, music critic of The Dial and an admirer of Copland's music, persuaded Mrs. Alma Wertheim to subsidize young Copland for a year. When Koussevitsky influenced the League of Composers to commission Copland to write a new work for the Koussevitsky concert, with the support of his sponsor he was able to give himself completely to the task. Rosenfeld suggested the MacDowell colony in Peterborough, New Hampshire, as an ideal place to work out the idea during the summer months. At a summer camp of Clarence Adler, a former piano teacher of Copland's, he completed Music for the Theater, begun at MacDowell Colony. This is an important work for it marks the beginning of a consciously American style with its new jazz idiom (his first style period) which is to be considered apart from his French or European style of composing.

Concerto for Piano and Orchestra was commissioned by Koussevitsky to be performed by Copland with the Boston Symphony Orchestra. Written mainly while on a return trip to Paris, in 1926, it represented to Copland the end of his compositions in the jazz idiom and he began to look about for other materials. Nine works had come from these prolific jazz years.

In contrast, the years from 1927 to 1929 produced very few musical compositions which were for the most part experimental in nature. His critical writings of this period were more numerous than his musical works and reveal his continued preoccupation with the newest compositional techniques and his struggle to assimilate these tendencies into his own writing.
Following another trip abroad, during which he heard some beautiful music composed in the twelve-tone technique, Copland wondered if the experience of writing in this technique, even if he did not become one of its exponents, would show him the direction in which he should go. The result was a composition entitled *Song*, for soprano and piano, which employs the serial technique without, however, actually destroying all sense of tonality and was his first real "atonal" experiment. 7

In May of 1929 Copland left for Paris to arrange a concert of contemporary works by five American composers (himself included) to impress Paris with the fact that American music, too, was making strides through the efforts of its young composers. It was evident that whether the critics liked the concert or not, America had at least begun to concern itself seriously with a national music culture.

Gradually, Copland began to avoid scales, arpeggios, and fill-in sonorities and made his first conscious efforts toward a more transparent texture through a greater economy of means. After the depression came in October, 1929, engagements for lecture concerts dwindled, his works were being performed very little, and commissions virtually unknown. Still preoccupied with the "economy" ideas, he decided to put this period of inactivity to good use and went to Bedford,

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New York, in January, 1930, with the express purpose of using these months to solve a question that had long been posed in his mind: just how far can one go with four notes? He had concocted the motive several years before and he now isolated himself to work on the solution. Published in 1932, the Piano Variations is one of his most controversial works, but it has been more widely circulated than any of the works of his Abstract (second style) period. In a more recent article written on the occasion of Copland's sixtieth birthday, Richard Franko Goldman said of the Piano Variations, "This work, just as surely as Appalachian Spring, and perhaps in a larger way, is a real landmark in American music."\(^8\)

Copland's contributions through his organizational ability were invaluable for the cause of American music. In addition to the Paris concert, he organized with Roger Sessions the Copland-Sessions concerts devoted mainly to the performance of music by young American composers. In four years they presented forty-seven works on eight programs. Next, and more highly organized, were the Yaddo Festivals of American Music in Saratoga Springs, New York. During the first festival, eighteen composers were heard in thirty-five different works. It was then, incidentally, that the Piano Variations came into its own. Paul Rosenfeld said about them, "... fairly towered, starkly economical, maximally expressive, one hard,\(^8\)

relentless moving object. One felt its author the composer of the coming decade."  

Julia Smith, in her biography of Aaron Copland, divides his subsequent, third style, period into two large divisions. The first is Gebrauchmusik—American style, which includes she says, Music for American Youth, Exotic Travel Souvenirs, Radio Commissions, and Theater Works, and the second division is that of Patriotic or Absolute Works. This third style seems to be the most fruitful and prolific and the works grew out of a reliance on folk-music sources and the simplicity of its musical language.

In his music for American youth he displays an extraordinary understanding of the musical capabilities of our youth. All these works are quite adaptable for school use since they were all outgrowths of specific school needs. Included in this period are piano pieces for an educational series, one work designed especially for high school orchestra, a short work for organ, and The Second Hurricane, a play-opera for high school.


10Gebrauchmusik, stimulated by Hindemith, originated in Germany around 1927 and means music for use. There are two types: a. for amateurs to perform; b. for professionals to perform, but written for a wider audience. John Tasker Howard, Modern Music (New York, 1942), pp. 158-159.

11Julia Smith, op. cit., p. 162.
Still intent on getting American works before the public, he planned a series of five one-man concerts to begin in October, 1935. A press release from the school where he was then lecturing cited these as precedents in America, for, it claimed, this was the first time in this country that a series of programs had been prepared, each devoted to the work of a single American composer. The production during the previous ten years of Aaron Copland, Roger Sessions, Roy Harris, Walter Piston, and Virgil Thomson, was surveyed in these concerts, and, to some degree, the American public was educated in the techniques and purposes projected by these composers.

Donald Fuller has pointed out that exoticism is "the use of somebody else's folk music than your own." As "Exotic Travel Souvenirs" Copland has offered us his impressions of Cuban and Mexican folk music in El Salon Mexico and Danzon Cubano, the latter written for the twentieth anniversary celebration of the League of Composers in 1942.

His radio commissions include Music for the Radio (Saga of the Prairie) and Letter from Home.

"In the ballet form Copland first reached the pinnacle of greatness and in these stage works is without peer in the American dance theater." On commissions he wrote two

12 Donald Fuller, "A Symphonist Goes to Folk Sources," Musical America, LXVIII, No. 2 (February, 1948), p. 29.

13 Julia Smith, op. cit., p. 184.
"westerns," one based on the career of Billy the Kid, the other, Rodeo. Billy the Kid opened in Chicago in October, 1938, and a New York Times critic commented that, as discovered is characteristic of Copland, there was "not a wasted note about it anywhere."  

In June, 1940, Koussevitsky asked Copland to be head of Composition at the first session of the opening of the Berkshire Music Center (Tanglewood). During his third summer there he completed another ballet which has been widely acclaimed, Appalachian Spring. It received the Pulitzer Prize for Music in 1945 and also the award of the Music Critic's Circle of New York as the outstanding theatrical work of the 1944-45 season.

For the thirtieth anniversary of the League of Composers he wrote an opera, The Tender Land, and has composed music for several films produced in Hollywood. His score for "The Heiress" received an Academy Award in 1950.

Patriotic efforts by Copland include Lincoln Portrait and Preamble for a Solemn Occasion, both requiring a narrator, Fanfare for a Common Man and Canticles of Freedom. The absolute works are Piano Sonata, Sonata for Violin and Piano, Third Symphony, Concerto for Clarinet and String Orchestra, and others.

Copland, whom Julia Smith called the "first definitive American composer," 15 has also written three books and

14 Ibid., p. 188.
15 Ibid., p. 292.
approximately sixty-five published critiques which are most important to our small collection of contemporary critical works. The books are in college libraries and serve as authorities on the growth and techniques of contemporary music and the critiques present an authentic record of the development of modern music in America.

It would be extremely difficult to say which portion of Copland's varied contributions has been the most beneficial to the advancement of music in America. The value of his critical writings, his lectures, his gifts to our repertoires of his music, and his promotion of American music through organized efforts is immeasurable. One of his colleagues has expressed his opinion and one with which it can be agreed, "The most important general contribution Copland has made to American music is that he was made the agent for simplifying music." 16

Ludwig van Beethoven

Despite the gross amount of available information on the life and works of Beethoven, there is an unusual lack of reliable data concerning his early life. It is generally accepted, however, that he was born around November 15 or 16 in 1770, for on November 17, he was baptized in the church of St. Remigius at Bonn, Germany.

When Ludwig began to show early signs of musical ability, his father exploited these talents merely to satisfy his own vanity and greed. He even advertised the boy's age as two years less than his actual age to give him more of a child-wonder appeal. Despite this morbid acquaintance with music, his musical training was continued and he subsequently began formal lessons with Christian Gottlob Neefe, the court organist. Recognizing the boy's true genius, Neefe made Beethoven his deputy in the Electoral chapel.

At the insistence of Neefe and Count Waldstein, the Prince-Elector sent Beethoven with a considerable stipend to finish his studies in Vienna. From 1792 to 1796 he studied counterpoint with Albrechtberger and composition with Haydn in a favorable environment saturated with opportunities for Beethoven to develop as the virtuoso he was known as and, ultimately, as the composer. He remained in Vienna until his death in 1827.

In contrast to the favorable musical environment in Vienna, Beethoven's development in music and other areas were jeopardized by trying elements such as the responsibility for the shiftless members of his family (his nephew Carl proving to be one of the greatest trials of his life), his unsuccessful attempts at persuading women to return his affections, and the malady of deafness which began to affect him in 1798 and which became serious by the end of 1801.
Beethoven's work divides naturally into three periods, the dates of which differ with several of his biographers. In what some have called his period of imitation his works are individual in that they reflect to some extent a conformity to conventional forms especially those used by his teacher, Haydn. This first period extended from 1793 to 1801 and yielded eighty works.

In 1802 he retired to the country where he underwent a period of terrifying mental suffering. At the height of one of these depressions, he penned the so-called "will," the Heiligenstadt Testament (1802), lamenting his condition. During these years appeared almost all his orchestral works (including seven symphonies, nine overtures, and seven concertos or instrumental pieces) and an opera, an oratorio, and a mass. Important pieces for piano are almost entirely lacking from 1805 onward and quite unrepresented from 1809, save two sonatas.

At the beginning of his forty-seventh year, Beethoven said that he now knew how to compose. With this confidence he made an intentional return to the old traditional forms but armed with countless ideas for novel employment of these forms.

17Vincent d'Indy, Beethoven (Boston, 1911), pp. 13-25.
The forms most employed during this last, "reflective," period were the fugue, suite, and chorale with variations. From his first work in the form, "Variations on a March by Dressler," which he wrote when he was but twelve years old, Beethoven's experiments with and contributions to the variation form have been unmatched. D'Indy says that it might be said that his work in this form was the "last and not the least sublime manifestation of Beethoven's genius."  

Most of his work in the variation form belongs to the early days in Vienna when this form of composition was very popular. The variations themselves are primarily based on either popular arias or simple popular tunes from contemporary Singspiele. Other sources of material for themes were Mozart's arias, folk songs, and themes from his own works, in addition to original themes.

Not merely limiting himself to variation sets, of which there are twenty-four for piano alone and quite a few others for piano and other instruments, he made extensive use of the theme and variation technique in his other keyboard and ensemble media works. The first examples of variation form in his sonatas appear in the andante in the early Op. 14, No. 2, and the first movement of the A♭ major sonata, Op. 26. Variations also appear in movements of the Op. 57, 109, and 111 sonatas.

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19d"Indy, op. cit., p. 91.
20Ibid., p. 99.
Of the seventeen string quartets five show some use of the variation form, including the last group of variations he wrote, which can be found in the quartet, Op. 135. Other quartets with variation movements are Op. 18, No. 5 and Op. 74, 127, and 131. Even the symphonies exhibit his predilection for the form. The third symphony uses a theme and seven variations for its finale. It is interesting to note that the thematic material for this symphony was in the final number of his ballet "Prometheus," and also formed the basis of a set of piano variations called Variations and Fugue on Prometheus, (Eroica variations), Op. 35. The slow movements of the fifth and ninth symphonies and the finale of the ninth are still further examples of his variation treatments.

The variation form is also found in Beethoven's music combined with other forms. This is especially true of the variation movements in the symphonies. In the slow movements of the third and ninth, there are two themes being varied, the former showing a combination of a rondo form with the variation form. The finale of the third uses the variation form with introduction along with the development section of a sonata.

His productive interest in the variation form prompted Tovey to say that Beethoven developed the "intellectually interesting type of variation farther than any other composer before or since."21

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21 Donald Francis Tovey, Beethoven (New York, 1956), p. 124.
CHAPTER II

HISTORY OF VARIATION FORM

Although there appeared indications of an instrumental variation form earlier, the first systematic beginning was in the early sixteenth century. From that time there has appeared a number of different variation techniques. Robert Nelson has categorized the various types on the basis of the differentiations in the kind of theme used and the treatment of each. The types as he lists them are:

1. Renaissance and baroque variations on secular songs, dances, and arias.
2. Renaissance and baroque variations on plain-songs and chorales.
4. Ornamental variations of the eighteenth and nineteenth centuries.
5. Nineteenth century character variations.
7. Free variations of the late nineteenth and early twentieth centuries.¹

Donald Francis Tovey is more general than Nelson in his treatment of the variation. He says the variation is "a term given in music to groups of progressively developed versions of a complete, self-contained theme, retaining the form of that theme though not necessarily its melody."² This, he says, is

¹Robert Nelson, The Technique of Variation (Berkeley, 1948), p. 3.
²Donald Francis Tovey, The Forms of Music (New York, 1956), p. 240.
the classical sense of the term and modern developments render this definition too broad and too precise to apply. Tovey's variation classification divides into two groups—structural and free. Nelson distinguishes the treatment of themes by the same division—structural and free—and sub-divides the structural division into (1) cantus firmus technique, (2) melodico-harmonic technique, and (3) harmonic technique.3

Goetschius distinguishes between the small or simple variation form, in which "no essential alterations of the design of the Theme are permissible,"4 and the larger or higher variation form, in which "the variations are more properly Elaboration than mere modified duplications of the Theme."5

Another writer who says that variations were one of the earliest methods of composing for the keyboard and almost the only means of securing length and continuity, divides the many and varied types into only two groups: melodic and harmonic. The melodic type is characterized by an "air submitted to decorative treatment in which the bass and harmonic scheme are kept the same while the upper and middle texture undergo transformation."6 The harmonic type contains a "ground bass

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3Nelson, op. cit., p. 10.
5Ibid., p. 83.
ostinato, a short melodic phrase placed in the bass which is repeated beneath a continuously changing decorative superstructure." Also mentioned is the symphonic or free treatment which is explained as "variations based on short motives detached from the theme," and it is added that the entire series may be interrupted by the insertion of a free interlude and finally rounded off with a coda.

Harvard Dictionary names two classes, continuous and sectional. Sectional applies to those in which "the theme is a full grown and complete tune calling for a stop at its end and consequently at the end of each variation." Continuous means those in which "the 'theme' is only a short succession of harmonies to be repeated over and over again." The sectional type always has a distinct melody; the continuous consists only of a scheme of harmonies which is frequently, but not necessarily, represented by a reiterated bass.

To this knowledge of the types of subjects used and the techniques used to vary them should be added the historical development and the influence of the changing styles so that a fuller understanding of the form of the pieces herein studied and the present usage may be established.

7Ibid., p. 98. 8Ibid. 9Willi Apel, "Variation I," Harvard Dictionary of Music (Cambridge, 1944), p. 782. 10Ibid.
Generally speaking, there are four periods of variation writing. From its beginning through the seventeenth century, the variations that appear are based on a fixed melody or a fixed melody and harmony. The Classical period offers variations which are primarily harmonically fixed and the Romantic composers remain slave only to the structural outlines. Since d'Indy the trend has been toward a free type which abandons melody, harmony, and structure at will.

1500 to 1750

In the years from 1500 to 1750 came the first systematic beginning of the instrumental variation, and its development during that period was unrivaled until the nineteenth century. During this time the variation principle, not limited to the variation form per se, was used in such other forms as the variation suite, a cycle of dance pieces, and the variation ricercar, any one of several imitative-type pieces.\(^{11}\) Because of the widespread use of the variation principle, this period has sometimes been called the "century of the variation."\(^{12}\) As it was customary to follow the formal arrangement of parts and phrases of the theme and to retain the same expression, the variations which resulted in these 250 years adhered closely to a fairly restrictive plan.

\(^{11}\) For example: canzona, fugue, fantasia, ricercar, capriccio.

The earliest consistent use of the form was in the song variation type, that is, that based on secular songs and dances. Its use was first noticeable in the lute and keyboard music of the Spanish composers. In Spain they were called "diferencias" and spread during the late sixteenth and early seventeenth centuries to England, Italy, the Netherlands, Germany, and other Western-European countries. Associated with William Byrd, Orlando Gibbons, Thomas Morley, and other virginal composers was the first real school of variation writing, and through their work the variation form became the most important type of early keyboard music.

While England was nurturing the decorative aspect of the variation, Italy was producing variation writers of her own. Andrea Gabrielli in northern Italy and Frescobaldi in Rome added sophistication to the form with Frescobaldi making probably the first significant use of chromaticism in the variation, or "partite," as they referred to it. Retaining the main outlines of the subject, these early variations consist of a reasonably small number of variations which are set off by cadences and are most often arranged in progressive order of rhythmic animation and decoration. Some of the characteristics which carried over into the later types were brevity and symmetry in the themes, design of progressive

13 Apel, "Variation IV," op. cit., p. 785.
rhythmic animation, and the discontinuous arrangement of the variations within a series.

Associated almost solely with the Protestant church musicians of central and northern Germany, the instrumental variations on plainsong melodies and basso ostinato themes came into prominence sometime around the late seventeenth and early eighteenth centuries. One of the main writers of variations at this time was Scheidt, whom Nelson designates as the "first great master of the ecclesiastical variation," and his chief methods involved stability of melody. From Scheidt and Froberger a line of composers extends to J. S. Bach, in whom the consummation of the German variation was attained. He wrote variations using a fixed harmonic structure. Through the examples of Scheidt and Bach, it can be seen that two types of variation technique existed side by side for a time.

Beginning with the keyboard composers of the late sixteenth and early seventeenth centuries, the instrumental basso ostinato variation progressed slowly in England, but in Italy was solidly instituted during the seventeenth century. The English composers displayed fresh interest in the form in the second half of the century although the form was taken over by the French and Germans.

15 Ibid., p. 56.
Some main forms which are basso ostinato variations from this period are the ground, bergamask, folia, passacaglia, and chaconne.

Of these the passacaglia and chaconne are the most important and the distinction between the two has long been a battleground for theorists and historians. The later Baroque composers used the terms loosely, and sometimes interchangeably, themselves. The triple meter and the accented second beat are distinct characteristics of almost all the passacaglias and chaconnes. They appeared simultaneously with the folia and bergamask in Italy, but in Germany they were the main basso ostinato examples. In Italy and Germany, as well as France, they were written mostly on a few stock basses, the most popular of which was a four note series descending from tonic to dominant:

\[ \begin{array}{c|c|c|c|c} \hline & & & & \\ \hline & & & & \\ \hline \end{array} \]

Fig. 1—Popular passacaglia and chaconne bass of the early seventeenth century.

The number of variations is generally more than "moderate," unlike the song and chorale variations. The Passacaglia of G. B. Vitali, for example, has sixty-five.\(^{16}\) Instead of the

\(^{16}\)Nelson, op. cit., p. 69.
discontinuity heretofore characteristic of the form, cohesion is the custom. It remains flexible, however, because of its lack of melodic ties between variations and the theme and because of occasional new liberties taken with the harmony and bass line.

Up until this point the basic techniques were not tremendously affected by the changing styles, but the late seventeenth century brought new idioms and new uses of the old types. The main change was gradual simplification of style as the baroque contrapuntal textures were replaced by a thinner, more homophonic, sound.

1750 to 1900

After 1750 the basso ostinato variation was neglected for over a century and the chorale variation vanished completely. Variation movements in the sonata, symphony, quartet, divertimento, and concerto appeared in this period—the first wide employment of the variation in ensemble writing. The ornamental variations were the next to emerge. In them the scheme of progressive rhythmic animation is yet characteristic and has been further enhanced by the suggestions of other forms. For example, the recapitulation of the theme at the close of a series is sometimes so outstanding that it suggests a three-part design. The subjects used indicate clearly an affinity for original themes which are generally brief, symmetrical, and show a preference for major mode. The ornamental type
points in two main ways to the nineteenth century character variations: through the use of character change and through the use of motival development.

The variation form was immediately affected by the changing style of the nineteenth century composers. The thin, simple texture of Haydn and Mozart gave way to the thick, massive sounds colored by vigorous figuration. Two new types grew out of this influence—the character variation and the free variation, both of which are characterized by wide divergence from the theme. This period also witnessed the revival of Bach's form, the basso ostinato form.

Although, as has been seen, the character variation is a product of the ornamental type, the nineteenth century species is longer and more complex and separates the constituent variations from the theme and from each other by sharp contrasts in expression. It was prominent in the larger part of the century and was used a great deal by Schumann, Brahms, Mendelssohn, Saint-Saens, Grieg, and Beethoven. Probably the most famous of Beethoven's endeavors in the variation form is the "Diabelli" variations written in 1820. It has been called by Hugo Leichtentritt, "the greatest masterpiece of the character variation." ¹⁷ Tovey ranks it alongside the Goldberg Variations of Bach. With such outstanding works being written for the instrumental media, it is not surprising that there

¹⁸Tovey, The Forms of Music, p. 241.
came at this time a renewed importance of the keyboard as a medium for variation performance.

New aspects of the form given by the character type were the absence of a formula for the order of the variations, strong contrasts appearing anywhere during the course, and more emphasis on the concluding section. Retained from the ornamental type was the infrequent change of key.

Reintroduction of the basso ostinato variation came early in the second half of the nineteenth century. Beethoven's variations in the Eroica Symphony (1804) and the Thirty-two Variations (1806) are possibly prefigurements, but Liszt's Variations on a Theme by J. S. Bach (1866) firmly confirmed the reappearance of the true basso ostinato variation, which has been widely used from that time to the present. Most of the baroque basso ostinato variations were variation sets. In contrast, the nineteenth century pieces ordinarily form parts of multimovement works. The themes are generally four or eight measures long and the subject is much more frequently used in the upper voices. Basically, it is a classic type, with conservative tendencies, but it definitely exhibits romanticism in increased harmonic richness, occasional wide departures from the expression of the theme, and greater freedom in using the ostinato outside the bass.

1900 to the Present

The free variation was inevitable. For three centuries the variation had kept the structure as a constant, and sooner
or later variations must be conceived on a nonstructural basis. The true free variation dates from the late 1800's. This was the time when composers began to write variations with the free treatment being predominant instead of incidental.

The themes are similar to previous ones and the brief two and three part forms still persist. The technical procedures in the free variation take form as motival development and theme transformation. Motival development involves reshaping of the thematic materials, and theme transformation keeps the melodic contour of the subject while greatly changing other aspects of the theme—rhythm, tempo, dynamics, et cetera. The difference in the two terms is that motival development utilizes only short fragments of the melodic subject and theme transformation uses larger portions, sometimes the entire melodic subject. In either case, the connection with the theme is primarily a melodic one. Theme transformation, which appeared infrequently in earlier variations, is, unlike motival development which was used in the character variation, almost entirely new to the variation form as it is manifest in the free variation.

Conclusion

Nelson insists that the primary task of all variations is that of "securing unity within a manifold."19 Offering a solution to the task, Eschmann says, "A set of variations

\[19\] Nelson, op. cit., p. 126.
remains a cogent form provided some one aspect of the given theme is retained in each variation." The form may remain valid and convincing for the listener but in order to be desirable and a challenge to composers today there must be destroyed the stigma of potential monotony which has attached itself to and stymied the use of the form in recent times. Composers shy away from its assumed restrictiveness. With careful attention given to balancing changes in the structural type and to enlarging development technique in the free type, a new respect can be cultivated for this oldest of instrumental forms.

\[\text{20Karl Eschmann, Changing Forms in Modern Music (Boston, 1945), p. 129.}\]
CHAPTER III

ANALYSIS OF BEETHOVEN'S THIRTY-TWO VARIATIONS

Often assigned by Beethoven as material for study to his students,¹ this set of variations is like Czerny's variations in this respect: it covers many of the difficult technical problems which a student of the piano will encounter in other works of Beethoven, as well as other composers.

The Theme

The theme is an original melody, eight measures long. The shortest theme of any of the piano variations of Beethoven, it is in the form of a period.² The first phrase of the period consists of a motive and its repetition at a different pitch level. The repetition is preceded by a thirty-second-note flourish, five notes long. This flourish, then altered to four notes instead of five, is the basis of the next two motives which form the first part of the second phrase of the period. This first portion of the second phrase contains the climax of the theme in the F minor chord on the second beat

²Percy Goetschius, Lessons in Music Form (Bryn Mawr, 1904), p. 70.
of the sixth measure. This stress point, strengthened by
the highest and lowest notes of the theme, save the final
note, is also emphasized by an sf marking and by the number
of notes in the chord. It is further set off by an eighth
rest and piano cadence following it, which is based on the
first motive of the theme.

The bass of the theme is also quite significant. It
consists of a descending chromatic line which is reiterated
throughout the set. In Baroque music can be found extensive
use of this device; that is, a group of variations built on
a short melodic phrase which is repeated over and over again
as a bass line. Distinction is made in these Baroque types
between a passacaglia, in which the "theme is clearly dis-
tinguishable ostinato which normally appears in the bass
(ground) but which may also be transferred occasionally to
an upper voice," and a chaconne, in which the "'theme' is
only a succession of chords which serves as a harmonic basis
for each variation." Both types are further characterized
by moderately slow triple meter and slow harmonic rhythm,
changing generally with the measure. A frequent ground used
by the Baroque composers was:

4Ibid.
5Ibid.
Fig. 2—Frequent ground bass of the Baroque period and its chromatic modification: 6

Fig. 3—Chromatic modification of a frequent ground bass of the Baroque period

In the theme of Beethoven's Variations, there is present, in addition to the descending chromatic bass which is reiterated throughout, the slow harmonic rhythm and the moderately slow triple meter. In the variations which follow the statement of the theme can be seen Beethoven's unique employment of this older device. In this one set are combined the characteristics of both devices, in that some of the variations retain the descending chromatic bass as in the passacaglia and others retain only the harmonic scheme as in the chaconne. To these two treatments is added a third, that of abandoning the original harmony and bass and instead building the variations on an ascending chromatic bass line.

6Ibid., p. 127.
The harmony which is built upon the descending chromatic bass line in the theme can be seen in Figure 4. A table showing the harmony of each variation is found in Table I in the Appendix.

Fig. 4--Beethoven, Thirty-two Variations, theme

There is an indication of a large ABA structure from the standpoint of key and treatment. Variations I-XI are all in C minor and alternate in treatment between passacaglia and chaconne. Variations XII-XVI, which are in C major are built on the ascending chromatic bass line, a device used

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nowhere else in the set. Variations XVII-XXX again alternate between treatment as passacaglia and chaconne. The last two variations, XXXI and XXXII, constitute the Coda. Figure 5 below shows the treatment of each variation.

a. Variations built on original descending chromatic bass (passacaglia)

b. Variations built on a harmonic sequence (chaconne)

c. Variations built on ascending chromatic bass

<table>
<thead>
<tr>
<th>A (C minor)</th>
<th>B (C major)</th>
<th>A (C minor)</th>
</tr>
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<tbody>
<tr>
<td>a 1</td>
<td>c 12</td>
<td>b 17</td>
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<td>2</td>
<td>13</td>
<td>18</td>
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<td>b</td>
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<tr>
<td>a 6</td>
<td>a 23</td>
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<tr>
<td>7</td>
<td>b 24</td>
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<td>8</td>
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<td>10</td>
<td>b 28</td>
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<td>11</td>
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<td>30</td>
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<tr>
<td>a</td>
<td></td>
<td>b 31</td>
</tr>
<tr>
<td></td>
<td></td>
<td>32 (section 1)</td>
</tr>
<tr>
<td></td>
<td>a 32 (section 3)</td>
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</tbody>
</table>

Fig. 5—Beethoven, Thirty-two Variations, treatment of theme

Discussion of the variations will be grouped according to the treatments a, b, and c, listed above.
Variations I-IV

As seen from the preceding figure, in all these variations can be found the descending chromatic bass line, which shall henceforth be referred to as the original bass.

The first three are based on a sixteenth-note pattern of arpeggiated chords, following, generally, the same harmonic sequence as the theme. In Variation III the thematic harmony is abandoned in the third measure with the substitution of a $V^7$ acting as a Neapolitan sixth chord to the following IV chord. In measure five there is another deviation in that the German sixth is replaced by a iv chord. This is the only one of the variations that uses the original bass which does not also use the German sixth chord.

In Variation IV, in addition to the original bass, the melody of the theme is also present. It can be found in the triplet figure within the correct beat (i.e., the same beat as it appeared in the theme), but not always on the correct portion of the triplet.

Fig. 6—Beethoven, Thirty-two Variations, Variation IV, measures one and two.
Variation V

This is the prototype for the other variations listed as b in Figure 5. They are characterized first by the abandonment of the original bass and by the retention of harmony similar to that of the theme, but with differences as shown in Figure 7.

\[
\begin{array}{cccccccc}
i & V & I_7 & IV & II_7 & V & iv & V & i \\
1 & 2 & 3 & 4 & 5 & 6 & 7 & 8 \\
\end{array}
\]

Fig. 7—Harmonic sequence of Variation V

This type predominates, for over half of the variations of this set are built on this harmonic sequence. It differs from the theme harmony in measures five and six where a II_7 replaces the German sixth and the iv-V-i cadence is approached through V instead of i_4^6.

Variation VI

The original bass is outlined by the first left-hand note in each measure of this variation in triplets, which consists of single notes for each hand. The German sixth chord is used for the last time until Variation XXIII and the usual climax is delayed until the seventh measure.

Variations VII-XI

Variations VII and VIII have identical left-hand parts so that it appears that Variation VIII is merely slightly altered repetition of Variation VII.
The first complex rhythm of the set presents itself in Variation IX with duplets in the left hand and triplets in the right, plus an *espressivo* melody in two-note groups. These two-note groups are snatches of the original melody and give the same general ascending effect as that melody. The last two measures contain three quarter-note trills, the only examples of un-notated ornamentation in the set.

A syncopated melody, \( \text{\textbackslash \textbackslash} \), against a thirty-second-note running pattern, characterizes both Variation X and Variation XII, although the patterns are in opposite hands. A natural minor scale leads from Variation X to Variation XI, while a harmonic minor scale leads to Variation XII.

**Variations XII-XVI**

Variation XII was definitely intended as a focal point. From the preceding variation there is a change from thirty-second notes to quarters; from *forte* to *piano*; from detached, syncopated, accented sounds to sustained and simple phrases; from major to minor mode; and it is the first statement of the original soprano melody since the theme. It is slightly altered but the rhythm is exactly the same; an approggiatura has been inserted for a repeated note in measure four and a repeated note replaces an octave leap in measure five. The original bass is not present and the harmony has been changed
considerably. This variation is the pattern for the variations containing the ascending bass line, XIII-XVI.

In Variation XIII the melody is literally stated, as in Variation XII, but this time in the left hand. The harmony outlined by the smooth sixteenth-note accompaniment is the same as that in Variation XII through measure five. In measure six of Variation XII, the $\text{#ii}^7$ resolves to a $I_6$ while in Variation XIII it resolves to a $iii$. Variation XIV is an amplified version of Variation XIII as the figures in each hand are enlarged by notes a third above.

The ascending chromatic bass is still in evidence as the bottom note of each of the left hand triplets, which are the same in Variations XV and XVI. Variation XV contains right-hand triplets in eighth notes. The figure is expanded in Variation XVI to four sixteenth which, after the first two beats, contains the same notes as Variation XV.

Fig. 8—Beethoven, Thirty-two Variations, Variation XII, ascending bass line.
Variations XVII-XXII

All variations in this group are based on the harmony of Variation V, although they show great contrasts in style. All are in C minor.

Canonic imitation set over an Alberti bass presents the rhythm of the first motive of the theme in each bar of Variation XVIII, although the rhythm of the motive has been broadened from $\downarrow\downarrow\downarrow\uparrow$ to $\downarrow\downarrow\uparrow\uparrow$. There seems to be no attempt to extend the complexity of the counterpoint, since there are never more than two voices plus the Alberti bass.
As in the theme, the left hand contains one dotted-half note chord in each of the first five measures of Variation XVIII. The chords in the theme were three-note chords; these are four-note chords. Unlike the theme, the chords do not outline the original bass but do maintain the harmony as noted in Variation V. The right hand contains in each measure a two-octave scale beginning on C, D, E, F, and F#, respectively.

Variation XIX is characterized by abrupt changes in dynamics within each measure, the first appearance of any dynamic contrast within a variation other than gradual increases and decreases.

By extracting the first note of each sixteenth-note triplet in the left hand of Variation XX can be found five-note scale patterns which, except for the third measure, are the reverse of those found in corresponding measures of Variation VII. Variation XXI is the same as the previous variation except that the patterns are assumed by the opposite hands.

A canon with octaves in both hands is maintained at the interval of an octave throughout Variation XXII. The right hand begins and is followed one beat later by the left. Each measure contains the scalewise motif, which is identical to the scale pattern extracted from the triplet figures in Variation XX. As in Variation XX, the five-note pattern is extended by a quarter-note in measure six to emphasize the high point of A♭.
Variation XXIII

To the bombastic character of the previous variation, Variation XXIII is a distinct contrast. Following the exact outlines of the theme harmony, the descending chromatic bass of the theme is also retained in this pp version of the theme. The German sixth chord appears for the first time since the sixth variation.

Variation XXIV

This variation abandons the original bass and omits the German sixth chord. The rhythmic patterns in the left hand present a diminution of the left hand patterns of Variation IV.

Variation XXV

The left hand of Variation XXV is the same rhythmically as the left hand of Variation IV and the same notes are used through measure six. In measures seven and eight, the tones of the same measures of Variation IV are present as the lowest notes of three-part chords here.

Variations XXVI-XVIII

All three of these variations are based on the harmonic succession rather than a bass or soprano melody. Variations XXVI and XXVII are loud and very similar in nature. Variation XXVIII gives a contrasting air of simplicity with its three
quarter-notes to each measure in the right hand. The left hand has an Alberti bass similar to that of Variation XVII.

Variations XXIX-XXX

A single line of arpeggiated chords in each hand outlines harmonies which correspond to those of Variation III in that there is the chord acting as a Neapolitan sixth chord in measure three. Unlike Variation III, this variation uses the German sixth chord in measure five and also replaces the iv at the usual climax point in the sixth measure with a ii⁰⁷, the first half-diminished seventh in the piece.

In Variation XXX quarter-note chords outline the same bass line as was in the theme, but the harmony has been changed somewhat. This variation is actually the last one in the set, as Variations XXXI and XXXII serve as a finale or coda. It is interesting to note that although it does not retain the exact harmony, this variation includes the descending chromatic bass of the theme and also the ascending chromatic bass which characterized Variation XII and the four following it. It appears here in the uppermost voice altered only rhythmically. The German sixth appears in the usual measure as does the climax point.
Fig. 11—Beethoven, *Thirty-two Variations*, Variation XXX

Variations XXXI-XXXII (Coda)

Variation XXXI must be considered as part of the Coda in addition to Variation XXXII because it contains the only literal statement of the theme and because the left hand accompanying figure is the same as the first section of Variation XXXII. Also, the calmness of Variation XXX suggests a "beginning of the end." Most of the single notes of the theme melody have been amplified to octaves, but the pitches and rhythms are exactly the same.

Typical of codas in Beethoven's variations, Variation XXXII consists of several sections which seem to suggest variations within a variation. There are five sections and a cadenza-like closing phrase. The sections are easily recognized by their change in rhythm from duplets to triplets. However, only two of these sections are actually variations. The others are merely embellishments of tonic-dominant-tonic harmonies.
Section 1 (Measures 1-7)

This section, acting as a variation, uses the exact left-hand figures and right-hand scale patterns similar to the septuplets of Variation XXXI. The scales are the same ones as outlined in Variation XVIII for at least the first four measures and then they vary by one or two notes.

Section 2 (Measures 8-18)

This section contains only embellishments of tonic and dominant harmonies and leads through the extension of a diminished seventh chord to the next section.

Section 3 (Measures 20-32)

In the only other real variation, the left hand has three-note chords, the bottom of each being the descending line of the theme, in the rhythm of the melody of the theme. The cadence measure is extended by repetition of iv-V and resolved once in measure twenty-eight and again, after canonic imitation of the iv-V, in measure thirty-three.

Section 4 (Measures 33-40)

An alternation between tonic and dominant harmonies, the rhythmic basis is triplets.

Section 5 (Measures 41-46)

Returning to duplet rhythms, the right hand is derived from the theme melody and the left from the broken chords in Variations VII and VIII.
The closing phrase encompasses measures forty-seven through fifty. A descending diminished seventh (vii\textsuperscript{d7}) arpeggio leads to a simple V-I cadence \textit{fortissimo}, followed by a lower and softer repetition of the V-I cadence as the final cadence.

Conclusion

Each variation retains the eight measure length of the theme, and only through change of mode is the key varied. The melody returns literally, or with only minor changes, quite infrequently, five times out of thirty-two. From the survey made in Chapter II of this paper, it can be said that this variation falls into the classification of a "continuous variation" with certain aspects of the character and basso ostinato types listed by Nelson.

Like the character variations, it contains the infrequent change of key, emphasis on the concluding section and sharp contrasts in expression. Like the basso ostinato variations, its theme is eight measures long, there is an occasional wide departure from the theme and there is greater freedom in using the ostinato outside the bass.

In each variation Beethoven sets a certain rhythmic pattern which he continues during the whole of the variation. For instance, if a triplet figure appears in one hand in the first measure, there will be triplet figures in that hand in every measure. Similarly, if the first measure contains a
syncopation, every measure will contain a like syncopation. The patterns used vary from running figures and arpeggios of eighths, sixteenths, and thirtyseconds to cross rhythms, to canons, to broken chords, to single lines over an Alberti bass, to simple quarter.notes.

There is extreme variety in the dynamic levels of these variations, primarily from variation to variation rather than within the scope of one. Generally speaking, there is one soft, then one loud variation or sometimes two of each. At only two points does this vary. Beginning with the first variation in major (Variation XII) the dynamic is piano and it remains so throughout the variations in major and through the next variation in minor (Variation XVII). Then again, there is alternation of loud and soft between every one or two until the Coda.

The coda is another distinctive feature of Beethoven's variations in general, and the one in this set is certainly typical. As Leichtentritt said, "Beethoven prefers a thematic, symphonic treatment of the coda, distributing the music between the right and left hand, applying sudden accents, and refined harmonizations." Beethoven's emphasis on the concluding section, which has already been noted as a characteristic of the character variation, seems to indicate that he did not want a mere da capo of the theme. As in most of his variation codas, there is here a series of variations and fragments of

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7Leichtentritt, op. cit., p. 102.
variations which proceed atacca, instead of coming to a formal close, until the end. The rhythmic animation is progressive and the dynamic level increases as all forces seem to combine to push toward the end.
CHAPTER IV

ANALYSIS OF COPLAND'S PIANO VARIATIONS

As was explained in Chapter II on the variation form, the free variation of the twentieth century is generally characterized by variation techniques of theme transformation or motival development. Copland's Piano Variations consists of a theme and twenty variations based largely on the four-note motive and the polytonal chords found in the theme.

The theme, which is ten measures long, consists of two sections designated A, measures one through five, and B, measures six through ten. The first section, A, consists of the initial four-note motive and its immediate repetition as a five-note motive, with the first note being repeated between tones two and three. The second section, B, follows as a four-measure phrase of material which is not derived from the motive but which is included and developed in many of the variations. The phrase begins with a whole step up from the beginning note and includes another whole step up to an E major triad. Both the whole steps and the major triad following the second one are found in a corresponding portion of a number of the variations. For a formal analysis of each of the variations, see Figure 12 in the Appendix.
The cadence, which appears in almost all the variations, uses three notes of the motive, 134. Each phrase is separated or punctuated by an sff chord and at two points sympathetic vibrations are used. Their use does not appear to be significant since this is the only place vibrations of this type are created. The sff chords are polytonal, combining A major and C major at one point and C major and Eb major at another.

References to individual notes of the four-note motive will be made by appropriate Arabic numerals. 134 indicates the first, third, and fourth notes of the motive.
Fig. 13--Copland, Piano Variations, Theme

After the theme there are eleven slow variations, nine fast ones, and the coda returns to a slow tempo, suggesting an ABA form. All the variations but Variation 5 begin with some form of the four-note motive whether it be the original, a transposition, or a permutation. Except for the retrograde, permutations normally associated with serial techniques are almost ignored in this piece, as Copland prefers to use, instead of inversion and retrograde-inversion, various orders of the motive, such as 3412, 2143, and 2134.

Variation 1

This is a canon at the octave based on the theme. The first voice begins on the downbeat rather than the upbeat as in the theme, while the second voice of the canon enters one measure later and lasts for only four measures. The first voice then continues, with octave transpositions, repetitions and extensions, to state the theme, while the other voices use thematic material but not in any significant order.
The three-note cadence is present, this time accompanied by B\# in the left hand. Since B\# is enharmonic with C, all four notes of the motive are present.

Variation 2

The melody (middle voice) is the same as the motive and repetition, except for octave transpositions, and even the rhythm is the same, although, because of meter changes, it looks different. The top staff presents for the first time a vertical order of the notes of the motive and it is seen that these four notes may be telescoped into two minor ninths. They are here merely an accompaniment figure for the bottom two parts which are identical in rhythm and contour.

Fig. 14—Copland, Piano Variations, Variation 2, measures one and two.
The bass voice has in the first two measures tones 3412, in that order, suggesting an idea of the theme against itself, then uses 3421. The second half of the variation consists of polytonal chords, mostly thirds in contrary motion. Six of these chords are vertical arrangements of the motive.

Variation 3

The first attempt to disguise the motive by the use of enharmonics comes in this variation as E♭ substitutes for D# and D♭ for C#. The left-hand notes create an interval of a minor second with all notes of the motive and its repetition. The beginning consists of four tones against each other, as in Variation 2, but with the range extending up and outward by means of octave transpositions. In the left hand are permutations of the original motive, the most frequent variant being 3421. The last half of the variation includes the whole step movement and the major triad of the theme. Only ten notes in the entire variation are not tones of the four-note motive. Discounting repetitions, there are actually only four new tones, B, B♭, F♯, and G♯.

Variations 4 and 5

The theme in Variation 4 is harmonized again with polytonal chords. In the first three chords can be found the motive in its original form and in the order 3412. This figure appears four times between the hands, then is carried on in the left
hand as an ostinato against the statement of the last half of the theme.

Variation 5 is an extension or development of Variation 4. No tempo or dynamic change is indicated and the four-note motive is noticeably absent, the only time in the piece it does not appear at the beginning. Retained from Variation 4 are the parallel triads in the right hand and ninths in the left and the rhythmic figures. The structure of the theme is definitely present in both these variations, but it is accomplished in seven measures in Variation 4 and in nine measures in Variation 5 as compared with ten measures in the theme.

Variation 6

Presenting a new tonal center, this is the first transposition of the motive. The quarter-note melody presents the motive used simultaneously in three ways: the original divided between the hands, in rearranged order in each hand, and in vertical combinations.

Fig. 15—Copland, Piano Variations, Variation 6, measures one and two.
Punctuating and dividing this motive and the succeeding portions of the theme are five sixteenth-note figures based on the motive, all permutations of that motive. The figures are:

1. RH 1234  
   LH 3412
2. RH 4321  
   LH 2143
3. RH 3412  
   LH 1234
4. RH 4321  
   LH 2143
5. RH 1234  
   LH 3412

As in Variation 3, most harmonic intervals consist of a minor second or its octave compound.

**Variation 7**

This is the first variation in which the theme is extended more than three octaves.

![Musical notation](image)

**Fig. 16**--Copland, *Piano Variations*, Variation 7, measures one and two.

It uses the same transposition as the previous variation. An entirely consonant theme is set out in octaves and spread out by continuous use of octave transpositions. There is a major triad at the end of each phrase. After the motive and
repetition there follows a phrase in octaves of the melody divided between the hands in measure 5 of Variation 6. Similarly, the next phrase of Variation 7 corresponds to measure 7 of Variation 6. The end of this phrase is repeated and the variation cadences on a strong E major chord.

Variation 8

The motive in Variation 8 is transposed another third higher. There appears in the bottom two voices the original motive in one and a different order of the same notes in the other against the reiteration, in the third and highest staff, of the first notes of the motive. Vertically, there are two statements of the motive. The melody at the end forms versions of the motive vertically and horizontally and also contains a mirror pattern, \(3 4 3 1 2 1 3 4 3\).

Variation 9

The left hand moves a chromatic step up from the initial transposition which makes its series, \(G^\#, E, G^\#, F\), and this is the inversion of the original motive but in a changed order. The theme enters in the right hand at the original pitch level and is answered by a canon in the left hand.
After the initial entrances, the theme is altered but the character is preserved by the rhythm and the characteristic intervals. In measure 9 the motive appears, and its repetition with the one-note interpolation, in the right hand, while the left hand contains the same order of the inversion as at the first of the variation.

Variation 10

The motive in a new transposition, unmixed with any other, now reads F, D♭, E, D♮. The theme, sounding in three octaves, is punctuated by the polytonal harmonies of B♭ major and minor and is followed by material used in Variation 4. This is the first of three instances when the initial rhythm is changed and the rhythmic scheme does not coincide with the structure of phrases. The material of Section B of the theme is presented in this variation beginning in measure four. As has been characteristic of all the variations to this point,
the rhythmic pattern is not changed when the melodic material changes from that of Section A to that of Section B of the theme. The change in the rhythmic pattern takes place in measure seven of this variation. Measures seven through nine are the same as measures one and two of Variation 4.

Variation 11

Like an interlude or improvisation, this variation is quiet and uses the series up a half step at the beginning. The first six measures present a two-voice texture suggesting a canon in contrary motion without exact imitation. C#, E#, D, 412 of the transposed series of Variation 10, serves as the final chord of Variation 10 and as a pedal for the first six measures of Variation 11. In the last five measures the two-part imitation becomes more exact. There is the original of a transposed row (F D⁰E D♯) with repetition against the exact inversion of the transposed version used at the first of the variation.

Fig. 18--Copland, Piano Variations, Variation 11, measures eight through eleven.
Variations 12 and 13

In the form of two short scherzi, both variations use the same transposition as the first series of Variation 11. In Variation 12, the four-note motive is presented in the top voice of three staves, except for the fourth note, which appears in the bottom staff. The final cadence places G\(^b\) (F\(^\#\)) above F to cadence on E\(^b\) which results in the 13\(^4\) cadence of the theme between the voices.

Variation 13 is the only single-voice variation. The original and retrograde are linked as a retrograde precedes each downbeat statement of the motive or of other material from the theme. As in Variation 12, the fourth tone of the motive is sustained at the end of each phrase. The final cadence is like that of Variation 12, except by inversion as it approaches the E\(^b\) from below. Only four notes, appearing once each, are not tones of the motive.

Variation 14

Using the original pitches of the motive but with the enharmonic spelling used in Variation 3, Variation 14 is the first variation in which the theme is repeated. There are approximately seventy-eight quarter-note values—twice as many as usual. At the end of the repetition the last measure is repeated three times for emphasis. Quarter-note phrases, of varying lengths from five to nine quarter-notes, alternate with eighth-note phrases and begin with the original in the right
hand and the retrograde, minus the last tone, in the left hand. They form harmonic intervals of minor thirds and major sixths. The extensions do not appear to be developed from the motive. The eighth-note phrases, also of the same varying lengths, consist of two interlocking versions of the motive. One version includes the original pitches and the other is transposed, although both appear in a changed order.

Fig. 19—Copland, Piano Variations, Variation 14, measure six.

Variations 15-18

Up to this point each variation has been in two-part form. The variations divide into two distinct phrases or parts (A B) like the theme. In these four variations the structure changes from two-part to three-part. The first eight measures of Variation 15 are repeated in the last eight measures except that the arpeggio figure in measures six through eight rises while in the corresponding measures at the end of the variation the figure falls. Variation 15 is similar to Variation 14 but punctuation is by means of a C major arpeggio instead of the low C pedal point of Variation 14. This might be considered
a continuation or a development of the eighth-note phrases of Variation 14 although here the length is produced by augmentation rather than repetition. The end note of each figure presents successively the notes of the theme and the figure itself is based on the theme also.

![Musical notation](image)

**Fig. 20—Copland, Piano Variations, Variation 15, measures one through five.**

Again, the last eight measures are a literal repetition of the first eight and the form of Variation 16 is ternary with a rudimentary middle section. The interval between the third and fourth notes in the motive is changed to a descending minor second. The B section is similar to the A section rhythmically but it develops the second part of the theme. Also, the chords in Section A which are vertical combinations of the motive are broken chords in Section B. The motive is not altered in these broken chords as it was in the opening phrase of the variation, and the four notes are found in the first two beats vertically.
The next two variations also fall into three-part form. At the beginning of Variation 17 the right hand presents the original motive at the initial pitch level while the left hand has an eighth-note ostinato figure of the motive in 4312 order. The second part of the A section is a sixteenth-note passage which consists of interlocking statements of the retrograde ascending and the original descending. It is difficult, because of the construction, to determine where the versions interlock.
This is another case of the failure of the rhythmic scheme and the scheme of phrases to coincide. Measures one through four consist of the eighth-note and sixteenth-note fragments which make up Section A. Immediately following there are shortened repetitions of each of the fragments, resembling a false start. Then, in measure nine, melodic material from Section B of the theme is presented in much the same style as the first section and this is followed by a four-measure section based on the E major chord of the theme. Measures nine through seventeen constitute Section B. Section A material returns in measure eighteen as an exact repetition of measures one through four.

In Variation 18 there is a freer application of the same structural principle, with some measures of the return beginning in measure seventeen appearing altered. Sixteenth notes present the transposed motive in the 4312 order in the left hand and 2143 in the right, forming intervals of major sevenths and minor ninths. The notes in each hand are spelled differently but are enharmonically the same motive. Alternating with the sixteenth-note groups are eighth-note groups consisting mainly of the 2143 order in the right hand and the 3412 order in the left of the notes of the original pitches. Although the sixteenth-note passage begins the variation, the eighth-note groups carry the melodic patterns of the theme but in changed order.
Variation 19

There is here a return to the original two-part structure of the theme. For four measures the theme is presented in quiet sustained chords, then moves forward rapidly to Variation 20. The example below shows that in the chords of the first and second phrases several forms of the motive appear. The original doubled at the octave, one transposition, and one permutation account for all the notes in the first four measures. In the next three measures can be seen the repetition of the motive with the one-note interpolation against a transposition of the motive's repetition and a retrograde.

Fig. 23--Copland, Piano Variations, Variation 19, measures one through seven.
In this variation the melodic change is superseded by the rhythmic change as there is an abrupt increase in tempo in measure five while material of Section A is still being used. Without changing rhythmic patterns, the B section material is introduced in measure eight.

Variation 20

Variation 20 is a sectional variation. Each section at its beginning makes use of the motive at two pitch levels, one beginning on D and one beginning on B, and there is an occasional instance of the motive at even other pitch levels. The left hand is almost exclusively based on the motive beginning on B and most often appears as an ostinato figure in the order, 3412. The right hand presents the alternation of the original form of the motive and various permutations. Measures one through three below show the various uses of the motive at the beginning of this variation.

Fig. 24—Copland, Piano Variations, Variation 20, measures one through three.

Measures twenty-seven and twenty-eight show a similar use but with different rhythmic emphasis.
Fig. 25--Copland, Piano Variations, Variation 20, measures twenty-seven and twenty-eight.

Coda

The coda consists of three sections in progressively slower tempos. The first section, measures one through thirteen, is development of elements of Variations 4, 5, and 16. The chords derived from Variations 4 and 5 are more complex here and the figures from Variation 16 are developed by octave doublings and extensions.

Section 2 lasts from measure fourteen to measure twenty-three and is the theme without octave transpositions. The same forms of the motive and the same scale-fragment punctuations are used as were in Variation 3.

After a short section of polytonal chords, there is a final statement of the motive in the top voice. It appears as the repetition of the motive did in the theme, with the one-note interpolation, 12134. The left hand has 44311, and this all sounds over a low C# pedal. With the C# continuing, held by the sostenuto pedal, there are three polytonal chords to end the variation and the set. The last chord, like the
theme motive, contains two pairs of half steps, although the distance between these pairs is different:

\[
\begin{align*}
\text{Theme} & : & \frac{1}{2} \begin{cases} 
E^\# \\
C^\# 
\end{cases} & \begin{cases} 
D^\# \\
C^\# 
\end{cases} \\
\text{Coda} & : & \frac{1}{2} \begin{cases} 
G^\# \\
C^\# 
\end{cases} & \begin{cases} 
G^\# \\
B^\# 
\end{cases}
\end{align*}
\]

Conclusion

Although the dynamic markings indicate that there are extreme contrasts and variety of expression called for in the variations, the tempo markings are much less erratic. They demand a progressive movement rather than an oscillating one. As shown in Figure 26 in the Appendix the tempo in Variations 1-11 increases gradually to a point, takes a small setback and begins another climb with one regression, and then builds to the last part of Variation 20, \( \frac{1}{2} \) = 208. The Coda then calls for a gradual lessening of the speed to the end.

The lengths of the individual variations vary from seven measures, Variation 4, to fifty-three, Variation 20. In all but Variations 15-18 there is the same general structure within a two-part (A B) framework of a motive, repetition, second phrase of whole steps melodically followed by a major chord and a cadence. The differences in length may be attributed to repetition, augmentation, and extension of the thematic material within the same general structure. In Variations 15-18 the part structure is altered; i.e., there is a change from binary to ternary form. In Variation 19 there is a return to the two-part structure.
The melody of the theme never appears literally but is always disguised by octave transpositions, interpolations, and permutations of the motive on which it is based.

The motive, which is used in some form to begin every variation but Variation 5, is heard at seven different pitch levels throughout the set. Figure 27 in the Appendix, with the motive represented by Arabic numerals, shows the opening phrase of each variation. The pitch names are also included to indicate the various pitch levels. It can be seen from the table that the original and retrograde versions of the motive appear along with many permutations. The order of the four notes other than the original that is used most frequently is 3412. These versions of the motive are not found merely melodically, but also in vertical combinations. At various points two or more versions of the motive may occur simultaneously. Although it is generally true that a variation is based on the motive in its original pitch scheme or a transposition, there is an occasional case of the motive appearing simultaneously at different pitch levels.

Along with the use of the motive throughout, further unity is obtained through transfer of rhythmic materials. For example, Variations 4, 5, and 10 and the first section of the Coda use the figure \( \overline{\overline{|d|d}} \). The theme was stated in the beginning in this rhythm, \( \overline{\overline{|d|d}} \), and it appears in essentially that same rhythm in Variations 1, 2, 3, 10, and 11, and the second section of the Coda. The theme is stated in a
rhythm of strict quarter notes in eight of the variations, numbers 6, 7, 8, 9, 12, 13, 14, and 15.

The E major triad before the cadence in the theme is the precedent for many of the variations which sound a major chord before the cadence. The phrase in each variation corresponding to the one in the theme which contains the E major triad, is consistently the least dissonant. In several of the variations in which there is not a major triad at this point, the harmonic intervals become major sixths and minor thirds rather than the seconds, sevenths, and ninths of the other parts of the variation.
CHAPTER V

CONCLUSION

Since his Piano Variations is the only work in the form by Copland, his style of variation writing for piano is inherent in this piece. Not so with Beethoven. In twenty-one sets written over a period of forty years, his style and treatment varies from set to set. Therefore, it is not the intent of this paper to compare the overall variation styles of the two composers or even their piano variation styles. Rather, the comparison will be drawn between the piano variation techniques of Beethoven and Copland with reference only to the two works discussed herein, Thirty-two Variations and Piano Variations, with the intent of gaining from these isolated examples knowledge of the changes in variation writing from Beethoven's time to the present.

The general styles of the periods in which the two works were written at once call for some differences in the use of the variation form. True, Beethoven had begun in this set to impose some of his unique devices on the form, but Copland's set comes after one-hundred twenty-four years of experimentation and development since the Thirty-two Variations of Beethoven.
Formerly, the main bond of connection between the theme and any variation was the scheme of harmonies, as was traced in Chapter III through the variations of Beethoven. It was discovered that this scheme of harmonies covers in each case a span of eight measures, and that in addition to the scheme, there is also a recurring bass line which characterizes many of the variations. The overall structure is an ABA form, with Variations 1-11 being in C minor, 12-16 in C major, and the remaining ones in C minor. Both A sections alternate between the use of the passacaglia and chaconne treatment and all the variations of the B section are based on the ascending chromatic bass line.

In the Copland variations there is no such scheme of harmonies, there is no consistent number of measures, and there is no recurring bass line. However, there is found a type of structural unity which indicates that Copland did not abandon completely the old ideas of variation writing. The structural bond in the case of Copland's variations is the order of sections and phrases. Although seldom accomplished in the same number of measures, there is always the general structure of a motive and its repetition making up one phrase, and a following phrase characterized by a sequence of two intervals of a whole step up, a major chord and a cadence. The changing number of measures is a device used by Beethoven himself in a later piano work, the "Diabelli" variations. The Copland set also displays an overall form which is, like the
Beethoven, ABA. There are eleven slow variations, nine fast ones, and the Coda returns to a slow tempo, the division being derived from grouping by tempos rather than by key relationships or treatment techniques.

It can be seen, then, that both sets are characterized by a strict adherence to the theme. In the Copland variations, instead of a recurring bass line, there is a motive which appears in various forms throughout the set. The opening phrase of all variations but one, Variation 5, contains some version of this motive, most often the original form at one pitch level or another. Besides being a melodic interest this motive also forms the basis for accompaniment patterns, for ostinato figures, and, in vertical combinations, for chords used to harmonize or punctuate.

The soprano melody in the Beethoven theme seems to be of minor importance as it returns only five times, just once literally. It is interesting, however, that it returns to serve as a unifying element in Variation XII when most everything in the theme is altered or abandoned. There is a change from minor to major, the harmony is entirely different, and an ascending chromatic bass line is substituted for the descending one.

Both sets use materials from one variation to supplement another. For example, Beethoven in Variations VII and VIII uses successively the same broken-chord bass. Variations I and II have a similar sixteenth-note basis and Variations XVII
and XXVIII are built on a similar Alberti bass. Similarly, Copland transfers material from variation to variation as was described on pages 66 and 67 of the Conclusion to Chapter IV.

Except for the transition from C minor to C major and back, the Beethoven variations do not change key. In the Copland variations it is difficult to establish an overall key feeling. There are instances when a certain key is made definite. For example, the key of E major is strongly sounded at the end of Variation 7. The motive itself, when played alone, seems to settle in the key of the fourth tone, so the theme would have a tonal center of C#. This is further supported by the fact that the theme ends on C#. The same is true with a variation such as Variation 7 which has an E for the fourth tone of the motive and which ends on an E major chord. Such a key feeling of the motive is not always felt because of the context and even when established, that key is abandoned in the course of the variation. For example, the motive of Variation 14 centers around Db and the variation ends on C.

The structure of Beethoven's variations is basically harmonic. The contrapuntal lines, the figures, and the patterns which occur are merely embellishments of the implied scheme of harmonies which is repeated throughout the work. There are seven variations which seem to be more contrapuntally based than harmonically since they have only two voices.
In the Copland variations there can be found four variations (Variations 4, 5, 11, 19) and two sections of the Coda which are chordal. There are six (Variations 6, 9, 12, 13, 14, 18) which are completely devoid of chords, all one-voice or two-voice. Six others (Variations 2, 8, 10, 15, 16, 17) contain chords and contrapuntal lines and the remainder (Variations 1, 3, 7, 20) contain only isolated chords. Those which are harmonically based contain polytonal harmonies which defy analysis by traditional methods. For purposes of comparing the harmony used by Beethoven and Copland in these two works, one chordal variation from each set has been analyzed below according to the system of analysis devised by Hindemith,¹ which he claims is valid for any music.

\[
\begin{array}{c|c|c|c|c|c}
I_1 & I_{1b2} & I_1 & I_{1b2} & I_{1b3} & I_{1b2} \\
\hline
I_{1a1} & I_{1a2} & I_{2b3} & I_{2b2} & I_2 & I_1
\end{array}
\]

Fig. 28—Beethoven, Thirty-two Variations, Variation XXX, Harmonic Analysis.

\[
\begin{array}{c|c|c|c|c|c|c}
III_1 & III_1 & III_2 & III_1 & III_2 & III_1 & III_1
\end{array}
\]

Fig. 29—Copland, Piano Variations, Variation 2, measures five through ten, harmonic analysis.

¹Paul Hindemith, Craft of Musical Composition (New York, 1941-1942).
The analysis seems to indicate that the Beethoven harmony is more near the progressive type of construction that Hindemith advocates with tension and release, while the example of Copland's harmony is more or less static.

From the study and analysis of these two works can be seen the various changes that have evolved in variation writing since Beethoven's Thirty-two Variations. The melodies, which were lyrical in Beethoven's time, move now by skips and leaps. The extent of rhythmic complexity in the Beethoven variations was cross-rhythms and an occasional syncopated figure. The patterns used to begin a variation are for the most part in both sets retained throughout the variation. The complexity in the Copland set is primarily achieved by changing meter. For example, there is a change in meter in each of the first twenty-four measures of Variation 14. The sequence is as follows:

\[
\begin{array}{cccccccccccc}
4 & 2 & 5 & 3 & 1 & 7 & 3 & 5 & 3 & 7 & 3 & 2 \\
4 & 4 & 4 & 4 & 8 & 8 & 8 & 8 & 8 & 2 & 4 & 8 \\
4 & 2 & 5 & 3 & 3 & 3 \\
\end{array}
\]

Beethoven's set is entirely consonant with a primarily harmonic basis for each variation. The Copland set substitutes for consonance the juxtaposition of dissonance sounds. It is basically horizontal music which results in very dissonant counterpoint but when harmonically based, it makes extensive use of polytonal sounds. In a performance the Copland variations seem to be featuring the percussive aspects of the piano while the Beethoven set emphasizes and displays the virtuosity of the performer.
Even though extreme differences have been discovered in this comparison, it must also be noted that the sets are alike in the fact that both maintain some aspect of the theme in each variation. Though changes in styles may dictate many alterations in the form, adherence to the theme is an unqualified necessity. For, if that quality is destroyed, it ceases to be a variation form.
APPENDIX

Theme: Section A (Measures 1-5) Section B (Measures 6-10)

Variation:

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<th>B</th>
<th></th>
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<td>B</td>
<td></td>
<td>(1-5)(6-12)</td>
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<td></td>
<td>(1-5)(6-12)</td>
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</tr>
<tr>
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</tr>
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<td>B</td>
<td></td>
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<td></td>
<td>(1-11)(12-24)</td>
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</tr>
<tr>
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<td>B</td>
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<td>(8-17)(26-33)</td>
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</tr>
<tr>
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<td>A</td>
<td>B</td>
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<td>(1-9)(10-16)(17-24)</td>
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Fig. 12--Copland, *Piano Variations*, analysis of form.
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<tr>
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<tr>
<td>11</td>
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Fig. 26—Copland, Piano Variations, Rhythmic progression

*There is a tempo change indicated within the variation.
Fig. 27--Copland, Piano Variations, Use of the original motive in the opening phrase of each variation.

*Variation 5 is omitted because the motive is not present in its opening phrase.
<table>
<thead>
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<th>Measure</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<th>8</th>
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<td>i</td>
<td>V</td>
<td>I7</td>
<td>IV</td>
<td>#1ivG</td>
<td>i</td>
<td>iv</td>
</tr>
<tr>
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<td>V</td>
<td>#111</td>
<td>a7</td>
<td>IV</td>
<td>#1ivG</td>
<td>i</td>
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<tr>
<td></td>
<td>III</td>
<td>i</td>
<td>V</td>
<td>bV (N6)</td>
<td>IV</td>
<td>iv</td>
<td>V vii7</td>
<td>V</td>
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<td>IV</td>
<td>i</td>
<td>V</td>
<td>#111</td>
<td>a7</td>
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<td>#1ivG</td>
<td>i</td>
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**TABLE I**

HARMONIC ANALYSIS OF BEETHOVEN'S THIRTY-TWO VARIATIONS
TABLE I —Continued

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*Variations XXXI and XXXII which comprise the Coda are excluded.
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