Historical Backgrounds and Musical Developments of Iannis Xenakis’s *Persephassa* (1969)

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Western music written solely for percussion instruments began appearing in earnest in the 1930s. The budding genre would see tremendous growth in the Americas up until the end of World War II. Following the war, percussive evolution would find its way into academia and be championed by a new breed of percussionist/composer. The first professional Western percussion ensemble, Les Percussions de Strasbourg, would emerge in 1962, forever altering the history of percussion chamber music. The six French percussionists would begin to commission works from the foremost avant-garde musical minds in Europe. One such commission, Iannis Xenakis’s *Persephassa* (1969), stands as a singular masterpiece for its comprehensive use of rhythm, spatial considerations and extraordinary length.

Early Percussion Repertoire

One of the earliest pieces of percussion music was composed by Frenchman Edgard Varèse in 1931. *Ionisation* is a work of remarkable deftness and imagination, utilizing thirteen players on forty-four instruments. The score’s ninety-one measures last only six minutes, yet, despite its brevity, *Ionisation* is generally considered to be one of the finest works for percussion instruments ever written.

What must be remembered, however, is that Varèse’s work was not the first piece of its kind. Its stature is well-deserved, but at least one composer was writing percussion music a little earlier than Varèse. The 5th and 6th *Ritmicas* of Cuban composer Amadeo Roldán came in 1930.
These two works, each for nine players, were written for percussion instruments indigenous to Latin America.

Even earlier is the rogue *Ballet Mécanique* by American composer George Antheil. The work, written in 1924-25, originally utilized eight pianos, four xylophones and a host of other percussion instruments, including two electric buzzers and the sound of two airplane propellers. The work is frequently mentioned as an early example of percussion music. While many characteristics are undeniably percussive in nature, the pianos are the glue which holds *Ballet Mécanique* together. The author is aware of Varèse’s use of the piano in *Ionisation*, as well as his enlistment of the glockenspiel à clavier (with resonators), but their scant, coloristic use can hardly be compared with the incessant piano writing in Antheil’s work. After observing Antheil’s compositional leanings in works such as his *Airplane Sonata* (1921), placing *Ballet Mécanique* in the context of the Italian and Russian Futurists seems entirely logical.

The Futurists foreshadowed music for percussion instruments alone with their noise experiments. During the interwar period, important contributions to percussive developments were made by Igor Stravinsky, Béla Bartók and Darius Milhaud. Alexander Tcherepnin’s *Symphony No. 1* (1927) and Dmitri Shostakovich’s opera *The Nose* (1927-28) include noteworthy percussion interludes. Furthermore, the orchestral works *Sinfonische Metamorphosen* (1943) of Paul Hindemith and *The Young Person’s Guide to the Orchestra* (1945) of Benjamin Britten both have moments of pure percussion ensemble within their larger orchestral landscapes.

Not to be forgotten is the work of Cuban composer José Ardévol (1911-1981), who perhaps does not get the attention he deserves. A friend and colleague of Amadeo Roldán, Ardévol contributed two of the earliest works in the new field of percussion music, *Estudio en
forma de preludio y fuga (1933) and Suite para instrumentos de percusión (1934). These are the works of a young composer, but they are some of the most prodigious compositions ever written for percussion instruments alone. Estudio asks for thirty-seven players and Suite for thirty.

The work of American composers Henry Cowell and Lou Harrison was focused on writing for percussion instruments throughout the 1930s and first half of the 1940s. The most famous of Cowell’s contributions to the genre is most likely his 1934 work for eight percussionists, Ostinato Pianissimo, although Pulse and Return from 1939 are worthy successors. Of particular interest in regard to Lou Harrison is his Labyrinth No. 3 from 1941, which requires 11 players. Though less familiar names, William Russell would write eight works for percussion ensemble prior to 1940 (of which Fugue for Eight Percussion Instruments stands out), and Johanna Beyer would write six.

However, the most sizeable contribution to the field was made by John Cage. Apart from his compositions themselves, Cage created arguably the first Western percussion ensemble. The John Cage Percussion Players were active between 1938 and 1943 and did much to promote the fledgling art of percussion music through the performance and commission of new works. Their travels extended the exposure of percussion music from California to Chicago and eventually to New York through a series of noted performances.

Among Cage’s most important compositions for percussion are the First Construction (in Metal) (1939) and the Third Construction (1941). The First Construction is a crucial work for percussion sextet incorporating orchestra bells, thunder sheets, metal rods on piano strings, sleigh bells, oxen bells, brake drums, cowbells, Japanese temple gongs, Turkish cymbals, anvils, Chinese cymbals, muted gongs (including water gong) and tam tam.¹ The work is a tour de force of structuralist methods and an intriguing investigation into the world of metallic percussion

writing. With the creation of his *Third Construction* (1941), John Cage demonstrates a knowledgeable synthesis of the capabilities and colors of percussion instruments. *Amores* (1943) is yet another important early work, and the significance of his *Imaginary Landscape* series should not be undervalued. Cage’s influence within the field of percussion music was nothing short of revolutionary, and his fostering of the art through the commissioning and performing of new works was momentous.

Two other early percussion works deserve mention, though they may not fit neatly into any specific categorization. Alan Hovhaness’s *October Mountain* (1942), a five movement work for percussion sextet, is a strikingly sedate statement for marimba, glockenspiel, timpani, tenor drum, bass drum, gong and tam tam. Carlos Chávez’s well-known *Toccata para instrumentos de percusión* (1943) is a sextet for a wide range of percussion instruments including several different types of drums, xylophone, glockenspiel and various metallic instruments.

Chavez’s *Toccata* provides a neat ending to the period of early percussion music. Although Cowell, Cage and the other early masters advocated heavily for their percussion compositions, it was not to be their life work. Cage’s 1940 work, *Bacchanale*, was the first work written for prepared piano, a piano altered by the insertion of various objects on or between the strings. The timbral variety the prepared piano offered essentially made it a one man “percussion ensemble.” Cowell would write a *Concerto for Percussion and Orchestra* in 1958, but would never again have the same interest in percussion he had in the 1930s. Harrison would write significant percussion parts in his *Concerto for Violin with Percussion Orchestra* (1940-1959), but his compositional interests had also clearly shifted. The early percussion movement was decidedly over and percussion music was in need of a new champion.
Developments in the 1950s

Percussionist Steven Schick uses the term “the big chill” to describe the seeming lack of percussion music immediately following World War II. “The series of major percussion ensemble works that began in the early 1930s with Ionisation and Roldan’s Ritmicas concluded in 1943 with Cage’s Amores and Carlos Chavez’s Toccata para instrumentos de percusión. Then there was nothing. Following Cage, Varèse and Cowell came almost twenty-eight years of near silence from percussion. The next great work for an ensemble of percussion instruments arrived, in my opinion, in 1971 with Steve Reich’s Drumming.”

Granted Schick’s comments regard American percussion music only, and he is not purporting total silence, merely a lack of masterpieces. In reality, however, the years following World War II are teeming with percussion repertoire.

Michael Colgrass (b. 1932) was just beginning his undergraduate studies at the University of Illinois when he wrote Three Brothers (1951). A short (not even five-minute) work for nine players, the rather straightforward orchestration involves bongos, snare drum, timpani, cowbell, maracas, tambourine, cymbal and toms. To place Three Brothers on the same artistic level as any of the other pieces previously mentioned in this writing is almost completely ludicrous. The importance of Colgrass’s work lies elsewhere.

Colgrass tells the following story regarding the beginning of his relationship with a certain Paul Price. Colgrass writes, “Price invited me to a percussion ensemble concert in a last ditch attempt to get me to be a serious classical music student. After the concert he asked me what I thought of it. I arrogantly told him I admired the student’s playing but that I thought the music was ‘terrible.’ These were works by Varèse, Harrison, Cage, Cowell and the other giants

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of early percussion composition. He took a long look at me and said quietly, ‘If you don't like what you heard, why don't you try your hand at it.’ I was thunderstruck by his suggestion, because I thought you had to be dead to write music. He showed me some scores and I immediately dived into my first piece, Three Brothers for nine percussionists. We performed the work soon after it was completed (8 May 1950). Then it was published and recorded, and has become a percussion classic, of all things!”

Paul Price holds a crucial position in the history of percussion music as one of the first advocates of the genre who was not primarily a composer. Price was exposed to the early percussion ensemble music of Varèse and Cowell while attending the New England Conservatory of Music during the early 1940s. Upon arriving at the University of Illinois in 1949, Price began the first accredited collegiate percussion ensemble.

Price’s group championed early percussion music by Cowell, Varèse, Roldán, Cage, Antheil and Harrison, but also of significance was Price’s creation of conditions that inspired a great enthusiasm in writing for percussion among established composers and his own students.

Colgrass supposedly did not enjoy any of the percussion music on the concert he attended with Paul Price. Rather than defending his own choice in music or lecturing Colgrass on its compositional merits, Price merely encouraged Colgrass to try his hand at composition since he did not find any existent percussion music to his taste. After Colgrass completed Three Brothers, Price arranged a performance, saw the work through to publishing and organized a recording of the work. (Price would later start two of his own publishing companies, Music for

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Percussion and Paul Price Publications.) Furthermore, Colgrass was not the only student of Price’s to receive this sort of treatment.

Colgrass would go on to write numerous compositions for percussion alone throughout the 1950s, including *Percussion Music* (1953), *Chamber Music for Percussion Quintet* (1954) and *Inventions on a Motive* (1955). The musical quality of these works is not being put forth as comparable to the earlier percussion music discussed in this writing. They are but works of a teenager and an early twenty-something. But consider what Colgrass was to become. After studies with Darius Milhaud (at Aspen), Lukas Foss (at Tanglewood), Wallingford Riegger and Ben Weber, Colgrass has been the recipient of numerous grants, commissions and fellowships, not the least of which was a Pulitzer Prize in 1978 for his work for four solo percussionists and orchestra, *Déjà Vu*, commissioned and premiered by the New York Philharmonic.

Michael Colgrass was also a widely regarded free-lance percussionist in New York City from 1956-1967, playing with the New York Philharmonic and the Modern Jazz Quartet as well as many other groups. Colgrass’s ascent as a composer was being mirrored by his ascent as a percussionist, a new commonality of the 1950s percussive world. Well-trained percussionists/budding composers were not only writing percussion music, but playing percussion music as well. This is a noteworthy distinction since John Cage, his cohorts and particularly his predecessors were ever increasingly influential composers, yet would never be widely regarded as percussionists. The personnel for the first recording of *Ionisation* consisted primarily of composers including Carlos Salzedo, Paul Creston, Henry Cowell, William Schuman, Albert Stoessel, Georges Barrére, Adolph Weiss, and Egon Kenton.6 The Cage Percussion Players included such non-percussionists as Cage’s wife Xenia Cage and the great

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choreographer and dancer, Merce Cunningham. Other members were composer friends of Cage’s, dancers, students and faculty of the Cornish School in Seattle, indeed anything but the most knowledgeable percussionists of the day.

Nevertheless, beginning in the 1950s with Paul Price, percussion music gained a new kind of advocacy. Price was a well-trained percussionist with a commitment to the existing repertoire for the instruments. In addition, he was training young musicians, many of whom would go on to become legends, and encouraging efforts in composition for percussion instruments.

Saul Goodman, timpanist for forty-six years with the New York Philharmonic, shares his contribution regarding the development of the percussion ensemble. “I don’t know the history of percussion ensemble, but I started an ensemble at Juilliard in 1944, so I think I was one of the first. Then I offered a prize for the best percussion composition, because there was very little music for percussion ensemble then. Varèse asked me to perform Ionisation at the school, but I had to say no because we weren’t ready for it. In later years I did perform it and it always proved a huge success.”

If what Goodman says is correct, his ensemble would predate Price’s ensemble in Illinois by five years. Like Price, Goodman encouraged students to write for percussion instruments, even offering a monetary reward. He himself also spent time composing for percussion instruments, with a particularly active period occurring at the end of the 1950s. He was a percussionist, writing music for his students, as many were beginning to do. Yet Goodman’s story relays an important point. Varèse was looking, perhaps even begging, for performances of Ionisation, and Goodman was not uninterested. He merely felt his students technically, and

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perhaps artistically, incapable. Goodman’s concern for quality shows a crucial advancement in the world of percussion during the 1950s.

One of Goodman’s students, William Kraft (b. 1923) would become another significant composer active in percussion writing after World War II. Trained at Columbia University, Kraft studied composition with Jack Beeson, Henry Cowell, Otto Luening and Vladimir Ussachevsky while spending time at Juilliard studying percussion under the tutelage of both Goodman and Morris Goldenberg. Shortly after completing his studies in New York, Kraft moved to Los Angeles, where he became principal percussionist of the Los Angeles Philharmonic for a period of eight years before becoming the principal timpanist from 1962-1981. Shortly after arriving in Los Angeles, Kraft organized and directed the Los Angeles Percussion Ensemble. This group played a major role in premiering and recording works by composers such as Ginastera, Harrison, Krenek, Stravinsky, and Varèse. From 1981-85, Kraft was the composer-in-residence with the Los Angeles Philharmonic, and he would eventually serve as the head of the composition department at the University of California at Santa Barbara for eleven years before retiring in 2002.

His percussion compositions from the 1950s are the works of a young composer to be sure, but there is a noticeably inherent skill in his writing that can be evidenced in his Theme and Variations (1956), Suite for Percussion (1958) and his still quite popular and masterly work for eight percussionists, Momentum (1958). Significant again here, as in the case of Colgrass, is that Kraft was both an acknowledged percussionist and a composer.

The link of Ben Johnston

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Composer Ben Johnston acts as a link to many of the aforementioned developments. Johnston left the Cincinnati Conservatory of Music in 1950 to work with Harry Partch in California. By 1952, he was completing a graduate degree at Mills College, while studying with Darius Milhaud. Before completing his MFA at Mills, Ben Johnston was hired by the University of Illinois to be a “dance accompanist/composer” as well as an undergraduate theory professor. Johnston was leaving Mills College, one of the hotbeds of the early percussion ensemble movement, to teach at the University of Illinois, where Paul Price and his student percussion ensemble were based.

Johnston’s MFA thesis was his Concerito for Percussion (1952), completed after he had already begun his position at the University of Illinois. Milhaud did not care for the work, perhaps because “the Concerito seemed closer to Partch’s influence than Milhaud’s.” The piece is dedicated to Paul Price, a strong advocate for Johnston’s music. Through a series of events, Johnston’s music came to the attention of John Cage. The two first met in 1952 at the Contemporary Arts Festival, Johnston being surprised that Cage already knew him and his Concerito for Percussion. Johnston ended up traveling to New York City in the summer of 1952, spending time with Earle Brown and Cage assembling tape for Cage’s 8-track tape piece, Williams Mix (1952). In 1957 and 1959, Johnston would study with Cage, forming a long-lasting friendship when Cage became a Visiting Associate in the Center for Advanced Studies at the University of Illinois.

In short, Ben Johnston went to California to work with one of the most infamous mavericks in musical history in Harry Partch. He would eventually study with one of the earliest champions of percussion in Darius Milhaud and land his first job at one of the centers of the

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10 Ibid., 20.
11 Ibid., 22.
percussive world. He dedicated his *Concerto for Percussion* to the new breed of percussion advocate in Paul Price and promptly formed a lifelong friendship with one of the most significant figures of percussion history in John Cage.

The story of percussive developments in the 1950s is not just the story of Price, Colgrass, Kraft and Johnston. Numerous other composers/percussionists such as Warren Benson, Harold Farberman and Halim El-Dabh were working diligently on developing the percussive medium. Across the Atlantic, a different set of developments was taking place.

**European developments**

Up until the formation of Les Percussions de Strasbourg in 1962, the history of European percussion music is rather spotty. No parallel movement to the relatively organized “schools” found in North America seems to have existed, and the quantity of percussion music written in Europe through the end of the 1950s is, by comparison, infinitesimal. *Cendres* (1946) is the opus 1 of French theorist and composer Claude Ballif. A mysterious *Trio* for percussion by Italian Giacinto Scelsi appeared in 1950. Maurice Ohana’s first version of *Etudes chorégraphiques* for four percussionists was conceived in 1955, though he would not let the work be premiered in this version. The German composer Karl Amadeus Hartmann sketched the four minute *Scherzo für Schlagzeugensemble* in 1956, yet the work required completion by Wilfried Hiller in 1991. The enigmatic Swedish composer Bo Nilsson (b. 1937) wrote *reaktionen* for four percussionists some time before it was published by Universal Edition in 1961. Precious little else could be found in regard to European works for more than one percussionist written before 1962. The Americas simply seemed to get a jump on the validity, or

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at the very least, novelty, of percussion music. Other percussive developments, however, were in the hands of the foremost musical minds in Europe.

Luigi Nono’s mixed ensemble work *Polifonica-Monodia-Ritmica* (1951) ends with a percussion ensemble movement (*Ritmica*) featuring bass drum, snare drum, timpani, cymbals, tom tom and xylophone. Pierre Boulez’s writing for xylorimba, vibraphone and a host of other percussion instruments in *Le marteau sans maître* (1955) was nothing short of revolutionary. Karlheinz Stockhausen’s influence on percussion writing was evident early in his career through his *Schlagquartett* (1952) (later revised and renamed *Schlagtrio* in 1974) for piano and timpani. His *Zyklus* (1959) was the first major percussion solo written for a specific set of instruments. Luciano Berio’s *Circles* (1960), brilliantly scored for female voice, harp and two percussionists, uses a large array of both pitched and un-pitched percussion instruments.

All of these works, most quite famous, brought about large strides in percussion writing, without being true pieces of percussion chamber music. It would take but one look at any of the works mentioned by Nono, Boulez, Stockhausen or Berio to see that the percussion writing is on an entirely different order from the first percussion music, in particular the xylorimba and vibraphone writing in Boulez’s *Le Marteau* and the multiple-percussion writing in Berio’s *Circles*. Additionally, these composers were extremely influential figures at the absolute forefront of the post-World War II European avant-garde.

**Les Percussions de Strasbourg**

Into this evolving European percussive climate came Les Percussions de Strasbourg. The percussion sextet, which concertized for the first time on January 17th, 1962, has the distinction of being called the first *professional* percussion ensemble in the history of the Western world.
The next professional percussion ensemble, NEXUS, played their first concert nearly a decade later in 1971. The Blackearth Percussion Group did not begin until 1972 and was disbanded in 1979, at which time Allen Otte founded Percussion Group Cincinnati. Kroumata would not be created until 1978 and Amadinda, not until 1984.

Les Percussion de Strasbourg’s roots go back before 1962, however. Each of the original members of the group trained under the legendary French percussionist Felix Passerone at the Paris Conservatory, who founded the percussion class there in 1947. One of the founding members of Les Percussions de Strasbourg, Georges Van Gucht states that the discovery and study of contemporary music at the Paris Conservatory was particularly influential to the group’s inception. Without a doubt, Passerone (much like Paul Price) must have fostered this environment.

The six percussionists would end up in Strasbourg, where they were each members of one of the two orchestras in the city at the time, the Strasbourg Philharmonic Orchestra and the Office de Radiodiffusion-Télévision Française (ORTF) Orchestra. Each orchestra enlisted three percussionists: Jean Batigne, Claude Ricou and Lucien Droeller played in the Philharmonic and Georges Van Gucht, Paul Finkbeiner and Bernard Balet played in the ORTF. In addition to their growing passion for contemporary music, the prompting and encouragement of Pierre Boulez would also play a significant role in the formation of the group. The newly-founded sextet, originally named Le Groupe Instrumental de Percussion de Strasbourg (shortened in 1966) stated their aim: “to give percussion instruments all their modern significance by presenting through a

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14 Georges Van Gucht, e-mail message to author, January 8, 2012.

15 Ibid.
contemporary language a repertoire written exclusively for them and based on continuing creation of living music.”¹⁶

Consider the alternative to “repertoire written exclusively for them.” If Les Percussions de Strasbourg wanted to play existing percussion ensemble repertoire, the list of options would have been severely limiting. Only a handful of works for six percussionists currently existed, most notably Cage’s First Construction (in Metal). There is a dearth of percussion sextets amongst the early percussion works and this is assuming the group knew all of them that existed. Noticeable also is the fact that the six members did not wish to write any music for the group themselves. So naturally, when there is no music and no desire to write any, a logical mission statement includes commissioning new work. The so-called “modern significance” the group speaks of must relate to the then very recent developments in percussion writing by the likes of their own mentor, Pierre Boulez, for example.

From the outset, the composers Les Percussions de Strasbourg would target for commissions were highly established. Over the course of the group’s first decade, important commission after important commission would be created. Serge Nigg, one of the first French composers to master 12-note composition, would write Histoire d’œuf (1961) for six percussionists, two narrators, piano and celesta. (Nigg’s work would be the first commission the Strasbourg percussionists performed together on their January 17th, 1962, debut.) Dutch composer Peter Schat’s Signalement (1961) for six percussionists and three bassists was not far behind. Jean-Claude Eloy’s Equivalences (1963) for ten winds, celesta, harp, piano and six percussionists would be dedicated to Boulez, who enlisted the aid of the new group on the work’s premiere.

The great French composer Olivier Messiaen was beginning to show a pioneering interest in and a marked ability for the colorings of percussion as early as his *Oiseaux Exotiques* (1956). Messiaen would write the elaborate percussion parts in his orchestral works *Sept haïkaï* (1962), *Couleurs de la Cité Céleste* (1963) and *Et exspecto resurrectionem mortuorum* (1964) specifically for the members of the new percussion sextet. He would later write of them, “They are pioneers in the evolution of percussion in contemporary music. Without them there would be far fewer works written for percussion, and fewer percussionists.” According to Messiaen’s 1966 diary, he intended to write a ballet for Les Percussions de Strasbourg, which, unfortunately, never materialized.

Works for percussion instruments alone began to arrive with Maurice Ohana’s reworking of *Etudes chorégraphiques*, premiered on June 8, 1963. Serge Nigg would inform the Czech composer Miloslav Kabeláč about the new percussion group leading to Kabeláč’s *Osm Invenci pro bici nástroje*, premiered in April, 1965. Another landmark commission would come in 1966 with Gilbert Amy’s *Cycle*. Polish composer Kazimierz Serocki’s spatialized work *Continuum* would receive its premiere in 1967. Even Igor Stravinsky wished to write a piece for the percussion sextet, a prospectus cut short by his passing in 1971.

Perhaps one of the most important works that Les Percussions de Strasbourg would perform during their first decade was a six-player arrangement of Varèse’s *Ionisation*, which Varèse himself approved before his death in 1965. [André Jolivet would later memorialize the passing of Varèse with a sextet for the percussion group entitled *Ceremonial* (1968).] The first professional percussion ensemble performing the first percussion masterpiece is certainly a

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fitting intersection. By 1968, the group was funded by the French government through the Ministry of Cultural Affairs, under the supervision of the famous Marcel Landowski. Les Percussions de Strasbourg was the first group to have achieved this arrangement.\textsuperscript{20}

\textbf{Iannis Xenakis}

Born in Romania on an unclear date (thought to be May 29\textsuperscript{th}) in 1922, Xenakis was sent to boarding school on the Greek isle of Spetsai at the age of ten. The young Xenakis was in Athens by the age of sixteen, preparing for the entrance examination in civil engineering at the Athens Polytechnic School. He would gain acceptance in the fall of 1940. In November, however, the Italian invasion of Greece closed the school. Xenakis began to become involved in a number of political protests which led eventually to joining the Greek resistance in 1941.\textsuperscript{21}

Xenakis’s dealings in the resistance movement escalated to the point of being involved in mass demonstrations put on by the communist-led National Liberation Front (EAM). By October of 1944, British forces had arrived in Greece to put down the EAM uprising and restore power to the Greek monarchy. However, the resistance movement was not only about ridding Greece of the German presence. Xenakis would later state that, “We, the younger generation, hoped not only that the war would one day end; we wanted social changes—a more just society. We wanted the land to be cultivated, the mines to be exploited more effectively, to get rid of foreign influence, to be free.”\textsuperscript{22} The fight of the resistance would turn against the British. It was indeed a British tank blast on January 1, 1945, which caused the wound on the left side of Xenakis’s face.

\textsuperscript{20} Van Gucht, January 8, 2012.
While Xenakis was recovering in the hospital from the blast that miraculously did not kill him, the EAM lost its political and military powers. Somehow, Xenakis managed to return to the Polytechnic to complete his degree in civil engineering in 1946. However, shortly thereafter, Xenakis was forced to enlist in the national military and learned that his position as a former resistance member put his life in serious danger. He was forced to leave the country after several close calls with capture. Xenakis arrived in Italy by September 1947, from whence he escaped into France with plans to enter the United States. When later asked why he did not go to the United States, Xenakis remarked, “I don’t know. I was in a desperate situation. Can you imagine what it meant to have fought for years for an ideal, to have seen people die around you and then to see how those ideals were senselessly, hopelessly, defeated?”

In this state of mind, Xenakis found himself in Paris. What he also found was an incredibly renowned architect, Le Corbusier, as his first employer. Xenakis would work first as an engineer and progressively more and more as an architect over the twelve years of his employment. He would contribute to the designs of the glass façade of the monastery of St Marie de La Tourette, near Lyons, and the greater part of the chapel there, parts of the government buildings in Chandigarh, India, as well as the kindergarten on the roof of the residential block in Nantes-Rézé. Perhaps Xenakis’s most famous design was the Philips Pavilion in Brussels for the 1958 Exposition Universelle. Edgard Varèse’s *Le Poème électronique* filled the space that Xenakis designed but that is often mistakenly attributed to Le Corbusier. (The author cannot help but enjoy this junction between two of the greatest writers for percussion in history, twenty-seven years after the composition of *Ionisation* and eleven years before the composition of *Persephassa.*)

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23 Varga, 19.  
24 *Grove Music Online*, s.v. “Xenakis, Iannis.”
The love of music began quite early for Xenakis, but serious compositional training did not come until his arrival in Paris. He tells an interesting story of his encounter with Arthur Honegger. “I volunteered a piano piece I’d written. He asked me to play it, and when I had finished he said: But there are parallel octaves here! Yes, I know, I replied, but I like them. He became more and more angry and finally said: This is no music! Perhaps the first few bars are—but no, even they are not music! I said nothing but stopped attending his classes.”25 Xenakis would also have brief interaction with Darius Milhaud, who generally liked his music and opposition to serialism.

Xenakis’s most important teacher, however, was surely Olivier Messiaen, whose famed class at the Paris Conservatory Xenakis attended regularly in 1952. Messiaen tells the following story about his initial encounter with Xenakis. “I understood straight away that he was not someone like the others. I asked him many questions. First of all he impressed me physically, because he carries those great scars, those glorious wounds. He is of superior intelligence. I learned that he was Greek, an architect, and worked with Le Corbusier, that he did special mathematics.”26,27

The young architect and aspiring composer had been slightly dissuaded by his previous attempts at compositional training and wished to know if he should study harmony and counterpoint. Messiaen remarked, “I did something horrible which I should do with no other student, for I think one should study harmony and counterpoint. But this was a man so much out of the ordinary that I said, ‘No, you are almost thirty, you have the good fortune of being Greek, of being an architect and having studied special mathematics. Take advantage of these things.”

25 Varga, 27.
26 Messiaen never further describes the term ‘special mathematics.’
Do them in your music.” Ultimately, Xenakis’s activities as a political dissident, studies as an engineer, career in architectural work and rather last-minute music education contribute strongly to the originality of Xenakis, the composer.

Xenakis’s first masterpiece was begun in 1953 and completed the year following. *Metastaseis* is an eight minute work for a sixty-one member orchestra playing entirely in divisi. The title translates “beyond or after immobility” according to Xenakis. The work would not be premiered until 1955, at the Festival of Donaueschingen, where Hans Rosbaud would conduct the work alongside the premiere of Pierre Boulez’s landmark *Le Marteau sans Maître*. Percussively speaking, the work is of little importance, yet the piercing woodblock notes which dot the opening landscape foreshadow the far more contributive role the instrument would play in Xenakis’s next major work.

*Pithoprakta* is scored for a fifty-member orchestra consisting of forty-six divisi strings, two trombones and two percussionists. Hermann Scherchen conducted the premiere performance in Munich in 1957 and also conducted the 1958 performance at Darmstadt. The title translates “an act, action by probabilities.”

*Pithoprakta* incorporates extraordinary percussive invention. Xenakis notes, “Instead of calling for a great many percussion players, which would have entailed organizational and other difficulties, I used the body of the instruments. It was that noise—the cloud of percussive sounds—that I transformed gradually, using statistical methods, into musical sounds.” At the outset of the work, Xenakis requests that each string player play the body of his or her instrument. To this hive of activity he interjects a splitting single attack of the wood block, which continues to

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28 Matossian, 48
29 Varga, 72.
30 Ibid., 35.
32 Varga, 75.
contribute such attacks periodically throughout the work. The xylophone’s lone appearance incorporates only one pitch and interacts colorfully with plucked strings and the wood block over a sea of metamorphosing sustain. Xenakis may have chosen not to deal with the concerns of obtaining “a great many percussion players,” but the percussive nature of Pithoprakta is undeniable.

The first work of Xenakis to attract “notice” within his own city of Paris was Achorripsis. Not long after Achorripsis (“jets of sound”) would follow Xenakis’s first forays into electronic music, including the famous two-and-a-half minute Concret PH, which would precede Varèse’s Le Poème électronique at the Philips Pavilion. Duel (1959) would introduce Xenakis’s concept of game theory, which deals with pitting musicians or groups of musicians against one another according to a predetermined strategy.

In 1960, Xenakis noted a new-found appreciation of his work among the French critics and public. This same year, Xenakis would be appointed by the French artistic establishment to the Jury of the Biennale de Jeunes Artistes. By the end of 1960, he would write to a friend to say that “In one year I have had 5 concerts–world premieres and first performances which never went unnoticed.” Xenakis was invited to the International Congress of East and West in Japan in 1961. 1963 would bring an invitation from Aaron Copland to the Summer Course in the Berkshire Music Centre at Tanglewood as well as a nomination by the Ford Foundation for a composer-in-residence position in Berlin. From 1963 on, Xenakis’s star would not stop rising.

Symbolic music would appear with his piano solo Herma (1961) and gain another powerful representative with a commission for piano, two trumpets and three trombones from

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33 Bois, 6.
35 Matossian, 142.
36 Ibid., 143.
37 Ibid., 163.

The volume of concepts that Xenakis had explored in his music by the end of the 1960s is more than most composers traverse throughout their entire careers. His position as one of the elite composers in Europe by the end of the decade was certain. The concept of spatiality would be one further area of interest.

**Spatial Music**

Of the many concepts that Xenakis introduced to Western music, spatial music is not one of them. Indeed the idea of localized sounds coming from various, predetermined points in physical space had many forbears and pioneers and a rich tradition in the 20th century alone, from Charles Ives to Henry Brant to Karlheinz Stockhausen. The latter’s *Gruppen* (1958) for three orchestras with three conductors is considered to be one of the most striking orchestral accomplishments of the 1950s avant garde.

*Persephassa* was not even the first spatial work that Xenakis composed. *Pithoprakta* utilizes a rather rudimentary concept of spatiality and *Eonta* deals with performer movement and directional brass playing. Xenakis would write two far more advanced spatial works before *Persephassa* as well, the first being *Terretektorh*. The work for an 88-member orchestra dispersed among the audience was composed from 1965-66. Hermann Scherchen would conduct
the premiere just over two months before his death. The orchestra encompasses the conductor with the audience members sprinkled in amongst the musicians.

**Figure 1:** *Terretektorh*: seating plot

Each member of the ensemble is equipped with a woodblock, a whip (slapstick), maracas and an Acme siren whistle. This was not the first time Xenakis equipped large numbers of non-percussionists with percussion instruments, having done so in *Oresteia* (1966). But the effect gained in the later orchestral work can be seen, in its “cross-rhythmic pulsations,” to directly precede percussion writing that would fully bloom in *Persephassa*.³⁸

³⁸ Harley, 48.
The other significant spatial work by Xenakis prior to *Persephassa* was *Nomos gamma*, composed from 1967-68 for an orchestra of 98 musicians dispersed among the audience. No personal percussion instruments are called for in this clear successor to *Terretektorh*. Instead, seven of the eight percussionists are equipped with four toms each, while the timpanist uses two timpani. The drums never disappear for long and, more often than not, are played at exceptionally loud volumes. In an undeniable precursor to *Persephassa*, *Nomos gamma* concludes with the passing of short drumrolls from one percussionist to the next in a swirling climax. 39 Matossian refers to the percussion finale as “almost a composition within a composition.”40

**Figure 2: Nomos Gamma m. 445-449:**

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39 Harley, 57.
40 Matossian, 192.
Persephassa

Prior to working on his first ballet Kraanerg, Xenakis was sketching what would become Persephassa. Xenakis had only six months to write the seventy-five minute Kraanerg and to have it recorded by April, 1969.\footnote{Harley, 60.} This was no small project, but the composer also found time in 1969 to write an eleven-minute chamber work, Anaktoria, for Octuor de Paris. After the completion of Anaktoria in May 1969, Xenakis gave his undivided attention to Persephassa. Xenakis would meet with Les Percussions de Strasbourg in June to discuss the work’s instrumentation and would deliver the score by July.\footnote{Jean Batigne, “Sur Persephassa et Pléiades,” in Regards sur Iannis Xenakis (Paris: Éditions Stock, 1981), 177.}

The work’s title is derived from the name Persephone, the daughter of Zeus and queen of the underworld. The commission came from the Office de Radiodiffusion-Télévision Française (ORTF) and the Shiraz Arts Festival. From 1967-77, this historic festival brought a wide variety of international artists from all artistic disciplines to Persepolis, Iran. (As but one example, the Merce Cunningham Dance Company along with musicians John Cage, David Tudor and Gordon Mumma would be featured at the 1972 festival.) Historian Robert Gluck would go so far as to say that Iannis Xenakis was the Western composer most closely affiliated with the Festival.\footnote{Robert Gluck, “The Shiraz Arts Festival: Western Avant-Garde Arts in 1970s Iran,” Leonardo 40, no. 1 (2007): 22, \url{http://www.mitpressjournals.org/doi/pdf/10.1162/leon.2007.40.1.20} (accessed January 9, 2012).} Xenakis’s work for twelve unaccompanied solo voices or mixed choir, Nuits, was performed at the 1968 festival. Persephassa would follow at the 1969 festival. The hour-long light and sound spectacle known as Persepolis was presented in 1971.

Persephassa was premiered on September 9, 1969, amidst the ruins of the ancient Persian city of Persepolis. The approximately thirty-minute sextet would receive its French premiere nearly two months later on October 28th at the Contemporary Music Days. The six members of
Les Percussions de Strasbourg who premiered the work were Jean Batigne, Gabriel Bouchet, Jean-Paul Finkbeiner, Detlef Kieffer, Claude Ricou and Georges Van Gucht. These six members would also be involved with the premiere recording of the piece. Gabriel Bouchet had joined the group in 1963 and Detlef Kieffer in 1965, replacing Lucien Droeller and Bernard Balet respectively.\footnote{Van Gucht, January 8, 2012.}

The tales of the brutal heat at the premiere are legendary. Batigne states that the tam-tams would literally burn a hand to the touch and had to be handled with damp cloths.\footnote{Batigne, 181.} Due to the scorching temperatures, the rehearsal schedule needed to be rearranged, and, as a result, the famous overnight rehearsal took place the evening before the premiere. This would be the only rehearsal prior to the premiere at which Xenakis was present.

The story not often told is just how busy Les Percussions de Strasbourg was in the fall of 1969. Beginning in August, the sextet was rehearsing Persephassa eight to ten hours a day.\footnote{Ibid., 177.} Three days prior to the premiere of Persephassa in Iran, Les Percussions de Strasbourg was premiering Maurice Ohana’s concerto for six percussionists and strings, Silencaire at the Chateau de Ratilly in Treigny, France, as part of the Lucerne Festival of Strings.\footnote{Rea, 278.} At the very same Shiraz Arts Festival which saw the premiere of Persephassa, Betsy Jolas’s États for violin and six percussionists received its first performance by the sextet and Gérard Jarry.\footnote{Betsy Jolas’s Principales œuvres musicales, http://data.bnf.fr/13895701/betsy_jolas/ (accessed January 14, 2012).} Before the year was out André Boucourechliev’s Archipel III for piano and six percussionists was given its premiere at the Palais de Chaillot by Les Percussions de Strasbourg as well.\footnote{André Boucourechliev, Archipel 3, Les Percussions de Strasbour and Georges Pludermacher, piano, Philips Prospective 6526 001, 33 rpm, 1969.}
For his first percussion only work, Xenakis lays out a neatly sorted instrumental nomenclature with all instruments being classified into one of four categories: skins, metal, wood and stone (see figure 3). All six percussionists have nearly identical set-ups, the most variation taking place as to which specific skinned instruments each player has. The only other variation comes in terms of what size cymbal and tam tam each player is to use. Each percussionist has 6 skins, 6 metals, 3 woods, 2 sea stones and a siren whistle (which Xenakis classifies under stone). Referring to the instrumentation of *Persephassa*, Xenakis notes, “It was . . . a challenge to produce a worthwhile percussion work just for skins.”

The skins family sees little innovation from Xenakis. He calls for bongo, snare drums, congas, toms, timpani and bass drums. The one oddity is the so-called bass drum, tunable by a foot pedal. Where Xenakis got this idea, one cannot be quite sure. To assume it ludicrous or just a dream of Xenakis would be unfair. Oberlin Conservatory Professor of Percussion, Michael Rosen, confronted the composer in regard to the difficulty of acquiring or building such an instrument. Xenakis “seemed content” in substituting a large timpano, with differing degrees of tension at each tuning lug.

Regarding the stone family, siren whistles are coupled with 2 sea stones. The wood family consists of maracas and woodblocks alongside wooden simantras. A simantra, as described by Xenakis in the score, is a suspended piece of extremely hard resonant wood, with dimensions measuring approximately 24 inches by 2.4 inches by .8 inches.

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50 Varga, 179.
Figure 3: Persephassa instrumentation

Rounding out the instrumentation are the metals. Xenakis calls for cymbals, tam tams, bass Thai gongs and affolants (thunder sheets). (The bass Thai gongs of Les Percussions de Strasbourg appear in many of their commissions and, due to their great price and rarity, are the source of much envy amongst percussionists the world over.) Xenakis also asks for metal
simantras which he describes as being suspended rods of extremely hard, tempered steel having .8 inch diameters and 4.4 inch lengths.

In regard to the spatial layout of the work, Xenakis asks for the six percussionists to outline a hexagon, in the center of which the audience sits. As touched upon earlier, the concept of spatial music was fairly commonplace by 1969. The work was not even the first spatial work that Les Percussion de Strasbourg had worked on, that being Kazimierz Serocki’s *Continuum* in 1966. Georges Van Gucht states that at the premiere in Shiraz, the original distance between players was initially set too wide (nearly 55 yards apart) to suit the acoustics of the space. He also remarks that because the hot, desert air was so dry, sound was not travelling as expected. Due to these difficulties, the distance between players was shortened.⁵²

Scholar James Harley considers the “layering of regular pulsations” a principal discovery of *Persephassa*.⁵³ The consistent half-note pulsation which begins in m. 62 is ever increasingly interrupted by a quintuplet pulse. A triplet pulse beginning in m. 67 adds another divisive component which perpetuates into a highly complex superimposition of rhythms by m. 144. The first “nuage” (translated “sound cloud”) of the work appears in m. 145. Xenakis coined the term as used in this context as an extension of his stochastic principles. His interpretational instruction in the score directs the performers to play irregular rolls in very tight bursts of sound.

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⁵² Georges Van Gucht, email message to the author, January 6, 2012.
⁵³ Harley, 64.
A new formal section begins in m. 191 (see figure 5). After beginning in unison, each percussionist, at different points, shifts to his or her own individual tempo. To coordinate the six resultant tempi, Xenakis remarks in the score that “the six metronomes must be absolutely synchronized.” Metronomes may have been the best solution in 1969, but later in his life, Xenakis would approve more up-to-date methods of synchronization. What is fairly clear is that Xenakis never intended for each percussionist to be playing his or her own independent tempo.

without some sort of electronic assistance. Though the creation of six concurrent independent tempi is a remarkable feat, Xenakis’s insistence on their perfect synchronization is perhaps most noteworthy.

**Figure 5: Persephassa m. 191-205:**
In *Persephassa*, Xenakis incorporates his concept of sieve structure, fully developed and utilized for the first time in his composition for solo cello, *Nomos alpha*, completed just three years before the percussion work. The sieve theory “is a method by which ordered structures (pitches, durations, etc.) of any degree of regularity or irregularity can be constructed and then subjected to a regulated sequence of permutations.”\(^{55}\) The imitative material in m. 221-222 is derived from sieve structures. When the material is being played by six percussionists, each in a different tempo, a complex rhythmic counterpoint is created, but certainly one in which the ‘theme’ is meant to be distinguished.\(^{56}\)

**Figure 6: Persephassa m. 222:**

The metal simantras enter in m. 231 with the tempo once again unified. Georges Van Gucht states that Xenakis’s mental image for the metal simantras was that of a high-pitched gold

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\(^{55}\) Harley, 42.

\(^{56}\) Ibid., 64.
wire connecting each of the members of the group, “un fil d’or (son aigu).” Many nuages (sound clouds) ensue and the wood simantras make their entrance in m. 242. Van Gucht states that Xenakis was quite particular about the sound of the wood simantras but gives no further elucidation.

Gaping portions of silence occur sporadically throughout the work, none longer than the 16 second silence prior to m. 252. The siren whistles make their first appearance in m. 297 with an irregular crescendo leading towards a series of nuages on a variety of instruments, each with varying intensities, densities and durations. Shortly thereafter, the maracas enter and, together with the sirens and fluctuating skins, begin to build an eerie underpinning. Xenakis’s only foray into graphic notation in the score follows; both the intensity and pitch of the skins are notated by a series of undulating lines. Short cymbal nuages begin to appear until a deafening ffff onslaught is unleashed in m. 322. A complex, polyrhythmic passage (m. 332-351) tangling skins, cymbals and tam tams makes preparation for the final, and most remarkable, statement of Persephassa.

**Figure 7:** *Persephassa* m. 320-327:

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57 Van Gucht, January 6, 2012.
58 Ibid.
Steve Schick refers to the finale of *Persephassa* as “one of the most stunning moments in all of 20th century music.”\(^{59}\) A tremendous accelerando is created, eventually building up to six layers of spiraling patterns spinning around the audience. The tempo peaks at 360 beats per minute, with a complete rotation of rolled accents making its way around the six players each second.\(^{60}\) The stones and affolants (thunder sheets) make their first and only appearance (m. 428) immediately following the swirl’s abrupt cessation. From m. 430 to the end, the music is reduced to just one layer of rotating rolls on the skin instruments. The rotations maintain the speed at which they left off (one second/rotation), but are interrupted by three voluminous metallic nuages. The piece fittingly concludes with an assaulting 15 second, ffff nuage incorporating all of the instruments.

**Figure 8: Persephassa** m. 405-410:

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\(^{60}\) Harley, 64.
Well-described by French percussionist Sylvio Gualda as a “fresco,” *Persephassa* is the sum of its parts.\(^{61}\) The organization of its large-scale form serves to unify the wide-ranging, spatialized exploration of pulse, timbre and tempi.

**Overview**

Nearly forty years separated the beginning of percussion chamber music and the creation of *Persephassa*. Varèse’s *Ionisation*, as well as the work of John Cage and his colleagues, highlighted the genre’s first two decades. In the 1950s, the American percussionists/composers contributed both new work and technical expertise to the percussive world, while on the European continent, the leading figures of the avant-garde began to advance the intricacy and difficulty of percussion writing. Even in the midst of such advancements, the creation of Les Percussions de Strasbourg in 1962 signaled a new era. Concurrent to the sextet’s growth was the growing influence of Iannis Xenakis, who had been utilizing many innovative percussive applications throughout his compositional career. *Persephassa* emerged in 1969 as a nexus. The extensive use of the rhythmic language, spatial conceptualization and substantial length make *Persephassa* an undeniably significant work in the history of percussion chamber music.

\(^{61}\) Kanach, 165.
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