

Carnegie Mellon Music

Carnegie Mellon University College of Fine Arts

Department of Music, Marilyn Taft Thomas, Head

PATRIMONIO UC

The Carnegie Mellon Philharmonic Orchestra
Juan Pablo Izquierdo, Director of Orchestral Studies

THE MUSIC OF IANNIS XENAKIS

April 12, 1996 at 8:00 p.m.
Carnegie Music Hall, Pittsburgh

Carnegie Mellon University College of Fine Arts
Department of Music

presents

The Carnegie Mellon Philharmonic Orchestra

THE MUSIC OF IANNIS XENAKIS

Metastasis (1953-54)

Pithoprakta (1955-56)

Ivan Perez, Concertmaster

Persephassa (1969)

for Six Percussion

PATRIMONIO UC
~~intermission~~

U.S. Premiere

La Déesse Athéna (1992)

for Baritone solo, Percussion solo and 11 Musicians

Philip Larson, baritone

U.S. Premiere

Dämmerschein (1993-1994)

Andrea Campos, Concertmaster



The Carnegie Music Hall is a residence of the
Carnegie Mellon Philharmonic Orchestra.

THE CARNEGIE

Program Notes

Metastasis and *Pithoprakta*, according to the wishes of the composer, will be performed together without interruption as two parts of a related unit. The pieces, both short, share common elements: the intervallic structures, duration of dynamics, and timbral nuances are combined by calling on geometric progressions, in particular those of the golden mean. The correlation of these sound events announces the first step in relating music to the calculus of probabilities, a method that Xenakis would return to for many major works throughout his career. At the time of the first performance this was also an attempt to demonstrate that the human orchestra was capable, in the realm of new sonorities and finesse, of outclassing the electro-media techniques which were threatening to oust the live performer.

The sixty players in *Metastasis* are completely divided; that is, each instrument has an independent line to play, so that no part is doubled. The title comes from two Greek words--*meta* (after) and *stasis* (state of standing still)--which together Xenakis translates as 'dialectic transformation'. For this piece Xenakis experimented by drawing a series of straight lines, each of which intersected at a common point, with the angle of incidence between the first and last line continuously displaced. The end points of these straight lines, when joined, formed gently undulating curves which, transferred to the score, became the series of *glissandi* on which *Metastasis* is based. The result is an iridescent web of sound created by all the instruments of the orchestra traversing their full range, sliding from one note to the next (*glissandi*) in widely different but completely defined velocities.

The first performance of *Metastasis* was given in Donaueschingen in October 1955; the conductor was Hans Rosbaud.

Pithoprakta, composed in 1955-56 uses forty-nine musicians, each with an independent part. With this piece, Xenakis introduced the principle of 'stochastic music', a term borrowed from the mathematical field of probability and statistics (the original Greek root means 'to guess at'). Xenakis used the term to describe his handling of large sound masses, and he applied the Maxwell-Boltzmann Law (which in physics describes the distribution of motion for a large number of molecules in a closed space) directly to the musical structure of this piece. In the case of molecules, the number is so large that the behavior of any individual molecule cannot be determined, but the behavior of the entire group, with a given temperature and pressure, can be. The musical analogy to this piece refers to sound masses (which Xenakis referred to as 'clouds' and 'galaxies') in which separate instruments cannot be distinguished, but the sound mass they generate is clear and malleable, and the characteristics of it can be precisely controlled. Thus for *Pithoprakta* Xenakis generated a sequence of imaginary temperatures and pressures which govern the overall sound made up of indistinguishable contributions from individual instruments. The result is a seething, undulating wall of sound--the 'cloud' or 'galaxy' described by Xenakis in his theoretical essay.

The first performance, conducted by Hermann Scherchen, was in Munich in March 1957.

Program Notes (cont.)

Persephassa, for six percussion players, has no less than three descriptive dimensions: the mythological and historical references suggested by the title; the mathematical model from which the piece was created; and the spatial sound elements which were developed and used in earlier landmark pieces--*Terretekorh* (1966), *Polytope* (1967) and *Monos gamma* (1968).

The title chosen by Xenakis is an archaic name for Persephone, goddess of the rebirth of nature at springtime, and the wife of Pluto, ruler of Hades. The cosmic cycles suggested by these deities--a personification of earth forces and transmutations of life--also have human and intellectual dimensions that relate to the piece.

Since ancient times the legend of Persephone has produced multiple evolutions and various interpretations. Xenakis suggests an association of the root *Pers*, or *Pars*, with similar legends in a broad spectrum of civilizations and cultures, including Anatolian, Semitic, Iranian, and Indian, and even further back to ancient Persian ancestry. Xenakis also suggests that the Celtic legend of Perceval (or Parsifal) is linked to the Persephone legend through a Persian influence in Western Europe, of which there are few traces remaining. To complete the references to the title, the piece was created in Persepolis, which, despite its destruction, marks a colossal site of exchanges dating back to the Hellenistic period and is traceable throughout the Roman, Byzantine, and Muslim empires; in short, through the entire history of Western Europe. Xenakis writes, "I wanted to unite all these threads under the succinct title, *Persephassa*."

For the mathematical model, Xenakis chose the logical functions of 'modular classes'--a self-contained symbolic system described in the field of abstract algebra. No matter how the elements of the system are manipulated or combined, the result can be shown to be another element of the system.

Regarding the spatial elements in performance, Xenakis suggested that the six players be placed in a ring around the audience which is thus enveloped by the sounds of the music. (In this performance the six players form a semicircle on the stage.) To complete the array of sounds, Xenakis invented three new instruments for *Persephassa*. *Simantra bois* is a dense and sonorous wooden plank with the dimensions 60 cm x 6 cm x 2 cm (23.6" x 2.4" x .79") and played with a wooden mallet. *Simantra métalliques* is a dense steel rod 11 cm long and 20 mm in diameter (4.2" x .79") and played with the same striker that is used for the triangle. *Gallets* are seashells that are sounded by striking them with another shell.

Persephassa is dedicated to the Strasbourg Percussion Group, which gave its première; it was commissioned by the French Ministry of Cultural Affairs and the Festival of Persepolis, Iran, where the piece was première on September 9, 1969.

La Déesse Athéna (*The Goddess Athena*) was commissioned by the Greek Radio and first performed in Athens in May 1992. "The subject of this piece," writes Xenakis, "is the founding of the first human tribunal."

The piece was also intended as an insertion for later performances of *Oresteia Suite* for orchestra and chorus, first performed in 1966. *La Déesse Athéna* is scored for baritone and solo percussion with chamber orchestra: piccolo, flute, oboe, piccolo-clarinet, contrabass-clarinet, contrabassoon, horn, piccolo-trumpet, trombone, tuba and cello.

Dämmerchein ('Rays of Twilight'), composed in 1994, is one of the latest pieces in the extensive catalog of works by Iannis Xenakis. The German title sets it apart from the predominantly Greek names of most of his works. Xenakis chose the title first of all for the sound of the word, but the richness of musical allusion also played a role--specifically *Die Götterdämmerung* (*Twilight of the Gods*)--as well as the semantic ambiguity of the symbolism of light. *Dämmerchein* is hardly a quietly romantic expression of dreamy mood, however, but rather an energy-charged sometimes volcanic composition whose constant bow of tension remains intact from the first note to the last.

Dämmerchein is scored for a large orchestra of woodwinds, brass, and strings. Contrast between these groups is enhanced by having the strings play in a non-vibrato style, suggesting 'objectivity'. The spectrum of tonal shapes and tonal conditions in this sensuous sound fresco ranges from a single tone to bundles of cluster-*glissandi* that challenge the tempered-scale tonal system. (In this respect Xenakis joins Giacinto Scelsi and Edgar Varèse). The smallest motivic units are accumulated, modulated, and constantly transformed to create the visual, flowing sound masses that characterize the piece. The massive application of clusters (compact concentrations of tones) results in the impression of enormous and complex sound events in which individual occurrences possess only a statistical value. Complimenting the clusters are the *glissandi* which generate a fully-blended transition between the tones. These two contrasting tonal elements penetrate each other to change ultimately into a vertical structure--a monumental chromatic block in which all the instruments participate.

In *Dämmerchein* Xenakis deviates from earlier paths of the mid-eighties when he applied mathematical structures or used computers to calculate number sequences that would be translated into musical notation. This piece is written purely by sound, relying totally on the experience, intuition, and fantasy of the composer. The result is a freer management of the sound material, but there is no fundamental change of style. Not missing in *Dämmerchein* is Xenakis' reliance on architectural shapes--the music score is replete with geometric arrangements and constructions. In the forefront of the geometrical shapes and entities is the notion of spatial projections of sound as light, another reference to the symbolism suggested by the title. The combination of sounds can be perceived as oscillations of dispersed points of light that concentrate themselves as turbulences as they beam through space. This visual quality gives the work an aura of light through music.

The first performance of *Dämmerchein* was on June 11, 1994, in Cologne, Germany.

English Translation of the text for *La Déesse Athéna*
from *Eumenides* by Aeschylus; translation by Robert Fagles

And now if you would hear my law, you men of Greece, you who will judge the first trial of bloodshed.

Now and forever more, for Aegeus' people this will be the court where judges reign. This is the Crag of Ares, where the Amazons pitched their tents when they came marching down on Theseus, full tilt in their fury, erecting a new city to overarch his city, towers thrust against his towers--they sacrificed to Ares, named this rock from that day onward *Ares' Crag*.

Here from the heights, terror and reverence, my people's kindred powers will hold them from injustice through the day and through the mild night. Never pollute our law with innovations. No, my citizens, foul a clear well and you will suffer thirst.

Neither anarchy nor tyranny, my people. Worship the Mean, I urge you, shore it up with reverence and never banish terror from the gates, not outright. Where is the righteous man who knows no fear? The stronger your fear, your reverence for the just, the stronger your country's wall and city's safety, stronger by far than all men else possess in Scythia's rugged steppes or Pelops' level plain. Untouched by lust for spoil, this court of law majestic, swift to fury, rising above you as you sleep, our night watch always wakeful, guardian of our land--I found it here and now. So I urge you, Athens. I have drawn this out to rouse you to your future.

Acknowledgments: West German Radio, program notes by Robert Nemecek (WDR); Salabert and Boosey & Hawkes Editions; *New Grove Dictionary of Music and Musicians*; notes by Iannis Xenakis; translations by Channa Newman and Dieter Wältermann, Carnegie Mellon University; *Formalized Music* by Iannis Xenakis; Maestro Juan Pablo Izquierdo. Translation of the text for *La Déesse Athéna* from *Eumenides* by Aeschylus, is by Robert Fagles, Penguin Books. The simantra bois used for this performance and made from solid wenge (a wood native to Zaire) was provided by Wilson & McCracken, Pittsburgh.

About The Conductor

Juan Pablo Izquierdo was born in Santiago, Chile. After graduating in Composition from the University of Chile he became a pupil of the renowned German conductor Hermann Scherchen with whom he studied for three years in Switzerland. He initiated his career conducting the National and Philharmonic Orchestras in Santiago.

In 1966 he won the First Prize in the Dimitri Mitropoulos International Competition for Conductors in New York, and was named Assistant Conductor to Leonard Bernstein with the New York Philharmonic.

From 1974 to 1985 he was Music Director of the Testimonium Israel Festival in Jerusalem and Tel-Aviv conducting world premiere performances of major contemporary composers. During this festival, Izquierdo conducted world premieres of Xenakis' "N'Shima" (1975) and "Shaar" (1983).

He has been awarded the National Critics Award in Santiago and in 1976 the National Music Prize by the Israel Ministry of Culture.

He has been Music Director of the Gulbenkian Orchestra in Lisbon and Music Director of the Santiago Philharmonic Orchestra which he reorganized and conducted until 1986. In 1990 he inaugurated the Claudio Arrau Symphony Orchestra in Santiago with an opening attendance of 15,000. Instrumental in forming the new orchestra, he is now its Music Director.

Maestro Izquierdo has been professor-in-residence at Indiana University in Bloomington and is currently Director of Orchestral Studies at Carnegie Mellon University in Pittsburgh, PA. There he has formed and directs an "Institute" that aims to develop musical thinking and performance as a unit. This Institute will be dedicated to the memory of Dr. Hermann Scherchen and will be officially inaugurated next season. Among the subjects that have been studied and performed in the past three years are: J. S. Bach, *Mass in B minor*; Arnold Schoenberg, *Chamber Symphony* op. 9; Edgar Varese, *Amériques*; "A John Cage Event"; "The Art of the Fugue by J. S. Bach and its projections in the music of today"; and currently, "The Music of Iannis Xenakis".

His international career includes conducting orchestras such as: the Radio Orchestras of Bavaria, Hamburg, Frankfurt, Berlin, and Leipzig; Vienna Symphony, Dresden Philharmonic, New Philharmonic, National Orchestra and Ensemble Intercontemporain in Paris, the Jerusalem Symphony and Israel Chamber Orchestras, Radio TV and National Symphony of Spain, and Radio Philharmonic of Holland, among others.

He has conducted in world famous music festivals such as: Berlin Festival, at the Berlin Philharmonic; Holland Festival, at the Concertgebouw in Amsterdam; Frankfurt Festival, at the Alte Oper; Paris Automme Festival, at Radio France; Vienna Festival, at the Musikverein; Testimonium Israel Festival in Tel-Aviv and Jerusalem and Strasbourg Festival, among others.

About The Composer

Born in Romania of Greek parentage, **Iannis Xenakis** was educated at the Athens Polytechnic with the intention of becoming an engineer. When the war broke out, he served five years in the armed struggle for liberation, was badly wounded, captured, and condemned to death. Upon escaping in 1947, he headed for the USA, but settled in France, where he eventually became a citizen.

Although trained as an engineer, he became both an architect and a composer. His early contacts with such composers as Honegger, Milhaud, and Messiaen encouraged his musical development, and his collaboration with Le Corbusier led to his design of the Philips Pavilion for the 1958 Brussels Exposition. His theory of "freedom through the victory of ideas" has connected his work as an architect, musician and theorist. His obsession with space has permeated his work in all areas.

The music of Iannis Xenakis is definitely of our time. A concert of his music is an adventure in sound that will excite and captivate the ear. In his orchestral music, listeners will experience a wide range of fascinating sound--clouds of sound, rather than individual voices.

In addition to his contributions as composer, lecturer, and teacher, Xenakis has founded a Center for Musical Mathematics and Automation in Paris and another at Indiana University in Bloomington to stimulate research in music theory. His compositions often arise from mathematical models. Laws of physics often influence both the structure of his compositions and his architectural structures.

Winner of more than 50 national and international awards, he has composed over 125 major works for all combinations of orchestra, choir, chamber music, large and small ensembles, and electro-acoustic music. His numerous recordings and theoretical writings help establish him as one of the leading composers, theorists and scholars of the twentieth century.

About the Soloist

Bass-baritone Philip Larson has distinguished himself as a leader in the performance of contemporary repertoire. A favorite San Diego soloist, Philip Larson has soloed with the San Diego Symphony, the San Diego Opera, the San Diego Master Chorale, the San Diego Chamber Orchestra and the La Jolla Symphony. His recent engagements with the San Diego Symphony have included the *Messiah* in 1994, and with the San Diego Opera, *Macbeth* earlier this year. His appearances elsewhere have included the Handel and Haydn Society in Boston, the Cleveland Chamber Orchestra, the Cleveland Chamber Opera and the Pacific Symphony Chorale.

Accomplished with music from the Middle Ages to the 1990's, Larson has been a member of the Early Music Ensemble of San Diego, Pomerium Musices in New York, the Bach Aria Group, the New Music Choral Ensemble, Group New Music and the Extended Vocal Techniques Ensemble.

Larson is a member of the music theatre duo (**THE**) with Edwin Harkins. Together they compose and perform their own repertoire and have been the recipients of various grants supporting collaborative projects with such world-renowned musicians as John Cage, Toru Takamitsu and Anthony Braxton.

Having performed throughout the world, Larson has been recording since 1968; one of his most recent recordings is Roger Reynolds' *Voice Space* on Lovely Records. In 1994 he soloed in New York in the premiere of a new Reynolds' song cycle and appeared with the National Radio Orchestra in Bucharest. In January, he returned to San Diego Opera for *Tosca*, in the following season he sang in the premiere of *The Conquistador*. Larson is on the faculty in the Music Department at UCSD where he was one of the original Fellows at the Center for Music Experiment.

The **CARNEGIE MELLON PHILHARMONIC** is an ensemble of the Department of Music at Carnegie Mellon University, Pittsburgh, Pennsylvania. Under the direction of Juan Pablo Izquierdo, the orchestra presents concert seasons with emphases on the standard orchestral repertoire and rarely performed masterpieces, including works by twentieth-century composers. Among the orchestra's highlights was the celebrated performance in April 1995 of *Amériques* (1922) by Edgar Varése at the Kennedy Center in Washington, D.C.

The Carnegie Mellon Philharmonic appears in works on two recently releases compact discs: *Escenas Borroscosas* by Leonardo Balada, with large orchestra, choirs and soloists (New World 80498-2); and *Four Movements for String Quartet and String Orchestra* by Iranian composer Reza Vali, with CUARTETO LATINOAMERICANO (New Albion NA 077 CD). Other large-scale works performed in recent concert seasons include *Mandú Cárará* by Heitor Villa-lobos and *Les Choéphores* by Darius Milhaud.

"Decisive, clean playing...marvelously controlled explosions of sound..." wrote Washington Post critic Arthur R. Smith of the Carnegie Mellon Philharmonic's April 1, 1995 concert at The Kennedy Center. The Carnegie Mellon Philharmonic is heard in broadcasts on WQED-FM 89.3 in Pittsburgh, and throughout North and South America on public radio networks of several countries. The orchestra is a resident ensemble of Carnegie Music Hall in Pittsburgh.

CARNEGIE MELLON PHILHARMONIC ORCHESTRA

Juan Pablo Izquierdo, Director of Orchestral Studies

Violin I

Andrea Campos
Ivan Perez
Matthew Thorpe
Nicole Sharlow
Stephanie Kurtzman
Ying Lin
Fidel Marchena
Freddy Varella
Jeremy Williams
Florencio Jaramillo
Sharon Andrews
Shi-Shu Lo
Kristina Krauja
Galina Istomin
Peter Stone
Jaime Mansilla

Violin II

Felipe Hidalgo
Matthew Petrone
Janie Spangler
Claudia Sandoval
Colin Wilhm
Jennifer Ho
Todd Sullivan
Stephen Arnold
Abel Romero
Scott Moser
Lisa Miles
Marian Irwin
Kathy Kim
Josue Jean-Francois

Viola

Karen Bea
Doug Lischner
Meng-Hau Liu
Carlos Boltes
Holly Tait
Regina Ketter
Louise Guerrieri
Timothy Tan
Kendal Coffman
Wendy Clare
Jeff Irwin
Glenn Loontjens

Cello

Youn-Kyung Bei
Robin Mills
Washington Bravo
Jorge Espinoza
Erin Eyles
Gustavo Martin
Grace Wu
Yiu-Wan Zhou
Hong Yang
Jeanne Strittmatter
Carolyn Segermark

Bass

Elian Ortiz
Robert Skavronski

Beth Snyder
Rodrigo Salas
Jorde Boltes
Brian Stahurski
Virgil Walters
David Pellow

Flute

Makiko Nishio
JuHee Kim
Lida Kim
Susan Svetlik

Oboe

Renate Sakins
Carey Shinbaum
Jennifer Raymond
Lisa Traugh

Clarinet

Nicholas Lewis
Michael Doyle
Sunshine Simmons
Jennifer Brower

Bassoon

Jose Arion Linares
Julie Balch
Annie Yu
Steven Story

Horn

David Warnke
Scott Bonannon
Bethany Ryker
Jennifer Little
Jaime Ibanez
Sean Kelly
Amber Ramsey
Susan Geesey

Trumpet

David Gedris
Bill Hughes
Brian Niebauer
Brendan Cassin

Trombone

Cristian Ganicenco
Martin Herrera
Robert Tupper
Christopher Balas (bass)

Tuba

Jason Venesky

Percussion

Jon Crabel
Patricio Hernandez
Amy Stubbs
Joanna Nelson
Wei Zheng
Jose de la Cruz

Conducting Assistants

Efrain Amaya
Nizan Leibovich
Rani Shenkar

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Upcoming Events

**April 13 Graduate Recital Jenny Raymond, oboe
Mellon Institute Auditorium, 3:00 p.m.**

**April 13 CMU Jazz Ensembles in Concert
Alumni Concert Hall, 3:00 p.m.**

**April 13 Junior Recital: Erica Olden, soprano & Shauna Quill, flute
Mellon Institute Auditorium, 8:00 p.m.**

**April 14 Graduate Recital Mark Carver, piano
Mellon Institute Auditorium, 8:00 p.m.**

**April 15 Junior Recital Karen Hendricks, flute
Mellon Institute Auditorium, 8:00 p.m.**

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Admission to all performances is free unless otherwise noted.

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Inquiries concerning application of these statements should be directed to the Provost, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone (412) 268-6684 or the Vice President for Enrollment, Carnegie Mellon University, 5000 Forbes Avenue, Pittsburgh, PA 15213, telephone (412) 268-2056.

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