

Dimitris Barnias

Sound Artist · Composer · Researcher in Algorithmic Soundscape Composition

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PROFILE

Sound artist, composer and audio programmer based between Chania, Athens and Gavdos, working across algorithmic composition, soundscape ecology and generative sound installation. PhD candidate in Music Technology at the Hellenic Mediterranean University, researching soundscape composition with algorithmic processes. Developer of generative audio applications for web and Android at ihearcolors.online, and founder of the Undertow Festival of Contemporary Arts. Since 2000, work has spanned electroacoustic composition, sound installation, dance and theatre scoring, video art and live performance, with documented presentations in at least 16 countries, including the Venice Biennale and TGC: The Global Composition. Member of HELMA (Hellenic Electroacoustic Music Composers Association) and HSEA (Hellenic Society for Acoustic Ecology).

EDUCATION

PhD Candidate, Music Technology

Hellenic Mediterranean University (HMU), Crete

Thesis: Soundscape Composition with Algorithmic Processes

MSc, Music Information Technology

City University, London, UK

Thesis: Asynchronous Musical Information Streams (AMIS) — soundtoys.net

HND, Music Business and Sound Engineering

Kingston University, London, UK

PROFESSIONAL EXPERIENCE

Undertow Festival of Contemporary Arts — Founder & Curator

Jan 2013 – Present

Independent initiative producing experimental-arts festivals and curated nights (see Festivals, Presentations & Curation below).

IEK Delta 360 — Music Technology Instructor

Jan 2022 – Jan 2025

Curriculum development, organisation and teaching for the Department of Music Technology.

Municipality of Chania, Villa Koundourou — Instructor

Dec 2015 – Nov 2018

Course creation and teaching, Department of Music Technology.

Fly Theatre — Theatre Sound Engineer

Mar 2013 – Nov 2015

Diapason Studio, Chania — Recording, Mixing & Mastering Engineer

Dec 2007 – Mar 2017

Studio organisation, programming, music production and podcast production.

Radio — Program Director / Show Host & Producer

Dec 1990 – Jul 1996

Baby FM (Program Director, 1994–96); Radio Paratiritis (Show Host & Producer, 1992–94); Chania 88.8 (Show Host & Producer, 1990–92).

SELECTED SOUND INSTALLATIONS

"Water Resistance"

2026 · 8-channel installation, Alte Schieberkammer, Vienna

Group exhibition exploring water, ecological destruction, politics and resistance through contemporary art.

"Η Συλλογή" (The Collection)

2026 · 8-channel installation, Old Archaeological Museum, Chania

Closing chapter of the "Displacement" (Μετατόπιση) triptych, begun with *ichorous* (2023) and continued at the Venice Biennale (2025). Improvised live with Antonis Tsaxtanis, Giannis Papatzanis and Anastasia Giamouzi.

La nas Arvores Festival

2026 · Installation, University of Évora, Portugal

An edited version of the electroacoustic piece "I Wish I Was a Dragonfly", selected for the festival's sound installation programme.

Esotropio	2025 · 8-channel sound installation, Greek Pavilion, Venice Biennale
Presented within the IntelligensHistorica exhibition. An algorithmically driven, non-repeatable soundscape re-imagining the sounds of Neoria and the old Venetian ship docks.	
ichorous	2023 · Two site-specific installations, Chania
The Turkish Underground Fountain, Splantzia Square, and the Spring of Pervolitsa. An 8-channel, free-form speaker arrangement exploring historical water sources and how a changed medium of attraction alters social space.	
Zero Ground	2021 · Dance Days Festival, Chania
Liquid Culture	2021 · Tanzahoi International Video Dance Festival, Hamburg
Into the Flux: Jungle	2020 · Flux Laboratories Athens, Dance Days Festival
Conus Magus	2018 · Off Borders Festival, Museum of Modern Art, Thessaloniki
Miden Festival	2018 · Kinitiras, Athens

PUBLICATIONS & RESEARCH

The Coded Ear: Epistemic Violence as Aesthetic Material in AI	2026 · TGC: The Global Composition, Merz Akademie, Germany
Research paper on the politics of AI and its influence on soundscape listening and understanding.	
From Musical Ideas to Algorithmic Tools	2026 · Presentation, Ergastiri, Athens
Introduction to developing software-based algorithmic composition tools.	
Negative Space in Sound Art	2025 · Research paper
A synthesis framework supporting the use of minimal sound material to transform the listener's acoustic perspective.	
Dynamic Stochastic Synthesis [Spica]	2024 · Research paper
Exploring Iannis Xenakis's GENDYN algorithm through a Pure Data performance instrument.	
ichorous — project text	2023 · Programme notes
Concept text for the two ichorous sound installations.	
The Sound Dunes of Gavdos	2023 · Field research
The acoustic and ecological interrelationship between singing dunes and Juniperus forests, explored through soundscape composition.	
Esotropio — manual	2023 · Technical manual
Aleatoric, sample-based sequencer for artificial soundscapes in Pure Data.	
Phase Modulating Dragonflies	2022 · Synthesis note
Enhancing the acoustic representation of dragonflies in soundscape composition using phase modulation and field recordings.	
Listening to Gavdos (Ακούγοντας την Γαύδο)	2022 · Essay, in Greek
On the environmental, social and political dimensions of the soundscape of Gavdos island.	
Away from Gavdos	2022 · Essay, in Greek
Reflections on the autonomous community of Lavrakas and its future.	
Μετατόπιση (Displacement) — installation instructions	2021 · Technical/artistic notes
Instructions and general remarks for reproducing the sound installation.	
Lecture on Nothing (Greek translation)	2019
Greek translation of John Cage's seminal text.	

FESTIVALS, PRESENTATIONS & CURATION

Curated / organised (Undertow Festival of Contemporary Arts)	
2025	Apparition of a Triple Resonance — KET, Athens: electroacoustic night with Nikos Valsamakis, Marios Moras and Dimitris Barnias
2021	75 Palmoi / 75 Παλμοί — Open Sails Festival, commissioned by the Municipality of Chania (incl. "Koule Soup" feedback installation, Aptera castle tower)

- 2019 Undertow — Agora — festival of experimental arts: installations, talks, music and dance
- 2016 AGORA — New Arts Festival, Central Market of Chania
- 2013 World Listening Day — with the Technical University of Crete
- 2008 Creative Bridges Festival — presentation on Acoustic Ecology, Chania

Academic & research presentations

- 2026 TGC: The Global Composition — "The Coded Ear" presentation, Merz Akademie, Germany
- 2026 Listening to Gavdos — presentation, Altai Free Space, Exarcheia, Athens
- 2026 Algorithmic Music Workshop — introducing algorithmic music tools in JavaScript, Ergastiri, Athens
- 2024 Urban Soundscapes: Environment, Art and 3D Printing — Acoustic Ecology workshop for children, with Fotini Kokkali, Stavros Niarchos Cultural Center
- 2024 Celebrating Natural Sciences — presenting the ichorous project, ΕΦΚΕ, Chania
- 2022 Δημιουργικές Γέφυρες Festival — Acoustic Ecology presentation & live performance, DIPETHE Crete
- 2021 Serious Games — Songs of Experience workshop with Jenny Marketou, Municipal Art Gallery of Chania

Electroacoustic music festivals

- 2025 Deliverance — quadraphonic work based on a binary sequencer, Electroacoustic Music Days, Ioannina, and Electroacoustic Spring, HMU
- 2024 Silent Luminescence Ignites — wireless Pure Data control of Xenakis's Gendyn algorithm, Electroacoustic Spring, HMU
- 2023 Tuning with Ether — modulated Eurorack radio receiver piece, Electroacoustic Days, School of Fine Arts, Athens (included on the 2024 HELMCA compilation)
- 2023 I Wish I Was a Dragonfly — ΕΣΣΗΜ Festival 2023 (included on the HELMCA 2023 CD)
- 2023 False Spring — quadraphonic, Electroacoustic Spring, HMU
- 2023 The Port Has Never Left — Reveil Festival, based on Chania's old Venetian harbour soundscape
- 2023 Grezia — "Sounds from the Outer Space (of the Machines)"
- 2022 Ametric Festival — live performance with Rashad Becker and Savvas Metaxas
- 2022 Dytikos (Δυτικός) — Reveil Festival, soundscape recordings from Gavdos island
- 2017 Time and Space Memory Fragments (Χωροχρονικά Θραύσματα Μνήμης), with Yiannis Kritikos — photography installation, Photographic Encounters Festival, Kythira

Press & features

- 2025 Sonic Nostalgia and the Flow of Virtualities — feature, Metapsychosis Journal of Consciousness, Literature, and Art
- 2025 Breaking the Patterns — collaboration with six Irish artists visiting Crete, Creative Europe programme
- 2021 NTS Radio — Wooden Waves, field recordings for the Infinite Mixtapes series

GENERATIVE AUDIO SOFTWARE — IHEARCOLORS.ONLINE

- Oracle (2025, Android/Web) — generative audio engine blending up to ten sound sources into evolving soundscapes via a node-based interface; scales include 12-Tone, Ligeti, Messiaen and Hexany.
- Segments (2025, Android/Web) — semantic vector synthesis platform combining AI-assisted soundscape analysis (MediaPipe/YAMNet, transfer learning) with resynthesis; up to eight-track rendering.
- Blowback (2025, Android/Web/macOS in development) — phase-modulation synthesizer controlled via MIDI, phone sensors or chaotic attractors (Lorenz, Rössler, Chua).
- Serendipity (2025, Web) — Markov-chain algorithmic sequencer with scale-aware transitions and tempo automation.
- Assemblage (2026, Web) — freeform score editor and MIDI/sample sequencer inspired by John Cage's bracket notation, with Markov, cellular-automata and chaotic-attractor generation.
- Pendulos (2026, Web) — generative sound engine driven by real-time double-pendulum physics; motion mapped to pitch, volume and timbre.
- Relics (2025, Android/Web) — GPS-tagged audio diary linking sound memories to location.
- Drift / GPSynth (2024, Android/Web) — location-aware FM synthesizer using GPS and mobile sensors (accelerometer, light, orientation, camera).
- Sound Hunt (2024, Android/Web) — outdoor, GPS-based sound-hunting game.
- Soundscape Analyzer (2026, Web) — real-time analysis tool for field recordists, translating spectral entropy, autocorrelation and amplitude modulation into compositional metrics.
- Spin (2025, Web/Android) — motorcycle telemetry app with audio-based engine diagnostics, lean-angle and cornering-force tracking.
- AGSynthesis (2025, in progress) — asynchronous granular synthesis implementation for Android.
- Sly (2025, in progress) — social meeting app with a sound-based twist.

SOFTWARE ARCHIVE — PURE DATA PATCHES & EARLY TOOLS

- Spica (2024) — Pure Data performance instrument exploring Xenakis's Gendyn algorithm with wireless control.
- Butplug (2023) — phase-modulation Pure Data patch controlled by OSC via mobile sensors.
- Esotropio (2022) — automated, algorithmic sample sequencer in Pure Data, incl. "Esotropio from the inside" performance version.
- AMIS — Asynchronous Musical Information Streams (2005) — granular MIDI synthesizer built in Macromedia Director/CPS for soundtoys.net (subject of MSc thesis).
- Gemma (2006) — VSTi FM synthesizer.
- Intermodulator4 (2004) — VST ring modulator.

SELECTED DISCOGRAPHY (AS TOKENO, UNLESS NOTED)

- 2025 Negative Space — Album
- 2025 Electroacoustic Works 00-25 — Anthology
- 2025 Shadowlands — Album
- 2024 Tuning with Ether — track, HELMCA compilation
- 2023 We Are Hear (We Are Here) — Mini Album, Undertow #14
- 2021 Stereocilia — score for the dance work by Maria Mentez, 75 Palmoi festival
- 2021 Wooden Waves — field recordings, NTS Radio Infinite Mixtapes
- 2020 State of Things — Mini Album
- 2020 Between a Feather & a Fist — Mini Album, Undertow #10
- 2019 Bipolar Archetypes — Album, Undertow #09
- 2019 Hénon Variations (previously Jewel of July) — Mini Album, Undertow #08
- 2017 Common Denominator — Mini Album
- 2016 Synchronicity — Album, with Feliformia
- 2015 Mantic — Album (private, by request)
- 2014 Init49 — Remix, with Lee Fraged, this-side
- 2013 band reject — Album, this-side music
- 2011 lizAcid — Remix, with Freshit Recordings, London
- 2010 the joint stereo — Remix, this-side music
- 2009 Eclipse (tOkeno) — Album; earlier surfaced in 2008 as Dok: Incomplete Reality, Mastertoaster Recordings, Portugal
- 2007 dok: buzz — Album, this-side music
- 2005 Transparent — debut Album, featuring Lyn Dobson (Soft Machine) and Katerina Marinaki; premiered live at Mikro Mousiko Theatre, Athens

LIVE PERFORMANCES (AS TOKENO / FELIFORMIA)

- 2025 Quanta in Liquid Forms — 16-channel DIY acousmatorium performance, Ergastirio, Athens
- 2025 Sellasia — with Medea Electronique: algorithmic composition and spatial audio research
- 2025 Keno Dyktio — Embros Theatre, Athens
- 2025 Against the War — Embros Theatre, Athens
- 2025 Medea Electronique Live — Koumaria Festival
- 2024 Ametric Festival — with Fotini Kokkali (Media Luna), San Salvatore Venetian Castle, Chania
- 2022 Ametric Festival — with Rashad Becker, San Salvatore Venetian Castle, Chania
- 2021 Ametric Festival — with John Also Bennett, San Salvatore Venetian Castle, Chania
- 2021 Disinformation Strategies: Skloka Antenna — internet-based performance from the abandoned Skloka TV antenna, Chania
- 2019 Ride Café — with Iku Sakan, Chania
- 2019 Roza Nera squat, Chania
- 2018 Ride Café — with Pita & Turbo Teeth, Chania
- 2018 Stoa60 — with Echo Canyon & Turbo Teeth, Heraklion
- 2017 Ride Café — with Rashad Becker, Chania
- 2016 6dogs — Feliformia, Athens
- 2016 Atheati Poli Festival — Feliformia, Heraklion
- 2016 Stoa 60 — Feliformia, Heraklion
- 2015 European Music Day — Feliformia
- 2015 Catholic Church of Xalepa — Feliformia, with Butoh dancer Maria Malaxianaki

- 2015 Kydonia Theatre — Feliformia (debut live)
- 2015 Kinimatografiko Panorama — live score for "Brumes d'Automne", with Christos Garbidakis and Giannis Katsikandarakis, Chania
- 2014 Bios — with the Kommen Sie collective, Athens
- 2014 Studio Stealing — with the Kommen Sie collective, Chania
- 2013 Astron Bar — ill showcase, Chania
- 2013 Ride Café — with Nadja & Psyche Glyphs, Chania
- 2013 Aspra / Maura Oneira — Elaiourgion Contemporary Art Museum
- 2013 Studio Stealing, Chania
- 2012 To Spiti, Chania
- 2008 Mikro Mousiko Theatre — with Spyweirdos, Athens (first Athens performance)

DANCE COLLABORATIONS (ORIGINAL MUSIC & LIVE PERFORMANCE)

- 2025 No Title Needed — with Ioulia Zacharaki (IP12 Residency)
- 2022 Bridge — with Ioulia Zacharaki, commissioned by the Municipality of Chania, Anoikta Pania Festival
- 2021 Stereocilia — with Maria Mentez, 75 Palmoi Festival
- 2020 Into the Flux: Jungle — with Ioulia Zacharaki, Flux Laboratories Athens, Dance Days Festival
- 2018–21 Cypher / Twine — with Alikhi Chiotaki, Pool Festival
- 2018 Conus Magus — Off Borders Festival, Thessaloniki Museum of Modern Art
- 2017 Residency Promo — Kinitiras Dance Studio
- 2017 Definitely Maybe — with Ioulia Zacharaki & Martha Kotsia, Dance Days Chania, San Salvatore
- 2016 Nikutai — with Maria Malaxianaki
- 2016 Prebiotic Soup — with Alikhi Chiotaki, Neorio Moro, Chania
- 2016 Primordial Ceremony — with Xenia Foitou & Alikhi Chiotaki, Undertow Festival
- 2014–15 The Sacrifice of Narcissus (Thysia Narkissou) — with Maria Malaxianaki, Kyndelis estate
- 2014 Midas — with Dora Riga
- 2014 Wetlands (Hydrotopoi) — with Thodoris Serafeidis, Clear Water Festival
- 2013 Shadow Dancers — with Hinemois Dance Co., Oxo Nou & Dourakis winery
- 2013 World Listening Project — with Hinemois Dance Co., Chania
- 2011 Mirage — with Hinemois Dance Co.

THEATRE COLLABORATIONS

- 2020 Vanilla Love — YouCA Theatre, Chania
- 2018 The Shark's Tooth (To Donti tou Karxaria) — Bageion, Athens, dir. Zoe Drakopoulou
- 2017 Game Over / Repeat — DIPETHE Crete, with Stella Skordara
- 2017 Xoris Esena — DIPETHE Crete, with Stella Skordara
- 2016 Les Bonnes — Theatre 73100, Chania
- 2015 ...and Juliet — Theatre 73100, Chania

VIDEO, DANCE FILM & SCREEN WORK

- 2025 Levi — with Isidoros Plakotaris, AnimaSyros / Chania Film Festival
- 2025 No Title Needed (IP12) — with Alikhi Chiotaki and Ioulia Zacharaki
- 2022 Disenthrall — video dance with Ioulia Zacharaki, Dance Days Festival
- 2021 ZeroGround — official selection, Dance Days Festival
- 2021 Liquid Culture — official selection, Tanzahoi International Dance Film Festival, Hamburg
- 2021 The Port Had Never Left — ongoing project on Chania's acoustic identity
- 2021 She Doesn't Know — with Ioulia Zacharaki, created during quarantine
- 2021 60 Pulses — international competitions, with Alikhi Chiotaki and Christina Mertzani
- 2020 Love For Ever — music for Katerina Koumakaki's video project
- 2019 Dance Days Festival videos — music & sound design

MEMBERSHIPS

- HELMA — Hellenic Electroacoustic Music Composers Association
- HSEA — Hellenic Society for Acoustic Ecology

TECHNICAL SKILLS

DAWs: Ableton Live, Logic Audio, Adobe Audition, Audacity

Programming for music: Pure Data, Max/MSP, VCV Rack

Web & app development: HTML, CSS, JavaScript, Kotlin (tokeno.net, ihearcolors.online)

Spatial audio: multichannel (8-channel and above) diffusion, real-time sensor and OSC-controlled sound systems