Lei Liang (b.1972) Six Seasons

MIVOS QUARTET

Olivia De Prato. Maya Bennardo. violins:

Victor Lowrie Tafoya. viola:

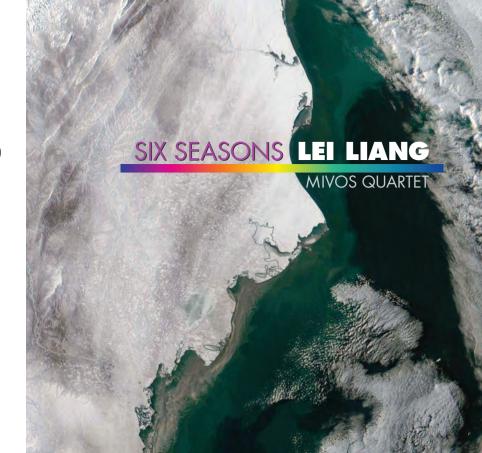
Tyler J. Borden, cello

Six Seasons (2022) 63:19

(for any number of improvising musicians and pre-recorded sounds)

. Season 1: New Ice	13:22
2. Season 2: Darkness	9:44
3. Season 3: Sunrise	9:52
1. Season 4: Migration	8:06
5. Season 5: Cacophony	11:15
s. Season 6: Bloom	6:43
7 Coda	1.16







mountain looks this way close by, another way a few miles away, and yet another way from a distance of a dozen miles. Its shapes change at every step, the more the farther one goes. It looks this way from the front, another way from the side, and yet another way from the back. Its aspects change from every angle, as many times as the points of view. Thus, one must realize that a mountain contains in itself the shape of several dozen or a hundred mountains. It looks this way in spring and summer, another way in autumn and winter, the scene changing with the seasons. It looks this way in the morning, another way at sunset, yet another in rain or shine, the manner and appearance changing with morning and night. Thus, one must realize that one mountain contains in itself the manner of several dozen or a hundred mountains.

-Guo Xi1

Through dreams, the various dwelling-places in our lives co-penetrate and retain the treasures of former days. And after we are in the new house, when memories of other places we have lived in come back to us, we travel to the land of Motionless Childhood, motionless the way all Immemorial things are. We live fixations, fixations of happiness. We comfort ourselves by reliving memories of protection. Something dosed must retain our memories, while leaving them their original value as images. Memories of the outside world will never have the same tonality as those of home and, by recalling these memories, we add to our store of dreams; we are never real historians, but always near poets, and our emotion is perhaps nothing but an expression of a poetry that was lost.

-Gaston Bachelard²

An urgent plea penetrates deep silence. A window susurrates into position, nearly noiselessly highlighting and negating vision. A foot moves from wood to carpet, from grass to gravel. The opening drone of Beethoven's final symphony brings the tripartite externalization of pitch, timbre, and acoustic into unified focus. Winter transitions gently, nearly imperceptibly, into spring with the cooing of a dove, just as the falling leaf's valiant cascade signals au-

tumn's still-nascent onset or the flat earth meets mountain with barely discernible incline. A door of perception opens, a metaphor emerges, barely glimpsed; an experiential instant, as vibrant and direct as thought, is born and suddenly becomes place. Too often, we inhabit such pivotal moments with insufficient attention. The opening instants of **Lei Liang's** Six Seasons (2022) comprise such a microcosmic but seismic shift as we experience the aurality of something as minimal but monumental as the sonic gradation of temperature in the formation of ice. Gaston Bachelard's poetically iridescent vision of "home" in the psychological and irrepressibly mystical flux conjoining memory and imagination finds its transtemporal analogue in landscape painter Guo Xi's essential mountain, viewed across time and season. Both find their sonic parallel in Liang's gargantuan exploration of call, response, and recall. A geographical location sampled and held, the myriad in-and-outbound symbols as sonic signifiers captured over time and then transforming into that plurality we shove under music's broken umbrella, transmogrifies all notions of home via the alchemical processes of timbral and spatial interaction. Active engagement with the natural world informs and enriches a shared experience.

Judy Lochhead's observation that "... the becoming of a musical work arises through the dynamic and contingent processes of musical listening" could be no more aptly applied than to Lei Liang's newest work, itself a study in experiential permutation through contingency.³ To suggest that his multivalent construct involves the juxtaposition of natural sounds and instrumental forces, while accurate, does not capture its totality. A cycle of six movements and a coda, it is as protean as the ocean waters that serve as its substance and underlying metaphor. In creating a space of many spaces and multiple temporalities, Liang re-

¹As quoted in Wai-Lim Yip, *Diffusion of Distances: Dialogue Between Chinese and Western Poetics* (Berkeley: University of California Press, 1993), 32. Guo Xi (1020–1090) was a late 11th-century Chinese painter whose work explores intersections between temporality and landscape, both emotional and physical.

² Gaston Bachelard, *The Poetics of Space* (Boston: Beacon Press, 1994), 5–6.

³ Judy Lochhead, Reconceiving Structure in Contemporary Music: New Tools in Music Theory and Analysis (Routledge, 2015), 77.

sides in select company, artists who have fashioned a syntax of exploration both attendant to and divergent from music history's established grooves and curves of innovation and tradition. Of the composers now lionized through the ever-expanding and often-arbitrary canon, George Crumb, John Cage, and Pauline Oliveros come most directly to mind, given their penchants for the enlarging of an instrument's sonic palette in the service of extra-musical concerns. More recent acoustical investigations into the intersection of sound, space, open forms, spiritual concerns, and temporal perception comparable to Liang's have included the meditative permeability of Clara Levy's 13 Visions After Hildegard Von Bingen and Pauline Oliveros and the overtonally rich sparseness of Jürg Frey's Borderland Melodies. These solo and smallensemble pieces find their analog and electroacoustic antipodes in works such as Paul Dolden's hectic Dancing Plague and the all-but-untouched cityscapes of Michael Pisaro-Liu's monumental Transparent City series. That ground-breaking set of staticities in motion unites soundscape with the purity of sine tones, just as his Radiolarians series places morphing tone and improvisation at the service of visual representation of a natural phenomenon. In all cases, the permeable boundaries between point and space dissolve as elements merge along axes of sonic experience with technology audible only by degrees. A century ago, Edgard Varèse thrust these combined metaphors headlong into modernity. "Discoveries—new worlds on earth, in the sky, or in the minds of men" is how he described his sonically and rhythmically pioneering Amériques, and the sentiments are equally applicable to Liang's newest opus.⁴

As with Varèse, Liang's oeuvre is best viewed through a biographical lens. Like the French composer who made the United States his home in 1916 and then immediately began employing and deconstructing its sonic iconography, Liang's 1990 emigration from China proved a similar portal of discovery and artistic malleability in motion. Exposure to narratives unobtainable in his country of origin led him to understand what he calls the transparency of knowledge, the walls behind which it is often hidden and the windows onto

creativity and imagination necessary to expose and highlight its attendant contradictions. Liang perceives seekers of knowledge, the active, curious, and transformative epistemological agents, as being at the heart of this reckoning. He reencountered the innocence of imagination cultivated in his earliest piano compositions, penned at the age of six, in the service of mature artistic pursuit. A moment of reckoning came for Liang with *Against Piano* (1999), necessitating a rejection of the instrument's history in favor of bold exploration. Caught in a rainstorm, a sonic universe of seemingly non-related contingencies opened, leading the questing composer toward the creation of new techniques, including the dropping of packing peanuts onto the piano's strings. This "orchestral" gesture would ultimately serve as one crystalline textural component of *Hearing Landscapes* (2015), which also includes electroacoustic engagement with the actual substance of a landscape painting, rendering color spectra audible. A liberated approach akin to Varèse's enlargement of the orchestra and his art-scientific employment of technologies arose, but it is subservient to multi-temporal visions of an allencompassing nature.

Liang's musical biography came increasingly to inculcate symbiotic levels of investigation and syntax. Just as the piano embodied simultaneously more and less than its historical representation, he has increasingly explored compositional approaches in genres that transcend their technological, social, and cultural boundaries, reflecting his divergent philosophies of home and the transparency of knowledge. An obvious but important point of inauguration for Six Seasons is Five Seasons (2010), a cycle composed for pipa and string quartet, which reflects an emergent interest in the transmutation of instrumental timbre into elemental description, a direct antecedent to his most recent meteorological forays. As spring merges with summer in the work's initial components, pizzicato dewdrops and cicadas conjured from his youth coexist with chords drawn from ancient Gagaku repertoire. His chamber opera, Inheritance (2018), premiered eight years later, embodies a conglomeration of past and present in temporal disjuncture set to music of commensurate complexity. The mansion of heiress Sarah Winchester becomes the multi-hued lens through which micro- and macro-

⁴ Peter Laki, "The Orchestral Repertory," in *The Cambridge Companion to the Orchestra*, ed. Colin Lawson (Cambridge University Press, 2003), 63.

cosmic events, from the death of Winchester's daughter to the murder of indigenous Americans, unfold to music whose percussion ensemble alone defines and negates cultural boundaries and geographic borders. As with the 2013 chamber opera *Cuatro Corridos*, in which Liang also took part, a social ill is addressed, gun violence in the former and trafficking in the latter, and yet, a reflective and very personal compositional approach favoring color and concept over heart-on-sleeve propaganda supports environments in which the real and the unreal vie for prominence as the lines separating past and present blur and ultimately fade to insignificance.

In Six Seasons, Liang achieves a dialectical synthesis of his previous approaches, and further transparency of knowledge, boundary, and construct is elucidated in real time. The focus of his musical, scientific, and technological investigations is on climate change via the harsh and endangered aquatic life of Alaska. The large-scale work bears the fruits of a longterm collaborative association between the composer and the University of California San Diego's Qualcomm Institute, where Liang was Composer-in-Residence (2013-2016) and then Research Artist-in-Residence beginning in 2018. His enthusiasm for learning is prodigious, especially outside of the canonic traditions so often prescribed by a "musical" education. He has worked closely with scientists, oceanographers, and software engineers in constructing this massive paean to nature in its multiple manifestations. A year of recording via specially designed hydrophones placed 300 meters below the surface of the Chukchi Sea, separating Alaska and Siberia, proffered the raw sonic data forming the substance of the cycle and of its predecessor, Hearing Icescapes (2018–2021). Liang refers to these sonic objects and their organization as the living score, an environment in flux in which composer, performer, and audience are immersed. Hearing Icescapes comprised Liang's initial foray into the combination of technology and live performance through what he describes as call-and-answer. The fixed-media call (movement one) involves the animal and meteorological sounds, with minimal manipulation, while the answer (movement two) is provided by an instrumental ensemble of indeterminate size and timbre intertwined with natural soundscapes. Marking an

expansion on the innovations of *Hearing Icescapes, Six Seasons* is more fluid in its form and structure. While "Season 2" distills the couplet form of the earlier composition, other movements rely on more complex interaction between soundscape and instrumentation. Witness the magically unified dialogism of "Season 6," as it becomes difficult to parse the real-time manipulation of recorded sound from its acoustic counterparts; the interplay determines the interlocution of each performative instance.

The title Six Seasons connotes period and cycle, a temporal demarcation derived from the Inuit calendar, and each season is delineated by a world of sonic disparity. The first three seasons are centered around the sounds of ice, first in formation and then, as the temperature changes, in thermal cracking, crashing, and melting. The remaining three seasons involve more open water and the migration of the bearded seals, beluga and bowhead whales inhabiting it. To categorize the feats of sonic mimesis accomplished by the musicians—in this case the Mivos Quartet—as "extended techniques" or "improvisation" is as limiting as labeling Liang's music "experimental" or "musique concrète." Environment is neither being shaped to create music, nor are the musicians merely imitating the sounds of nature or "riffing" on them. Concurrently, reactively, and, above all, with ever-present attention to detail, the quartet engages each sonic element on evolving terms established through dialogue among performers, composer, and with input from Joshua Jones, Liang's collaborative oceanographer, who also attended and contributed invaluable insights during the recording sessions. Communal music making is juxtaposed with spaces for solo contributions, the "work" forming as the collaborative process unfolds. In this CD realization of "Season 1," Maya Bennardo grinds bow against her violin (1:08) in answer to the newly forming ice, inaugurating the echolocational dialogue fundamental to the cycle's form and structure. The immense pressure resultant from newly formed ice finds its analogue in cellist Tyler J. Borden's engagement by rasping hands against wood (12:05). His dialogue with the beluga whale in the fifth season (7:18) results from a Superball rubbed at varying speeds over the cello's back to create resonances. Vast circular bowing motions capture the wind's cataclysmic power in the third season (8:40), while clips and clothespins on the strings and bows mirror and augment the buzz and thrum of seal and whale song. Bow pressure in elemental increase and decrease complement the semi-cyclic and aperiodic sonorities of a community and its environs in geographic flux. Yet, it must be reiterated that the present realization is only one of myriad possible outcomes

Six Seasons' form is fashioned of material as malleable as its components are varied, and so is the audience experience. It can be performed as a cycle or as individual movements. The six folders of sound files comprising the living score can be programmed with or without instrumental response. No ensemble limitations or delineations exist, and plans are in the works for solo and large ensemble realizations. The software created for the project ensures that the audience experience is equally multi-dimensional. The composer or conductor controls the living score's production from a mixing board, so that sounds from the living score and from player responses are projected throughout the space. If possible, the audience is encouraged to move about the space and even to participate by whistling or through the use of small objects, enhancing the disorienting experience of echolocation needed to navigate the perils amassed under thick Arctic ice.

At the heart of Liang's vision is an all-inclusive and ever-evolving concept of presence in dynamism. When describing the experience of performing and recording *Six Seasons*, it is the idea most often revisited by the Mivos Quartet. To be present as listener, as reactor, performer, and planetary citizen is paramount. Yet, like James Joyce or Marcel Proust, prescription and pronouncement are only inferred or even withheld. Liang's goal is to create a totality, an experience to be shared in a common space. For more than three decades, Liang has been interrogating the notion of home as a geographical, spiritual, cultural, and, most of all, an audible construct, but whose home, in what space, and under which conditions? The answer, as with Joyce's portrayal of Shakespeare or of *Finnegan's Wake's* Humphrey Chimpden Earwicker, is all in all. As Yayoi Uno Everett encapsulates: "His sounds transcend their own source in projecting refracted elements of human consciousness as a collective voice." 5

Liang's solutions are as changeable as the climate or as Romantically malleable as mountain peaks in experiential transposition. *Six Seasons* is both an obvious continuation and a point of definition as one form births another. Ironically, though sonically miles apart, Liang's closest artistic ally may be the similarly poly-mathematical and intellectually insatiable Anthony Braxton. In the AACM composer's Echo Echo Mirror House system, his entire musical autobiography is channeled through iPods, containing his discography, into Ivesian open-form ventures of constantly shifting focus over which soloists emote in transtemporal echolocation. Liang is creating a similarly vast and multivalent space-scape of metaphorical surfaces, windows, and gradations with kaleidoscopic physical implications. The sonic objects he employs as building blocks simultaneously establish and irradicate new vistas of recognition and shape infinitely mutable areas. The intersections of individual and communal experience flourish, redefining the process of listening to the emanations from our planet, in crisis but also in all its manifold beauty. From under impenetrable ice, only the lone and disoriented beluga whale's distress call, pervading the cycle's harrowingly sparse coda, compels all the more to render Liang's dream of transformative unification a reality.

-Marc Medwin

Marc Medwin has taught music history at American University in Washington D.C. since the fall of 2008. He is also an active music journalist.

⁵Yayoi Uno Everett, liner notes for Lei Liang, Milou, New World Records 80715, 2011, CD, 2.

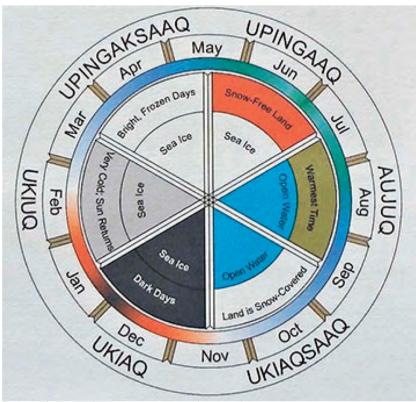


Photo credit: Nunavut Planning Commission, 2016 Draft Land Use Plan.

Six Seasons

A Listening Guide to the Pre-Recorded Sounds

The Chukchi Sea, north of Alaska, is one of the most inaccessible places to humans on earth. Six seasons in the Arctic, according to the Inuit, are not demarcated by a fixed calendar, but by what we hear in the changing environment.

Hydrophones were placed about 300 meters below the sea surface at a seafloor recording location 160 km north of Point Barrow. They capture the sound of sea ice, marine mammals, and the underwater environment throughout an entire year.

Our journey begins on October 29, 2015, just three days after new ice had started to form—the birth of ice.

Season 1: "New Ice"

Season 2: "Darkness"



In October, seawater freezes, and new sea ice starts to form in the Arctic. Chunks of polar pack ice that have floated all summer start to push southward. The new ice is called nilas. It is thin, making a crunchy, flaky sound.

Bowhead whales are leaving for the year.

In November, thick sheets of nilas form interlocking fingers that raft together, becoming larger interlocking fingers, making horizontal transverse motions.

The atmosphere brushes and pushes across thousands of square kilometers of ice.

We hear the complexity of the forces that in total results in what we see as an ice-covered ocean.

Ice interlocking fingers consolidate into large pieces of ice, called floes, that can each span tens of kilometers. All the floes pack together tighter and tighter as the sea ice thickens.

We end inside of the ice with the sound of *pressure*—enormous pressure.

No daylight, total darkness. The sun charts its daily circle out of sight, well below the horizon.

Sea ice covers most of the region at this time. This is the early consolidation of sea ice which is at its coldest and brightest.

As the temperature of water and air changes, ice expands and contracts, creating thermal cracking.

Ice is battered by the harsh atmosphere—it is jumbled, broken, and crunched.

This is the sound of the Arctic Ocean in its natural state: The empty space is not empty at all.

Season 3: "Sunrise"

Season 4: "Migration"



Deep winter, wind, snow, raging storms.

The air is so cold, it steams like a boiling pot. Cracks in the ice expose the nearly frozen water below.

As light starts to return in mid-March, the air gets colder. This is the coldest season, when the ice becomes about 12 feet thick, creating tremendous pressure.

The door for migrating marine animals—the 60,000 belugas and the 13,000 bowhead whales—is shut and locked.

We hear planetary-scale forces. Huge masses of ice being moved and careening into one another. The sound is the aggregate of a million processes.

Extremely dense and cold air masses push and pull, straining the ice, causing it to crash, crumble, ridge, and oscillate.

Underwater, we can hear much farther than in air. What is the aggregate of all of the sounds that the ice is making across many square kilometers? It is a chorus with voices as numerous as stars in the sky.

Enormous pieces of ice collide and break into tall ridges.

This is the period when the process that results in the annual melting of sea ice begins.

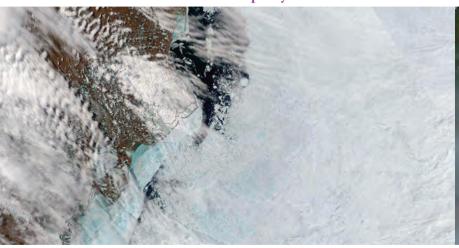
Bearded seals begin to sing. These songs are the harbinger of the migration season. They signal the upcoming arrival of belugas and bowhead whales.

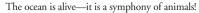
After a hard winter, there is now more reliable open water. The animals don't have to fight every minute just to keep a breathing hole. The Arctic Ocean is finally navigable, and the animals are returning to their domain.

If there is a theme for belugas, it is "togetherness." These are communities of animals. Their "towns" move, and individuals don't separate from one another. They are *together*.

Season 5: "Cacophony"

Season 6: "Bloom"





We hear a community of individuals, as each one survives, lives, and sings. Thousands of animals are marching towards the most abundant feeding areas in the Arctic Ocean.

This is the best time of the year for Arctic marine mammals. After a long winter, they are going to feast, and they are singing together.

There are migration calls, trumpeting, and songs, both near and far.

The melting and breakup of sea ice releases a massive amount of bio-energy into the ocean. Algae grows in the ice. There are thick mats of microscopic plants growing underneath the ice, creating some of the highest densities of plankton and biomass on earth.



face, creating waves that we know as the sound of ocean.

During the "migration" and "cacophony" seasons, all the biological productivity is released from the sea ice into the water. Both the inside and the bottom of melting ice are releasing energy, which becomes available for zooplankton, fish, and whales.

That energy is carbon pulled from the atmosphere. This carbon continues to release energy as it sinks, like a vertical wave of life rolling downward into the ocean. The carbon and nutrients fall like heavy snow onto the bottom of the ocean, creating a blooming garden of clams, crabs, and squids on the seafloor.

Bowhead whales are slowly moving from east to west, milling around, and can be heard in the distance.

"Coda"

The annual daylight is gone, it is completely dark. This is a very, very hard place to be. A beluga was trapped under heavy ice. The beluga can be heard making this call sporadically over a period of about three days, then is never detected again. . . .

The Creative Team

Lei Liang—Composer / Artistic Director Joshua Jones—Oceanographer / Principal Scientific Advisor Theocharis Papatrechas—Audio Engineer / Sound Designer Zachary Seldess—Audio Software Developer Nicholas Solem—Sound Designer Gabriel Zalles Ballivian—Audio Engineer / Technical Director

The Mivos Quartet: Olivia De Prato, Maya Bennardo, violins; Victor Lowrie Tafoya, viola; Tyler I. Borden, cello

Chinese-born American composer Lei Liang (b. 1972) is the winner of the Rome Prize, the recipient of a Guggenheim Fellowship, a Koussevitzky Foundation Commission, a Creative Capital Award, and the Goddard Lieberson Fellowship from the American Academy of Arts and Letters. His concerto Xiaoxiang for saxophone and orchestra was named a finalist for the Pulitzer Prize in Music in 2015. His orchestral work, A Thousand Mountains, A Million Streams, won the prestigious Grawemeyer Award for Music Composition in 2021.

Liang was commissioned by the New York Philharmonic for the inaugural concert of the CONTACT' new music series. Other commissions have come from the Fromm Music Foundation, Meet the Composer, and Chamber Music America, among others. Liang's twelve portrait discs have been released on Naxos, New World, Mode, New Focus,

Albany, and Bridge Records, He has edited and co-edited five books and editions and published more than forty articles.

Liang studied with Sir Harrison Birtwistle, Robert Cogan, Chava Czernowin, and Mario Davidovsky, and received degrees from the New England Conservatory of Music (B.M. and M.M.) and Harvard University (Ph.D.). He is the Chancellor's Distinguished Professor of Music at the University of California, San Diego. His catalogue of more than a hundred works is published exclusively by Schott Music Corporation (New York).

www.lei-liang.com

The **Mivos Quartet** champions new music in all its variety to diverse audiences worldwide. The quartet commissions and premieres new repertoire for string quartet, working closely with composers, treating each new piece as a true collaboration. Mivos maintains an active international performance schedule and takes part in many educational residencies at universities and summer festivals. The quartet also runs two composition prizes to help discover and promote emerging composers in the United States and abroad. Beyond these activities, Mivos is committed to collaborating with guest artists, exploring multimedia projects involving live video and electronics, and performing improvised music.

www.mivosquartet.com

Joshua Jones has spent decades studying marine mammals and the ocean through underwater sound. At UC San Diego, Jones has developed international collaborative research to study the effects of climate change and increasing human activities on Arctic marine mammals. He produced the interactive exhibit, Whales: Voices in the Sea, which has been installed in nine US public aquariums and co-developed the *SeaTech* program, partnering with Alaskan and Alaska Native youth to conduct community-based research on marine mammals. Jones has worked in all the world's oceans and has been a wilderness fishing guide in Alaska since 1995. He is the scientific advisor to Liang's Arctic project.

Theocharis Papatrechas is a Postdoctoral Scholar at the Qualcomm Institute. His research transgresses into environmental and data sciences, audio engineering, acoustics, and spatial audio. Deploying acoustic sensors and focusing on sonification of extreme events, he investigates the impacts of such events on the acoustic signature of underwater and remote terrestrial environments. Papatrechas has a Ph.D. in Music Composition from UC San Diego and has held appointments at the Scripps Institution of Oceanography and CNMAT at UC Berkeley. His main contributions to *Six Seasons* include using audio software and design techniques to sculpt acoustic data.

www.theocharis-papatrechas.com

Zachary Seldess is an inventor, creative coder, and musician whose creative and professional work covers a wide variety of audio-related topics, including new applications in microphone and speaker array beamforming, the design of tools and techniques for large-scale graphics-driven spatial sound, algorithms for efficient and generalizable psychoacoustic modeling, and many other projects loosely centered around enhanced audible expression. Seldess is the author of the MIAP software toolset (https://zacharyseldess.com/miap), which was used for multi-channel sound spatialization in several collaborations with Lei Liang, including *Hearing Landscapes* and *Six Seasons*.

Nicholas Solem is a Ph.D. candidate in Computer Music at UC San Diego. His research focuses on training artificial neural networks to map psychoacoustical measurements to sound waveforms, which are then further harnessed in more elementary forms of synthesis, such as wavetable and granular. He holds a M.M. in Music Technology from New York University and a B.A. in Philosophy from the College of Wooster. In *Six Seasons*, Solem aided the team in sound design and post-production of Arctic sound materials to achieve pristine sonic results.

SELECTED DISCOGRAPHY

A Thousand Mountains, A Million Streams, BMOP/sound 1061.

Bamboo Lights. Bridge Records 9425.

Brush-Stroke, Mode Records 210.

Hearing Landscapes/Hearing Icescapes. New Focus Recordings FCR 360.

Luminous. New World Records 80784.

Milou, New World Records 80715.

Verge/Tremors of a Memory Chord. Naxos 8572839.

SELECTED BIBLIOGRAPHY

Green, Edward. "Lei Liang." *The Grove Dictionary of American Music*, 2nd edition, Oxford University Press, 2013, vol. 5, pp. 122–123.

Liang, Lei. "About Being Chinese." Sonus: A Journal of Investigations into Global Musical Possibilities, Cambridge: vol. 17, no. 1 (Fall 1996): 3–5.

Pellegrinelli, Lara. "Hearing History. *Harvard Magazine*, January–February 2016: 68–70. Shelemay, Kay Kaufman. "The Intercultural Music of Composer Lei Liang." *Soundscapes. Exploring Music in a Changing World* (Third Edition). New York, London: W.W. Norton & Company, 2015: 387–395.

Sheridan, Molly. *Lei Liang—Taking Sound to the Extreme*. NewMusicBox (American Music Center), October 2010, www.newmusicbox.org.

Producer: Lei Liang

Engineer: Andrew Munsey

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Francis Goelet (1926-1998), In Memoriam

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