

# IM-OS

Improvised Music – Open Scores

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Proposals from readers are invited

## CONTENTS:

<i>Editorial</i> (Carl Bergstrøm-Nielsen)	4
<i>Theme and variations</i> (Miguel Frasconi and Matt Hannafin)	5
<i>Dmitri Papavasileiou interview</i>	8
<i>Open works based on board games</i> (Marina Buj)	16
<i>Small notes</i> (CBN)	34
<i>Contributors to this issue</i>	36

## EDITORIAL

Welcome to one more issue with new and original contributions!

Frasconi and Hannafin tell a story in which a fascinating piece of architecture inspired the creation of a graphic score through a chain of collective associations. From the fertile Greek environment for open scores comes an interview with Dmitri Papavasileiou, who takes us into his inner working space and shows us recent works. Marina Buj provides a detailed look into scores by Spanish Carlos Cruz de Castro who, before John Zorn wrote his game pieces, created pioneering scores inspired by the games of chess and domino. And from Yoram Rosilio there is a video score being tested by no less than four different ensembles.

A wonderfully diverse mixture, if you ask me...

CBN



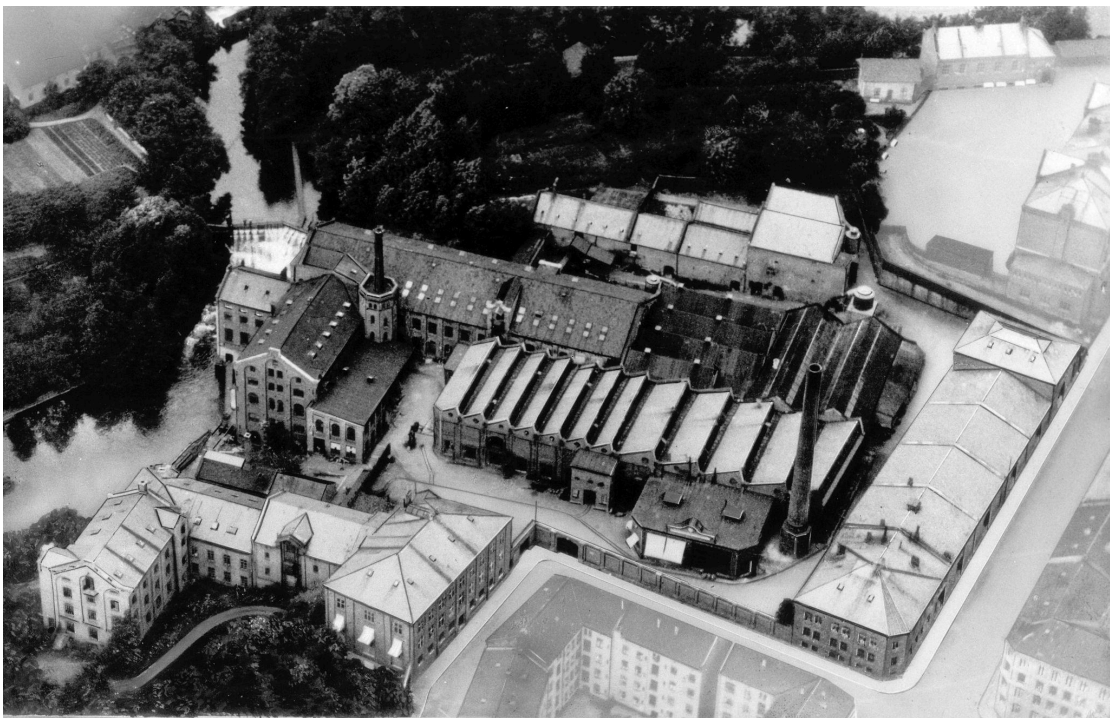
## THEME & VARIATIONS

Scores by Miguel Frasoni and Matt Hannafin based on Peter H. Holtermann's Christiania Seildugsfabrik, Oslo.

In or about 1856, Christiania Seildugsfabrik, a Norwegian manufacturer of sailcloth and other maritime textiles, commissioned architect Peter H. Holtermann to design a large factory for construction on the east bank of the Akerselva River, in Oslo's Grünerløkka district. The Seilduken (sailcloth), as the factory became known, operated from 1859 to 1978 and was later repurposed into a new home for the Kunsthøgskolen i Oslo (Oslo National Academy of the Arts).

On June 15, 2023, U.S. East Coast composer/performer Miguel Frasoni was at the Academy to begin rehearsals for Kristin Norderval's opera "Crane Reflects on a Favor." At the intersection of Seilduksgata and Fossveien, he snapped a photo of the former factory's distinctive brickwork architecture and posted it to social media with the comment "Oslo . . . or graphic score?"

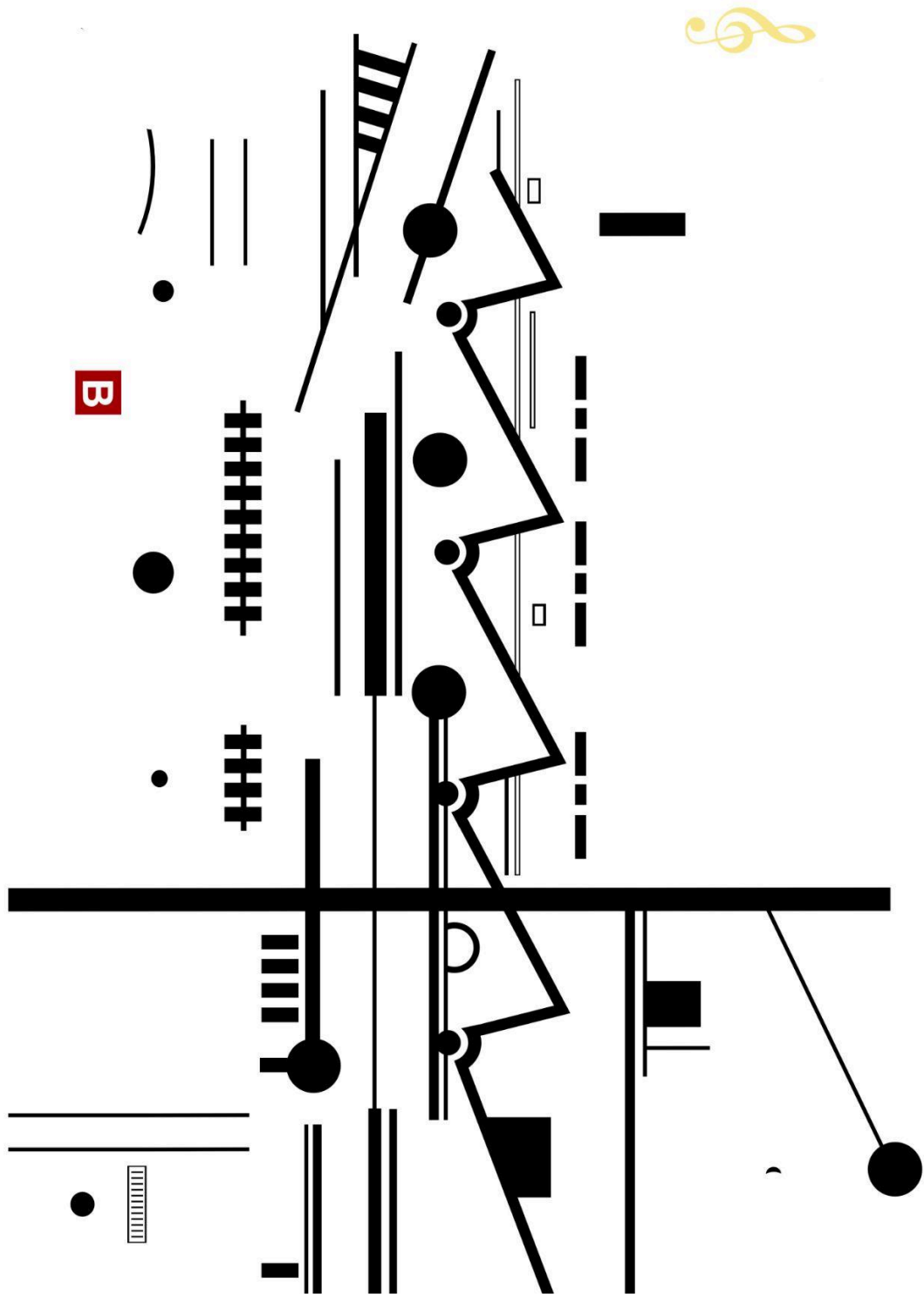
On the U.S. West Coast, percussionist/writer Matt Hannafin saw Frasoni's post in early afternoon and by evening had completed his own score by abstracting three of the photo's defining elements: Peter Holtermann's architecture, the photo's framing of the Seilduken in its streetscape, and the flight of a single bird above the rooftops. The score includes a short architectural history (as above) followed by one line of direction: *As to the score, it too is architecture, and players may explore it any way they choose.*



*The Christiania Seildugsfabrik (date unknown), photo by Anders Beer Wilse (1865–1949)*



Miguel Frasconi, *Oslo* (2023)



Matt Hannafin, *From a Photo in Oslo* by Miguel Frascóni (2023)

## INTERVIEW: DMITRI PAPAVASILEIOU

*Dmitri Papavasileiou is a founding member of the WHI ensemble in Athens, an experimental music orchestra that emerged in 2017 from Alexis Porfiriadis' improvised music workshops and which focuses on analysis and performance of open works / experimental music. Born in 1970, Dmitri took up music studies at a later age, and received a diploma in composition with Fani Kosona. While he started to present own compositions for solo instruments and small ensembles in concerts and festivals in Athens and abroad in 2013, he four years later turned to performing open compositions and to improvisation sessions with WHI.*

*How did you become interested in composition?*

Originally it was personal ambition to express myself through music, mixed with pure curiosity on how far I can go to create something meaningful. Also, the need for the inner journey of rediscovering myself through art. And finally, Fani Kosona - later to be my teacher and mentor - who gave me the initial push (and a lot more along the way).

*How did you become interested in open works as a composer?*

I approached open works initially as a performer, while working with Alexis Porfiriadis. I was fascinated with the beauty and simplicity of certain scores, no matter how complex or abstract ideas they included. I realised that they can be approached and celebrated by performers more easily than I expected.

Of course, as open works require, I had to impose my opinion on material and form and for that, I chose to think as a composer. In this new world of possibilities, I felt compelled to present my own scores and put them to the test. Especially while having a close collaboration with my colleagues in WHI ensemble and Diathlasis vocal ensemble, who would eagerly prepare and perform my compositions. Working closely with performers is something I enjoy, and open works provided me with lots of opportunities in that direction.

*How were your important experiences with open works by other composers?*

By browsing and studying open scores, I was intrigued by innovation:

- The diversity in notation inventions.
- The formation of a personal musical language. The need to dive deep in a composer's world to familiarize with this language, before attempting any



performance / realization.

- The trust in the original idea along with the degrees of openness in material and form and yet, the balance between control and mutual trust between composer and performers.

- The invention of simplified structures in order to make abstract ideas accessible.

- The drive to explore timbre / texture, techniques and communication skills.

The most important realisation for me was the challenge to move from simply presenting an idea to actually communicating it.

*Which thoughts do you have about music's structural aspects?*

This can be a very long discussion. I'd like to express my thoughts on two of the structural aspects for which I take a special interest in my own compositions: *Form* and *process*.

I am very concerned about the idea of *form*. Even in the most complex compositions, form needs to present itself to become a guide to the listening experience. Mostly in my conventional compositions, form becomes both a goal and a guide and is always planned. Form elements are even included in my pre-composition sketches. Opening the form can become a great challenge as well since, in this case, it requests the listener's active involvement in the listening process by inventing and following a personal narrative. In such compositions of mine, I use form elements to try and keep as much control over form as possible.

Equally exciting is the idea of *process*. I like to think of my compositions as vector diagrams, vectors representing processes.<sup>1</sup> Structure is created by the superimposition of processes. Form, then, becomes the evolution of structure in time. So, process ontologically precedes form. Process is a fundamental concept, and becomes my compositions' driving force.

*Please describe some ideas behind your recent works "Le Phenix" and "Aria"*

"*Le Phenix*" is an open (graphic) composition for vocal ensemble and is based on the poem by Paul Eluard. The dual challenge in this composition was to attempt to bring a traditionally closed form (the poem) into an open music environment and, at the same time, respect and celebrate the text (rather than just use it as a vehicle). Maintaining the poem's atmosphere was of utmost importance for me.

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<sup>1</sup> A vector is a quantity (or quality) that has a *direction*. My processes usually incorporate the idea of direction. Sometimes, more than one process has the same direction (for example "move towards higher pitch" together with "add more notes", sometimes a direction may be reversed).

2

*tutti*

*mp* <> <> , *mp* *ritenuto* — — — — —

η τε-λευ-ταί-α μά-χη ε-νά-ντι-α στο θά-να-το

//

*A Tempo* *parlando* *meno mosso cantando*

*mp* *ff* *f* *mp* *mp* *mp*

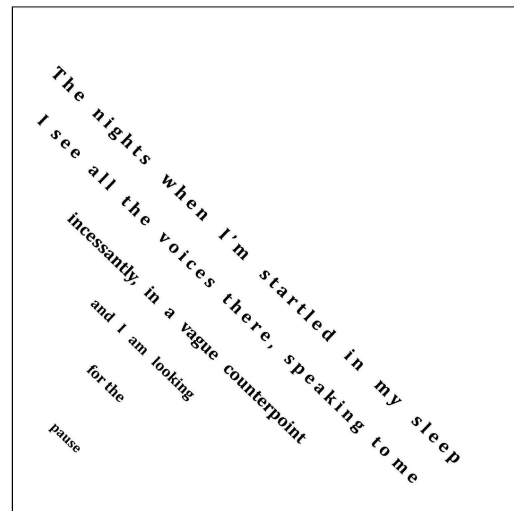
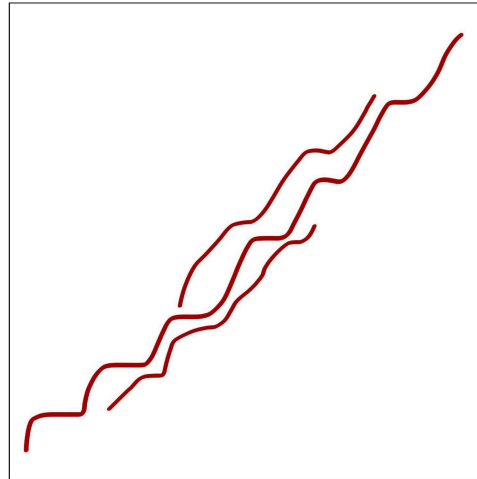
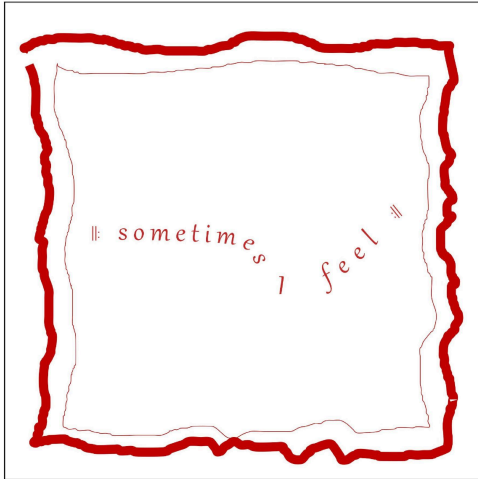
και να-μα-στε και πιο ψη-λά α-πό πο-τέ

και πιο ψη-λά α-πό πο-τέ

Page 2 from “Le Phenix” by Dmitri Papavasileiou (2022) for choir. Note how the vocal parts are coordinated, often in parallel motion, sometimes in contrary motion - but individual pitches are not exactly defined which means that the singers have the freedom both to choose them by their immediate feeling, and at the same time, have the obligation to adjust the overall intervallic structures into their given proportions by collective work.

The whole composition is a time-based structure. The form opens up on a few occasions but only locally and in a controlled manner. To this purpose, I chose to create processes to gradually deconstruct the text timeline and then rebuild it. My main tools to achieve that are changes in timbre and variations in density and intensity. The most sought after element throughout the piece is the counterpoint between voices. The rest of the music material involves several degrees of openness, so that the performers can quickly move beyond the technical considerations and focus on the structural points of my perception of the text.

*Aria* is a vocal composition for two groups of voices. The main idea was to compose a piece for echoing voices. Ranging from one- to multi-voiced passages, sometimes going as far as internal dialogues of a bipolar to schizoid disorder fashion. My purpose is to let the performers/listeners be involved in a deeply personal introspective sound experience, while at the same time observing from a distance.



Examples of transparencies from "Aria. For two groups of voices" (2023), score and text by Dmitri Papavasileiou. Text following a straight line is to be recited (*parlando*), text following curved lines may be sung. Also, fonts are to be noticed - denser fonts may be perceived as *accelerando*, larger fonts as *crescendo*. Both Greek and English versions exist. For performance, a number of sheets are assembled by common agreement, each combining red and black print. See examples of combined sheets below on page 14 and 15.

It is a fully open composition. The material consists of a few bits of text, which may be recited or sung and graphic elements (mostly curves) which may be translated into single or groups of phonemes. It is printed in two sets of transparencies, one for each voice group in a different colour. Each performance page is derived from any combination of two transparencies, one of each group, in any orientation. Performance pages may be put in any order. So, the playing material and, in consequence, the performance is each time truly unique.

Each combination of transparencies (= each performance page) incorporates form directives. While the macro-form is open, I needed to attribute internal coherence into each micro-form.

Since the material is of introspective nature, the choices made by the performers will eventually incorporate aspects of their personality. I wanted the performers to bring in their own air, allowing their internal voices to be heard in conjunction with the text I provide them.

While composing the aria a lot of my artistic influences came back to me that period. Everything I did was driven by one or more of them: Music I listened to in my earlier years (lyrics and mood), my later years (structure, process, intellect), paintings I've seen (proportions, form, colour), poetry and literature (verses and emotion), people I have met (characters and habits), science (mostly mathematics). So for me, this composition sums up my aesthetic influences - for all elements in the score I have at least one certain point of reference.

*Please share some observations of how open scores can work for the musicians playing*

Even at first sight of a score a creative process begins: It is not only personal, in the pursuit of deciphering symbols, following intuition, listening to one's inner ear. It is a collective process as well, involving initiatives, assuming roles and responsibilities and enhancing communication and cooperation. Personal and group preparation, then, is not a stressful experience. Usually it is an exciting situation. Open scores spark the performers' imagination. It may lead to exploring one's personal ideas as identified against score elements. Dealing with diverse scores can act as a vehicle of disengagement from mannerism by giving initiative to try new timbre, techniques and playing approaches - one becomes a better performer. It can inspire collective creativity and strengthen the team concept. The group becomes more than the sum of its individuals. It can teach you to exercise non verbal communication, getting to know the true self.

*If you were to recommend a concert with open compositions to attend for someone who has no or little previous experience of experimental music, what would you say?*

Regardless of the venue, or the performers, I would suggest to find some interesting

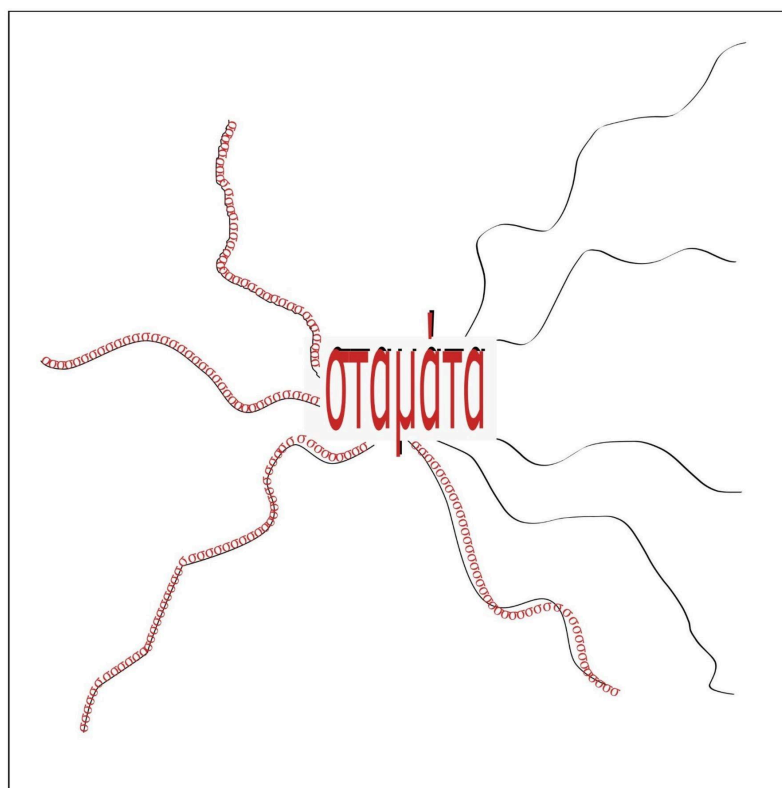
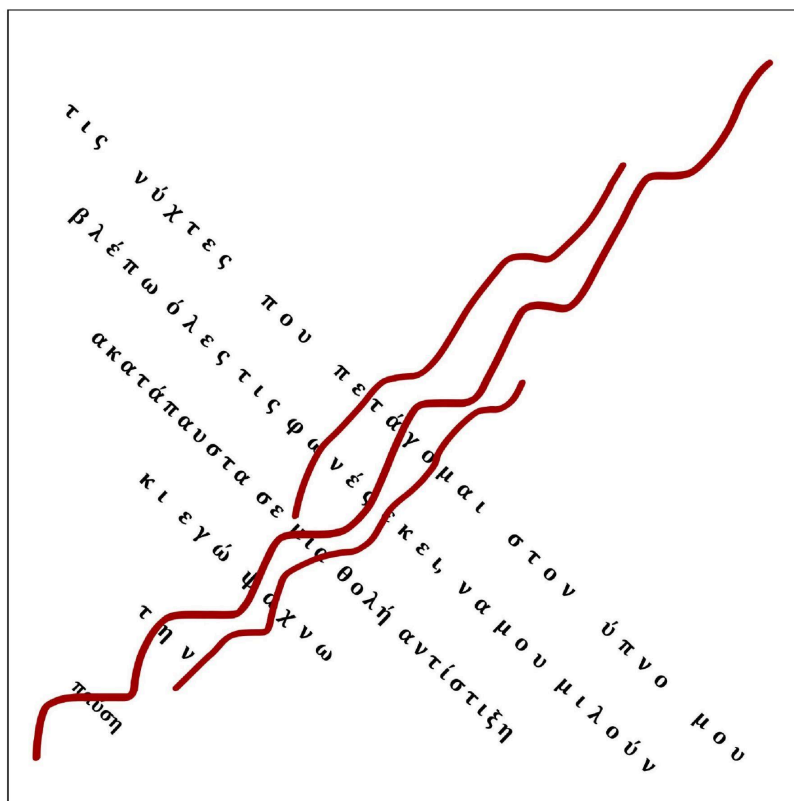


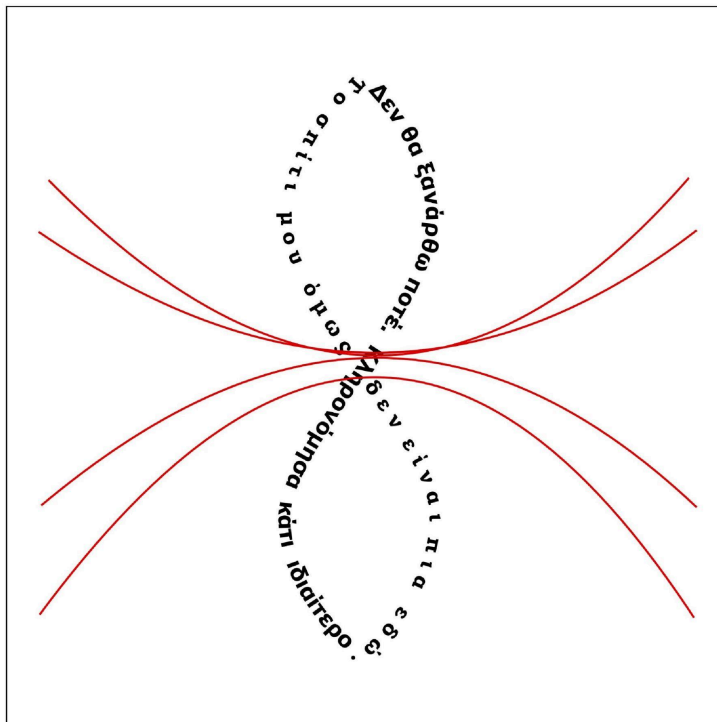
compositions. Those by Alexis Porfiriadis are very innovative and interesting. I enjoy his process-oriented ones very much. Open compositions by Karheinz Stockhausen are pure gems. Finally, any New York school composition, both as a historic reference and a guide to experimental music. There are works by John Cage, Christian Wolff and Morton Feldman which are not by any means to be missed.

*Anything else you would like to add?*

Music, composition, open works, a single score: The discussion so far follows a path of discovery and realization. A path of forming an artistic identity. Each step opens a window to a new world. Even a single score can become a whole world. Once created, there's an opportunity to enter this world and explore it. Then move on to the next adventure.

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*Examples of combined sheets from Dimitri Papavasileiou: "Aria".  
See examples of individual sheets and explanations above on page 11*

## OPEN WORKS BASED ON BOARD GAMES

Four Graphic Scores by Spanish Composer Carlos Cruz de Castro (b.1941)

By Marina Buj

*"Human culture springs from play - taking the form of games - and develops on within play" (Huizinga (2001), p.7-8).* In his famous work *Homo Ludens*, Huizinga highlights the importance of play in the development of human beings and culture. This importance is especially evident in the art and the pedagogy of the 20th century. In his text about art, play and education, Fontán del Junco (2019) raises some engaging questions on this issue:

*"What if it so happened and what would have happened to the artists of the 20th century - which would explain the common character of many of their practices - that the majority had decided - with a greater or lesser degree of consciousness - to "become like children?" and, especially if this kind of return to childhood was something more than an infantilized thing and actually hid a serious suggestion about the way in which certain principles should perhaps be rethought, which regulate not only the arts of our time, but also the ways in which we educate and are educated, and in which we organize the specific relationship between means and ends that define our culture? " (Fontán del Junco, 2019, p.28).*

In music, too, composers have developed their playful abilities over time. This text addresses the relationship between music and play and, in turn, the concept of openness in composition, through three graphic works by the Spanish composer Carlos Cruz de Castro (b.1941) based on board games: *Ajedrez* (1969), *Dominó-Klavier* (1970) and *Variaciones Laberinto* (1974-75). Due to its relationship with the previous ones, but composed at a later stage, the work *Dominó del seis doble* (1988-89) is also presented.

Cruz de Castro is a composer who has experimented with all contemporary musical genres, resulting in *"excellent examples of experimental sound and graphic creations, together with formal structures consecrated by historical tradition"*. (Cureses, 2013, p.170). Among his graphic works, composed from the late sixties to the present day, are *Llámallo como quieras* (1971); *Algo para guitarra* (1972); *Synchronous* (1972); *Process* (1972), *Projection of the Vertical (Homage to Piet Mondrian)* (1973); *Tucumbalám* (1973); *Roads* (1974); *Incomunicación* (1974), *Pan* (1974), *Registros* (1974); or the more recent *Sax-Piano-Jazz* (2004) and *Preludio nº 9* (2004).

Various approaches to the composer's work have highlighted his particular concretist style, his contribution to musical theatre, as well as the idea of music as a game (Medina & Cureses (2002); Barber & Palacios, (2009); Ramos, 2013). Barber & Palacios (2009) have also emphasised the ascription of many of his works from the early 1970s *"to the playful and everyday spirit of the Fluxus trail"*. (p.33). Indeed, we find in the works presented below this conception of the score as a vehicle to encourage creative play, curiosity, and collective participation. It is necessary to situate them - at least the first three - in a historical moment, the beginning of the seventies, in which there was in Spanish music *"a paradigm shift that rescued the activity (then still called "avant-garde") moving it away from obligatory serialisms and constructivisms more or less tinged with randomness"* (Barber & Palacios (2009), p.16). It is also a context characterized by the rise of new groups and associations, by the importance of collective action. In this scenario, favourable for sound experimentation, Cruz de Castro composed the aforementioned works, in which, in addition to the relationship between music and play, the connection between music and plastic arts, as well as between music and geometry – areas which are recurrent in his work – become evident.

## AJEDREZ (1969)

The image shows a page of a musical score for the piece "Ajedrez" (1969) by Carlos Cruz and Castro. The score is arranged in a grid of 8 columns and 10 rows of staves. The columns are labeled at the bottom as FAGOT, OBOE, FLAUTA, TROMPETA, PERCUSION, FLAUTA, OBOE, and FAGOT. The top of the page contains the title "AJEDREZ", the composers' names "CARLOS CRUZ & CASTRO", and the date "HABISP III-II 69". A tempo marking "♩ = 132 c.m.m." is in the top left, and a dynamic marking "mf" is in the bottom left. The score consists of various musical notations including notes, rests, and articulation marks.

Fig. 1. "Ajedrez" (1969). First Movement

There are many links between music and chess, as well as numerous composers (and artists, in general) who have been chess players. In this regard, the figure of Marcel Duchamp is significant, and his statement that not all artists are chess players, but all chess players are artists. In the opinion of the Argentinian composer Juan María Solare, the relationship between music and chess is shown in various areas, from the anecdotal to the historical or the structural. Solare states that the aesthetics of a

musical composer can be compared to that of a chess player, and that many chess concepts such as harmony, symmetry, rhythm, combinatorics, also exist in music. This author refers to the composer John Cage, who *"employed many random elements in his compositions, and he himself stated that chess was for him like a balance, a complement, since in the game of science there can be no chance."* (Solare, cited in Vargas, 2017). Cruz de Castro is also an experienced chess player, and his relationship with this game has been reflected in works such as *Ajedrez* (1969).

*Ajedrez* (1969) - chess, in Spanish - is a work that incorporates aleatory procedures in the composition through the game of chess. The score is a chessboard where each of its 64 squares has a specific notation. Each one of the instrumentalists is assigned one of the game pieces, and moves on the board following the movement of the assigned piece. Thus, for example, in the instrumental group corresponding to the white pieces, the bassoon is the rook; the oboe is the knight; the flute is the bishop; the trumpet is the queen, and the percussion corresponds to the king.

As the composer himself explains, the first sheet is a kind of information on how the instruments move along the "measures" of the score, that is, through the squares of the chessboard. The work was composed for two instrumental groups, but only one of them was performed, which can be considered the white pieces. The work was premiered with flute, oboe, bassoon, trumpet, and percussion. The instruments are supplanting the chess pieces and, therefore, move around the score by jumping from one square to another following the movement of the piece they represent.

The way of interpreting the work has two possible forms: A) The conductor gives the signal to start to everyone so that each one begins to play in their first square and then the conductor individually instructs each one to change the square (only after he has heard what is being played). Each performer, in turn, chooses the square to which they will jump (always following the movements allowed to their pieces). B) Previous programming the movements of the instruments throughout the score, resulting in a pre-established arrangement.





*Movement 3:* It is a rhythmic movement characterized by the *accelerando* and the *ritardando*. There are two sheets: one is particular for percussion and another is common for the rest of the instruments.

AJEDREZ CARLOS CRUZ de CASTRO  
MADRID III-II-69 3

PERCUSION

→ = Bateria Caja  
 → = Bateria Bongos  
 • = FFF

Fig. 3: "Ajedrez" (1969). Third movement. Percussion Part

In the first movement, each square is divided by a line that represents the area of the instrument's central register. The notes away from this line and closer to the top or bottom of the square, will be higher or lower, as regards pitch.

In the third movement, Cruz de Castro combines effects of *accelerando* and *ritardando* with *crescendo* and *diminuendo* by means of geometric drawings. The triangle, for example, contains the progressive dynamics and at the same time the *accelerando* or *ritardando*, or the rectangle with the same dynamic but with *accelerando* or *diminuendo*. In the percussion part, there are descriptive graphics according to the nature of percussion. (*Cruz de Castro, personal communication, July 22, 2022*).

Although the primary goal is musical composition, the work is also an example of graphic mastery. Visually, each sheet has unique characteristics, derived from the musical concept of each one of them. On a graphic level, the compositional balance stands out, as well as the creation of different visual textures on the white background and the use of the dot and line as predominant graphic elements. One could almost speak of a graphic study of the line: straight, curved, continuous, discontinuous, zigzag, broken, spiral... marking different melodic profiles, or forming gradations that translate into *accelerandos* or *ritardandos*, etc. All these elements coexist with fragments written in conventional notation, in which the graphic qualities of the staff also stand out.

## DOMINÓ-KLAVIER (1970)

**DOMINO-KLAVIER**

Carlos Cruz de Castro

1

Allegro

Compas = 104

Mano Derecha

Mano Izquierda

pp  
staccato (crescendo poco a poco)

10

30

30

Fig.4. Dominó-Klavier (1970), first movement (fragment)

*Dominó-Klavier* (1970) is a work inspired by the game of dominoes as a notation that appears to be ideal for being played by a keyboard instrument: "I used the domino tiles as graphics in this work, which can be played on any keyboard instrument, when I saw the great similarity that each tile placed vertically has with a ternary rhythm of writing that is typical of keyboard instruments. I saw that the two halves of the tiles, upper and lower, could supplant the two staves used in keyboard instruments" (Cruz de Castro, 1989, p.106).

The tiles are arranged in rows and read from left to right, as if they were a staff. The composer invented a translation of the graphic elements of the dominoes that creates a very interesting sound result: the dots correspond to the notes (chosen by the performer among the twelve semitones, distributed in six semitones per hand);

in each tile, the dots are distributed in three columns, each column being a beat of the ternary measure; overlapping dots are to be interpreted as chords. The notes more or less distant from the centre line of each tile will be more or less high. In this way, the work allows for an infinite number of possible versions, while maintaining very marked elements, such as the ternary rhythm.

DOMINO-KLAVIER CARLOS CRUZ DE CASTRO

El interprete, tiene que repartirse los doce semitonos, de manera que pertenezcan seis a la mano derecha y seis a la mano izquierda. Da lo mismo que la altura de éstas doce notas, sea aguda o grave. Lo importante es que cada grupo de seis notas, estén al alcance de la mano, que le corresponda, en posición fija. Por lo que cada grupo, de seis notas, no debe sobrepasar la extensión de octava. La parte superior de cada compas pertenece a la mano derecha y, la parte inferior a la mano izquierda. Las notas mas o menos alejadas de la línea central de cada compas, seran mas o menos agudas, así disten de esa línea hacia arriba y, hacia abajo en sentido grave.

El ritmo de la obra es ternario. Por lo que cada compas tiene tres partes: El compas nº 1, tiene una nota situada en la segunda parte del compas(en el centro). Se supone que a sus lados corresponden dos silencios de igual valor. Lo opuesto se encuentra en el compas nº 91, en el que hay un silencio en la segunda parte, mientras la primera y tercera estan ocupadas por dos notas de diferente altura en región grave. Las notas superpuestas, significa que son acordes. Todos los acordes que se encuentran en la obra, estan formados por dos, tres, o cuatro notas, por cada mano. El compas mas denso está en el nº45, formado con ocho notas(cuatro en cada mano) que se repite dos veces.

Hay compases donde una de las dos manos, se ve necesitada a utilizar una nota del grupo, de seis, correspondiente a la otra mano. Por ejemplo: El compas nº24, donde la mano izquierda tiene que tocar, entre la primera y segunda parte, siete notas distintas, repartidas en dos acordes de cuatro y tres notas.(En la tercera parte, ya vuelve a repetir el primer acorde). En éste sentido, el máximo de interferencia se encuentra en el compas nº 48, con siete notas distintas, cada mano, entre la primera y segunda parte. En éste caso, la mano derecha debe coger una nota, cualquiera, del grupo de seis, de la mano izquierda. Y ésta a su vez, tomar una nota del grupo, tambien de seis, de la mano derecha. Practicamente, viene siendo dos grupos de siete notas, por la repetición de dos notas a distinta altura. Una vez seleccionado los grupos, el orden escalístico debe mantenerse rigurosamente. Es decir: Si hemos determinado para la mano izquierda: Do, Mi<sub>b</sub>, Lab, Si(para el primer acorde del compas) y Re, Fa, La<sub>♯</sub>, para el segundo (fig. 1), tendremos que el Do, siempre aparecerá localizado en la nota mas grave del acorde y, el Si, la mas aguda, dentro de la región grave. Ver en la (fig. 2), los compases nº 7, 8, y 10, en sus partes graves.

Fig. 1

Fig. 2  
(u.e. eodico)

Fig.5. "Domino-Klavier" (1970). Instructions (fragment)

The title of the work - as Medina and Cureses (2002) point out - "exudes a certain sarcasm - and is an aesthetic premise - with respect to certain German scores, which are supposed to be rigorous and serious, not at all in accordance with the mention of a board game such as dominoes". (p. 217).

It is a work structured in five movements: allegro-Lento-Moderato-Lento-Prestissimo.

The composer used the domino of the double twelve as a compositional basis. Subsequently, after the work was performed, he realized that some tiles were impossible to be played, so he would create, years later, what can be considered a second version of the work: *Dominó del seis doble* (*Domino of the double-six*).

Graphically, the point stands out as the central element of the composition, as well as the notion of visual rhythm, marked by the vertical arrangement of the tiles. Again, an example of order and geometry.

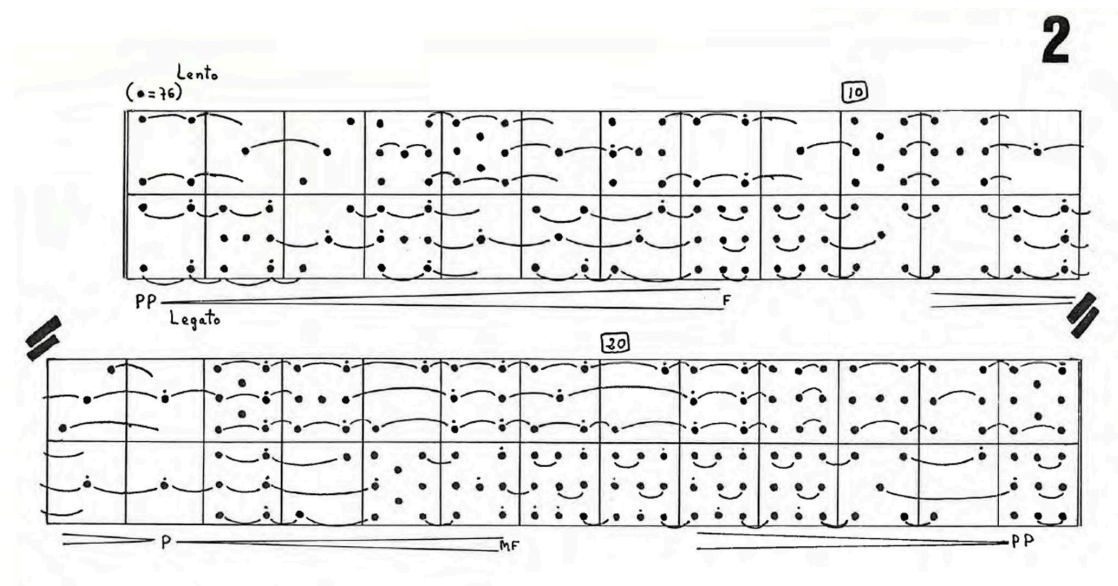


Fig. 6. "Dominó-Klavier" (1970). Second movement (fragment)

### DOMINÓ DEL SEIS DOBLE (1985)

Years later, *Dominó-Klavier* evolved into a second piece also based on the game of dominoes and on very similar principles but simplified to improve its interpretive possibilities based on the previous experience: "I found in the normal *Domino of the double-six* the best solution with the distribution of six notes per measure, three for the right hand and three for the left. This formula allowed me more freedom and variation in composing this work." (Carlos Cruz de Castro, personal communication,

June 23, 2022). The piece is one of the movements in the work *Imágenes de infancia* (*Images of Childhood*). A reference to the infant stage as the stage of play can be seen here.

The interpretive principles are the same as in *Dominó-Klavier*: the dots marking the numbers on the two sections of the tiles determine the reading for the right hand and for the left. From these notations, a rhythmic game is created in which harmonic variants are produced.

The work is made up of seven counterpoints, with a different order of the pieces. Chance, mathematics, play, combinatorics, and openness are present in this work, in which the open aspects (selection of pitches, harmonic material, etc.) are very well reconciled with the aspects defined by the graphics (such as rhythm, for example), thus resolving the dialectic between determined and indeterminate aspects, creating a balance between both aspects.

From a mathematical point of view, counterpoint number 6 stands out, which follows an increasing and then decreasing numerical ordering of the tiles.

The compositional concept of the work would also lend itself to new graphic and sound configurations, to new counterpoints, depending on the arrangement of the tiles. In this sense, the composer himself explains that:

*"on one occasion, when the seven counterpoints were finished, it was offered to the public in the form of a tip and participation of the attendees to make a new order. In this way, an order was made that the pianist interpreted at first sight, selecting six notes that appeared to her at that moment. In this way, the audience was the author of that variation that sounded like Dominoes and nothing else, since the rhythmic scheme has such strength that harmonic and melodic may have variants, but the organic stamp of the base in which it is constituted is clearly identified". (Carlos Cruz de Castro, personal communication, June 25, 2022).*

$\frac{3}{4}$   $\text{♩} = 104 \pm$

The image displays three systems of musical notation for a piano accompaniment. Each system consists of two staves, labeled 'D' (Derecha) and 'I' (Izquierda). The first system is marked 'Stacc.' and has a dynamic range from *f* to *p*. The second system also has a dynamic range from *f* to *p*. The third system has a dynamic range from *p* to *f*. The notation includes various rhythmic patterns and articulations, with a tempo marking of  $\frac{3}{4}$  and a quarter note equal to  $104 \pm$  beats per minute.

Fig. 7. "Dominó del seis doble" (1985). Counterpoint nº1 (fragment).  
From "Imágenes de infancia", © 1995 by Real Musical.

The work has been masterfully performed by the pianist Eulàlia Solé.  
([https://www.youtube.com/watch?v=IYxBD7rMA78&list=OLAK5uy\\_n5qsz4ca9VY0vjz-Zs9beK2\\_ct9P7txu8&index=5](https://www.youtube.com/watch?v=IYxBD7rMA78&list=OLAK5uy_n5qsz4ca9VY0vjz-Zs9beK2_ct9P7txu8&index=5)).



## VARIACIONES LABERINTO (1974-75)

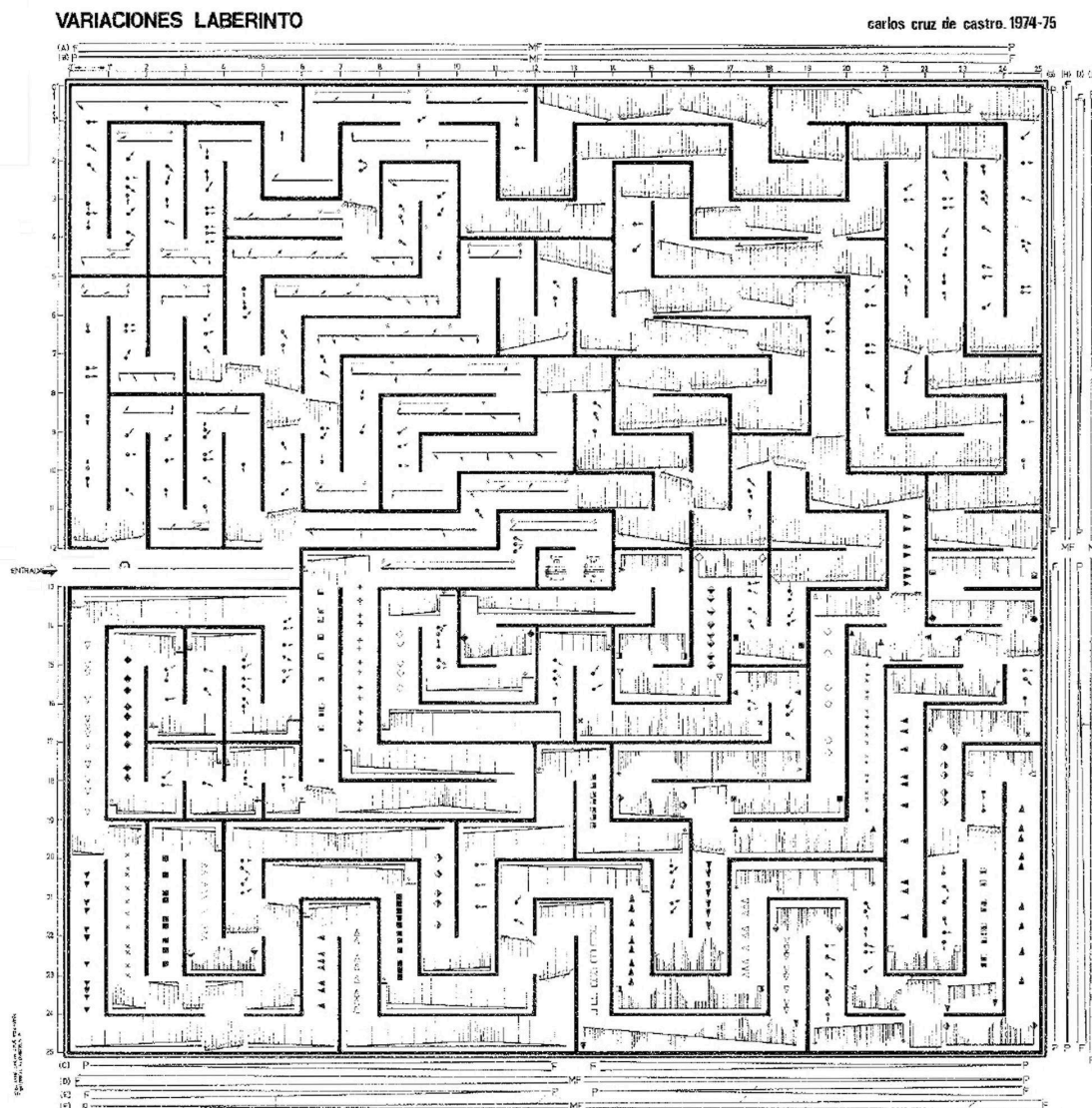


Fig. 8. Variaciones Laberinto (*Labyrinth Variations*, 1974-75)

*"I thought of a labyrinth of labyrinths, a sinuous growing labyrinth that encompassed the past and the future and that somehow involved the stars. Absorbed in those illusory images, I forgot my fate as a persecuted person. I felt, for an indeterminate time, like an abstract perceiver of the world." (Borges, 1993, p.84).*



The labyrinth has always been a source of inspiration and artistic expression for artists, writers, musicians, painters, dancers... This graphic form and symbol was also present in Cruz de Castro's imagination and served as the basis for the conception of *Variaciones Laberinto (Labyrinth Variations)* (1974-75).

This is a work of free duration for any number of performers and any kind of instruments. It breaks with the linear sense of reading from left to right, consisting of "a labyrinth through which the instrumentalists wander at their free will until they reach the centre of it" (Medina, 1989, p. 288). This rupture of the usual sense of reading connects with another aspect of the work, which is its open and indefinite duration.

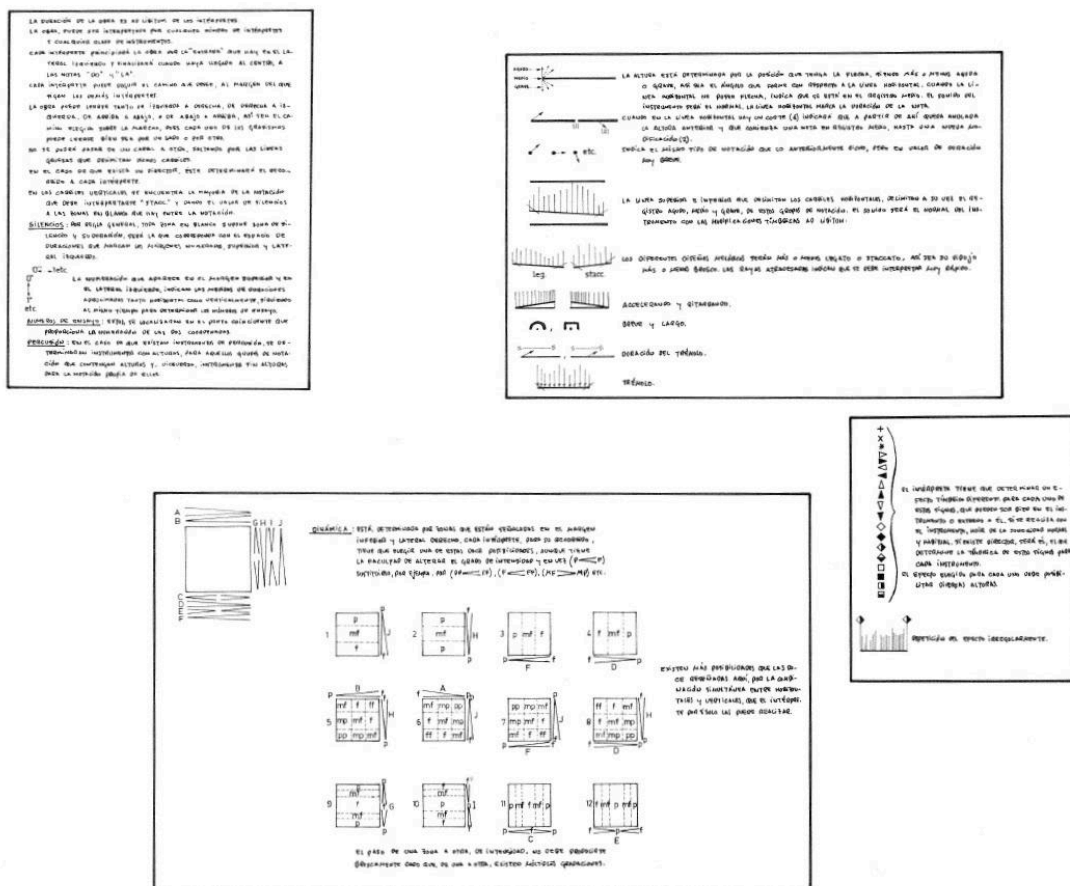


Fig.9. Variaciones Laberinto (1974-75), Instructions. - Even though many details are indiscernible, you may gather an impression of their general nature and degree of differentiation - including how many signs there are for different timbres, as chosen by the players (box in the lower row, right)

The graphic of the labyrinth is accompanied by a legend where the composer explains how the different signs and graphisms are to be interpreted: each performer begins at the entrance on the left side and ends when she has reached the centre in the notes C and A. On their journey, each performer can follow any path they want. The work can be read in all directions and senses, but it is not allowed to jump from one channel to another.

The different sonic qualities (pitch, duration, timbre and dynamics) are graphically represented in different ways. Some groups of notations establish the approximate pitch and register of notes, while others do not. In the vertical lanes you will find most of the notation that must be interpreted staccato and giving the value of silence to the blank areas between the notation. The numbering in the upper margin and on the left side indicates the approximate durations measurements both horizontally and vertically. Some of the groups of notations graphically indicate the effects of *accelerando* or *ritardando*.

The timbral aspect is also indicated by graphic signs that visually appear as points of different shapes (triangles, squares, rhombuses, etc.). It is up to the performer to determine a different timbral effect for each of these signs, following the composer's instruction to flee from the usual sonority. The indications of dynamics are written in the signs that appear in the lower and right-side margins, although there are more possibilities due to the simultaneous combination of horizontals and verticals.

Despite its opening elements, and "the responsibility delegated to the performers, the indication of the time - in seconds - and of the dynamics in the various margins, forces a special concentration in the execution of the work". (Medina & Cureses, 2002, p. 218). The work can also be performed following the instructions of a conductor, who will determine in that case the path of each performer, as well as the timbral aspects, among other interpretative aspects.

Graphically, the beauty of geometry in the drawing of the labyrinth stands out in this work. A prominent element is the use of different thicknesses of the stroke, a more intense one to mark the lanes of the labyrinth, and another finer and more delicate for the notation distributed in its streets. As in the previous works, the graphic elements create a beautiful visual texture.

## FINAL THOUGHTS

The works studied are examples of the incorporation of play into music. This playful spirit has existed throughout time among composers, as evidenced, for example, by Wolfgang Amadeus Mozart's famous table for the *System of Composing Waltzes and Contradances* with the Game of Dice. Cruz de Castro's four graphic works are linked to visual scores by other authors also based on the game and its system of rules, some of them dedicated to pedagogy or improvisation<sup>(1)</sup>. In this regard, it is worth recalling Schmitt's (2013) reflection on play in music, according to which:

*"with the rules visualized and represented graphically, I believe, one can "play" more easily than without them. It is precisely this fact that facilitates the play of free combinations in music. (p. 265).*

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<sup>1</sup> Among the graphic scores based on games, we highlight, in the field of pedagogy, works such as *An exciting new game for children of all ages*, by David Bedford (1969); Brian Dennis' *Rhythm Squares* (1969); *From Bop to Boom* (1990) or *Pasatiempos* (1993) by Fernando Palacios. In the field of musical improvisation, the card game *Ink Bops* (2000-2007), by Ellen Burr, based on graphics cards for musical improvisation, stands out. Other examples of graphic works based on board games are Robert Erickson's *Scapes* (1984), on tic-tac-toe, or Gaël Navard's *Hexagonie* (2007), where the score simulates a board game in which pawns representing the players move while creating a panel of ever-evolving musical situations (p. 158).

On the other hand, as we have seen, the board game allows and enables the exploration of the open work. The existence of "rules of the game" established by the composer, which delimit a framework of action, opens up a field of creative possibilities for performers. In these works, the concept of openness in music is explored in different ways: in the infinite number of versions that can be made from the score and from the same sound concept; through its indefinite duration (*Variaciones Laberinto; Ajedrez*); in the number and type of performers (*Variaciones Laberinto*) or in their structure (*Variaciones Laberinto; Ajedrez*). Cruz de Castro achieves in them a difficult reconciliation between openness and determination, the result of a rigorous, precise and clear compositional concept, creator of fruitful sound developments. Therein lies, in my opinion, much of their strength and wealth.

The works examined belong to a period of Spanish music in which graphic notation gave composers an impulse to liberate themselves from currents such as serialism or structuralism. In contrast to the seriousness that prevailed in the avant-garde music of the time, these works encouraged participation, changed the relationship between composer and performer and even the relationship with the audience, who were sometimes also invited to participate. As mentioned, they show an approach to everyday life, following the spirit of Fluxus. In the same way as in other works of Spanish music of the same period, also inspired by board games - *Cómic (1975)*, by J.M. Berenguer, *Tocatina (1975)*, by J.M. Mestres Quadreny or *Love Story for you (1975)*, by Llorenç Barber - the works analysed reflect the desire to develop a simple and intuitive notation, without this meaning a less demanding for the performer. On the contrary, Cruz de Castro's graphic works must be interpreted with enormous concentration and mastery, and one can even speak of virtuosity in interpretation.

Also significant is the close interrelation between graphics and sound present in them. We see how the "game board" not only registers compositional ideas, but also acts as a generator of proposals of great conceptual, sound and graphic richness. This aspect, explored by Cruz de Castro, is very interesting and shows another side of

notation, understood in this case, not only as a recording of sound but also as a creator of meaning, an aspect about notation that Iges and Oliveira (2019), among others, have insisted on. Visually, a great formal balance stands out, as well as the use of geometry in the drawing. They are examples of the openness of music to other languages and, in particular, to the visual arts. We invite readers to discover or rediscover Cruz de Castro's graphic works, to delve into and enjoy interpreting and listening to them. Also, to understand them as part of a current that advocates play in music creation and interpretation.

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## SMALL NOTES

The French musician and composer Yoram Rosilio has created a video score and realised it repeatedly with different ensembles, all experienced improvisors. All four version can be seen and heard on Youtube and the listener is invited to make comparisons:

<https://youtu.be/RPA27tQGy70>

<https://youtu.be/thciriTHU50>

<https://youtu.be/xJDJXio4ebA>

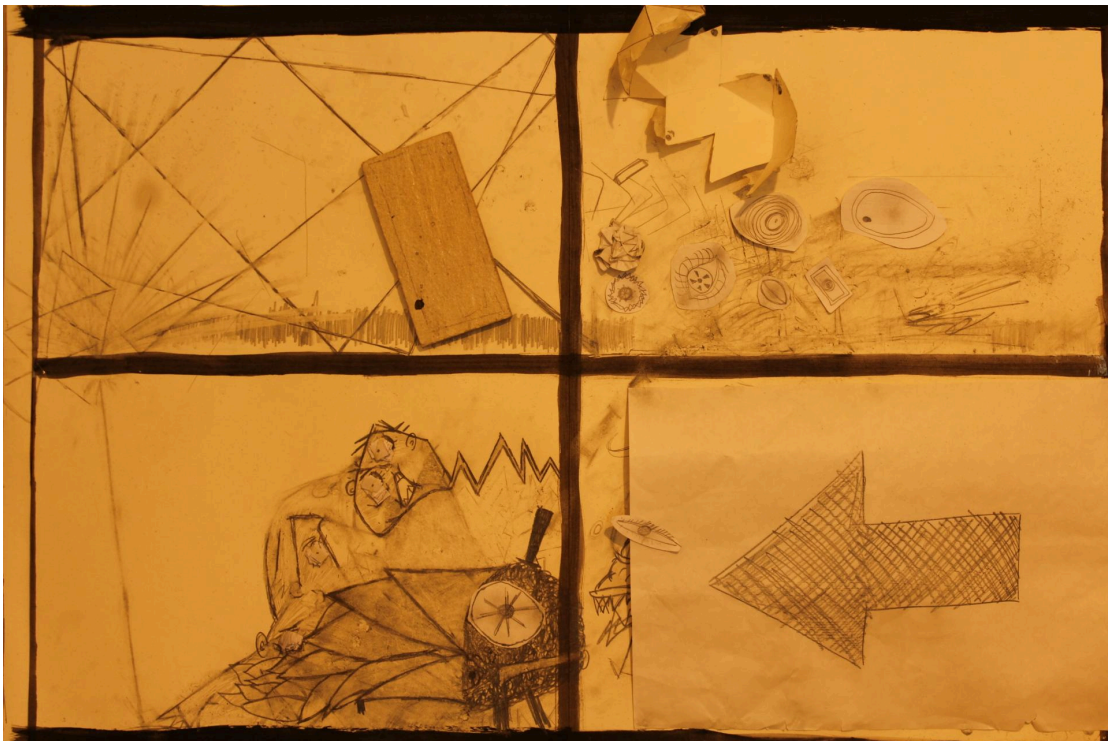
<https://youtu.be/Hb4KtvRmqko>

Some basic features of the instructions are: each musician is to keep to her/his square - suggesting independence, rather than melting together. An arrow indicates that one should pay attention to what the musician of that square is playing. A question mark indicates the possibility of playing outside just interpreting the score. Still other cases of contact across the squares could happen and receive special interpretation, although the player's primary task is to stay in the assigned square. The instructions can be read here:

[https://eba97ecd-1d77-48b0-812f-a098a2f88ae9.filesusr.com/ugd/8b6383\\_55890d0be620444489c34ddd9db7ad68.pdf](https://eba97ecd-1d77-48b0-812f-a098a2f88ae9.filesusr.com/ugd/8b6383_55890d0be620444489c34ddd9db7ad68.pdf)

It is impossible to render an impression of how the fast moves go by means of still pictures, but here are some as an appetiser anyway, and please take a look and a listen at the videos themselves.





*Glimpses from Yoram Rosilio: "Four stories".  
See also IM-OS Issue 6 with an article about animated notation.*

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