

# Non-music and non-architecture. John Cage and Alejandro de la Sota in parallel

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“Cultivating architecture, painting, gardening, music, any art...up there they are all one, prepares us to understand nature, unveil some of its marvels.”<sup>1</sup>

Alejandro de la Sota

Although Alejandro de la Sota and John Cage never met, we could imagine that they would have had a lot to talk about. About their shared devotion for Mies and Fuller, their will to invent or their renounce to self-expression in their works, that let us listen to the world and life. Starting from a subtle reference from Josep Llinás (“John Cage used to say that he didn’t compose with musical notes but with noises; it could be said about Alejandro de la Sota that he didn’t design with compositional systems but with materials, as Mies did.”<sup>2</sup>) we can see how a the discourse goes further, through the words and works of both authors, studying their thought, related to Zen (admittedly in the case con Cage and observed by others such as Navarro Baldeweg in the case of Sota<sup>3</sup>), or for example their shared interest in the future of education. This hypothetical dialogue is especially interesting because it allows us to compare coeval speeches (Cage 1912-92, Sota 1913-96) but in very different geographical, social and personal realities. Without forgetting the fascination that Cage felt for architecture as it happened with Sota and music.

Both Sota’s architecture and Cage’s music set up a challenge. Their works are not architecture works or music compositions from which we can directly copy, they are more like riddles, questions that plant the seed of doubt in whoever tries to follow their thought process. Both of them were, in very different contexts, catalysts. As well as people who crossed their paths with John Cage were never the same, the same can be said about the architects who worked or enjoyed the teaching of Alejandro de la Sota. The study of their works, in addition to promoting an intensive creative attitude, widens our field of possibilities and dilutes the vision in sealed compartments of the different artistic disciplines.

## **Transfer between music and architecture**

In the contemporary context the limits between artistic disciplines become blurry and we can clearly observe the transfer among different fields of knowledge. An emancipation of the operative strategies is produced and they no longer belong to a particular author

or field. In the context of architecture this means a widening of the field of interest, the establishing of a crisis in canonic Modernism and a search for contemporary tools that are verified through use and reality.

We can observe, in certain contemporary architecture, strategies that resemble those used by Cage in the production of his music. One example is the non-programming of a time in Cage's most celebrated piece 4'33". The framing of a time with an absence of programmed sounds of this composition could relate to the framed spaces without a defined program in OMA's Seattle Library. There are a series of intermediate interior spaces in this project, spatially framed but without a specific use, as recipients of spontaneous happenings. These spaces are also thought with a nature of exterior spaces inside the building. Another example is the idea of notation as architecture in the case of Bernanrd Tschumi and his Manhattan Transcripts, where a series of diagrams represent different actions, as we observe in Cage's Theater Piece #1, where the composer explains the movement and the different actions of the various performers of the piece.

Although this is a subject of great interest and some similar points are made throughout the text, this is a topic that has been discussed in several other studies,<sup>4</sup> and it is not the aim of this work to deepen in those reflections, but to find a deeper dialogue between these two authors.

### Alejandro de la Sota and music

Alejandro de la Sota used to say that architectural culture was just another part of general culture, and he acknowledged that music was much more useful to him, that it made him enjoy himself more than a good architecture library.<sup>5</sup> Sota was an amateur pianist, and usually referred to music when explaining his projects, so much to explain a certain composition as to account for a particular attitude towards a problem. This behavior is similar to that of Cage, who said that he would profit more from observing contemporary sculpture or painting, or even from picking up mushrooms, than from attending a concert.

As an example, Sota, in his article "New materials, new architectures",<sup>6</sup> uses the invention and evolution of the pianoforte (an ancestor of the piano) to explain how architects, builders and the industry should collaborate when developing a new material.<sup>7</sup>

There is a story about the architect told by his former collaborator Víctor López Coteló that is also revealing. When he was supervising the construction of the classroom building at the University of Seville, he remembers how Sota used to say: "This is like a music score. If one can learn a Bach Sonata to play at the piano, one can also learn this structure."<sup>8</sup>

Throughout the following sections, we will observe that this interest in music probably contributed to Sota's creative work as much as it happened with Cage and contemporary architecture.

### John Cage and architecture

John Cage could have been an architect. One of the stories regarding architecture he usually recalled happened during his years in Europe as a student. After a semester at college and feeling disenchanted with university, he decided that he had to travel. With the economic support from his parents he went to Europe with the intention of cultivating his artistic interests. In Paris, his former teacher at Pomona College, José Pijoan, got him a job with the modernist architect Arno Goldfinger.<sup>9</sup> Cage's job as an assistant consisted of answering the phone and measuring the spaces that the architect was going to refurbish. After a few months of working for the architect, Cage overheard him say that to be an architect you had to dedicate your heart and soul just to architecture. After this, he decided to quit, because there were many more fields that interested him, although architecture never ceased to interest and influence him.<sup>10</sup>

Cage also came into contact with several well-known architects.<sup>11</sup> He for example knew Rudolf and Pauline Schindler in Los Angeles and even stayed and gave concerts at their home in Kings Road. The composer was very fond of the house, with echoes from the shoji style architecture and a humanization of the modernism he had seen in Europe. This architecture is similar to others that interested Cage in the sense that it diluted the detachment between interior and exterior. In a similar way to Sota, Cage often used architecture to explain his work, and he even said that a collage or modernist architecture inspired him more than the music of his time. The composer expressed on several occasions his admiration for Mies van der Rohe, who he had met, saying that his architecture was a perfect venue to perform his music.<sup>12</sup>

Furthermore, John Cage acted as an architecture critic in some of his articles,<sup>13</sup> in which he tries to dilute the limits between the different artistic fields.

### Points of divergence

Even if the objective of this work is to look at the trajectory of both authors in parallel, there are some differences between them that have to be established beforehand.

Although they shared a very similar life span (Cage 1912-92, Sota 1913-96), the personal realities of both authors were very different. We can say, looking at Cage's bustling biography, constant changes of residence, and travelling all over the world, that he had a certain sense of rootlessness. Cage usually brought up the idea of "Global Village" from Marshal McLuhan. The composer considered himself a citizen of the world. However, Alejandro de la Sota had a much more rooted life and throughout his writings we can see how he identifies himself as a local architect.

In the architectural works of Alejandro de la Sota we can observe a certain "artistic quality." As Moises Puente explains: "Alejandro de la Sota believed a lot in aesthetics, in a idea of beauty that, with

comes and goes, he will revalidate throughout his career, "or "Alejandro de la Sota is incapable of hiding his innate compositional talent."<sup>14</sup> This idea of artistry, beauty and talent is absolutely opposed to the image of the anti-artist that Cage projected. Cage made an effort to spread the anecdote in which Schonberg warns him that, not having harmonic talent, he would always come across the wall of harmony, to which Cage answered that he would spend his entire life banging his head against that wall.

We can also remember Sota say architecture is "popular or intellectual, the rest is business."<sup>15</sup> Cage would have never made a statement of the kind, he professed a kind of sonorous pantheism, in which all sounds: cult, popular, commercial, noises, etc., are at the same level.

### Indeterminacy strategies

One of the common grounds between Cage and Sota's creative works is the use of indeterminacy strategies. The objective of this mechanisms has to do in both cases with the will to bring the complexity of the world into their work and avoiding the presence of the author in the final result.

#### Use of chance

Facing a commission of a new town in Esquivel (Seville-1952-63) Alejandro de la Sota had the dilemma of designing a town of "traditional architecture" and thus recognizes the need to forget all the academic architecture he had learnt. His objective was to capture an environment, a certain atmosphere of traditional Andalusian architecture, to build at the same time something that in historical villages is built little by little and with time. The author explains this way the process of the project:

"It must be added how we attempted to achieve the "ambiance" and the possible "grace." When receiving the commission I visited Andalusia: travels, stays... without taking pictures or making sketches: everything in the memory of our own "computer." Then, forgetting. When time had passed, and from memory, details were drawn: doors, windows, forge details, chimneys, walls and their top designs, fountains, benches and street lights. All these sketches or details were numbered, the housing volumes and their openings were also numbered; everything sorted out inside an Andalusian hat to draw lots... their random variation came as the luck of a little bird".<sup>16</sup>

This procedure explained by Sota, reminds us of numerous of Cage's compositions with chance operations. In Sota's example we can observe two crossing wills. On the one hand, there is the attempt to "avoid the presence of the architect in things."<sup>17</sup> On the other, there is the attempt to capture a complex reality in his work, the atmosphere of and Andalusian village, built slowly through generations. Both of these attempts can be found in diverse works from Cage. The use of chance operations, starting in the fifties, is a characteristic of Cage's work, with the

same intention of eliminating the presence of the author. In these first works, for example *Two pastorales for prepared piano* (1951) Cage defined roughly the temporal structure of the piece, into which the height and duration of individual sounds was defined through chance. On the other hand, the attempt to capture an atmosphere or a complex reality can be found in the works Cage defined as *Municipal Compositions*<sup>18</sup> in which Cage made recordings at random locations of a city<sup>19</sup> that he later mixed using chance to obtain a collage that represented the atmosphere of the place through sound, building what we can define as a “Soundscape.”<sup>20</sup> Examples of this kind of compositions are *A dip in the lake* (1978) and *Roaratorio, an Irish Circus on Finnegans Wake* (1979).

#### Coincidence

Another way both these authors have to put into work mechanisms of indeterminacy, is to give a fundamental role to the contingent, the “here and now” in the definition of their work. In the case of Alejandro de la Sota we have an example in the development of his project for the classroom building at the University of Seville (Seville (1972- 73). Victor López Coteló, assistant to the construction management at the building in Seville, explains how Sota delayed the decision of the colour of the structure as much as he could, partly because he liked the way it was without painting. In the end when the decision could be delayed no longer, he said: “the structure will be the color of that dog” referring to the guard’s dog that passed by at that exact moment.<sup>21</sup>

In the case of Cage, the role of coincidence, of the “here and now,” is brought into action for example in his series *Music for piano* (1952-62) in which the duration of the notes was indeterminate and their height was determined by the presence of imperfections in the paper. Cage emphasized his will to accept whatever came when he said how this series of compositions was written “directly on ink.”<sup>22</sup>

#### Indeterminacy of interpretation

In some of Alejandro de la Sota’s projects, as in some of Cage’s compositions, the role of the interpreter (musician or builder) takes special relevance. The composition or project establishes a certain framework and reaches a level of definition that allows for the work to be further defined during the execution. In this sense, the project or composition is seen as a system in which the last phase (the execution) attains greater importance. Navarro Baldeweg explains this in his text “Alejandro de la Sota: Constructing, inhabiting...”: “Another important consequence of thinking the project as a musical composition, or the drawing as a score, is that the architect appears as to compose his project and then wait for the interpretation of the builder.”<sup>23</sup>

Similar ideas about indeterminacy in relation with interpretation can be found in many of Cage’s compositions. In 1951 his pupil Morton Feldman opened a wide range of possibilities

to the composer when introducing him to the concept of graphical score. Feldman defined in a music score, a field of possibilities some coordinates in which the player had freedom to choose heights and durations of sounds.<sup>24</sup> John Cage frequently used this kind of notation in his work, leaving every time a greater amount of freedom to players, but preserving, almost always, a defined temporal structure. This kind of notation can be observed for example in his *Concert for piano and orchestra* (1957-58).

#### Perception and experience

In both authors, discipline acquires an experimental character. Experimental in the scientific sense, that is, architecture or music as a scientific experiment, with the risk and tension this implies.<sup>25</sup> But also in the strict sense of experience. They both explain on several occasions how they came up with a solution to a problem or with a project or composition based on an experience. Sota, in his “Organización para el curso de elementos de composición” adds as “Lesson C” “Initiation to the interiorizing of experiences.”<sup>26</sup> Both Cage and Sota thought that a deep and intense perception of the world was needed before creative work could be developed. Cage’s most celebrated compositions were often explained by him as a translation into music of a certain lived experience: the anechoic chamber constitutes the trigger for the appearance of 4’33,” or the experience of the 6th Avenue noises from his window generates *Municipal compositions*. Both authors communicate the necessity to live life intensely, because life itself is creative material for them.

#### Vibration

In some of the works of these authors, the vision of experience as creative material takes an important role and defines some of the aspects or even becomes the central reason of a project.

José Manuel López Peláez tells an anecdote about the Clesa dairy plant (Madrid, 1958-61) “when talking about the Clesa dairy plant, Sota explained that the railings that limited the visitor’s tour were also milk pipes, and this way the public, when holding to them, felt the vibration produced by the passing of the liquid.”<sup>27</sup> This characteristic of the project becomes an opportunity to live and interiorize its use. The fact that milk runs through the railing amplifies the possible experience in the use of the building. This mechanism is equivalent to using a microscope to perceive a lab sample or amplifying a sound to study it. John Cage commented in an interview with Daniel Charles the possibilities of transmitting the scientific method to the field of experimentation with sounds: “Let’s look at this ashtray. It is in a state of vibration. We know that, and the physicist can prove it to us. But we cannot hear those vibrations. When I entered the anechoic chamber I could hear myself. Well, now I want, instead of listening to myself, to listen to this ashtray. For this I will hit it, as I would do with a percussion instrument. I am going to listen to its inner life. I will be able to do this thanks to an

appropriate technology that, by the way, has not been created for that. But, at the same time, I will celebrate that technology: give it full freedom to communicate, to develop its possibilities.”<sup>28</sup>

In both cases the idea of music or architecture as an instrument to interpret life is being transmitted. John Cage said on an occasion that “the composer is like the maker of a photo camera that allows the other to do the picture.”<sup>29</sup>

#### Noises/Materials

“John Cage used to say that he did not compose with musical notes but with noises; it could be said that Alejandro de la Sota did not design with compositional systems but with materials.”<sup>30</sup>

Both authors claim for their respective disciplines an unprejudiced way of acting. Alejandro de la Sota explained that the new contemporary materials should suggest new ways of acting in accordance with them. The beauty of architecture as Sota perceives it lays in solving problems with the means and technology at our disposal, “using the available tools, from pencil to computer, always operationally.”<sup>31</sup> Sota tensed materials provided by the industry in his works, giving a new life to them. In the Maravillas School Gym (Madrid, 1960-62) he placed some trusses, product of a long technical evolution, upside down considering how they would normally be placed, and introduced an unexpected space for classrooms. He placed a Robertson plate imitating a stone pattern in the Post Office building in León (1981-84) achieving a surprising plastic effect. Or in the Civil Government of Tarragona (1957-64) he placed a stone coating on the façade as thin as the industry allowed it to be and placing the long side of the plate vertically, obtaining an unexpected sense of lightness.

John Cage has this same approach in the field of music. He starts the “Experimental sound” class (let it be noted that it is not a “music class”) to investigate how the new means allow to evolve in the production of music. In Cage’s opinion, the magnetic tape and the electronic media must search their own language and not limit themselves to the task of imitating the sounds of classical music and instruments.<sup>32</sup> An experiment must be done to explore the new tools and produce a new sound, a new music.<sup>33</sup> As well as Sota admitted certain materials from the industrial context in his architecture, Cage widens the material field of music, admitting the noise as material, and acting in the same way as Sota with the materials and means at his disposal. In the *Williams Mix* (1953-54) he used the smallest possible measure of magnetic tape that its joint allowed. In the year 1940 he discovered that it was possible to obtain the sound of a percussion orchestra with a grand piano, and invented, introducing pieces of rubber, screws and wood pieces between the strings of the instrument, the prepared piano. As Sota gave new life to the truss, Cage gave new life to an 18th century instrument, the piano, opening with the invention of the prepared piano, the way to the synthesizer.

## Zen

Both John Cage and Alejandro de la Sota have been related on some occasion with Zen. In the case of John Cage this is more comprehensible because there was a recognized interest of the author for oriental religions and especially on Zen through the teachings of Daisetz Teitaro Suzuki.<sup>34</sup> Cage's written work is full of references to Suzuki and oriental religions. The composer explained like this his relationship with Zen: "What I do, I do not wish blamed on Zen, though without my engagement in Zen (attendance at lectures by Alan Watts and D. T. Suzuki, reading of the literature) I doubt whether I would have done what I have done."<sup>35</sup> And according to Umberto Eco "Cage should be seen as the most unexpected Zen master rather than as an avant-garde musician."<sup>36</sup>

In Alejandro de la Sota, the ascription to Zen is not manifest by the author. However, as many critics have observed, certain elements of Zen can be identified in his work.<sup>37</sup> In particular Juan Navarro Baldeweg uses the words of Stephen Addiss to locate a series of Zen characteristics present in Sota's work: "Zen is profoundly serious but it is full of humor. Zen requires being, rather than appearing and has however inspired many kinds of art." "Zen teaches us not just to hear but to listen, not just to look but to see, not just thinking but also experimenting; above all, it teaches us not to hold on to what we know but to accept and enjoy the world and things as we find them."<sup>38</sup> For Navarro Baldeweg, "these assertions are perfectly pertinent when speaking of the work and figure of Alejandro."<sup>39</sup> Following, we present some characteristics of the work of these two authors related to Zen.

### The discipline of forgetfulness and ease

"We must recapture the "childish naivety" through long years of exercising in the art of forgiving about ourselves."<sup>40</sup>

The basic objective of Zen is to return the person back to his or her original being. Through meditation with the help of "koan", the big doubt arrives, the "not-knowing," forgetting everything, not being sure of anything. All these are steps to reach enlightenment.

In the work of Alejandro de las Sota an appearance of ease, of absence of work is seen. The architect Josep Llinás talks about Sota's work of design as a pastime or game, of "easy" architecture that hides the effort and is produced in a suspended time.<sup>41</sup> This appearance of ease comes from a discipline that is practiced, a way of staring at the world that requires active forgetting of everything we know, to recover the fresh and renewing stare of a child.

"In life the old and saint become children, the ones who die and the ones who perfect themselves. Those who become children will enter the kingdom of heaven. Art is infantilism, simplicity; seemingly little science. Those who do not see in the arts that

are criticized for their infantilism an example of perfection, shall meditate about their blindness: it happens in painting, in music, it happens in sculpture... why would it not be in our architecture?"<sup>42</sup>

Sota, after "forgetting all the architectures of the world," suggests some spiritual exercises: "I image the good it would do to us to sit for eight, ten days over the block of granite that we are going to use in that same work; being fifteen years contemplating the concrete inside the mixer, seeing kilometers of laminate profiles... little spiritual exercises." This notion of spiritual exercise when beginning from scratch, reminds us of the story that describes how Lewerentz could spend a whole afternoon observing a nail in his hand thinking about how he could use it in construction.<sup>43</sup>

This recovery of child candor, the going back of a person to the original being, also reminds of Nietzsche's approach, when he asserted that maturity consists of recovering the seriousness with which we played when we were kids.<sup>44</sup>

John Cage complained that our ears are walled by music and explains that one should "clear his mind of music, and set about discovering means to let sounds be themselves rather than vehicles for man-made theories or expressions of human sentiments."<sup>45</sup>

Cage quoted Paul Klee to explain this notion of forgetfulness related to Zen:

"I want to be as though a new-born, knowing nothing, absolutely nothing about Europe, ignoring poets and fashions, being almost primitive. Then I want to do something very modest; to find by myself a little formal model... and some day, through repetition of such a small but original step, will come a work over which I will really be able to build."<sup>46</sup> To free himself from the weight of known music Cage used chance operations.

### Serious humor and smile

Humor and witticism are for these two authors mechanisms to get to the deep truth of things. In this sense the practice of cartoon (drawing) constitutes for Alejandro de la Sota an attempt to get closer to the essence rather than an attempt to make someone laugh. The unimportant features are left behind in this kind of drawings. This has to do with his like for play and laughter, and with his mysterious quote "The emotion of architecture makes laugh, life doesn't."<sup>47</sup>

In the day of remembrance for Alejandro de la Sota "Centenarios 2013,"<sup>48</sup> Alejandro de la Sota "held by the School of Engineering and Architecture of the University of Zaragoza, teacher Raimundo Bambó identified the permanent smile as a characteristic feature of Alejandro de la Sota. He seems to be smiling in all the pictures of him that exist. As José Manuel López Peláez explains "it is a serious laugh that can lead to real mischief."<sup>49</sup>

It seems that we can say the same about John Cage, Joan Retallack explains it this way:

"Living with an almost inextinguishable cordiality and productivity in the midst of the circus of urban culture, enjoying its improbable juxtapositions, its microcosmic relationships with the generalized chaos of the world, required a generous temperament that could only survive as the showing of a profoundly ingrained sense of humor, one that could be referred to as eminently serious."<sup>50</sup>

And there are several testimonials that remember him always laughing: "Francine du Plessix Gray recalls Cage "giggling and laughing with delight" at his new idea. Ever since she'd met him at Black Mountain, she'd never seen him without a smile on his face."<sup>51</sup> Or another example: In photographs he is always smiling. The non-dual music of the world is all around him at all times. He has only to turn his mind to it. At any moment he can be reminded of it. He turns with gladness, with joy. Going nowhere. Accomplishing nothing. Arriving back where he started. Transformed."<sup>52</sup>

Humor in Cage and Sota has to do with mental quickness, with the connection of all things in life. In these two authors the witticism plays an important part, as we saw in the previous point: the dog that sets the color, the truss placed upside down or the screws inside a piano. They claim the witticism as being a project strategy.

### Removing the limit between art and life

Juan Navarro Baldeweg explains that the project for the housing development by the sea in Alcudia (Mallorca 1983-84) has some Zen to it.<sup>53</sup> In this project the limits between life and architecture, necessary and contingent, are blurred. The design captures and encloses an atmosphere that has to do with the paused life of a vacation. In this project architecture is light, it could almost fall already built from the sky as Cage had dreamt it.<sup>54</sup> A spatial limit is defined and blurred at the same time.

The same way this project in Alcudia brought the definition of space in which life around it is captured, in Cage's 4'33", an apparently empty period of time is enclosed. Music has taken a step back, but again, as it happened in Alcudia, when the music disappears, life appears, through the sounds of reality. Whereas the project of Alcudia captured a living atmosphere, the 4'33" captured a sonorous atmosphere.

Both projects were born with the intention of being marketed (at the beginning Cage wanted to sell his silent piece to a Muzak Company and Sota wanted to start a project of "serious commercial architecture"). They both have the will of an intense individual experience in connection with nature and the truth of the world.

### Non-music and non-architecture

"Because there is nothing to say, not everyone is obliged to say something, but to create an atmosphere that helps to keep on living."<sup>55</sup>

Alejandro de la Sota

For Alejandro de la Sota, architecture's most noble cause is not to be perceived, but to be a part of the continuum of life. The ultimate purposes of Sota's architecture and Cage's music are to make life pleasant and to help understand the world.

"The Maravillas School Gym has already twenty two years. I don't know why in the year 1960 I made it like that, but I do know that I don't dislike to have done it. I think that not doing architecture is a way to do it, and all of us who don't do it, will have done more for it than those who, having learnt it, keep on doing it.

Back then a problem was solved and it still works, and it seems to me that nobody missed the architecture it doesn't have".<sup>56</sup>

This little text reminds us about Sota's will to "let things happen" The non-music and non-architecture requires a state of tension, being always starting, a release of the self that requires a great discipline. Sota and Cage make us doubt upon what we know, their work is just like a riddle that invades – whoever allows it to happen- with great doubt, and they try to make us feel the life of things and take us back to our original being. If Umberto Eco described John Cage as the less recognized Zen master in the western world,<sup>57</sup> we can without a doubt speak of Sota as the Zen master of architecture.

It has been shown how two apparently different authors such as John Cage and Alejandro de la Sota can share interests, objectives, and even use common strategies. We can conclude by saying, as Sota liked to affirm, that the practice of any kind of art is beneficial and contributes to our understanding of reality, as long as we undertake our study with a beginner's mind, "always starting," and with a good sense of humor, having in mind that the design or composition that really matters is life itself.

As any of them could have said: "And we had a good laugh."<sup>58</sup>

1. Alejandro de la Sota: "Arquitectura y naturaleza" (talk given at the course of gardening and landscape, ETSAM), Escuela Técnica Superior de Arquitectura de Madrid, Madrid, 1956; en Hogar y Arquitectura, 115, november-december 1974.  
\*Note: all the quotes coming from works in Spanish have been translated by the author.

2. Josep Llinàs: "Nada por aquí, nada por allá..." in Alejandro de la Sota, Alejandro de la Sota. Arquitecto. (Madrid: Pronaos, 1989) p. 11

3. Juan Navarro Baldeweg. "Alejandro de la Sota: Construir, habitar" Minerva n. 3, (Madrid: Círculo de Bellas Artes, 2006) pp. 117-24.

4. For example: Jacobo García Germán, Estrategias operativas en arquitectura (Madrid: Nobuko, 2012); Fernando Jerez, Estrategias de incertidumbre: sistemas, máquinas interactivas y autoorganización. (Madrid: Escuela Técnica Superior de Arquitectura de Madrid, 2013)

5. Sota, "El espíritu de un verdadero moderno" (interview with Pilar Rubio), in Lápiz, 42, 1987, pp. 16-21

6. Sota, Escritos, conversaciones... pp. 64-6

7. He first explains the good acceptance, the predisposal of composers, to use and explore a new instrument. This composers ask for more from the instrument, they tense it and take it to the limit, request for more nuances, faders, more pedals, and their requests become decisive and improve the "industry"

8. V.V.A.A. Alejandro de la Sota. Seis Testimonios, (Barcelona: COAC. Col-legi de Arquitectes de Catalunya, 2008) p. 13.

9. Arno Goldfinger (1902-1987) was a hungarian architect that became famous for his brutalist buildings in London, among which we can find the Prelick Tower. At that time Goldfinger, who had came into Paris to further his studies and to get to know the avant-gardes, was dedicated to refurbishing interior spaces and expanding of houses.

10. Cage used to tell this anecdote with that other one in which he explained how Schonberg had told him that he would teach him for free if he promised to devote his life to music, to which he agreed.

11. He met for example Mies van der Rohe, Buckminster Fuller,

Lina Bo Bardi, Paul Williams.

12. Cage says: The conventional architecture is often not suitable. What is required perhaps is an architecture like that of Mies van der Rohe's School of Architecture at the Illinois Institute of Technology. Some such architecture will be useful for the performance of composition which is indeterminate of its performance." John Cage, Silence (Connecticut: Wesleyan University Press, 1961), p. 40.

13. Specifically: John Cage, "Happy New Ears" A year from monday (Connecticut: Wesleyan University Press, 1967) pp. 30-33 y John Cage, "Rhythm etc." A year from monday (Connecticut: Wesleyan University Press, 1967). pp. 120-32

14. Moisés Puente "Tiempo I: Arquitectura plástica" en Iñaki Abalos, Josep Llinàs, Moisés Puente, Alejandro de la Sota (Barcelona: Fundación Caja de Arquitectos, 2009) p. 33

15. Alejandro de la Sota "Palabras de agradecimiento," Escritos, conversaciones... p. 83, published originally in Arquitectos, 108, 1988.

16. Alejandro de la Sota, "Pueblo de Esquivel, Sevilla, 1955", en Alejandro de la Sota. Arquitecto (Madrid: Pronaos, 1989), p. 27.

17. Ábalos, Llinas y Puente, Alejandro de la Sota... p. 40

18. Municipal compositions are a series of pieces that Cage wrote for cities. In these compositions John Cage tried to capture with sound the complex atmosphere of a city choosing a series of locations over a map at random, that were grouped in threes and in where the players had to record, play a piece, or simply listen to the city. Afterwards, the produced material was mixed (in a studio or live performance) through chance operations, to obtain a sonorous collage of the city.

19. For example in the case of the 49 Waltzes for 5 boroughs en Nueva York, A dip in the lake for Chicago...

20. "Soundscape" is a term coined by Murray Schaffer: "technically, soundscape, is any portion of the sonorous environment observed as a field of study. The term can apply both to real environment and to constructs, for example, the musical compositions or magnetic tape assemblies, specially when considered in quality of environment" Raymond Murray Schaffer, El paisaje sonoro y la afinación del mundo (Madrid: Intermedio, 2013) p. 370.

21. AA.VV. Alejandro de la Sota. Seis Testimonios, (Barcelona: COAC. Col-legi de Arquitectes de Catalunya, 2008) p. 15

22. "One day when I was studying with Schoenberg, he pointed out the eraser of his pencil and said, "This end is more important than the other." After twenty years I learned to write directly in ink." in John Cage "Indeterminacy" Silence p. 270

23. Juan Navarro Baldeweg. "Alejandro de la Sota: Construir, habitar" Minerva n. 3, (Madrid: Círculo de Bellas Artes, 2006) pp. 117-24

24. Kay Larson, Where the heart beats p. 185.

25. "A systematized internalizing process is an effective method. The method used by the hypothetical-analytical-experimental sciences is only admissible in architecture if we introduce an intermediary element, the systematizing of design, because its experimental quality can only be proved through it. This is something that is pending, to introduce it in that daily risk." Sota "Memoria a la cátedra de Elementos de Composición" (1970, inédit) Escritos, conversaciones... p. 57

26. Sota "Memoria a la cátedra de Elementos de Composición" (1970, inédita) Escritos, conversaciones... p. 61

27. José Manuel López Peláez "Presencias intensas" Maestros cercanos, (Barcelona: Fundación Caja de Arquitectos, 2007) p. 207.

28. John Cage, Para los pájaros (México: Alias, 2012) p. 262

29. John Cage, "Música experimental" Silencio p. 11

30. Josep Llinàs: "Nada por aquí, nada por allá..." in Alejandro de la Sota, Alejandro de la Sota. Arquitecto. (Madrid: Pronaos, 1989) p. 11

31. Sota, Alejandro. "Memoria a la cátedra de Elementos de Composición" (1970, inédita) in Escritos, conversaciones... p. 60

32. "Most inventors of electrical musical instruments have attempted to imitate eighteenth- and nineteenth-century instruments, just as early automobile designers copied the carriage." John Cage "The future of music: Credo" Silence (Connecticut: Wesleyan University Press, 1961) p. 3

33. Cage, "Experimental music" Silence... p. 11.

34. D. T. Suzuki was one of the main teachers of Zen to the West, he taught various courses in american universities. The relationship between John Cage and Suzuki is most detailed in Kay Larson's book, Where the heart beats (New York: Penguin USA, 2013)

35. John Cage Silence (Madrid: Árdora, 2009) p. XI

36. Umberto Eco, Obra abierta (Barcelona, Planeta de Agostini, 1992) p.120

37. For example Juan Navarro Baldeweg in his article "Alejandro de la Sota: Construir, habitar" Minerva n. 3, (Madrid: Círculo de Bellas Artes, 2006) pp. 117-24; or José Ángel Hidalgo "Sota en el Maravillas: la belleza por la tangente" Circuito de arquitectura Primavera 2012 (Madrid: 2012) pp. 21-9; and although not explicitly, José Manuel López Peñáz, Maestros cercanos (Barcelona: Fundación Caja de Arquitectos, 2007) pp. 189-200

38. Stephen Addiss, The Art of Zen, (New York: Harry N.Abrams, 1989)

39. Juan Navarro Baldeweg in his article "Alejandro de la Sota: Construir, habitar" Minerva n. 3, (Madrid: Círculo de Bellas Artes, 2006) p. 121.

40. Daisetz Teitaro Suzuki in the introduction to Eugen Herrigel's, Zen en el arte del tiro con arco (Madrid: Gaia, 2012) p. 6

41. Josep Llinàs "Arquitectura sin trabajo" in Iñaki Ábalos, Josep Llinàs, Moisés Puente eds. Alejandro de la Sota (Barcelona: Fundación Caja de Arquitectos, 2009) pp. 11-19

42. Sota "Una capilla en el camino de Santiago", Escritos, conversaciones... p. 31 (published originally in Revista Nacional de Arquitectura, 161, mayo 1955)

43. Claes Caldenby "El nórdico solitario: Sigurd Leverentz" en Quaderns d'Arquitectura i Urbanisme Nr.169/170, 1986, p. 143

44. "Maturity of man: means to have recovered the seriousness with which he played when he was a child" consulted in: Friedrich Nietzsche Más allá del bien y del mal (Madrid: Alianza: 1979) p. 96. (Título original: Jenseits von Gut und Böse, Vorspiel einer Philosophie der Zukunft, publicado en Leipzig en 1886 a costa del propio Nietzsche).

45. Cage, Silence p. 10

46. Cage, Silence p. 65

47. Alejandro de la Sota, "Recuerdos y experiencias," introduction to the book Alejandro de la Sota. Arquitecto (Madrid: Pronaos, 1989) p. 19

48. that was held at the EINA of the University of Zaragoza on 14th November 2013 and can be visualized in the following link: <https://www.youtube.com/watch?v=9GD4pEM4JAU> (consultado el 2 de Septiembre de 2014)

49. José Manuel López Peláez "Caricaturas" CIRCO, N° 26 (Madrid: CIRCO M.R.T. Coop, 1995)

50. Joan Retallack, John Cage Visual art (Santiago de Chile: Metales pesados 2011) p. 19.

51. Larson, Where the heart beats p. 252

52. Larson, Where the heart beats p. 383

53. Juan Navarro Baldeweg "Alejandro de la Sota: Construir, habitar" Minerva n. 3, (Madrid: Círculo de Bellas Artes, 2006) pp. 117-24

54. Cage "Happy New Ears" A year from monday p. 32

55. Sota "Una conversación", Escritos, conversaciones... p. 124 publicada originalmente en Grial, 109, 1991.

56. Sota "Carta Maravillas" en Alejandro de la Sota. Arquitecto (Madrid: Pronaos, 1989) p.74

57. Umberto Eco, Obra abierta (Barcelona, Planeta de Agostini, 1992) p.120

58. These are the last published words of Alejandro de la Sota "Josep Llinàs" in Sota, Escritos, conversaciones... p. 95, published originally as the introduction to the monograph about the work of Josep Llinàs: Josep Llinàs (Sevilla: Tanais, 1997).

## John Cage Alejandro de la Sota Music-architecture Operative strategies