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Short Concert for the Last 74s of Topsy: Audiovisual Composition and Human-Machine Asymmetries

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Abstract

Short Concert for the Last 74s of Topsy is a generative audiovisual work that departs from the case of Topsy, an elephant electrocuted in Coney Island in 1903 and filmed by the Edison Manufacturing Company, in order to interrogate the relation between technique, memory, and the asymmetry of power. In this essay, I take the original footage as the perceptual field of a system developed in Max/MSP/Jitter, which translates the pixels of the archive into sound through the technique of sonification, within a paradigm of symbolic AI made of explicit rules and without machine learning. I discuss the idea of a music latent in the image, revealed by a non-human intelligence indifferent to affect: the mapping rules are authorial, and the algorithmic testimony is produced, not discovered. To opt for the legibility of these rules, against the opacity of the black box, is a deliberately ethical and political position, enunciated from the Global South, because it makes inspectable who decides what. Drawing on the philosophy of technology, post-phenomenology, and the critique of the image, in what follows I discuss the non-neutrality of the apparatus, the risk of aestheticizing barbarism, and the exhibition of the work as a possible spectacle. By submitting the piece to the exact seventy-four seconds of the record and by fixing in film only one among the system's infinite possible outputs, I repeat and denounce the same gesture that turned Topsy's death into an image.

Keywords: audiovisual composition; symbolic AI; cosmotechnics; human-machine co-agency; testimony and memory

1. On the Historical Context

On 4 January 1903, an elephant named Topsy was, at a given moment, to be electrocuted in Coney Island before more than a thousand spectators who had, moreover, paid admission to experience such an atrocity. First of all, a brief history of the elephant is in order here: Topsy had been captured at the age of two and smuggled into the United States; exploited as an attraction and as a beast of burden, she was sentenced and condemned to death after having been attacked and mistreated by a spectator and, consequently, killing him. Yet, ironically, the American Society for the Prevention of Cruelty to Animals called for a supposedly "more merciful" method for her death: poisoning by cyanide (460 g), strangulation, and six thousand six hundred volts of alternating current, all before the cameras (Bridle, 2022, pp. 250–251). The Edison Manufacturing Company was responsible for the technical structure of the execution, as well as for the recording of this atrocious passage of history through a seventy-four-second film, *Electrocuting an Elephant* (1903). We can therefore understand the spectacularization of death, in this context, as a technical construction.

The act I propose with the work *Short Concert for the Last 74s of Topsy* is precisely the refusal to treat this record as an image merely to be watched. In this piece, I build a reference to the perceptual field of the machine. A system developed in Max/MSP/Jitter runs through the original footage, on film stock by the Edison Manufacturing Company, frame by frame, and

translates the silver grains of the film into pixels and, finally, into data that, through luminance, movement, and density, are converted into sound by the technique of sonification. At this point, I consider that there is an apparatus that measures, distancing, at first, human perception from such barbarism. However, this will be called into question as this essay unfolds. The work, through the appropriation of the original film, incisively questions an old protocol: silent cinema had instituted a live intersemiotic translation, in which the musician in the pit interpreted the image in real time and gave it voice; here, the human interpreter is replaced by a computational system that performs a machinic and analytical listening of the archive.

Starting from the reading of Bridle and from historical research on Topsy's life, I treated, at the origin of the work, the sonic composition, which constitutes part of the film, as if it were latent in the images, accessible only to a non-human intelligence, indifferent to affect. However, as the piece deepens, I thicken the discussion and grow suspicious of that formulation. What the machinic-technical reading of the movements of the pixels in Topsy's image extracts is not music, but data; the music constitutes itself only because there are mapping rules brought about by human action and perception: the decision that the movement of a pixel will become a note, that the density of movement will modulate the intensity of the notes, which therefore tells us that the algorithmic testimony is technically produced. And every production has an author, a *milieu*, and an asymmetry. Finally, the task I propose, with the work and with this text, is precisely to show that an apparent indifference can consolidate itself as a decision within a technical system, and that decisions answer to those who make them.

2. On Origin, Apparatus, and the Updated *Milieu*

For Simondon (2017), the technical object is understood not through the use for which it is destined, but rather through its genesis: the genesis "partakes in its being" (Simondon, 2017, p. 26). No apparatus is neutral, because no apparatus precedes its own history; thus, Edison's camera does not arise out of the most absolute nothing as a ready-made tool in its construction, it individualizes itself within an associated *milieu*, and here a modest definition of the term "*milieu*" is in order: the environment, at once technical and natural, that the technical object engenders around itself and on which its own functioning depends, a *milieu* that it conditions as much as it is conditioned by it (Simondon, 2017, pp. 59–60). I extend here, deliberately and differently from the French philosopher, who held a view aligned with universalism, this concept beyond its strictly technical register, so that we may enter a more contemporary scope and trace a relation between art and politics. The space, the choices, and the time spanning from the construction of the electrical-industrial complex that becomes capable of producing the camera, as well as the apparatus assembled for Topsy's execution and the electrical current employed in that context, all the elements present in this filmic record become constitutive parts that permeate both the technical object and the historical fact. That is, to bring this record back to the present is, therefore, to re-encounter an object that carries, inscribed in its materiality, the asymmetry of power that generated it, as much as the consequence that this asymmetry brought about, in this case, the execution of Topsy on the basis of a human judgement passed on her acts, without taking into account what she had suffered throughout her life. It is culture itself that puts the machine in the place of the slave, treating it through relations of property and custom, and it is precisely from this relation that its force of alienation is born (Simondon, 2017, p. 9). I refuse this positioning. In its place, I insist on another path: that of the human who is not the master supervising slaves, but a possible living agent-interpreter of machines, the conductor who conducts only because he plays the piece together with the musicians, at the

same intensity as them (Simondon, 2017, pp. 17–18). And this path has a condition grounded in knowing the machine through its genesis.

Taking Simondon's ideas as a point of departure and displacing them from the diagnosis of the technical object towards the contemporary, we can perceive that this *milieu* is not static; it comes to update itself and updates itself constantly. To the *milieu* of 1903: camera, Topsy, electrical apparatus, crowd; is added, through the production of the work *Short Concert for the Last 74s of Topsy*, a new arrangement: the artist, Max/MSP/Jitter, Da Vinci Resolve, and the Global South from which the gesture is enunciated now. The work reopens the old *milieu* of the original film from another perspective and ends up inscribing itself within it, becoming one more event within this historical chain, now updated to the present. It is therefore in this sense that the piece consolidates itself as a critical continuation of the archive's technical life, and not as a mere commentary on the archive.

Between the two *milieux* there is a deliberate historical bridge, and here I suggest a return to the intersemiotic protocol of silent cinema. Before retinal and acoustic synchronization in cinema, sound was bound to the moving image through a human translator, whether the pianist, the small ensemble, or the sound-effects performer. Chion (1994) names as *added value* the effect by which sound confers meaning on the image that seems to emanate from it (Chion, 1994, p. 5), and as *synchresis:* a term he forges by fusing synchronism and synthesis; the consolidation between what is seen and what is heard, carried out by the spectator (Chion, 1994, p. 63). *Short Concert* reenacts this protocol of translating and of the translator, and replaces it with a kind of automaton programmed in Max/MSP/Jitter, bringing the machine into the process. If *synchresis* presupposes a human perceiver, then, as a consequence, in making this substitution a point of friction arises that the work goes on to explore. There are, therefore, two superimposed listenings: the first, the "listening" of the machine, which performs the analysis of data; the second, ours, human, which is *synchresis*, carried out before the superimposed result. So that the audiovisual piece brings them into existence in parallel with human perception, which comes to associate itself with machinic perception.

3. On Sonification and the System Used in Making the Work

The work *Short Concert for the Last 74s of Topsy* is made possible only through technique and the human-machine relation, with the use of sonification. In the consolidated definition that the *Sonification Handbook* (2011) offers, sonification is the transformation of data relations into perceived relations in an acoustic signal, for the purpose of facilitating communication or interpretation (Walker & Nees, 2011, p. 9). Here, I do not take sonification as a tool borrowed from the techno-scientific community, but I claim its artistic lineage, as old as the technique itself and prior to its scientific codification, as in works such as *Earth's Magnetic Field*, by Charles Dodge (1970), regarded as the first musical example of sonification, or *Oxygen Flute*, by Greg Niemeyer and Chris Chafe (2001). The term "machinic listening," which I use in this essay, is the poetic name for this operation; sonification by parameter mapping is the technical name, and it is the one that describes what actually happens.

Therefore, in making explicit the relation of the human-machine process made possible through the software Max/MSP/Jitter, which operates by object-based programming, we have the following: the video signal (the digitized film of Topsy's execution) is translated into luminance (jit.rgb2luma); a feedback line (jit.slide) inscribes in the system a frame-by-frame memory; the image is re-sampled into low-resolution matrices (10×10, 2×2, 20×20, being three simultaneous reading cores); a threshold (jit.> @val 0.25) decides what counts as an event; the matrix is

unfolded into a list (jit.iter) and each active cell is scaled to a pitch and an intensity (scale, makenote, mtof), which feeds the synthesis devices that produce the sound. What sounds both was and was not, at the same time, in the image: it results, therefore, from a chain of decisions that can be read from end to end, but which depends on the machine to be brought to light and returned to human perception.

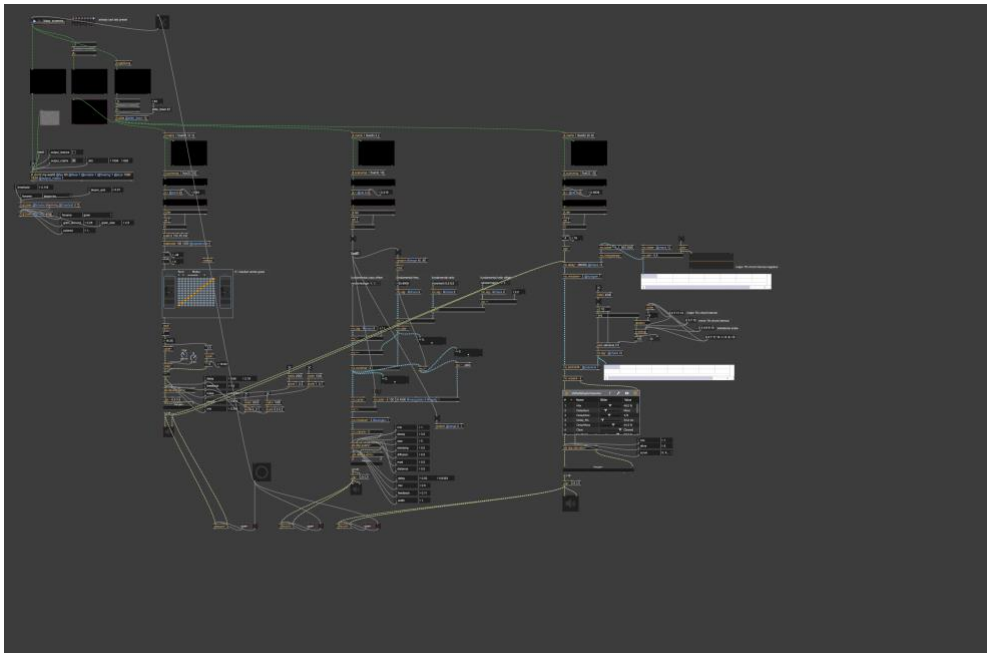


Figure 1. The image-and-sound patch in Max/MSP/Jitter: the digitised film is reduced to luminance (jit.rgb2luma), re-sampled into low-resolution matrices,

thresholded, and mapped to pitch and synthesis parameters. Screen capture by the author.

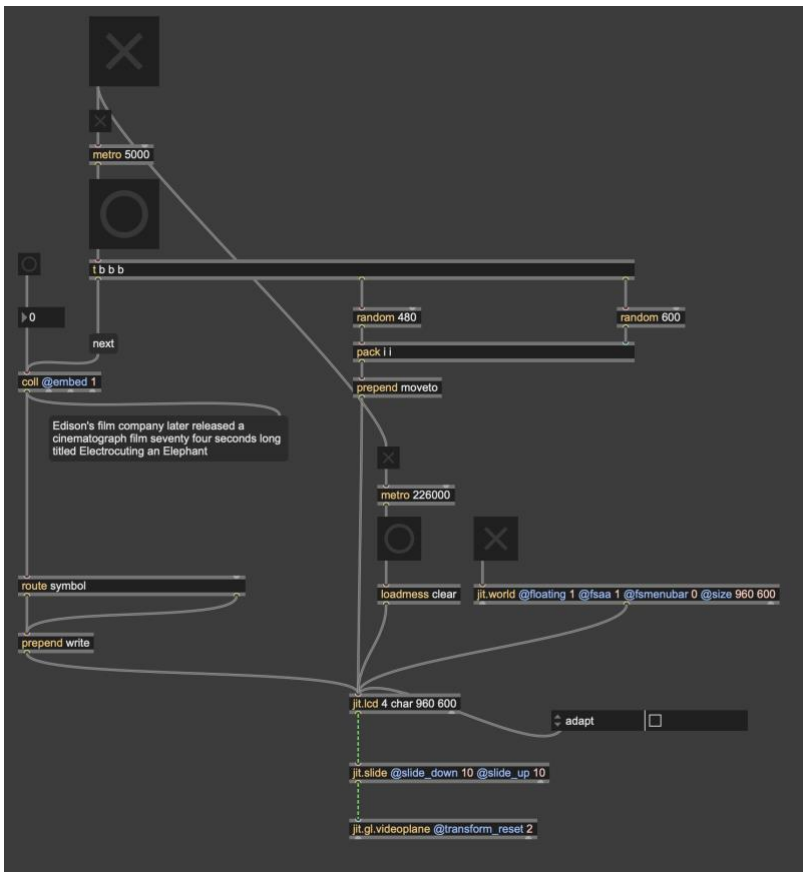


Figure 2. The text patch built around the coll object, which prints Topsy's narrative (after Bridle) at random positions on screen. Screen capture by the author.

Ihde (1990), in his post-phenomenology, which studies human perception of phenomena through machines, offers us the model of this operation. In the hermeneutic relations he describes, technology is placed not as an extension of the human body, but rather as an object that demands reading, just as one reads a text (Ihde, 1990, p. 87), and it is from this reading that the world to which it refers is extracted. The system of *Short Concert* operates in this logic, and suggests a conceptual inversion: where, according to Ihde, the human reads the instrument in order to reach the world, here it is the machine that reads the archive, and it is we who read it, integrating into our auditory perception the sonic composition that it suggests. In Ihde, this world is not delivered directly by the instrument, which only represents it: just as one who reads a thermometer knows at once that it is cold without touching the cold (Ihde, 1990, p. 85), the world is the referent that the reading makes present. In the case of *Short Concert*, the text that is read is Topsy's own footage, and the world to which it refers is the archived event, the death recorded on film. Listening, Ihde writes (2007, p. 14), attends to the invisible, to that which escapes the gaze. It is this operation that the machine performs, giving us access to what is imperceptible to us: the micro-movement of the pixel and the variation of brightness below the threshold of human attention and it ends up converting all these data into sound. What we could formerly neither see nor hear comes, through the machine and through the human choices about how this system operates, in this chain elaborated in Max/MSP/Jitter, through the logic of sonification, to be audible.

This reading through the human-machine relation is made possible only because the machine holds what Simondon (2017, p. 18) called a margin of indeterminacy, and it is precisely this margin, and not automatism, that makes it sensitive to external information. It is the empty spaces that allow systems not necessarily to complete themselves, but to interact in order to create new perceptions and uses. At this point, the convergence of three concepts becomes clear. Simondon's indeterminate sensitivity, Hayles's (2017) nonconscious cognition, and recursivity in Hui's (2019) view describe, from distinct angles, the same phenomenon. For Hayles, nonconscious cognition designates cognitive processes that operate below the threshold of consciousness and are inaccessible to it, yet carry out essential interpretive work (Hayles, 2017, pp. 10, 22); the machine is thus a nonconscious cognizer that participates in a cognitive assemblage, an arrangement of systems and actors, human and technical, through which information flows and is transformed by distributed cognition (Hayles, 2017, p. 116), so that the triad image, algorithm, and human thinks and acts together, without any of the terms holding meaning alone. For Hui (2019, p. 4), the feedback of the jit.slide object in Max/MSP/Jitter is recursivity in full operation: unlike mechanical repetition, it is through the movement of return that the programmed system can reconfigure itself at each cycle, having contingency as its motor, that of Topsy's particular archive and that of the stochastic processes the piece summons. The work operates within the paradigm of symbolic AI, or GOFAI (Good Old-Fashioned Artificial Intelligence), a term coined by Haugeland (1985, p. 112). According to this model, intelligence results from the capacity to reason, and reasoning amounts to an internal manipulation of symbols that is, of formal tokens that must be interpreted as referring to the world (Haugeland, 1985, p. 113). It is the opposite of machine learning, which infers its behaviour statistically and opaquely from data. In the case of *Short Concert*, there is no training: there are explicit rules and stochastic processes. And it is from this architecture that I draw the consequence that interests me: because they are explicit and written, the rules keep authorship and with it responsibility in plain sight. So that these choices will be thickened in the next section.

4. On Anti-Aestheticization, the Low-Resolution Image, and the Exhibition Risk

I must say that the most seductive and consequently most dangerous formulation is to fall into the logic that the work is a machinic system devised for the purpose of bearing witness to Topsy's trajectory, like the filmic archive, in a manner "indifferent" to affect, attentive only to the materiality of the technical record. This could have complex consequences for me, who conceived the work *Short Concert for the Last 74s of Topsy*. However, I do not defend this idea of the machine as a neutral and indifferent witness; the work stages it on purpose in order to criticize and dismantle it. It produces the appearance of this indifference precisely in order to expose it as a construction, and not to affirm it as truth. In this way, I find in Benjamin (2008) the vocabulary of this approach. In his famous essay on technical reproducibility, photography and cinema dissolve the aura: the "unique apparition of a distance" that bound the work to an unrepeatable here-and-now (Benjamin, 2008, p. 23) and end up shifting the axis from cult value to exhibition value (Benjamin, 2008, p. 25).

I appropriate the 1903 film and posit it as an object without aura from its very start: Topsy's death, detached from its here-and-now, is made reproducible ad infinitum, laying bare human perversity before what happened. At this point and I add this as a personal and conjectural note, it seems to me that both the electrical lines and the cinematographic machine act far more as

advertising for Edison's patents and developments than as a historical record of this barbarism. In appropriating this stillborn object, without aura, and dealing with its pixels by translating them into data, I stress this process to the limit: the image empties itself to such a point that it ceases to be an image and becomes only a signal, susceptible to machinic interpretation. Here, however, I plant a doubt: is there aura in the artistic object produced through technical objects? I say in advance that I do not answer it definitively; yet the generative system I built has the potential to generate infinite materializations, being the opposite of the unique and the auratic in Benjamin's sense; and the gesture of materializing only one of these versions in a filmic archive does not restore the aura, but purposely repeats its loss as the same gesture that made Topsy's death infinitely reproducible. If there is anything auratic, it lies in the contingent here-and-now of each machinic execution of the system, and it is precisely this that I choose to sacrifice in crystallizing the work into film, a question I return to in the conclusion.

It is therefore here that I stitch Simondon and Steyerl together, out of this corruption of the archive and of the technical object. In describing the materiality of magnetic tape and of the light-sensitive film of silver salts, Simondon (2017, pp. 168–170) observes that technical inscription records what no human observer would record, to the point of affirming that a blurred photographic view is more useful than a human witness. Steyerl's (2012, p. 46) poor image is the contemporary heir of this intuition, more than half a century later: for her, the poor image is a low-resolution copy, compressed and degraded, that trades definition for speed and circulation, and that deteriorates with each new copy; its value lies not in resolution nor in content, but precisely in circulation.

This is the case with the film shot by Edison's company: a copy in motion, of low resolution, perpetuated by more than a century of reproduction; and this circulation presupposes a medium, a network that sustains and propagates it, which is itself an update of that *milieu* I addressed earlier and now no longer the technical *milieu* that generated the camera, but the contemporary *milieu* of images in which Topsy's archive comes to circulate again. I therefore thicken this logic within the work's own process.

I recall that the work brings together two independent patches: the sound/video one, which I have already described, and the text one, built around the coll object, which displays on screen Topsy's historical narrative drawn from Bridle's text; both patches are captured by screen recording. This gesture fabricates new poor images in Steyerl's manner and assumes degradation as a purposeful condition. The machinic testimony thus comes to have a motive beyond indifference, since the screen recording of the patches introduces into the final work a non-human visual materiality. In such a way that I stitch Simondon and Steyerl here not only conceptually but also aesthetically.

It is in the epilogue of that essay that Benjamin makes the crucial accusation, with which I agree. Fascism, he writes, culminates in an aestheticizing of political life (Benjamin, 2008, p. 41) and leads humanity to experience its own annihilation as aesthetic enjoyment; the response, he concludes, is to politicize art (Benjamin, 2008, p. 42). It is from this position that I claim *Short Concert*. I do not aestheticize Topsy's death: I politicize the image of that death, exposing the apparatus that produced it in the past and in the present. If fascism makes annihilation an aesthetic pleasure, I make the opposite movement, I refuse the enjoyment and return to the image its political and historical charge. There is, therefore, no complacency with barbarism, but rather denunciation. To make Topsy's death the raw material of an artistic piece could, indeed, be one more aestheticization of annihilation, and I recognize this risk. My defence is not to deny the risk itself it, but to expose it and provoke reflection on the theme.

In the first three minutes and forty seconds, the text that narrates Topsy's story appears superimposing itself upon itself, positioned at random by the coll object of Max/MSP/Jitter, until it becomes illegible, beneath a soundtrack of noises and machinic choices. The technical apparatus I built obstructs the comprehension of the barbarism: that which ought to bear witness does the reverse, it erases the testimony and, in doing so before us, denounces its own gesture. Therefore, once again, I do not aestheticize barbarism; I make visible the very act of aestheticizing, bringing to light the processes of the black box. Instead of delivering the spectacle, I show how the spectacle is fabricated, and it is at this point that art comes to politicize itself within this specific work.


Concerto Curto Para Os Últimos Setenta e Quatro Segundos de Topsy.
ao que consta jogado areia no rosto de Topsy e queimado a tromba dela com um charuto.
Nascida no sudoeste da Ásia em torno de mil oitocentos e setenta e cinco.
Topsy havia sido capturada aos dois anos e contrabandeada para os Estados Unidos pelo proprietário de circo Adam Forepaugh
quando matou um espectador bêbado que havia invadido o cercado dos elefantes do circo e
Topsy foi parar nas manchetes pela primeira vez em maio de mil novecentos e dois
Concerto Curto Para Os Últimos Setenta e Quatro Segundos de Topsy.
Relatos divulgados pela imprensa a respeito do incidente acrescentaram que antes Topsy havia sido resp
Numa ocasião
Embora esses relatos nunca tenham sido comprovados e provavelmente tenham sido exag
Topsy foi retirada da cela por um novo treinador que não conseguiu fazer com que ela atravessasse a ponte até o
o circo a vendeu para o parque de diversões Luna Park em Coney Island.
Funcionários da Companhia de Luz de Edison instalaram cabos elétricos de alta voltagem em nove quarteirões para fornecer corrente alternada necessá
Foram oferecidos a William Alt que havia se negado a assistir à execução vinte e cinco dólares em mil novecentos e três
Outros assistiram ansiosos, atacados e lotados nas proximidades.
No dia marcado, estimados mil e quinhentos espectadores e cem fotógrafos de imprensa se amontoaram no parque
ao que consta jogado areia no rosto de Topsy e queimado a tromba dela com um charuto.
uma combinação de enforcamento envenenamento e eletrocussão foi considerada a opção mais humana.
Nascida no sudoeste da Ásia em torno de mil oitocentos e setenta e cinco.
mais uma vez na forma de um espetáculo público para promover o parque
às quatorze horas e quarenta e cinco minutos o
Foram instalados no local um motor a vapor, cordas grossas para o estrangulamento assim c
Topsy ganhou fama e passou a levar multidões às suas aparições públicas.
mas concordou com um método de execução tido com mais misericordioso
Topsy ficou ainda a cair sustentada apenas pelas cordas amarradas com força ao seu pescoço.
A Sociedade Americana de Prevenção à Crueldade contra os Animais protestou
Topsy havia sido capturada aos dois anos e contrabandeada para os Estados Unidos pelo proprietário de circo Adam Forepaugh
apesar de muitos cutucões e insistências
submetendo-se
Ele se recusou e respondeu que não o faria nem por mil dólares
quando matou um espectador bêbado que havia invadido o cercado dos elefantes do circo e
Minutos depois
Sem ele porém o parque não conseguia mais controlar Topsy
e como nenhum outro zoológico a queria os proprietários decidiram executá-la
suspendendo-a pelo pescoço com um guindaste.
Alguns meses depois ele ficou bêbado e a montou pela cidade até a delegacia de poli
Topsy foi parar nas manchetes pela primeira vez em maio de mil novecentos e dois

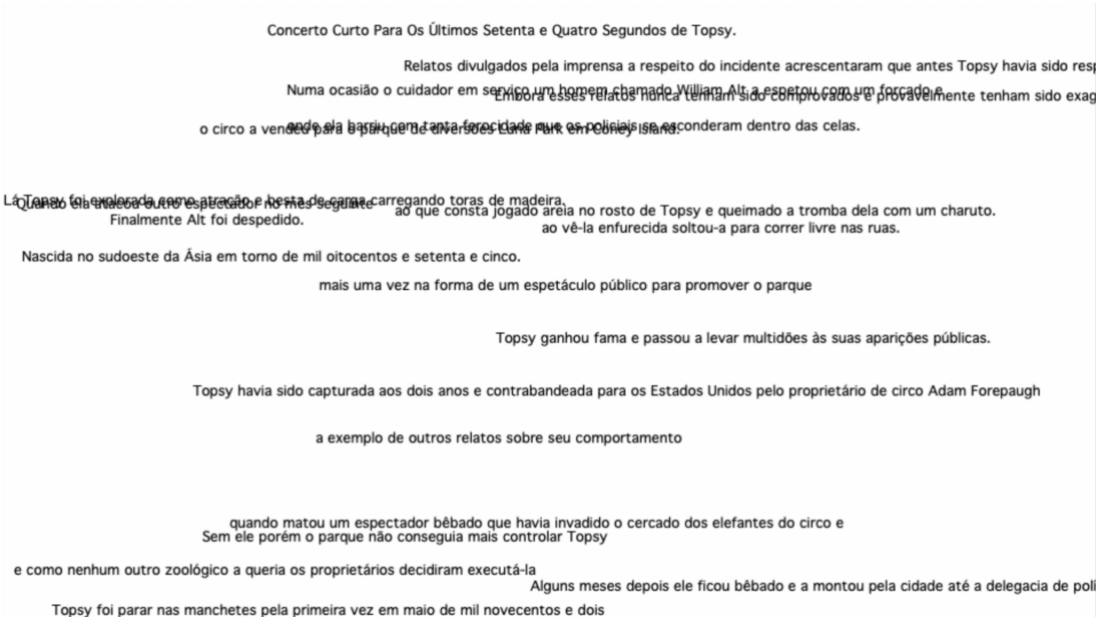


Figure 3. Stills from the text section: Topsy's narrative overlapping itself into illegibility. Screen captures by the author.





Figure 4. Stills from the visual output: each source frame from *Electrocuting an Elephant* (Edison Manufacturing Company, 1903, public domain) beside the feedback image from which the system extracts pixel movement. Processing and screen captures by the author.

There remains, finally, the uncomfortable and honest question: does exhibiting this work in an art exhibition not fall into the same place as the original film, which turned an execution into an attraction? Benjamin allows me to formulate this risk: the art institution is the regime of exhibition value (Benjamin, 2008, p. 25), and Steyerl (2012, p. 77), in “Is a Museum a Factory?”, shows the art system as a machine of extraction that lives on circulation and on the labour it absorbs and renders innocuous. There is no guarantee against this risk; no work neutralizes the system once and for all. What distinguishes denunciation from repetition lies not in the purity of intention, but in the structure of the work: submitting myself to the exact seventy-four seconds of the record instead of manipulating them, making the rules explicit instead of concealing them, letting illegibility sabotage the easy consumption of the story. The exhibition of *Short Concert* escapes Luna Park only as long as it continues, actively, to refuse the pleasure that Luna Park sold.

5. On Hui's Cosmotechnics as a Technical-Moral Choice

I refuse to surrender to the process of the black box in the making, yet I use it partially and consciously as a critique of the system itself within the work analyzed in this context. This is exactly the point at which the technique of the work consolidates itself as a political position. For Hui (2016, p. 19), the concept of cosmotechnics is the unification of the cosmic order and the moral order through technical activities, and what interests me in it is precisely the refusal of a single, universal mode of relation with the machine: there are situated modes, each carrying a cosmology and an ethics, above all in relation to the human who operates the machine and to the context in which that operator is inserted. As this situation unfolds, I present the argument of Flusser (1985), who named the condition that my work also criticizes. In his text, the Czech-Brazilian philosopher, in analyzing the photographic apparatus, describes it as a black box: this condition being posited as a system too complex to be entirely penetrated, of which the operator masters only the input and the output, without knowing what goes on inside it (Flusser, 1985, p. 15). The program of this apparatus, he adds, is already inscribed in advance by those who produced it, and the images that come out of it only realize some of the potentialities programmed there; whoever operates it does not create freely; he is, therefore, a functionary who plays within a program he does not control and of which he himself becomes a piece (Flusser, 1985, p. 15). It can be said that, through this stitching of reasonings, the opacity we attribute today to machine learning is a kind of enlarged heir of that black box that Flusser already perceived in photography through the technical apparatus.

Consequently, in opting for the use of symbolic AI I make the rules become legible and open, to the extent that the software's programming allows. I choose this path instead of opaque statistical learning deliberately and purposefully: Flusser criticizes the fact that the program of the apparatus remains impenetrable to the operator (Flusser, 1985, p. 15), and it is in this same critical direction that my practice moves, making the program legible and returning to the human the authorship that the black box tends to dissolve. It is the affirmation of a relation with the machine in which authorship and responsibility remain visible and explicit. Taking a position against the dominant paradigm in the contemporary context: extractive, opaque, and concentrated in the Global North; this work proposes a technique in which one can point to who decided what, and it is for this reason that it consolidates itself as a choice that is at once technical and moral.

This deliberate choice gains weight when I read it from the asymmetry of the contemporary world, and so I return to Steyerl (2012, p. 49): the circulation of poor images reproduces geographies of power, for, in a class society of images, what circulates degraded and without attributed value generally comes from the margins of the system, while what controls the means of producing meaning is concentrated in the centers. Algorithmic opacity is the current form of this asymmetry, being a delegation of decision to systems whose criteria cannot be inspected and which, even so, dictate rules and this without even entering into the merits of the so-called thinking heads that coordinate these big tech companies. Any resemblance to authoritarianism does not seem to me a mere coincidence; but, setting aside my personal convictions, to render the system opaque is precisely to withdraw from view the chain of responsibility that these operations carry. And here one and the same logic echoes across time: if in 1903 it was human choices that reduced an animal life to spectacle, today it is human choices, now added to machinic ones and hidden beneath the opacity of the system, that fall upon other humans. The apparatus changes, and still the asymmetrical relation remains.

Being an audiovisual composition originating in the Global South, with legible rules and an archive of barbarism as raw material, this work embodies a deliberate and explicit cosmotechnical position, bringing together the concepts set out here from Hui, Flusser, and Steyerl. It is, therefore, a matter of affirming, in the very structure of the machine, another relation with technique situated, inspectable, and responsible against the indifference that regimes of power, from the fateful 4 January 1903 to contemporary computational opacity, have always demanded of their technologies. If, finally, for Hui, cosmotechnics refuses the idea of a linear, single, and universal technical progress, then to build this work from Brazil, with rules that can be read, is to refuse that universalism in act: to claim that the human-machine relation may carry another cosmology and another ethics than those of the center that produced it or, at the very least, to contest them. It is not by chance that it is Flusser, a thinker formed in São Paulo, who lends me the vocabulary for this process. It is in this gesture that the *milieu*, which I have traced from Edison's camera to the network of image circulation, updates itself one last time, now as the medium in which a technique of the South returns to Topsy's image not the spectacle of her death, but the memory of those who question this structure.

6. On the 74 Seconds, the Ethics of the Archive, and Post-Phenomenological Perceptions

As I reach the conclusion of this essay, there are two crucial gestures that tie together the argument I have set out here.

The first gesture consolidates itself in submission to the exact duration of the record. The seventy-four seconds of the title are precisely the length of Edison's film and, in working directly with the original duration, without interfering with or cutting it, I impose upon myself an ethics of the integrity of the archive: I do not manipulate what I inherit as a historical and technical object, precisely so that I may criticize it and, in bringing it to the contemporary, resignify it.

The second gesture that crystallizes is the conscious act itself of enclosing a machinic, generative process within a filmic archive, with a beginning, middle, and end that repeat with each execution. Even though the system can produce infinite variations of the sonic outputs in the interaction between image and sound through the programming platform Max/MSP/Jitter, to freeze only one of these possibilities by means of screen recording, as we saw with Steyerl, to assemble it in the editing software Da Vinci Resolve, and to return it to the form of film repeats, now conscious of itself, the same gesture that turned Topsy's death into an image through the Edison company's cinematograph. The work and its author choose not to escape the condition of its original archive precisely in order to confront it; the work assumes the risk of making memory transmissible, but through a process that preserves its ethics: it keeps the inherited duration intact even as it deliberately corrupts the materiality of the image, degrading it.

What remains, in the end, is the conceptual triangle between human, animal, and machine which, through the lens of post-phenomenology, ties together the ideas I have set out throughout this essay. Ihde (1990, p. 100) situates the alterity of the machine as a quasi-otherness. The term describes an intermediate degree of otherness: stronger than mere objectness, the way an inert object simply stands before us without a presence of its own, yet weaker than the full alterity found in the animal or the human kingdom, that of a living being endowed with life and interiority. The machine is not, for Ihde, a mere object: we address it, we contend with it, and

it resists and fascinates us; but neither is it a genuine other. It lodges itself precisely in between the two. The machine that acts as Topsy's algorithmic "witness" is, therefore, through Ihde's ideas, less other than Topsy ever was; its indifference measures the distance between calculation and life.

It is precisely this distance that the co-agency between human, animal, and machine makes visible, and it is with this that *Short Concert for the Last 74s of Topsy* concerns itself in exposing itself as an audiovisual compositional experience. It is not a matter of making the machine remember for us the asymmetry of power denounced here, nor of attributing to it a kind of pity or compassion that it would not have in human terms, which would be quite presumptuous, but of using its analytical coldness as a potential mirror. In placing the weak, digital alterity of the algorithm beside the full, material alterity of the dead animal, the work returns to Topsy's image the weight of a death that should never have been watched as spectacle and that, more than a hundred years later, still demands to be read, commented upon, criticized, and, above all, not forgotten.

For, if humans have shown themselves complicit enough to diminish other species, something similar seems to repeat itself in this historical moment, as we equate human intelligence with that of machines. McKelvey and Roberge (2023, p. 27) show how the contemporary definition of artificial intelligence inherits decades of a Cold War rationality that sought precisely to blur the distinctions between human and machine intelligence and to lower the very threshold of what is understood by intelligence. It does not seem to me that the machine has become more intelligent, as the big tech companies would have it, but rather that the human has been diminished, made "programmable and optimizable," so that the machine might appear superior. It seems that the same logic of diminishment that reduced Topsy to spectacle now turns against human intelligence itself. And I close, through this text and the work presented here, with the following reflection: if we seem to accept the diminishment of our condition of dignity as human beings when confronted with machinic impositions brokered and financed by large companies, there remains the question: who, in the end, decides, and on whose behalf?

Video Documentation

Video documentation of *Short Concert for the Last 74s of Topsy* is available at:

https://www.youtube.com/watch?v=PfQIzHKoeV0

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