

## Untitled: David Tudor's 'Never-Ending Series of Discovered Works'

(first presented at the annual meeting of American Musicological Conference, Rochester, on November 11, 2017)

You Nakai

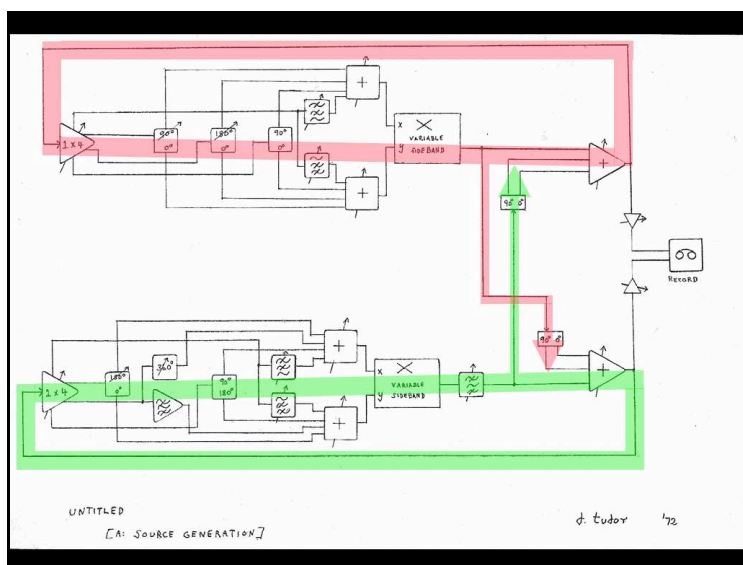
(A)

1

I'd like to start by playing a recording: **PLAY: UNTITLED 1972** For my purposes today, I should play this for at least 10 minutes or so, but unfortunately the time constraint doesn't allow me to do that.

This is a recording of *Untitled*, a piece David Tudor created and performed in 1972. The vocal part is John Cage doing his *Mesostics Re: Merce Cunningham*. Tudor's piece was composed to be performed simultaneously with Cage's for their duo tour in Europe.

This is the score of that piece.



Tudor's electronic works were all composed by patching modular instruments with various functions together, and this score shows how the instruments are connected. The components range from distributors, mixers, phase shifters and splitters, filters, modulators, amplifiers, and so on. As you can see, the output of each chain feeds into the input of the other chain. In other words, this configuration of modular electronics forms two large feedback networks which crisscross at the output.

Now, in electronics, feedback is what you implement on an amplifier to make it oscillate. That is why Tudor spoke of this piece as a "Giant Oscillator." The sonic nature of the piece—repetitions which gradually or

drastically change their pattern—is derived from how the components are put together in a feedback loop. By inserting amplifiers and phase shifters within the feedback path, Tudor’s Giant Oscillator indeed generated sound without any input. Thus, this type of work is known as having “no-input.”

However, that comes with a caveat because in fact the number of components and feedback loops made the piece too complex to perform in concert and too cumbersome to carry on tours. So Tudor came up with a practical solution: he recorded the output of his giant oscillator three times, and in performance used these as input to a more simplified system mainly focused on processing and separating the output.

These three tapes have been found in the David Tudor Papers at the Getty Research Institute all labeled as “study” (and I will be talking about the “Homage to Toshi Ichiyanagi” part later):

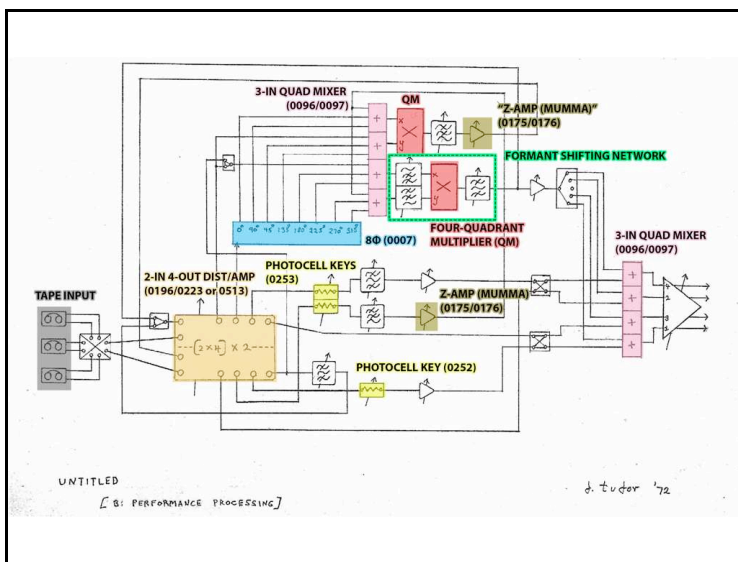
**PLAY:**

**C28: Homage to Toshi Ichiyanagi, Study 1, 1972 (29:34);**

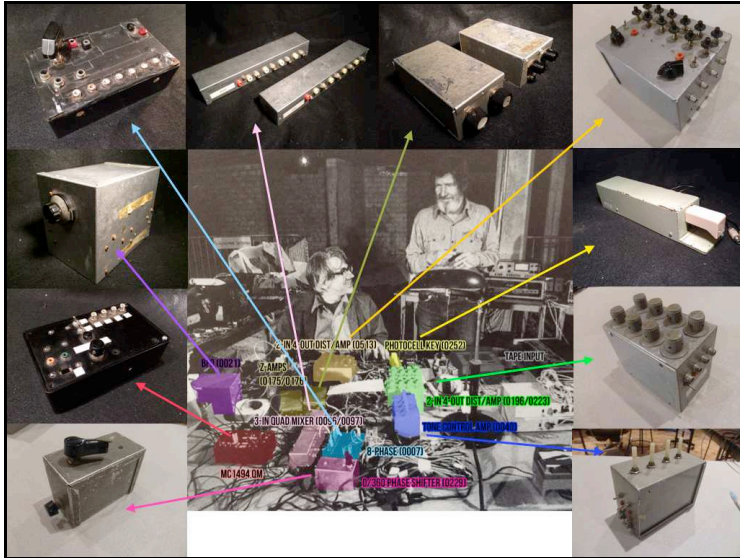
**C30: Homage to Toshi Ichiyanagi, Study 3, 1972 (30:50);**

**C220: Untitled (Homage to Toshi Ichiyanagi), Study 2, undated (31:05)**

This is the score of that performance set-up.



Note the three tape inputs at the bottom left corner of the diagram. Again, you can see how it is composed similarly as the first one, using overlapping instruments. Almost all the components involved have been identified and matched with extant instruments now archived at Wesleyan University.



But that is not the focus of this paper.

## 2

Tudor had used feedback as the organizing principle of his electronic works from earlier on. When he started incorporating electronic amplification to his piano in 1958, Tudor focused on the phenomenon of acoustic feedback, resulting from the proximity of the loudspeakers to the microphones. The self-sustained sounds it generated went directly against what Tudor's had been pursuing on the piano for almost a decade by then: extremely fast and precise control of the escapement mechanism inside the instrument. This specific nature of Tudor's approach to the instrument had regulated the nature of music he chose to perform throughout the 1950s—pointillist works whose parameters shifted all the time. When amplification essentially annulled all the techniques he had developed for the piano by then, Tudor welcomed the challenge. For the next couple of years he focused specifically on feedback in his realization of other people's work using various amplified instruments of his own design: Cage's *Variations II* (1962) performed on the amplified piano, or *Bandoneon!* (1966), the first seminal piece by Tudor as composer, in which the concertina in the title was used to activate as well as control multiple channels of modulation, lights, and visuals (lissajous figures) on Lowell Cross's modified tv set (which was essentially a giant oscilloscope). But these were all acoustic feedbacks.

## 3

In 1972, Tudor seems to have been unable to decide on the title before the premiere. The multiple requests from the presenters to send the title of “the famous untitled new piece” were all ignored. In the program note, his contribution appeared simply as “Untitled / New Electronic Piece.”

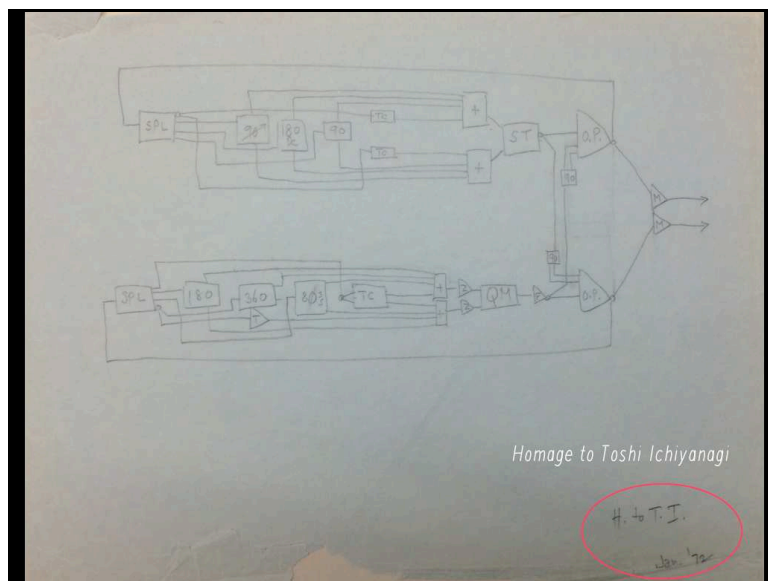
In fact, this inability or unconcern for titling his works was Tudor's tendency. For instance, Gordon

Mumma recalled how Tudor appeared to show no interest in naming the new piece he was making for the Merce Cunningham Dance Company in 1968: “From time to time (...) I asked David if he'd made a title. ‘No, not yet, I'm too busy with the work’. When Merce finally titled the choreography as *RainForest*, David replied, ‘Now there's a title.’” This nonchalant attitude towards titles reflects Tudor’s similar unconcern for framing a composition as such, or his initial difficulty in accepting the title of “composer” in relation to the music he was making. Titles—be they of works or profession—always seemed like an afterthought for Tudor.

Instead, the method he developed and favored was to compose an instrumental network of modular components by enlarging the workings of a single component—like the Giant Oscillator. In this way, Tudor could conceive his work from the very nature of his instruments without resorting to exterior linguistic framing devices such as titles or categories which may be attached later, or—in many cases—not.

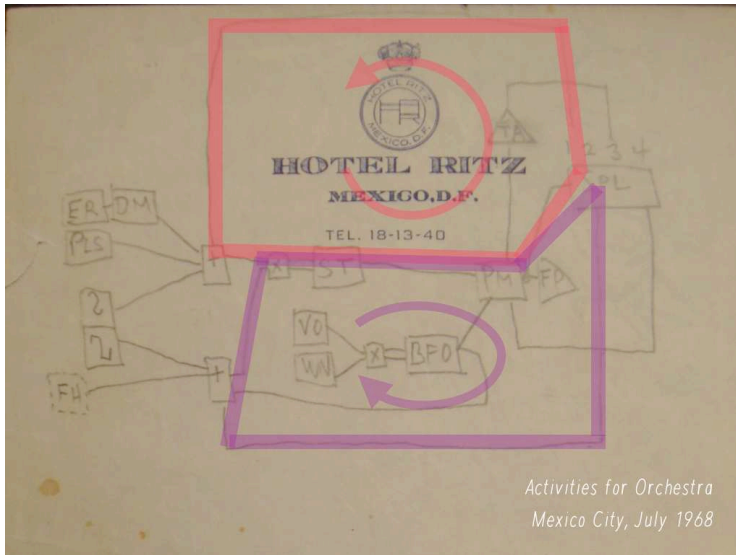
#### 4

Tudor simply kept the untitled nature of his work as its title in the end. However, one of his earliest sketches from January 1972, showing two chains of feedback generation, already contains a title inscribed above the date in the lower right corner: “H. to T.I.” This stood for “Homage to Toshi Ichinyanagi,” which later became the subtitle for *Untitled*. In other words, Tudor was using the subtitle before he came up with the final title for the piece (which is to say, never).

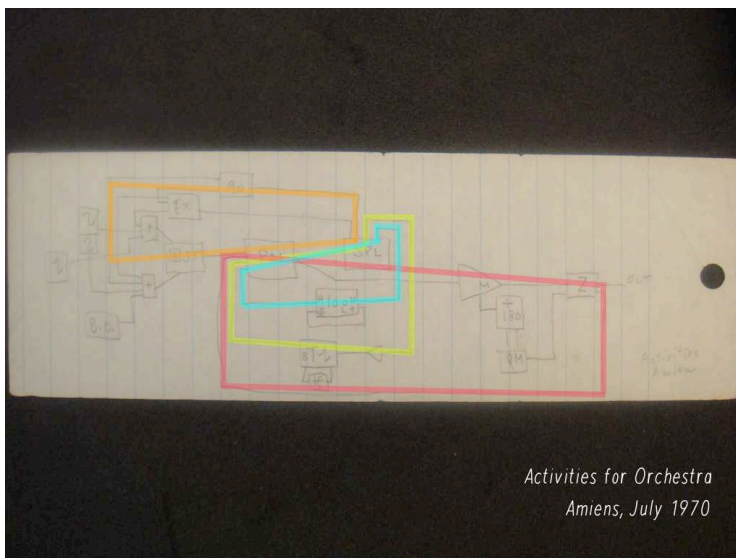


Tudor decided to dedicate the work to Ichinyanagi from this early stage because the idea of configuring modular components in a feedback loop without any input developed out of the realization process of a work by this Japanese composer: *Activities for Orchestra*, composed for Merce Cunningham’s dance *Scramble* in 1968. The diagrams Tudor drew for his realization of this piece show feedback of components appearing for the first time (to be sure, Tudor had used feedback before in his works but they were all acoustic feedbacks as

opposed to electronic feedback, occurring inside the circuitry). This diagram for *Activities for Orchestra* from July 1958 is one of the earliest examples where Tudor connects the output of the system back to its input. As you can see, there are two large feedback loops here.



Here is another realization diagram for *Activities for Orchestra*, written for a performance in Amiens, France in July 1960—so two years after the first one. As you can see, the feedback loops have proliferated (I only indicate the principal ones).



In other words, in 1972, Tudor first and foremost identified his new work through the particular *topology* of its instrumental network.

## 5

But there was also another source for *Untitled*. Tudor began making all the numerous phase-splitting and shifting devices that appear in *Untitled* in the spring of 1968. What triggered this shift was a change of instrumentation. On March 5, 1968, Cage organized the performance of *Reunion* in Toronto. Using a chessboard constructed by Lowell Cross, Cage played chess with Marcel Duchamp, while the spatial position of the chess pieces controlled the gating and distribution of sounds made by Tudor, Mumma, Cross, and David Behrman. The important thing here is that since all the sounds had to go through the chessboard, *Tudor could not use any acoustic means of sound production.*

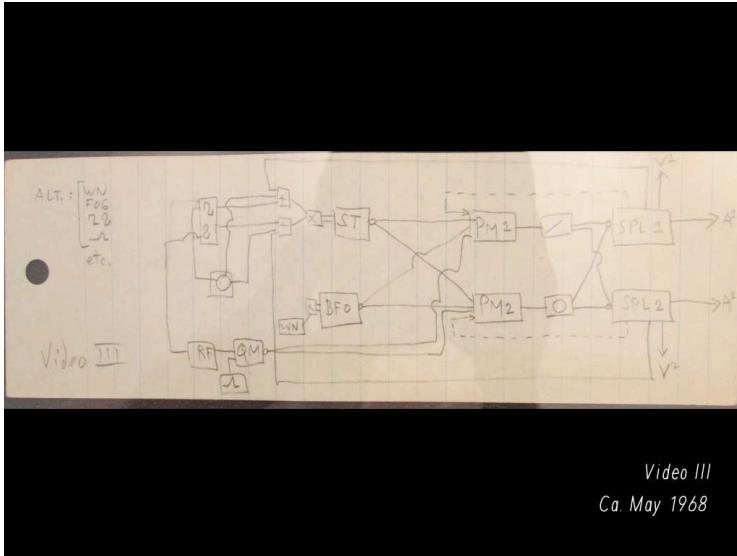
Cross recalls how Tudor hated the situation: “He did not like at all the notion of a chessboard controlling his sounds [...] He wore headphones throughout the evening so that he could monitor his own performance.” But headphones were not the only monitoring tool Tudor used. Already familiar with the system, Tudor connected the output of his electronics to Cross’s modified TV set which he had previously used with his bandoneon. The result was revelatory:

*I happened to be sitting next to him and he was busy trying to make sure John Cage's chess board was operating correctly. So he said: 'can you give me an input?' you know for the TV thing and I said sure, so I sent him a line and lo and behold it was all working at 90 degrees and so that caused the situation then to multiply.*

## 6

This experience ensured two things for Tudor. First, that the visualization of electronic signals would become as important as its audible output: “Since that time I have come to the point where I don’t need to hear the sound anymore, but only to look at it, because I can tell what it would sound like from seeing it.” And second, that the phase-related instruments would therefore proliferate. Bandoneon’s stereophony—ability to produce two different tones from each side of the instrument—fulfilled the necessity of phase difference between the two input signals for Cross’ Video system. Tudor now had to recreate that stereophony inside his circuitry.

In Tudor’s diagrams for *Video III*, his collaboration with Cross, one immediately notices the prominence of phase shifters. However, the most distinct difference between the realization diagrams of *Activities for Orchestra* and *Video III* lies again in the network *topology* of how the instruments are connected: there is a distinct vertical symmetry in the latter.



This concern for symmetry is clearly derived from the nature of Cross’s x-y display to which the sound system is connected. The two parallel feedback loops of *Untitled* were born from Tudor’s involvement in the visualization of sound. For this reason, the description of *Untitled* specified the primary output of the piece as video, as if audio was an afterthought: “works with video outputs as well as audio, or video alone.”

## 7

But let’s look at Tudor’s description for *Untitled* in more detail. The text in its entirety reads like this:

*“untitled” – PART OF A NEVER-ENDING SERIES OF DISCOVERED WORKS IN WHICH ELECTRONIC COMPONENTS ARE FOUND TO BE NATURAL OBJECTS.*

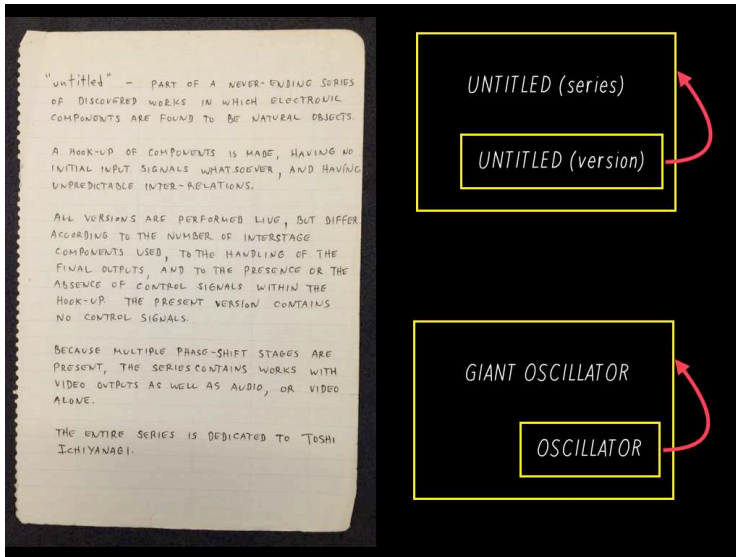
*A HOOK-UP OF COMPONENTS IS MADE, HAVING NO INITIAL INPUT SIGNALS WHATSOEVER, AND HAVING UNPREDICTABLE INTER-RELATIONS.*

*ALL VERSIONS ARE PERFORMED LIVE, BUT DIFFER ACCORDING TO THE NUMBER OF INTERSTAGE COMPONENTS USED, TO THE HANDLING OF THE FINAL OUTPUTS, AND ACCORDING TO THE PRESENCE OR ABSENCE OF CONTROL SIGNALS IN THE HOOK-UP. THE PRESENT VERSION CONTAINS NO CONTROL SIGNALS. BECAUSE MULTIPLE PHASE SHIFT STAGES ARE PRESENT, THE SERIES CONTAINS WORKS WITH VIDEO OUTPUTS AS WELL AS AUDIO, OR VIDEO ALONE.*

*THE ENTIRE SEIRES IS DEDICATED TO TOSHI ICHIYANAGI.*

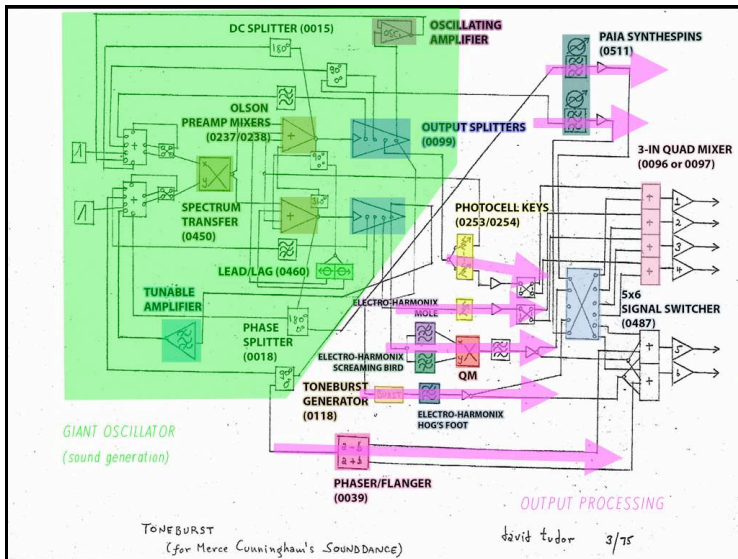
This description is extremely difficult to understand. It is clear that *Untitled* is part of a larger, never-ending series, but whether the work exists *in* multiple “versions” or is simply one *of* the “versions” remains unclear. The text allows two contradictory readings: All the “versions” can be *Untitled*, in which case the “present version” from the 1972 tour is only one of the many possible versions of *Untitled*; or the multiple “versions”

may pertain to a larger “series,” which *Untitled* is only a part of, in which case *Untitled* is the name attached only to the “present version” performed in 1972. In other words, confusion stems from *Untitled* appearing both as a whole and as a part of the whole in Tudor’s description. The structure of the problem therefore forms a synecdochic duplicity, similar to oscillators inside giant oscillators: *Untitled* is a version of its own series.



## 8

In 1974, Tudor was commissioned to make a new piece by Cunningham. Tudor took this opportunity to realize what he was not able to do in *Untitled*: “to perform the whole thing without any tape *material*”—note the use of the word “material” here, as it will be important for our discussion later on. In a 1984 interview, Tudor explained the difficulty in *Untitled* as stemming from the fact that there were two chains that had to be handled simultaneously. Therefore, he solved the problem by simply reducing the chain to one. Tudor named this work *Toneburst*, and considered it “a direct translation of his mind into music.” **PLAY/EXPLAIN DIAGRAM**



This diagram may look very complicated, but there are two large sections here: the giant oscillator which generates sounds, and the parallel output processing channels extending out from that oscillator section. The reduction of the sound generation circuitry in this way had made Tudor shift his focus towards the output processing of materials to compensate for the simplicity of the sound source: “So that the output appears to be different, although it's the same *material*.” Indeed, several parallel chains of output processing were added to the primary oscillator section in an attempt to achieve maximum variation from a single source.

This renewed focus on output processing also brought the “never-ending series” to an end—or at least a temporary halt. As Tudor looked back in the early 1990s: “Final version of *Untitled* is *Toneburst*.” *Untitled* was performed four times during the 1972 tour with Cage, but no more after that. *Toneburst*, on the other hand, became the music for Cunningham’s work *Soundance*, and was performed more than 50 times between 1975 and 1980, after which the piece was dropped from the company repertoire.

(B)

1

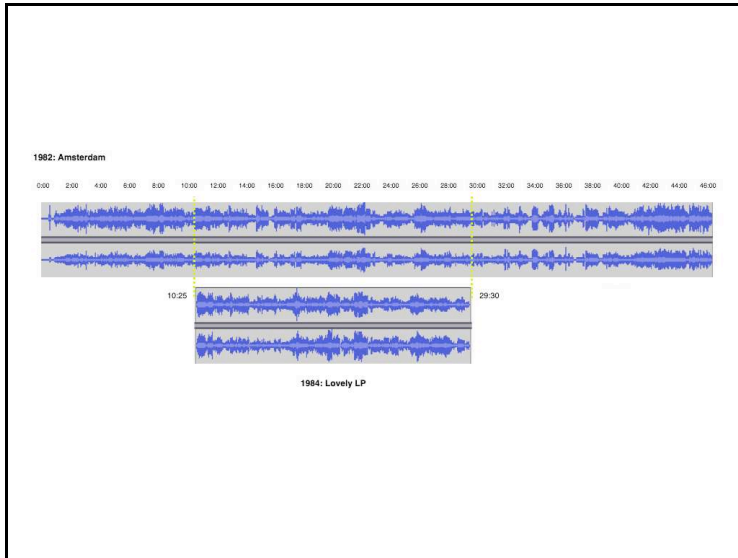
On June 9, 1982, Tudor revived *Untitled* for a concert in Amsterdam. Strangely, it was performed for one evening only, and he seems to have never revealed the reason for doing so even to his collaborators such as Nicholas Collins who was touring with him. Fortunately, the concert was recorded in its entirety by Collins—and this tape has again been found in Tudor’s archive at the Getty. **PLAY**

2

In 1984, Lovely Music released an LP containing *Untitled*, coupled with *Pulsers*, another work by Tudor from

1976. **PLAY** The credits claimed that the piece was recorded at Airshaft Studio in New York, mixed and recorded by Collins. When inquired, however, Collins remembered somewhat differently: “we generated no new audio material, merely took concert tapes and mixed and mastered them. It was a rather minimal session, as I recall.”

A comparison of the recording from the 1982 Amsterdam concert and the Lovely LP version indeed reveals that they are actually the same: the concert tapes Collins remembered using for the LP was in fact an abbreviated version of the live-recording from 1982. **PLAY COMPARISON**

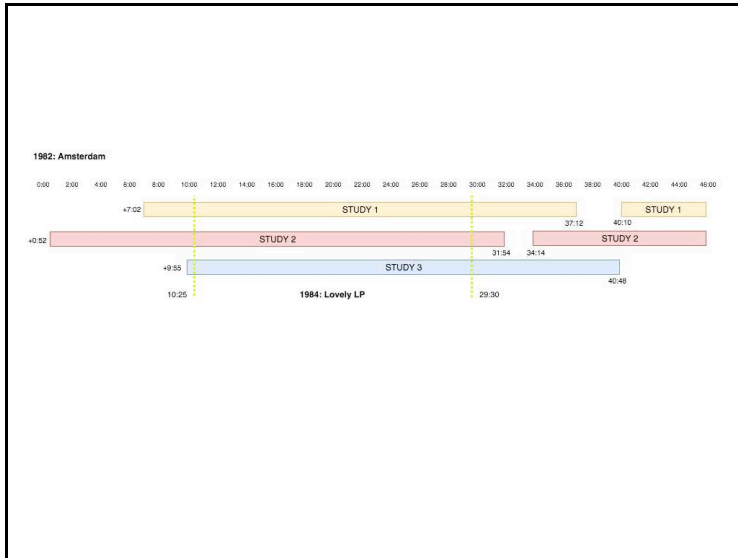


This suggests Tudor quite possibly revived and performed *Untitled* in 1982 for the sole purpose of live-recording the piece for a later LP release. This would explain why he only performed it once, and why that recording was used almost in its entirety for the LP. He even enlisted Collins to be the sound engineer on both occasions. The problem, as usual with Tudor, is that he didn't tell anybody what he was doing.

### 3

But *Untitled* in the 1984 LP does not only lead back to the live-recording of 1982. Upon closer listening, it is also revealed that the 1982 Amsterdam performance is itself based on the same three source tapes from 1972.

### **PLAY COMPARISON [ANALYSIS DIAGRAM]**



#### 4

In 1994, The Cunningham company revived *Sounddance*, and along with it, its music. Tudor passed away two years later in 1996. Since then, the music of *Sounddance* has been performed by the musicians of the Cunningham company. Here is a recording from 2006. **PLAY**

#### 5

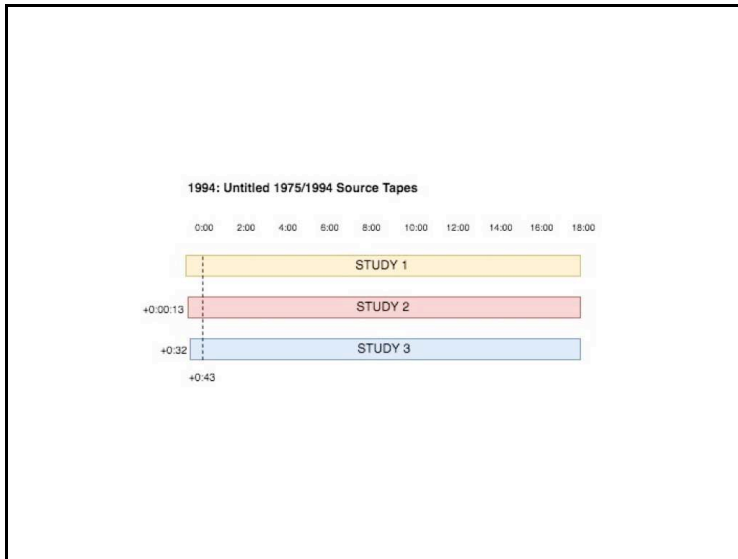
In June 1994, Tudor was back again in Amsterdam with Nic Collins, this time to perform his new piece *Neural Synthesis*. The whole concert along with the aftertalk moderated by Collins was filmed by Molly Davies. At one point during the aftertalk, Tudor suddenly revealed a surprising detail about the revival of *Sounddance*:

*I have just been compelled to revive a piece from the late 70s and I did it, against my wishes, but it turned out to be a complex proposition because I was not able to perform the piece as I conceived it. The piece was called, the dance was called Sounddance, and I had a piece which I had entitled Toneburst, which is very particular because it was centered around a toneburst generator that I had soldered myself together. But it was an outgrowth of, well...that was the last piece in a chain. The previous piece which I did is the work that Nic Collins remembers as Untitled. So when Merce Cunningham asked me to revive this composition, I completely forgot that I had to pay attention to the title. And so I performed it. The only possibility that I had to recover the sound that I did in Sounddance, was by using similarly produced material...*

#### 6

So a peculiar mix-up had occurred: Tudor had revived *Untitled* instead of *Sounddance*. And to revive *Untitled* was to revive the three source tapes from 1972. Tudor's confession can therefore be verified by comparing the original *Untitled* source tapes from 1972, with the source track Tudor made in 1994 and handed over to

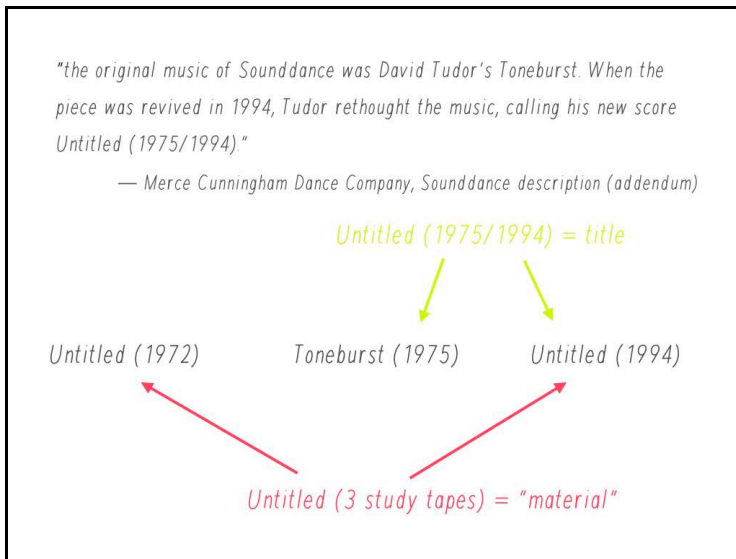
the company, which has been used in all subsequent performances of *Sounddance*. **PLAY COMPARISON [ANALYSIS DIAGRAM]**



All the performances of *Untitled*, and all the post-revival performances of *Sounddance*, have thus been revealed to be using the same three study tapes made in 1972.

## 7

In 1994, Tudor solved the mix-up problem by resorting once again to the synecdochic duplicity inherent in the title *Untitled*. The company's current description of *Sounddance* carries an addendum: "the original music of *Sounddance* was David Tudor's *Toneburst*. When the piece was revived in 1994, Tudor rethought the music, calling his new score *Untitled (1975/ 1994)*." Under the "series" sense of the title, then, Tudor grouped the year that *Toneburst* was premiered—1975—with the year that he revived *Untitled*—1994—emphasizing the continuity between the original music and the new one. But of course, there was one specific year that had been erased in this formulation. Even Stephan Moore, the former sound engineer of the Cunningham company throughout the 2000s, who has performed the music for *Sounddance* numerous times from source CDs, was surprised to know that the name *Untitled* also addressed the use of three specific tapes that were realized in 1972, not 75. So while the new *title* connected *Untitled 1994* with *Toneburst 1975*, the actual *material* used connected *Untitled 1994* with *Untitled 1972*.



## 8

So what again is *Untitled*? Is it the title of a series which contains *Toneburst* as a version, or of a version in a series? Does the new title “*Untitled 1975/1994*” solve Tudor’s mix-up? Was there actually a mix-up to start with? Is the identity of the work in the title, or in the source tapes? In the remaining time, I offer a speculation.

## (C)

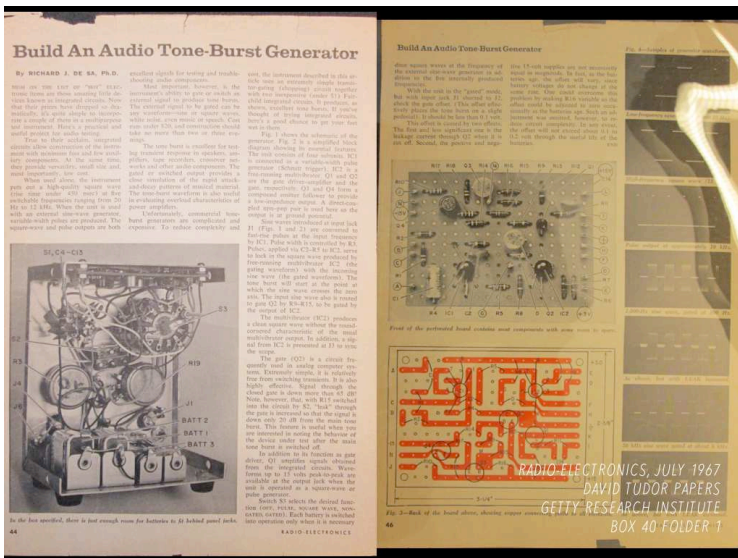
## 1

In the 1994 aftertalk, Tudor seems to suggest two reasons for the mix-up: 1) He forgot to pay attention to the title, 2) The toneburst generator was dead, so he couldn’t revive *Toneburst*. The first reason comes as no surprise: we have already seen how Tudor’s titles always appeared as an afterthought. In fact, the title “*Untitled*” was itself a living proof, so to speak, for this unconcern for titles. The second reason is illuminating, however, for it reveals that the identity of *Toneburst* was defined by *a particular instrument* in the configuration.



TONEBURST GENERATOR (0118)

A toneburst generator is usually a high-quality square wave generator capable of outputting variable-width pulses, often used for testing equipment. But its placement in the diagram of Toneburst appears as part of the output processing. In other words, despite its name, Tudor did not use the toneburst generator as a signal generator. This is further confirmed by an article cut-out found among his papers: “Build An Audio Tone-Burst Generator” by Richard J. de SA, published in the July 1968 issue of Radio-Electronics magazine. This article turns out to be the source Tudor used to build his instrument.

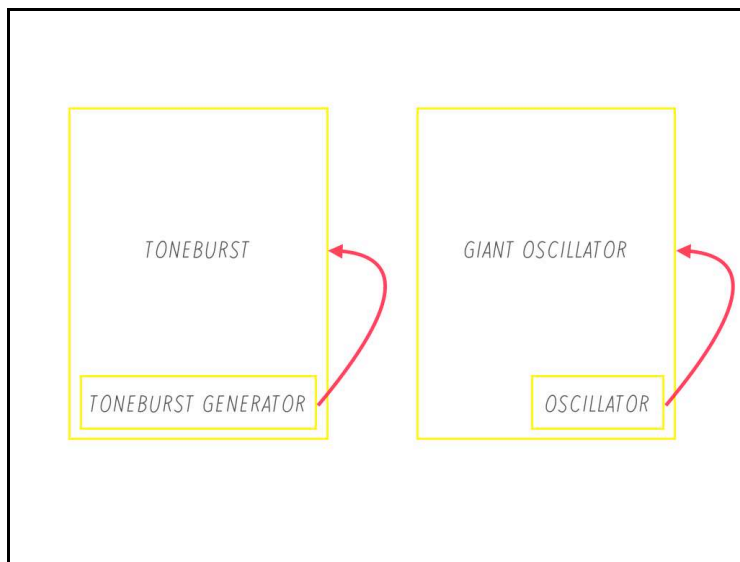


And indeed one of the things the author emphasizes here is the capacity of this particular toneburst generator to function as a processing device: “Most important, however, is the instrument’s ability to gate or switch an external signal to produce tone bursts. The external signal to be gated can be any waveform—sine or square waves, white noise, even music or speech.” The role of gating in Tudor’s output processing would

foreground prominently in his works from the 1980s. This constitutes an important counter-point to everything I am talking today, but unfortunately we have to leave that discussion for another time.

## 2

But perhaps the essential role of the instrument was clear from the start. After all, *Tudor had titled the piece after the equipment—Toneburst*. Thus a synecdochic duplicity between the part and the whole again ensues: the name of an instrument in the configuration becomes the name of the entire piece. You may recall Tudor's tendency for deriving the mechanism of works by enlarging a particular nature of a specific electronic instrument: *Untitled as Giant Oscillator*.



## 3

But exactly what kind of instruments are we talking about? Again, Tudor's instruments were *modular devices* connected in various ways to form a large instrumental network. This means that the particular configuration had to be composed every time before the show, at the site of performance, and decomposed afterwards. This is primarily due to the specific nature of Tudor's music being performed almost always on tour—the instruments needed to be packed and moved to the next destination; but it also maps onto the general nature of musical works, which, no matter how long, are realized only sporadically in this world (even Cage's *ASLAP* will end in 639 years, and we have yet to hear the music of the heavens which supposedly knows no beginning or end).

Thus, every time the modular instruments are connected together, it is possible to slightly change the connections, or replace one instrument with another—which, as a matter of fact, happened to be Tudor's tendency. The constant touring also meant less witnesses, so to speak. Add to this the sheer number of components that Tudor always complained about in relation to both *Untitled* and *Toneburst*, and we have a

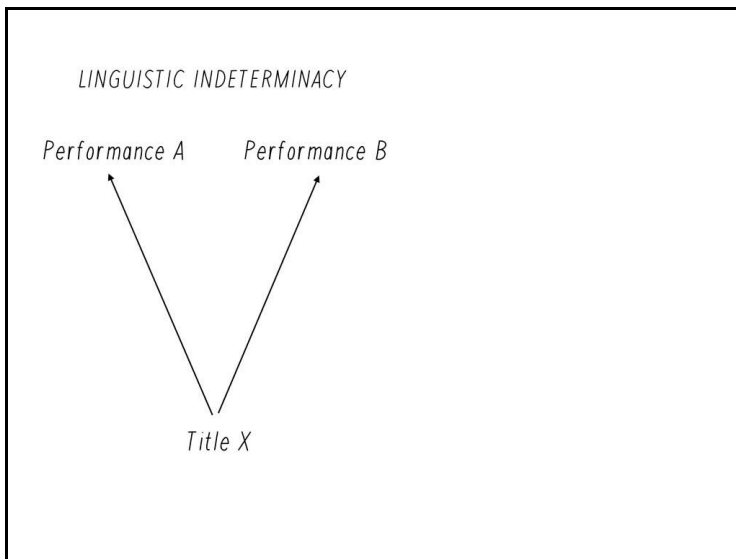
perfect setup for a gradual confusion and exchange of identities: *Untitled* turns into *Toneburst*, which returns to being *Untitled*, but now in disguise.

What we have here may seem like a music version of the so-called sorites paradox in logic: if one takes a heap of sand and removed the grains one by one, when does the heap stop to exist and turn into a non-heap? One way to solve this paradox without complaining about the vagueness of our natural language is to set a fixed boundary where the heap turns into non-heap. With *Toneburst* that might be the toneburst generator, and with *Untitled* perhaps the three source tapes. Another is to resort to multi-valued logic and say that there is a grey zone in between heap and a non-heap, a zone generally described as, “indeterminate.”

#### 4

There is of course a large group of works—or more accurately, performances—that fit in the zone of indeterminacy between *Untitled* and *Toneburst*. But indeterminacy in music is more complicated a concept than in logic (thanks to John Cage), for it addresses the non-identity of a *single* work. Despite having the same title, two performances will always be different in terms of how they sound.

Naturally, this gives birth to music that is very difficult, or impossible, to recognize. As Cage recounted delightedly, sometimes even the composer could not identify his own piece upon listening—that is, until someone told him the title. The indeterminacy of a given work is measured in relation to other possible performances, but this very relation hinges on the determinacy of the title (and instructions) conveyed through language. Listening is thus ultimately framed by language. We may call this condition *linguistic indeterminacy*. For this type of indeterminacy, the most dangerous enemy becomes recording which may tether a particular title to the sonic identities of a particular realization—“records ruin the landscape.”



## 5

However, what Tudor's mix-up proved performatively was that this was not necessarily the case. *For his tape sources for Untitled were determinate all along.* It had passed unrecognized *in spite of* being fixed. Whereas indeterminacy usually foregrounds the case of "same title but different sounds," here we have the contrary situation: same material but different titles.

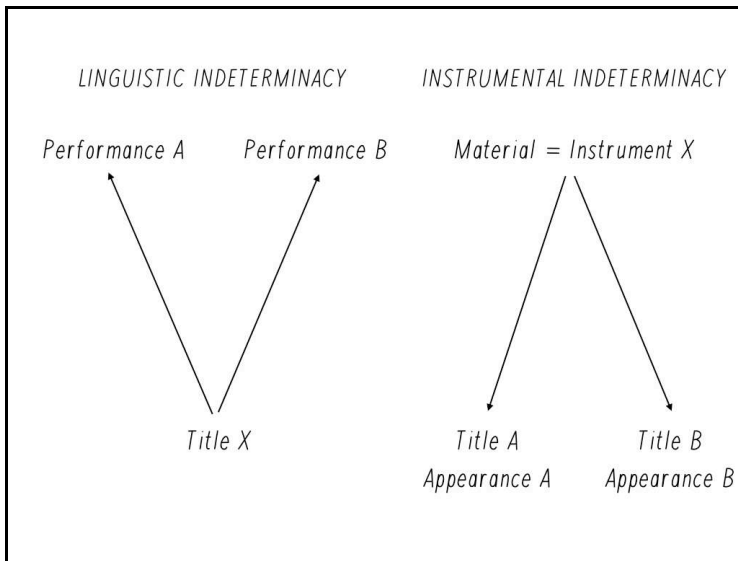
Tudor obviously recognized the determinacy of his material, as we do so too now. Most listeners never did. The question of whether a given work is indeterminate or not therefore depends not on the material of the work, but on the listener. This second type of indeterminacy concerns not the discrepancy between one performance and another that all listeners may agree upon, but the discrepancy between one listener and another within a seemingly singular performance. And if you can recall, Tudor had pushed this indeterminacy further by adding parallel processing of the source to make "the same *material*" "*appear[s]* to be different." So what are we listening when we listen to *Untitled*?

## 6

It so happens that Tudor again had given a performative answer—which is to say performance *as* an answer—to this question. If you can recall, Tudor used recordings of his 1972 instrument as input source for his performance but claimed that the identity of *Untitled* still lay in its no-input nature. To understand this peculiar claim, it seems necessary to think that in Tudor's mind, the 1972 recordings were equivalent to his 1972 instrument. The recording, which was necessary only for practical reasons, somehow completely stood in for the absence of the instrument.

If you can recall, the 1972 description of *Untitled* described the piece as a "part of a never-ending series of discovered works in which electronic components are found to be natural objects." Tudor often claimed that what he aimed to do in his music was to reveal the nature of instruments used. And resorting to no-input feedback was precisely a means toward this end: by generating and re-cycling signals solely within the instrumental network, the output sound reveals the *nature* of the instrument—its specific material bias. If this is the case, *the listener cannot help but listen to instruments* through the music. According to Tudor therefore, every time we listen to recordings of *Untitled* we are listening to the specific instrument that Tudor put together one day in early 1972, probably in Stony Point, New York.

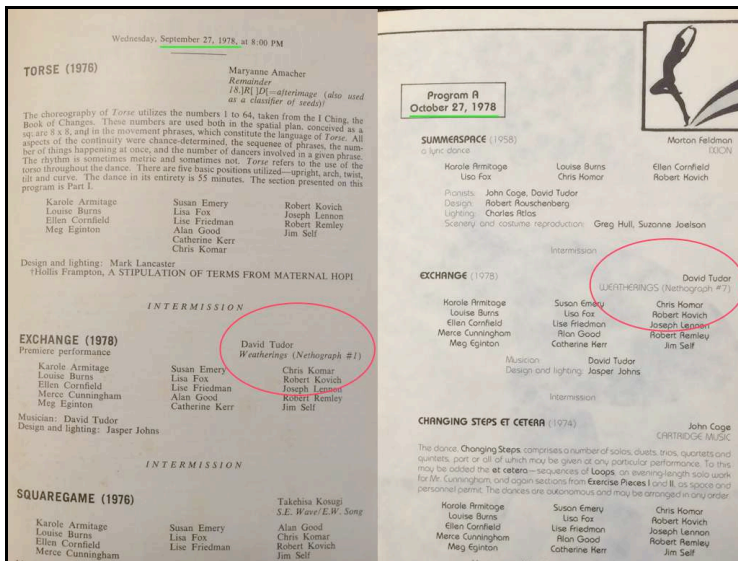
However, Tudor's case also reveals that instruments are not always easy to hear. The distinction between determinacy and indeterminacy depends on the identity of instruments/recordings, but the latter is not as easily recognized as titles. Without the regulation of language, the very threshold between determinacy and indeterminacy itself becomes indeterminate. We may call this second type of indeterminacy, *instrumental indeterminacy*.



7

Linguistic and instrumental indeterminacies do not constitute a strict binary—their difference is more a matter of tendency than well-defined identity. Tudor himself wavered between the two (as did Cage for that matter), although it was obviously the indeterminate status of instruments that captivated him more. Whereas Cage tended to preach the benefit of complete oblivion as far as listening to sounds (and not titles or instructions) was concerned, Tudor appears to have been focused on the threshold of recognition/memory laying at the periphery of identity.

With *Rainforest*, for instance, he claimed that each listener walking through the installed assembly of loudspeaker objects actually composed a different work. In *Weatherings (Nethograph)* from 1978, the duplicity of series/versions was rendered into a systematic solution: each performance received a different number—e.g. *Weatherings (Nethograph No.1)*—indicating both their connection as part of series, and the autonomy of each performance as a work on its own.



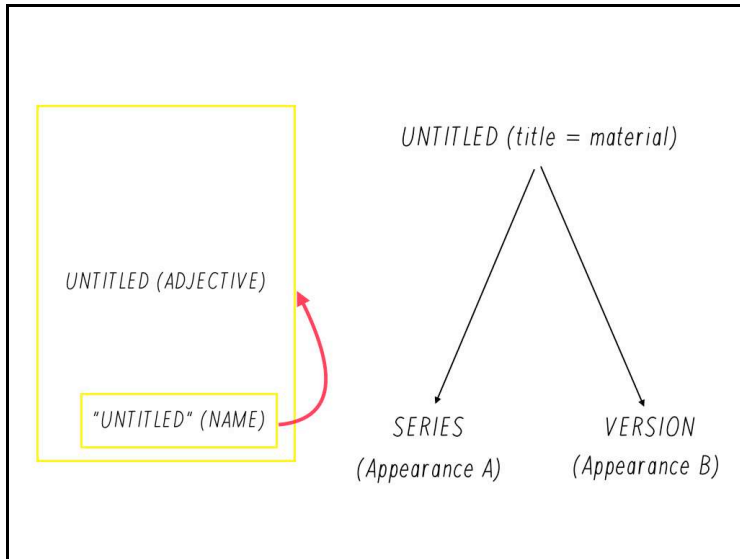
With *Neural Synthesis* in the early 1990s, Tudor continued this enumeration method, while also resurrecting the practice of making recordings from an instrument too difficult to use in performance (the neural synthesizer). This time, however, he made sure to create as many source recording as needed to ensure that Tudor himself, who was performing the work, would not be able to remember their contents—he adjusted the number of sources to the threshold of his own memory. Which, as it so happens, was gradually failing by then: during the 1994 aftertalk, Tudor confessed that he had mixed up the version numbers of *Neural Synthesis* at some point: “Nic tells me that this is *Neural Synthesis No. 8*, but my engineer tells me it’s *No. 12*. So I’ve lost track.”

## 8

But let *us* keep track and try to recall what *we* were talking about. So was *Untitled* a series or a version in the series? As with the other questions encountered in our investigation, this question might have already been answered by what Tudor did. Let’s suppose for a moment, against all our previous assumptions, that Tudor actually cared for titles and deliberately chose the title “Untitled” for a reason. What might that reason be? One benefit of this specific title is that the word itself harbors a grammatical duplicity: it can either be read as a name or an adjective. So perhaps *untitled* is two words that just *sound* like one: “*Untitled*” is the title of a version of a series which remains untitled. After all, a title may not be so determinate as it first seems. Here again we encounter the mechanism of synecdoche, analogous to the relationship between the oscillator and the Giant Oscillator, or the toneburst generator and *Toneburst*, albeit on a larger scale.

But when the mix-up occurred in 1994, Tudor made an *instrumental* use of this linguistic indeterminacy to solve the problem he faced. Which is to say that the categorical distinction of title-as-language and instrument-as-sound seems to have been overridden in Tudor’s practice by a uniform approach to *materials*

that enable a given performance and its subsequent reenactment(s)—what I would like to call “instruments” in an extended sense.



We may also recall here that in his pianist days Tudor used to call the score given to him by other composers by the same name: *materials*. And materials, arrested within Tudor’s synecdochic mechanism, harbored an indeterminate duplicity. Just like the sound of instruments, sometimes what lies in plain sight is the most difficult thing to recognize.

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