

Cornelius Cardew

# TREATISE HANDBOOK

including

Bun No. 2

Volo Solo

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Bun No. 2 (Chamber Orchestra)

Volo Solo

On the Role of the Instructions in the Interpretation  
of Indeterminate Music

Towards an Ethic of Improvisation

Responses to Virtues, for Theorizing  
(by Michael Chant)

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I wrote *Treatise* with the definite intention that it should stand entirely on its own, without any form of introduction or instruction to mislead prospective performers into the slavish practice of 'doing what they are told'. So it is with great reluctance – once having achieved, by some fluke, the 'cleanest' publication it were possible to imagine – that I have let myself be persuaded to collect these obscure and, where not obscure, uninteresting remarks into publishable form.

The temptations to explain why there is no explanation and offer instructions on how to cope with the lack of instructions hold no attraction. However, the years of work on *Treatise* have furnished me with a fund of experience obviously distinct from the experience embodied in the score itself. And this fund continues to accumulate, since my experience of and with the piece is by no means completed with the completion of the score; so some of the excreta of this fund may as well be made available to those who, because it's published, may shortly wish to be occupied with the score. Possibly some errors and misconceptions may thus be avoided.

To complete the information content of this handbook I must briefly outline the biography of the piece.

Early in 1963, on the basis of an elaborate scheme involving 67 elements, some musical, some graphic, I began sketching what I soon came to regard as my *Treatise* and pressed quite quickly ahead to what is now page 99. To start with my idea of what the piece was to be was so sketchy as to be completely inarticulate; later, in Buffalo in November 1966 I felt it necessary to completely re-compose the first 44 pages. In the summer of 1963 I put pages 45-51, 57-62, 75-79 into fair copy, using a much larger format than the one I finally decided on. The apparent musicality of page 99 seemed a stumbling block that impeded my way for some time to come. My next decisive action on the piece was in December 1964 when I put seven separate pages into freehand fair copy using the format that the piece now appears in. These pages were 53, 64, 74, 89, 93, 96/7 (as one page), 99. I quickly decided against freehand drawing for the finished score. In Rome in the first months of 1965 I pushed ahead to page 143, putting it into fair copy as I went along, with the exception of the 'black pages' which I did not finalise until much later (?Feb 1966). In England in the second half of 1965 I worked on redrawing in the new format the first passages I had copied out (45-51, 57-62, 75-79) as well as reworking the intervening material and drawing it in fair copy. When I came to Buffalo in October 1966 I thus had the score complete and continuous from 45-143.

By this time the fluency of my draughtsmanship had increased and my conception of the piece was expanding. I re-appraised the schematic material that I had yet to compose and made substitutions for some of the elements that had not yet come into play. For instance: I had originally planned to work with solid black ellipsoids towards the end of the piece; now I substituted either the idea of melodic presentation or the tree form that features prominently towards the end (at this point I cannot remember which of these two took the place of the ellipsoids). I had become

passages like 114-116 and 122-126, and especially from the experience of reworking 1-44. In the final 50 pages I exploited this adaptability to the full, even to the point of activating the (originally passive and merely pause-counting) numbers. These last 50 pages were written in the early months of 1967 in Buffalo.

After this exposition it hardly seems necessary to excuse the fact that many of the verbal notes written while working on the piece at different stages are likely to be mutually contradictory. If they are not it is not my fault. I have made no attempt to clean them up with a view to consistency.

One item weighs against my general reluctance in connection with this handbook, and that is the opportunity to print *Volo Solo*, which I find a useful piece, full of sweet airs, and now I come to think of it that may be the reason European publishers have so consistently sneezed at it.

The analytical article that follows *Volo Solo* was written in Rome shortly after the completion of that piece.

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Two years have elapsed since the foregoing was written. I have taken advantage of this delay in publication to include some new material, in particular the lecture on improvisation. Not that I now consider *Treatise* 'improvisatory' any more than I did while writing it. But it does seem (using hindsight) to have pointed in the direction of improvisation. A square musician (like myself) might use *Treatise* as a path to the ocean of spontaneity. Whether it will equip him for survival in that ocean is another question altogether. The lecture on improvisation represents an initial survey based on a thin veneer of experience.

6th Feb 63

A composer who hears sounds will try to find a notation for sounds. One who has ideas will find one that expresses his ideas, leaving their interpretation free, in confidence that his ideas have been accurately and consisely notated.

8th Feb 63

Notation is a way of making people move. If you lack others, like aggression or persuasion. The notation *should* do it. This is the most rewarding aspect of work on a notation. Trouble is: Just as you find your sounds are too alien, intended 'for a different culture', you make the same discovery about your beautiful notation: no-one is willing to understand it. No-one moves.

14th March 63

I do not suggest that the art of composition is really a science of measurement and precision. I do think that any work demands precision of judgment, otherwise it will blow away. It is precision that illuminates (Confucius (Pound): "The sun's lance falling on the precise spot verbally"). This clarity is joy, however much it may suit our temperaments to continue rolling in the mud.



is alright if it is exactly what you want (although how interesting is it to want exactly that? Well, that depends on how badly you want it). But it is bad if it is a confession of failure. And that's the point; where is the difference located? Certainly not in the squiggle. Hence for you, dear listener, there is no difference whatever. (Which is why I can never turn to you for advice).

63

(Written in the score) NB the sound should be a picture of the score, not vice versa.

63

Interpreter! Remember that no meaning is as yet attached to the symbols. They are however to be interpreted in the context of their role in the whole. Distinguish symbols that enclose space (circle, etc.); those that have a characteristic feature. What symbols are for sounding and what for orientation. Example: The horizontal central bar is the main and most constant orientation; what happens where it ceases (or bends)? Do you go out of tune (eg)?

15th May 63


In connection with Frege's 'Foundations of Arithmetic': "Symbols are not empty simply because not meaning anything with which we can be acquainted". This reassurance is disqualified; he means it in the sense that one cannot be acquainted with — for example — 3. Frege would never have considered finishing the sentence with a full-stop after 'anything'. If anybody *had* written it, intending a reference to some super-imagery or Jungian idea evoking a response only in the unconscious,

thought" and his confident "No-one will expect any sense to emerge from empty symbols".

May 63

The test: Devote time not to writing on in the treatise, but studying it and trying to realise what exactly is at work in it. *How* does it keep my imagination at work? *What* actually am I manipulating in the way of material? Do I assume some material that is not explicit (eg, real sounds)?

May 63

Intrapolation from the universal shapes of geometry, etc, to the idiosyncratic musical signs: a disturbing element is the signs that are not intrapolated in this way. *p f*  in particular. These pre-formed symbols have no place in (my) netz of stavelines. How to get rid of them is the problem, since they are important indices for many of the basic elements.

26th May 63

The dot-dash relationship of events and happenings. Events: something short, compact, homogeneous that we experience as complete (though we may only experience a part of it in fact) and as one thing. Happenings: something that continues, the end is not legible in the beginning. Two sets of parameters: event parameters and happening parameters.

14th June 63

Visual communications. How to develop a visual presentation through logic. How to show continuity in a diagram; in a series of stages, or by *reading* left to right, etc. In Treatise, the same problem: Which lines are happening continuously, and which are instantaneous events; where to set the borderline? This should be solved. Otherwise work lapses into constant evasions. If one interpretation proves troublesome or unsatisfactory we slip into another; but this must be watched and conscious.

June 63

The grid. Like walking in a thick fog: suddenly we find a thread across the path, catch it and follow it— isn't it already an orientation, before we discover that it leads us up/down, to warmer/colder regions, in straight line or curve? The fact that we follow it makes it an orientation? But Frege: "being thought is a completely different thing from being true" (But Burroughs: "What do you mean is it true? It's only the latest bulletin")

Perhaps finally the merit of treatise will depend on its geometrical resolution! However, it can certainly never be interesting *as geometry* (I have neither the ability nor the desire to make it so).

June 63

A concept, in Frege's sense, defines limits so that one can say with authority whether or not something falls under it. The signs of Autumn '60 should be regarded in this way. If the sign for tremolo occurs it should be possible to hear off each

musician separately and say 'tremolo' or 'not-tremolo' with confidence. Only with this sort of properly decisive interpretation of the signs, are the signs justified as the material of the piece. Otherwise the signs are merely an excuse (for self-expression and random improvisation).

Back to Treatise. In the case of Treatise a line or dot is certainly an immediate orientation as much as the thread in the fog. For immediately it stands in relation to the thick central stave-line, which would correspond in some way to the track made by the man walking. This 'subject line' is essential; any other reference, such as page size, would be totally arbitrary. Note the disconcerting effect of broken staves in 'Winter Music'.

19th July 63

Diagrammatic writing: The aim is to make it so that a sign can only follow appropriately after another sign. (This sentence expresses it badly. A sign that is inappropriate simply will not fit, physically—that is the aim.) In Treatise a sign has to be *made* appropriate to its context. Like words that exist as various parts of speech: according to its position in the grammar you have to select the appropriate form of the word.

July 63

Some principles, positive and negative, to govern interpretation. Remember that space does *not* correspond literally to time. The distance to the sun does not correspond irrevocably to x light-years or months. The time taken does not depend only on speed; it depends on the route. Perhaps when interpreting it will be possible to select some lines as 'time-lines'. Symbols or groups can then be grouped immediately and as a whole and placed in relation to some such time-line. Obviously a circle need not have the duration of its diameter. It may refer to something quite outside the flow of music or sound. It might correspond to some such mark as 'Tuba' or 'espressivo', ie, as a determinant of running action.

Bear in mind that parts of the score may be devoid of direct musical relevance. (Like the composer David Tudor mentioned whose scores were interspersed with obscene poems for the interpreter to read—to himself). Whatever is seen in this way can be understood as 'influences' on the performance.

Just as the perfect geometrical forms are subjected in the score to destruction and distortion, corresponding perfect forms can be sought in sound (octaves and simultaneous attacks are two leads that spring to mind) and these destroyed or distorted. (Eg a circle with an opening might be read as an open fifth with major and minor thirds trilling).

Thus, just as space does not correspond to time (despite the fact that the score is read from left to right, in fact here as in speech or writing) so the vertical space does not necessarily have a constant correspondence in pitch. A set of nine parallel lines at equal spacing may correspond in pitch to notes as diverse as the nine in Wolff's 'For Pianist I' or to nine instruments of which two are brass, three

are woodwind, four stringed, etc, etc.

And yet, where the score becomes fanciful or whimsical so too should the music?

The score must *govern* the music. It must have authority, and not merely be an arbitrary jumping off point for improvisation, with no internal consistency.

The numbers are included at the pauses for the reason that: any act or facet of the conception or composition of the score *may* have relevance for an interpretation. (In this sense Messiaen writes over a figure 'battements du coeur' etc, because this was *in fact* the reference, and it *might* be of some help to an interpreter). It is the *fact* that there were 34 blank spaces before the first sign put in an appearance.

28th Sept 63

In the Treatise the score seems not representational. No rules of representation. Except the central line represents perhaps the performer or a single line of thought...

Somehow all these terms seem needy and not relevant. What is the relevant way of speaking about Treatise? What are the terms? Can one really say anything explicit about it?

Perhaps I should be more grammatical about writing the score; employ vertical and horizontal connectives ... To connect what? When I am tempted to use objects it is most unsatisfactory of all.

'An articulated network' describes better what I am working on. Not a discussion of (representing) objects. Work with your hands on the material (the netting); don't try and set up grammatical rules which you will only ignore in the next page.

Concentrate on: The score must present something decisive and authoritative—almost dogmatic. Subtleties of design must be precise.

30th Sept 63

Reference. 'What is the reference of the network?' This is meaningless. Something—things—should be referable to the network.

'Make a sound; and then work on this sound with the aid of the Netz. *Let the Netz work on the sound*'. This *could* be a simple piece. But treatise is not *this* simple piece.

Oct 63

Map projection analogy. Why am I not able to see why it is stupid to make a projection of a projection? Isn't it obvious that if one projection is not suitable, you should make another one, starting from scratch? By distorting the grid-lines around Australia you can get any shape; by distorting the stavelines around a triad you can get any chord. Which is not interesting unless you have something

particular in view (?). What do I have in view?

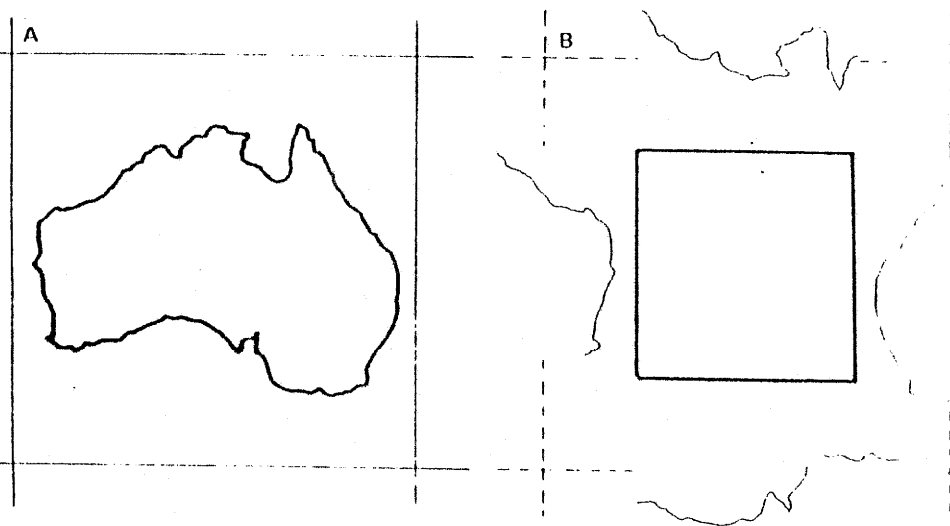
Blank—I give up ('Yes, my eyes are closed').

(What makes this live is the distortion of the 'any' chord. The way in which it has derived from the triad. 'Any chord' is nothing particular, but if it bears the marks of a distortion it has *that* character. This makes work on *Treatise* alive—the various interfering forces distorting and changing everything. The way the elements act on each other—it is like chemical processes: Acid bites, circles roll and drag, and bend the stave-lines of 'musical space'.)

However, if the grid lines are so distorted as to make Australia a perfect square, then in some way the shape of the grid-lines represents the shape of Australia—as though Australia could in some way be separated from its shape (Why should this be necessary?).

In similar fashion the dots of Cage's *Variations I* are stretched by the determination lines into sound. The lines are a manipulation of musical space. How did he do it? Musical space was his material. How? Grid-lines are not material.

Fig 1

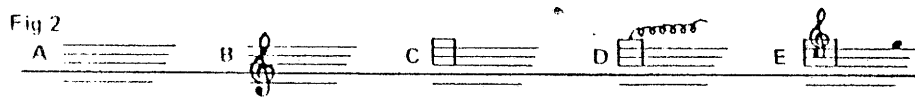


The altered grid-lines in B now present a disintegrated mirror-image of the *outline* of Australia (enclosing no space). The space is enclosed by the square that Australia has become. To attempt this on a map of the world would present serious problems. It is only possible when concentrating on a single object (event). By treating certain grid-lines as the property of that object. (Eg the line between Australia and New Guinea cannot mirror both coastlines.)

It is impossible for me to abandon this piece (Rzewski's suggestion). As simply an arrangement of the 67 elements it is purely decorative. It must represent a true statement about a way of making music. Perhaps things will be made clearer by concentrating on the references of the elements. But ...

These cannot refer until they exist in combination.

Fig 2



In Fig 2, A does not refer. Add  $\text{tr}$  (B) and it refers to a particular area of musical space. But suppose you do not add  $\text{tr}$  but a small rectangle (C). What is the reference now? My thought—and this is what I want.

But it seems to refer more to my eye and hand and pen (so what? these represent my thought). The various 'empty symbols' must be combined with *intention*, with something in view. Can I make empty symbols significant intuitively?

But fig 2C is interesting. The rectangle now marks out a limited space for the insertion of a meaning index. A configuration waiting for sense (or life). Eg either D or E ( $\text{tr}$  placed at will within the rectangle), etc. etc. Like: the *Art of Fugue* makes no less sense for the fact that it is waiting for someone to write 'string quartet' or 'organ' at the front.

The conflicts in the composition arise from the non-homogeneity of the list of elements. (From this also arise the intuitive 'content' of the piece. Every day we have to create order in a non-homogeneous host of circumstances). This gives me a certain satisfaction—that the difficulties that I experience in writing the piece are of the same kind as those I experience in the flow of eg, my emotional life.

Not quite right. I do not experience any difficulty at all in writing the piece, but in my attitude to what I have written and have still to write. As though it was a person I was living with, and was obliged to fathom to some extent for the sake of daily peace of mind, etc. No. It is not an obligation, it is my *desire* to fathom it out. "Love demands understanding".

Next point: whether or not the empty stave underneath is right. As being suggestive for beginners, it could be part of the score. But really the score itself is the empty stave on which the experienced performer should write.

Oct 63

Rzewski's first comment, that the score is ideal for measuring, is quite wrong. The score was drawn on a grid, and therefore measuring will produce uniform and boring results (it will just tell you what measurements were used in drawing the score).

(which implies that at the moment I am thinking that the interpreter should not be concerned with analysis). A measurement is made once and for all. It is stupid to repeat the process—remember playing Refrain with Karlheinz constantly re-measuring the dynamics. If the proportions were judged by eye it would be different—and interpretative measurement could then be revealing. Well, generally speaking the angles in Treatise were drawn by eye (not measured, so far), so measurers can attach themselves to these.

### Dec 63

A practical attempt. Take the enclosed spaces and divide them into the following categories: triangles, circles, circle derivatives (not very many), squares, square derivatives (horizontal and vertical rectangles), irregular enclosures. Musical categories can be matched up with these: triads, trills, irregular tremolos, periodicities, deviating periodicities, clusters that disintegrate in the direction of whatever shape is closest. Dynamics for all shapes can be determined thus: horizontal dimension gives the degree of loudness; vertical dimension gives the degree of dynamic contrast (this works well with most figures, especially circles, because the lower the dynamic the lower the contrast. Vertical rectangles will present problems, as they demand low dynamics with high degree of contrast).

(To a person who thinks the piece is a code to which the key is missing, what I am doing will look like providing a key. Actually I am simply interpreting. The piece is an abstract work of design, to which meanings have to be attached such that the design holds good).

Triangles (triads) generally occur with at least one side horizontal or vertical. If a triangle hangs from a horizontal we can call it top-orientated, if it stands on a horizontal, bottom-orientated; similarly with verticals: left-orientated or right-orientated. These orientation lines can define properties of the triads, as follows:

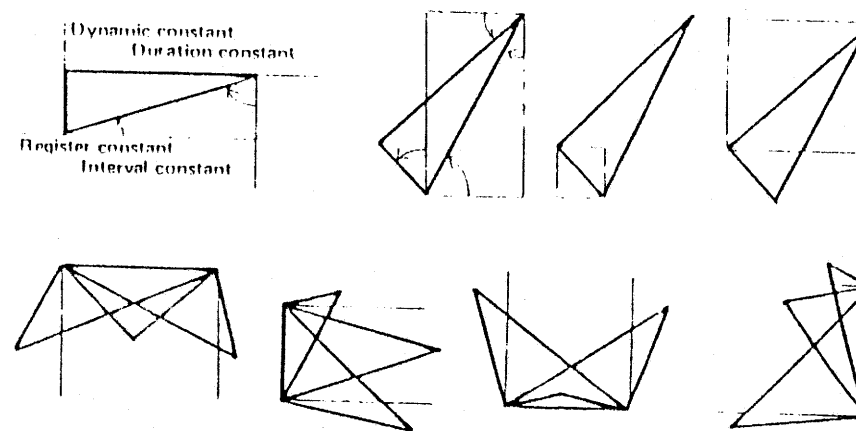
left-orientated—all three elements have equal dynamics,  
 top-orientated—all three elements have equal duration,  
 right-orientated—the three elements span two equal intervals,  
 bottom-orientated—all three elements are in the same register.

If a triangle has both a horizontal and a vertical side then the triad has two constants (two combinations of constants cannot occur: equal durations in the same register, and equal dynamics with equal intervals).

Every triangle can now be seen in relation to these orientation lines. They form a rectangle whose dimensions depend on the triangle. Triangles with two orientated sides or no orientated sides form complete rectangles; those with one orientated side form open-ended rectangles (see fig 3). The deviation of the sides of the triangle from the sides of the rectangle can then be used to determine the deviation from the constant of the various aspects of the triad. Depending on whether the angles are obtuse or acute these deviations can occur either outside or inside the rectangle. This distinction can be interpreted as indicating a deviation in the triad

either at the point of attack or after the attack. (A deviation of duration at the point of attack could mean arpeggiation; deviation of register after the attack could mean that by means of harmonics the notes of a triad resonate in different registers after the attack, to take two slightly difficult cases). In the cases of double-orientated and non-orientated triangles it will be found that one side (in the former case the non-orientated side, in the latter it can be any one of the sides) has a double reference—it indicates a deviation from two constants. In the case of a single-orientated triangle (open-ended rectangles) one aspect of the triad is undetermined (this makes it possible for the combinations to occur that were referred to as impossible above).

Fig 3



### Dec 63

Colouring Treatise. Two quite different uses of colour: to clarify and to express. Colouring Treatise, is one trying to clarify the notation, the design of the piece? Does it need clarification? What is there to explain? That such and such elements are combined in such and such ways?

Surely it is more as though one were trying to express the (subjective) effect that the design has on one. And one is trying to express this effect *back through* the design.

I should try and invent a concrete case: the design affects me in such and such a way, and I use it in such and such a way to express this affect that it has on me, etc. etc. The fact that this idea makes me feel tired is suspicious. Cannot the design simply stand on its own, and then I just choose to make music *besides*?

Because: Psychologically the existence of the piece is fully explained by the situation of a composer who is not in a position to make music. The question to be put: 'If he cannot make music (circumstances do not allow) what *can* he make?'. The answer: 'Treatise'

*What it is*, is clear: the fusion of the graphic material of two professions. The difficult question is, what is our attitude to it? What are we to *do* with it? The only way to be rid of it is to finish it.

**3rd Jan 64**

Once you have written music—not just dreamed it but actually committed it to paper—and not great music by any means, you can never be the same again, even if you never write another note. Once you know what it is like to move in that sphere, you always want to return there. The *Treatise* is almost like a document or movie of that sphere—a travelogue of the land of composition. A real piece of music of course is *not* a document from the sphere of activity in which music is written, it is 'just' a piece of music, which all lovers of music can understand. *Treatise* tells *what it is like* to manipulate sounds in composition. Sounds—ideas; reading *Treatise* is a twilight experience where the two cannot be clearly distinguished.

**26th June 64 (Florence)**

Withdrawal symptoms. The notation is more important than the sound. Not the exactitude and success with which a notation notates a sound; but the musicalness of the notation in its notating.

**28th June 64**

*Treatise*. There is a great difference between: a) doing anything you like and at the same time reading the notations, and b) reading the notations and trying to translate them into action. Of course you can let the score work on previously given material, but you must have it work *actively*.

**19th Sept 64**

Bun for Orchestra: "...for all those who give up halfway, the fainthearted, the soft, those who comfort their souls with flummery *about* the soul and who feed it—because the intellect allegedly gives it stones instead of bread—on religious, philosophic and fictitious emotions, which are like buns soaked in milk". (Musik)

This bun is a *stone* bun soaked in milk.

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Making orchestra transcription of *Treatise* (for instance) is not undertaken for the sake of public recognition, but simply surrendering to the vulgar desire to hear what I imagine. The technique of performance is losing its hold on me (I mean 'the way music is made' as a kind of philosophical enquiry). I remember with gratitude how a similar preoccupation with systems of notation relaxed its grip on me some time ago. Not that I lost interest; simply the threat of an obsession was removed.

**5th Feb 65**

*Treatise*. Watch for the laughs! (in re being with 7 Hungarians telling funny stories and finding that I knew where to laugh).

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In work such as Bussotti's a merely profane interest is aroused (purely aesthetic?) Therefore, asked what all those squiggles in *Treatise* mean, I might reasonably answer: a) that it is very complicated to explain, and explanations are of dubious value, and b) that in any case it is secret.

**21st Feb 65**

Wittgenstein: "And if e.g. you play a game you hold by its rules. And it is an interesting fact that people set up rules for pleasure, and then hold by them".

**11th March 65**

*Treatise*: What is it? Well, it's a vertebrate...

**22nd Nov 66**

Performance advice. Divide the musicians into those involved in dot events (percussionists and pianists?) and those involved in line events. Dot events to be exclusively soft.

**20th Jan 67**

Reflection before a performance. A musical score is a logical construct inserted into the mess of potential sounds that permeate this planet and its atmosphere. That puts Beethoven and the rest in perspective!

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## Treatise: Résumé of pre-publication performances.

June 64

On the terrace of the Forte Belvedere, Florence (semi open air) pp 57-60 and 75-79 were played as two separate sections lasting 1½ and 4 minutes. Performers were Frederic Rzewski (noises from piano and other sources), Mauricio Kagel (reading aloud), Italo Gomez (cello), Sylvano Bussotti (percussion) and the composer (whistles).

The concert was organized by Giuseppe Chiari and the Gruppo Settanta. Rzewski played the central line (one of the few times the centre line has been interpreted) as continuous sound. At each break in the line he would start a new sound. This served as orientation for the other players, who with the exception of Kagel were also concerned with limited aspects of the score. Kagel insisted on his 'freedom'.

May 65

Pages 89-106 were performed at Walthamstow Forest Technical College (London). Duration 30 minutes approx. Other items in the programme were LaMonte Young's Poem, Michael von Biel's World II and my own Solo with Accompaniment. Performers were John White (tuba), Roger Smalley (piano), John Tilbury (piano) David Bedford (accordion), Clem Adelman (saxophone) and the composer (guitar and conductor). On this occasion John White set the precedent for "perverse" interpretation by reading ascending lines as descending intervals. The concert was announced in the Financial Times with the following text by the composer:

EXPERIMENTAL MUSIC, by Cornelius Cardew

In Walthamstow tomorrow afternoon at 2:20 a concert of Experimental Music is to take place. It is the latest in a long straggling series of such concerts in this country. It is a sign that the seed of a new kind of musical life planted here by the American composer, John Cage, in 1956 is still growing, albeit in rather out-of-the-way places.

"Generation Music 1" was the title given by John Tilbury and me to our first concert of Experimental Music at the Conway Hall in January, 1960. Since then we have continued to propagate this music with occasional encouragement from institutions (a concert at the Mermaid Theatre in 1961, part of a concert at the American Embassy in January 1964, under the auspices of the Park Lane Group and a concert at the ICA in December, 1964). Visitors from abroad have provided additional stimulus, for instance, the German composer Michael von Biel personally financed a Wigmore Hall concert in June, 1962. \*

This amount of concert experience has brought at least one fact to our attention, namely that this music is not really "concert music" and hence not readily digestible by the Concert public. The concert at the ICA included works by seven composers all radically different from one another and each of whom provided more food for listening and thought than could easily be assimilated in a single evening. The

audience's neurotic response is thus explained: no sooner had they begun to get their teeth into one set of problems and sensations, than a completely different set would be set before them.

In many of these compositions no particular sounds are specified. And obviously where no sound is specified, any sound may occur: in other words, many of these pieces are capable of generating an unlimited amount of action within the field delimited by the composition, or along the lines laid down by the composition. This means that their best chance of creating understanding in an audience is to expand freely in an unlimited amount of time. And since different performances of the same piece can be very different in character (if different musicians are performing, for example) each piece should be performed a number of times.

The theatre situation seems the only possibility for giving an adequate representation of such pieces. For a start, a repertoire of 20 compositions could be booked for a 2 month season at a London theatre, each composition being given three performances spaced out over two months

In Walthamstow the situation is very different. The boardroom of the South West Essex Technical College and School of Art has been made available to John Tilbury, who holds a Liberal Studies lecturing post at the College, and endeavours to initiate day-release carpenter's, plumbers' and joiners' apprentices into the mysteries of Experimental Music. His job is to de-solemnise the word "music" which is heartily abhorred by the majority of his students. To this end he has invited David Bedford (melodica and other sound producing media), John White (tuba), Roger Smalley (piano), Clem Adelman (tenor sax), and myself to play a program of works by Cage, von Biel, LaMonte Young and myself.

The general thesis of this programme is that music is not the same as sounds (a deep proposition that will probably never be fully clarified), that sounds (any sounds) *become* music if they are made or used by a musician, and that sounds are a feature of musical performance, but not a feature of musical composition. For example, my own work, TREATISE is a continuous weaving and combining of a host of graphic elements (of which only a few are recognizably related to musical symbols) into a long visual composition, the meaning of which in terms of sounds is not specified in any way.

Any number of musicians using any media are free to participate in a "reading" of this score (it is written from left to right and "treats" of its graphic subject matter in exhaustive "arguments"), and each is free to interpret it in his own way. Any rigidity of interpretation is automatically thwarted by the confluence of different personalities.

I, as the composer, have no idea how the piece will sound in performance. And why should I? Our "Great Musical Heritage" is not in the immutable grooves of the thousands of gramophone records transmitting to us the great voices of the past. It

is the enrichment of something primitive that we all carry around inside us: our living response to present experience.

#### Sept 65

pp 45-64, 74, 89-127 were performed at the Theatre Royal, Stratford (London). Treatise was the only musical item on the programme, which was organized by Mark Boyle for the Institute of Contemporary Arts. Duration was 40 minutes approx. Performers: John Tilbury (piano), the composer (cello), Kurt Schwertsik (horn), John Surman (saxophone), Keith Rowe (electric guitar). Peter Greenham conducted.

This was the first performance in which the pauses (numbers) were read as repeated chords. Briefly, the system is this: at each number each performer selects a note at random and plays it as softly as possible, repeating it as often as the number indicates and holding each repetition for a number of seconds corresponding to the number of repetitions. For example: 5 equals five repetitions of the same chord each lasting 5 seconds (the repetitions are coordinated by the conductor). The number 1 is regarded simply as a silence.

Three rehearsals preceded this performance, and Schwertsik made the ominous remark 'The more you say about it the more sense it makes'. Page 74 was coordinated in detail as a piece on its own, each of the five players associating himself with one of the lines of the five-line system the page is based on. Thus the short line at the beginning rises from position 3 to position 2, and in the interpretation a phrase begun by musician 3 is completed by musician 2. Etc. Also in this performance the general principle was initiated of regarding distance away from the centre line as being indicative of loudness (the centre line representing silence).

#### Oct 65

A solo reading of pp 107-126 at Watford Institute of Technology (London). In the first half of the programme I played a solo version of Stockhausen's Plus-Minus, and I used the same instrumentarium for Treatise: piano, gong, three transistor radios. Duration approx 20 minutes.

Here for the first time I regarded the five-line system as a chord which progresses according to certain rules linked with angles made by the lines (see note for 4 trombones below). Small enclosed spaces connected with the five lines I interpreted as preparations inserted in the relevant strings of the piano. The gong was associated with squares in the score, and the radios with circles.

#### 15th Jan 66

BBC recording of pp 107-126 for the series 'Composer's Portrait'. Duration 20 minutes approx. This performance was largely based on the performance of October 65. Musicians taking part were John White (trombone), John Tilbury (piano), David Bedford (accordian), Keith Rowe (electric guitar), Peter Greenham (Hammond organ) and the composer (piano, gong and radios). The broadcast was preceded by

the following text:

A composer's portrait is his Music. So I decided that this programme should consist mainly of music. Quite to what extent this music is *mine* is a point I will come back to in a minute. First I would like to say something about the piece itself, whose name is Treatise — T-R-E-A-T-I-S-E.

The idea of writing Treatise came to me at a time when I was working as a graphic designer in a publisher's office. While there I came to be occupied more and more with designing diagrams and charts and in the course of this work I became aware of the potential eloquence of simple black lines in a diagram. Thin, thick, curving, broken, and then the varying tones of grey made up of equally spaced parallel lines, and then the type—numbers, words, short sentences like ornate, literary, art-nouveauish visual interlopers in the purely graphic context of the diagram. Recently, working on the performance we are going to do now, it has struck me that the use of a wireless set as a musical instrument is analogous to the appearance of type on a diagram. It is a pre-processed, fully-fashioned element in amongst a whole lot of raw material.

Actually the score of Treatise does not contain any type. It is a score consisting entirely of lines and shapes—it contains no sounds, no directions to putative performers. It is still incomplete—about 80 pages exist, of which we will be playing a batch of 19. When it is finished it will be about 200 pages long—200 pages of lines and shapes clustered around a strong, almost continuous central line, which can be imagined as the life-line of the reader, his centre, around which all manner of activity takes place. Some of the graphic material is actually musical in origin—for instance, the five-line musical staff is constantly in evidence in all shapes and sizes—but it is always ambiguous. Nevertheless, it is my contention that an instrumentalist who reads through 200 pages of such material will inevitably find himself forming musical associations, and these will form the basis of his interpretation.

Such associations belong of course to the musician who has them, and that is why I hesitated at the beginning to talk of the sounding music as *my* music. What I hope is that in playing this piece each musician will give of his *own* music—he will give it as his response to *my* music, which is the score itself.

*This performance was re-broadcast on 8th Feb 1970, preceded by the following text:*

I now regard Treatise as a transition between my early preoccupation with problems of music notation and my present concerns—improvisation and a musical life. It was a strenuous transition; I worked on the piece for five years, not knowing where it would lead, and came out of it more lost than when I went in, and desperately scanning the horizon for the next mountain range.

However I would have been a great deal looser if it hadn't been for the performance of January 1966, the tape of which you will hear in a minute. This was one of the first occasions on which I worked with Keith Rowe, who bore more or less the

same relation to the electric guitar as David Tudor did to the piano (I put that in the past tense because by no stretch of the imagination could you now call them guitarist or pianist respectively).

Keith Rowe, together with Lou Gare, Eddie Prevost and Laurence Sheaff had at that time already begun their AMM weekly improvisation meetings, which I joined shortly after this. Joining AMM was the turning point, both in the composition of *Treatise* and in everything I have thought about music up to now. Before that, *Treatise* had been an elaborate attempt at graphic notation of music; after that time it became simply graphic music (which I can only define as a graphic score that produces in the reader, without any sound, something analogous to the experience of music), a network of nameless lines and spaces pursuing their own geometry untethered to themes and modulations, 12-note series and their transformations, the rules or laws of musical composition and all the other figments of the musicological imagination.

Up to the time of this performance, improvisation had always terrified me; I thought it must be something like composing, but accelerated a million times, a feat of which I knew I was incapable. With the AMM improvisers I discovered that anyone can play, me too, provided, as a Chinese musician of the 16th century put it, "the thoughts are serious, the mind peaceful and the will resolute", and what comes out in such play is vital and direct, rather than a translation or interpretation of intellect, attitude, notation, inspiration or what have you.

Well, scrutinise any point closely enough and you are liable to see it as a turning point, in relation to which everything else is either before or after,—and this tells us something about the activity of scrutinising, but very little about music. Which is my devious way of saying that what you are going to hear is music, not a turning point, and the players of the music are John White, David Bedford, John Tilbury, Keith Rowe, Peter Greenham and myself. We played a section of about 20 pages occurring somewhere towards the middle of the 193-page score. These 20 pages were at that time the most recent instalment; the rest of the score was still to be written.

#### 19th February 66\*

At the American Artists' Centre in Paris we performed pages 89-142 taking 40 minutes approx. Performers were John Tilbury, David Bedford and the composer. This was the first reading to include the 'black pages' (black areas were regarded as melody) and the first public performance that 'went astray' (disconcertingly Tilbury was two pages behind most of the time). *Treatise* was preceded by *Volo Solo* on piano and prepared piano and followed by a simultaneous performance of works by George Brecht, LaMonte Young and Michael von Biel.

#### ? February 66

Leeds, England. A reading by circa 15 art students plus Robin Page and the composer of pages 89-129. A coloured and enlarged score was used (painted by the students during the preceding days) and the (student) conductor moved a

baton continuously along it to keep everyone together. Duration 30 minutes approx. Also on the programme were compositions by Cage, George Brecht and LaMonte Young.

The following note was written in May 66 to support my application to the Arts Council of Great Britain for a grant to forward me towards the completion of the piece:

*Treatise* is a graphic score, composed without reference to any system of rules governing the interpretation. It was begun in 1963 and is still incomplete; the hundred pages that are ready at present represent slightly over half the whole piece. The length of the score is the justification for the absence of an interpretative system; the graphic material is treated of in such an exhaustive manner that an interpretation (musical or otherwise) is able to emerge quasi-unconsciously in the mind of the reader in the course of reading the score. Any number of musicians with any instruments can take part. Each musician plays from the score, reading it in terms of his individual instrument and inclination. A number of general decisions may be made in advance to hold the performance together, but an improvisatory character is essential to the piece. An appreciation or understanding of the piece in performance should grow in much the same way as the musicians' interpretation. Orientation is slow, in proportion to the length of the piece, but it is spontaneous, since no specific orientation is prescribed.

#### 18th Sept 66

Warsaw Autumn Festival late night concert. We read pages 45-88 and took approximately one hour over it. Performers were John Tilbury and Zygmunt Krauze (pianos), David Bedford (accordion) and the composer (cello/conductor). All instruments except accordion were amplified.

Originally a trombone quartet from Sweden were to have taken part in this performance, and with this in mind I wrote the following provisional instruction sheet for them:

All play together wherever the 5-line musical staff appears (agree as to what constitutes an appearance). Each trombonist should appropriate one of the five lines as his particular domain (ideally there should be five trombones, or a way may be found whereby each of the four will interpret one of the four spaces between the lines). In the example below the top line is read by 1st trombone, 2nd line by 2nd trombone, 4th line by 3rd trombone and bottom line by 4th trombone. Each trombonist selects a particular note for the first occurrence of the staff. This note may be articulated in any way, not necessarily as a single held duration corresponding to the length of the line. Intervallic progression from the original note can be derived as shown in Fig 4: A means perfect or augmented fourth up; B means minor or major third up; C means minor or major second up; D means perfect or augmented fourth down; E means minor or major third down; F means minor or major second down.