

KARLHEINZ STOCKHAUSEN

No. 12 KONTAKTE für elektronische Klänge, Klavier und Schlagzeug

Aufführungspartitur



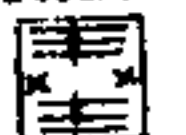

Otto Tomek gewidmet

Die Komposition KONTAKTE (1959/1960) existiert in 2 Fassungen:

Kontakte  
elektronische Musik

I Kontakte  
für elektronische Klänge, Klavier und Schlagzeug

Für die erste Fassung realisierte der Komponist ein 4-Spur-Tonband elektronischer Musik sowie stereophone und monophone Kopien dieses 4-Spur-Tonbandes im Studio für elektronische Musik des Westdeutschen Rundfunks Köln. Diese rein elektronische Fassung ist für Rundfunk- und Schallplattenwiedergaben bestimmt. Die Herstellung des 4-Spur-Tonbandes ist in einer Realisationspartitur beschrieben (UE 13678 LW).

Für die zweite Fassung wurde zum 4-Spur-Tonband eine Aufführungspartitur für zwei Instrumentalisten (Schlagzeuger, Pianist) komponiert. Diese Fassung ist bestimmt für Aufführungen in Sälen mit Instrumentalspiel und gleichzeitiger Wiedergabe des 4-Spur-Tonbandes über 4 Lautsprechergruppen (links, vorne, rechts, hinten) oder des 2-Spur-Bandes (äußerste linke und rechte Seite des Podiums  oder, bei diagonaler Sitzordnung, in zwei gegenüberliegenden Saalecken  oder, bei geteilter Sitzordnung, an den gegenüberliegenden Wänden in der Saalmitte , immer hinter oder neben den Instrumentalisten; bei der zuletzt genannten Anordnung empfiehlt es sich, jeden Kanal noch durch zusätzliche Lautsprechergruppen, die leiser eingestellt sind, zu unterstützen ). Die Lautstärkeregelung der Tonbandwiedergabe (Anpassung an den jeweiligen Raum, Balance von Instrumenten und Lautsprechern) soll von der Saalmitte mithilfe eines 4-kanaligen oder 2-kanaligen Regelpultes erfolgen (möglichst mit Flachbahnreglern).

Als Verstärkerleistung für Lautsprecherwiedergaben haben sich folgende Werte aus der Praxis ergeben: bei 4-Spur-Wiedergabe rechnet man pro Sitzplatz 1 Watt und verteilt die Wattzahl auf vier gleiche Leistungsverstärker. Für einen Saal mit 800 Sitzplätzen benötigt man also vier 200 Watt Verstärker. Bei 2-Spur-Wiedergabe rechnet man pro Sitzplatz 1/2 Watt und verteilt die Wattzahl auf zwei gleiche Leistungsverstärker. Für 800 Sitzplätze benötigt man dann zwei 200 Watt Verstärker.

Es ergibt sich bei dieser Berechnung, daß die Verstärker im Mittelbereich ausgesteuert und nur bei einigen Akzenten in ihrem extremen Wirkungsbereich ausgenutzt werden.

Es empfiehlt sich (besonders bei halligen Räumen), möglichst gerichtete Lautsprecher und bei 4-Spur-Wiedergabe in großen Sälen für jede Gruppe mehrere mit Abstand gehängte Lautsprecher zu verwenden. Die Lautsprecher sollten oberhalb der Kopfhöhe gehängt werden, und die Sitzplätze sollten erst in genügendem Abstand beginnen. Für 4-Spur-Wiedergabe ist ein quadratischer oder runder Saal unerlässlich.

Die Aufführungspartitur dient den Instrumentalisten zur Synchronisation ihres Spiels mit der Tonbandwiedergabe. Auf der oberen, von zwei stärkeren Linien eingefasste Fläche jeder Seite ist eine schematische Darstellung des elektronischen Teils gezeichnet. Die Zahlen über der oberen Linie geben die im Maßstab dargestellte Zeit in Minuten, Sekunden und Zehntelsekunden an. Sekundenzahlen zwischen den Linien oder unter der zweiten Linie sind Dauern von Abschnitten. Kleine Zahlen ohne " sind cm für Tonbandlängen (38,1 cm/s). Einklammernde Zahlen bezeichnen Dezibel; sie gelten immer als Minuswerte. 0 dB entspricht Vollaussteuerung (laut), ∞ entspricht unhörbar leise. Zahlen mit + sind dB-Werte über 0 dB hinaus (für Akzente bis +6 dB). Römische Zahlen geben Lautsprecher an: I links, II vorne, III rechts, IV hinten; I/III Klänge kommen aus Lautsprechern links und rechts,  $\frac{I}{III}$  eine Klangschicht kommt von links, die andere von rechts. "Alternierend": Klänge wechseln zwischen den angegebenen Lautsprechern kontinuierlich hin und her. "Rotation": Klänge rotieren rechts oder links herum mit angegebener Geschwindigkeit (oft ist dazu noch Fixiertes in einem oder in zwei Lautsprechern). "Flutklang": Klänge kommen aus einem Lautsprecher und mit kurzer Zeitverzögerung aus einem zweiten (zum Beispiel II-IV), was den Eindruck durch den Raum flutenden Klanges erweckt. "Schleifen": rotierende Bewegung in Schleifenform, zum Beispiel I-III-IV-II etc., oder umgekehrt. Unterhalb dieser schematischen Darstellung ist notiert, was der Schlagzeuger zu spielen hat. Das untere System gilt dem Pianisten, der Klavier und einige Schlaginstrumente spielt.

KARLHEINZ STOCKHAUSEN

No. 12 KONTAKTE for electronic sounds, piano and percussion

Performance score

Dedicated to Otto Tomek

The composition KONTAKTE (1959/1960) exists in two versions:

- I Kontakte  
electronic music
- II Kontakte  
for electronic sounds, piano and percussion

For the first version the composer realised a 4-track tape of electronic music and also made stereo and mono copies of this 4-track tape in the studio for electronic music of the West German Radio in Cologne. This purely electronic version is intended for broadcasting and reproduction on gramophone records. The production of the 4-track tape is described in a Realisation Score (UE 13678 LW).

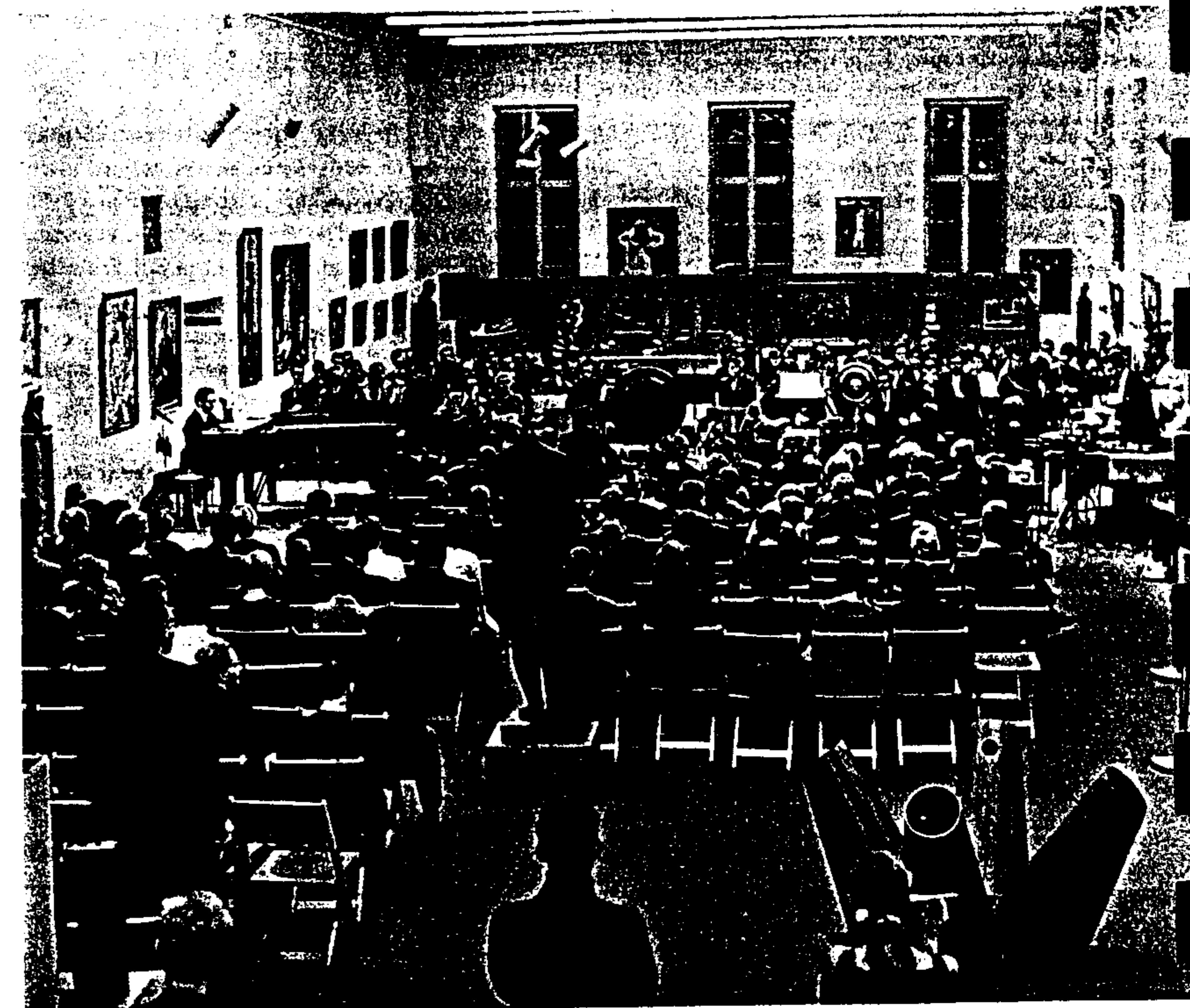
For the second version a Performance Score for two instrumentalists (percussionist, pianist) was composed to go with the 4-track tape. This version is intended for performances in halls that offer the possibility of instrumental performance and, simultaneously, playback of the 4-track tape over 4 groups of loudspeakers (at left, front, right and behind); or alternatively playback of the 2-track tape (at the extreme left and right end of the stage , or, if the seating is arranged diagonally, in two diagonally opposite corners of the hall , or, if the seating is arranged in two halves, on the facing walls half-way down the length of the hall ). Whatever the arrangement, the loudspeakers should be behind or beside the instrumentalists. In the case of the latter of these possible arrangements it is recommended that each channel should be supported by additional groups of loudspeakers, tuned softer than the main ones ). The regulation of the loudness of the tape playback (adjustment according to the size of the hall, balance between instruments and loudspeakers) should be carried out from a 4-channel or 2-channel control panel in the centre of the hall. Flat, straight-line potentiometers are recommended rather than the knob-turning variety. The following degrees of amplification for the loudspeakers have been found suitable in practice: for a 4-track playback one reckons 1 Watt per seat, and the number arrived at is divided equally among four amplifiers. For example: for a hall with 800 seats, four 200 Watt amplifiers are needed. For a 2-track playback one reckons 1/2 Watt per seat, and divides the number arrived at between two equal amplifiers. Therefore 800 seats require two 200 Watt amplifiers. From this calculation it follows that the amplifiers are generally used in their medium range: their extreme effective range is used only for a few accents. Directional loudspeakers are recommended (particularly for reverberant halls), and in case of a 4-track playback it is suggested that several loudspeakers hung at intervals should be used for each group. The loudspeakers should be suspended somewhat above head-height, and the seating should only start after a sufficient interval of empty space. A square or round hall is essential for performance with 4-track playback. The Performance Score is used by the instrumentalists for the synchronisation of their music with the tape playback. The electronic part is drawn schematically in the top portion of each page, in the area enclosed by two bold lines. The numbers above the top line indicate the time (drawn to scale) in minutes, seconds and tenths of seconds. Timings in seconds written between the lines or below the second line represent the durations of particular sections. The small numbers without the two strokes (") refer to lengths of tape in centimetres (38.1 cms per sec. = 15 inches per sec.). Numbers in brackets are decibels; they are always minus quantities. 0 dB corresponds to full volume (loud), ∞ represents soft to the point of inaudibility. Numbers preceded by a + sign are decibel values that exceed the full volume (values up to +6 dB are used for accents). Roman numerals indicate the loudspeakers: I is at the left, II in front, III at the right, IV behind; I/III means that sounds are coming from the loudspeakers on the left and right,  $\frac{I}{III}$  means that one layer of sound is coming from the left, the other from the right. "Alternierend" means that the sounds alternate continuously between the indicated loudspeakers. "Rotation": sounds rotate to the right or left with the indicated speed (in addition often there is a fixed sound in one or two loudspeakers). "Flutklang" (flood-sound): sounds come from one loudspeaker, and then immediately from another (eg II-IV), which gives the impression of the sound flooding through the hall. "Schleifen" (loop): rotating movement in the form of a loop, eg I-III-IV-II etc., or vice versa. Below this schematic drawing of the electronic part is notated what the percussionist has to play. The bottom system is for the pianist, who plays piano and some percussion instruments.

à Otto Tomek

La composition KONTAKTE (1959/1960) existe en deux versions:

- I Kontakte  
musique électronique
- II Kontakte  
pour sons électroniques, piano et percussion

Pour la première version, le compositeur a réalisé (au studio de musique électronique de la Westdeutscher Rundfunk à Cologne) une bande enregistrée à 4 pistes de musique électronique, ainsi qu'une copie stéréophonique et une copie monaurale de cette bande originale. Cette version purement électronique est destinée aux reproductions radiophoniques et sur disques. La confection de la bande enregistrée à 4 pistes est décrite dans une partition électronique (UE 13678 LW). Pour la deuxième version, une partition instrumentale pour deux instrumentistes (battereur et pianiste) a été spécialement composée en sus de la bande enregistrée à 4 pistes. Cette version est destinée à des exécutions en salle comportant le jeu instrumental et la reproduction simultanée de la bande enregistrée à 4 pistes par 4 groupes de haut-parleurs (gauche, devant, droite, derrière) ou de la bande enregistrée à 2 pistes (extrême gauche et extrême droite de l'estrade  ou, pour une disposition des sièges en diagonale, dans deux coins vis-à-vis  ou, pour une disposition des sièges divisée, au milieu de deux murs vis-à-vis , toujours derrière ou à côté des instrumentistes; pour la dernière disposition mentionnée, il est recommandé de renforcer chaque canal par des groupes de haut-parleurs supplémentaires réglés moins fort ). Le réglage de l'intensité de reproduction de la bande enregistrée (adaptation aux particularités du local, balance des instruments et des haut-parleurs) doit s'effectuer du milieu de la salle à l'aide d'un pupitre de commande à 4 ou à 2 canaux, selon les cas (de préférence, potentiomètres à curseur). Quant à la capacité des amplificateurs utilisés pour la reproduction de la partie enregistrée, l'expérience pratique a permis de fixer les valeurs suivantes: pour des exécutions à 4 canaux, compter 1 Watt par siège, et distribuer le total des Watts sur quatre amplis de puissance égale. Pour une salle de 800 places, on utilisera donc quatre amplis de 200 Watts. Pour des exécutions à 2 canaux, compter 1/2 Watt par siège et distribuer le total des Watts sur deux amplis de puissance égale. Pour 800 places, on utilisera deux amplis de 200 Watts. Il résulte de cette estimation que les amplis sont employés surtout dans leur zone de travail moyen, et que seuls quelques accents utilisent leur zone extrême. Il est recommandé d'utiliser des haut-parleurs aussi directionnels que possible (surtout dans des salles à forte réverbération), et pour les exécutions à 4 canaux en grandes salles, d'employer pour chaque groupe plusieurs haut-parleurs suspendus à distance l'un de l'autre. Les haut-parleurs devraient être suspendus au-dessus de la hauteur des têtes, et les sièges ne devraient commencer qu'à une certaine distance. Pour les exécutions à 4 canaux, une salle ronde ou carrée est indispensable. La partition instrumentale sert aux instrumentistes et leur permet de synchroniser leur jeu avec la reproduction de la bande magnétique. Dans la partie supérieure de chaque page, délimitée par deux traits plus gras, une représentation schématique de la partie électronique a été dessinée. Les chiffres au dessus du trait supérieur indiquent les minutes, secondes et dixièmes de secondes correspondant à la représentation proportionnelle du temps. Les petits chiffres sans " indiquent en cm des portions de bande magnétique (38,1 cm/sec.). Les chiffres entre parenthèses indiquent des décibels: ce sont toujours des valeurs négatives. 0 dB correspond à une sortie maximum (fort), ∞ correspond à inaudible. Les chiffres pourvus d'un + représentent des valeurs de décibels au-dessus du maximum de puissance (pour des accents jusqu'à +6 dB). Les chiffres romains indiquent les haut-parleurs: I à gauche, II devant, III à droite, IV derrière; I/III les sons viennent des haut-parleurs de gauche et de droite;  $\frac{I}{III}$  une couche sonore vient de gauche, l'autre de droite. "Alternierend": sons alternant continuellement entre les haut-parleurs indiqués. "Rotation": sons tournant vers la droite ou vers la gauche à une vitesse indiquée (souvent simultanément à des sons fixes dans un ou deux haut-parleurs). "Flutklang": sons venant de deux haut-parleurs différents avec un léger retard entre les deux (par exemple II-IV), ce qui donne l'impression d'un flux sonore traversant l'espace. "Schleifen": mouvement rotatif en forme de boucle, par exemple I-III-II-IV etc., ou inversement. En-dessous de cette représentation schématique est noté ce que doit jouer le battereur. Le système inférieur est réservé au pianiste, qui joue le piano et quelques instruments de batterie.

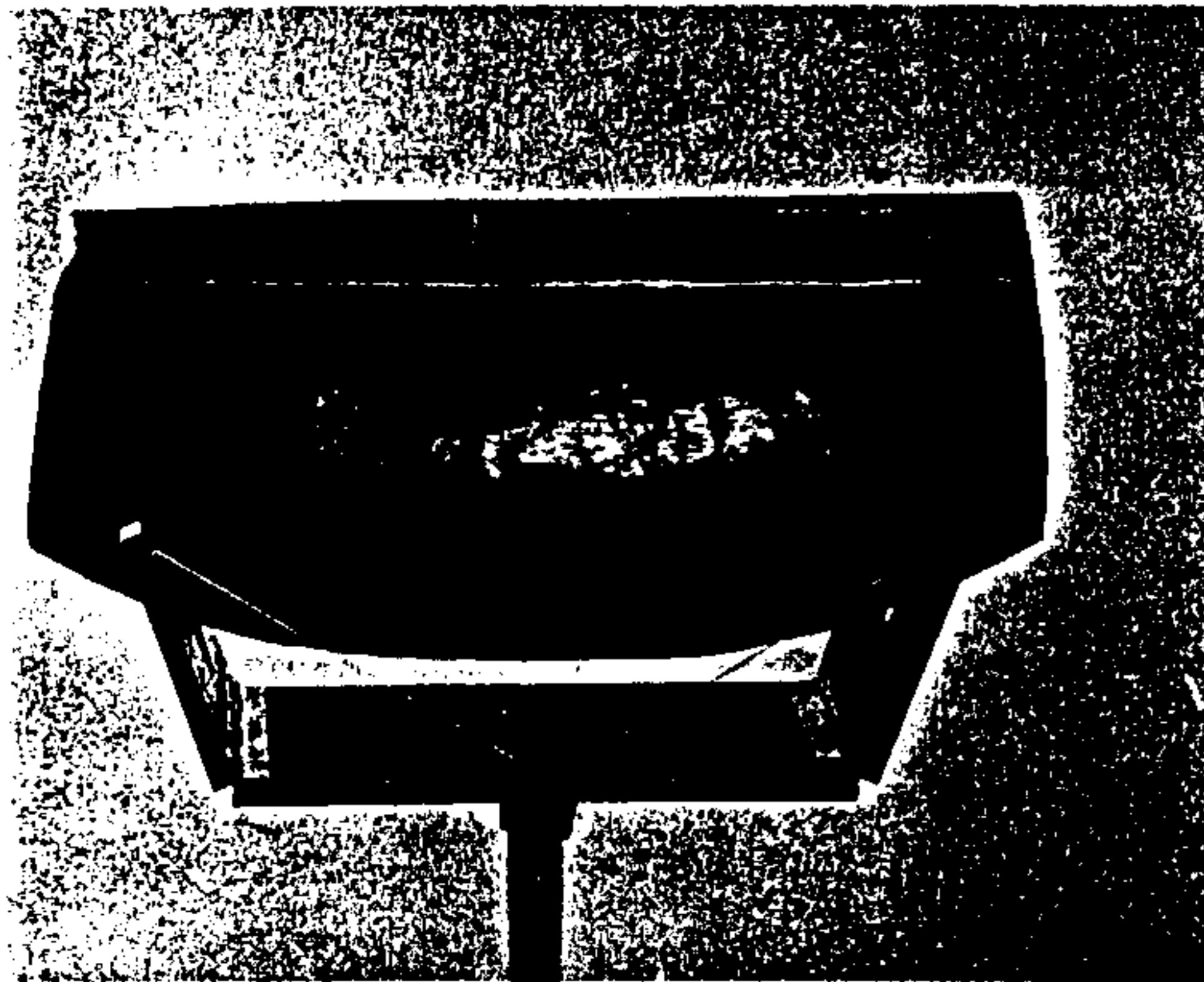




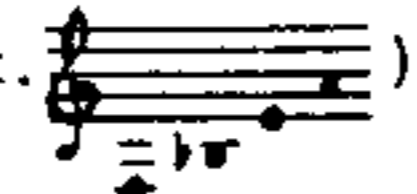
Aufführung der KONTAKTE im Museum für moderne Kunst in Stockholm am 21. November 1960 mit David Tudor (links) und Christoph Caskel (rechts).

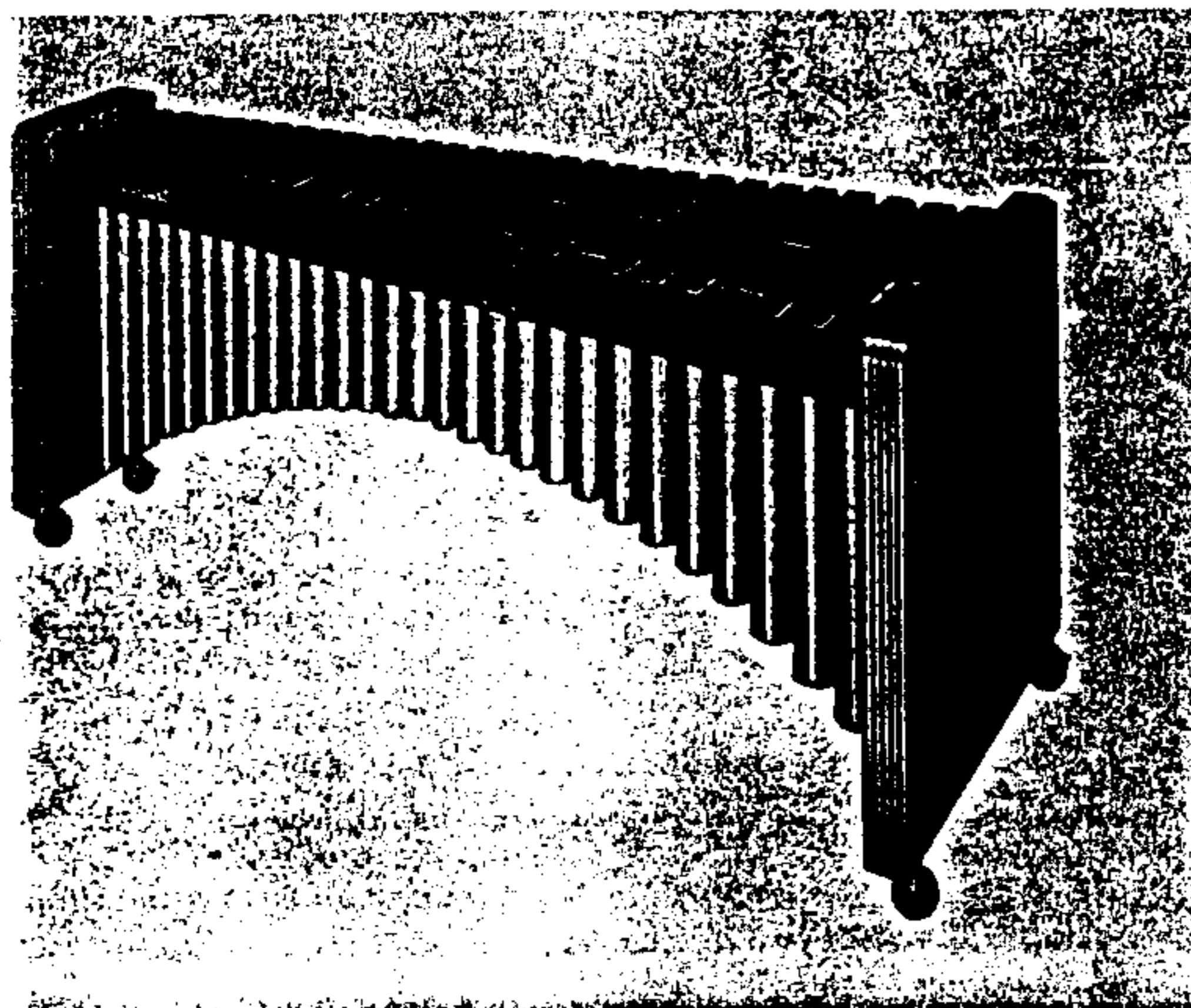
Performance of KONTAKTE in the Museum for Modern Art in Stockholm on November 21st 1960 with David Tudor (left) and Christoph Caskel (right).




Exécution des KONTAKTE au Musée d'Art moderne à Stockholm, le 21 Novembre 1960, par David Tudor (à gauche) et Christoph Caskel (à droite).

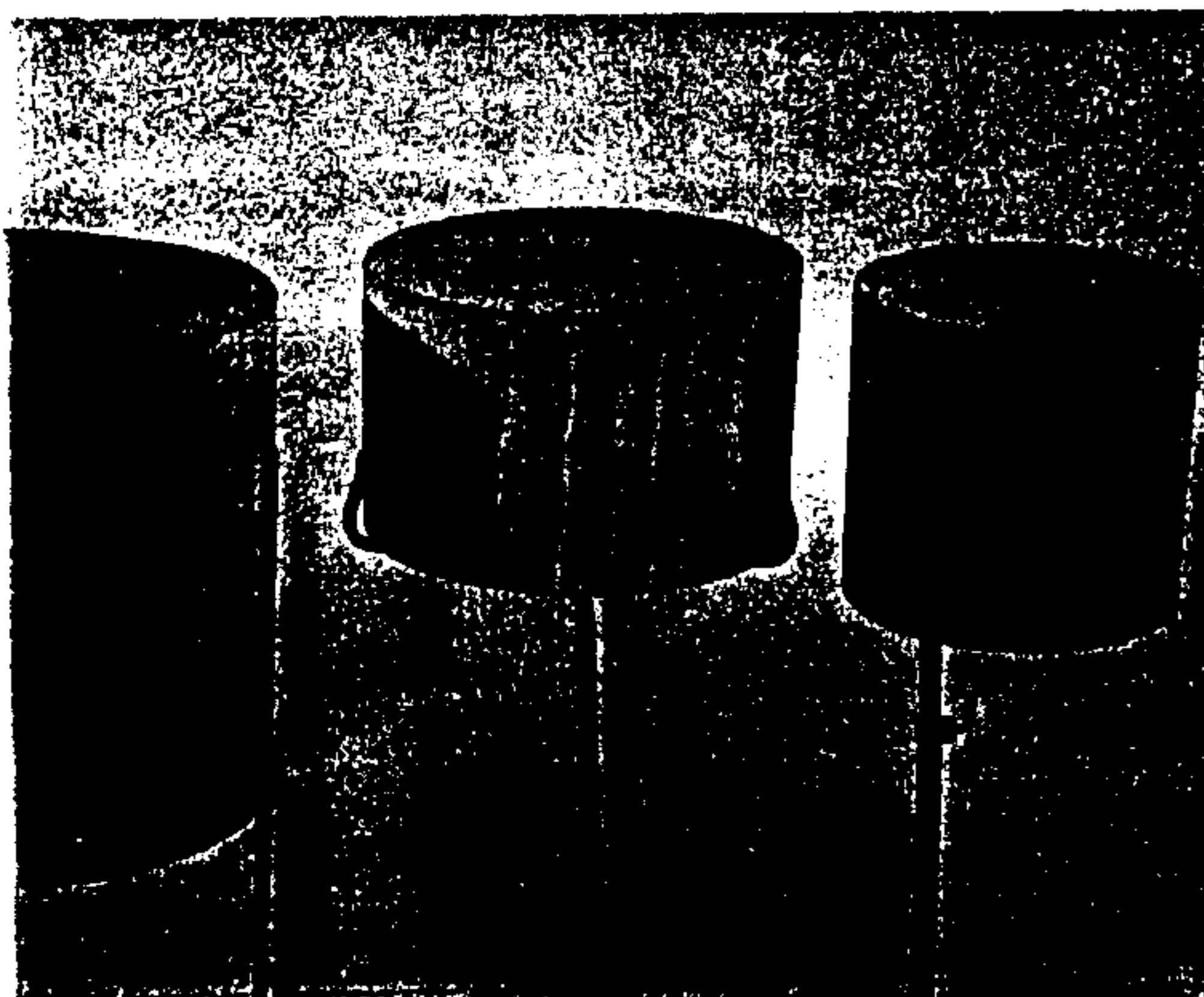
STRUMENTE des Schlagzeugers (möglichst weit rechts, vom Publikum aus gesehen):  
 INSTRUMENTS used by the percussionist (situated as far to the right as possible, as seen from the audience):  
 INSTRUMENTS du batteur (la plus possible à droite du public):



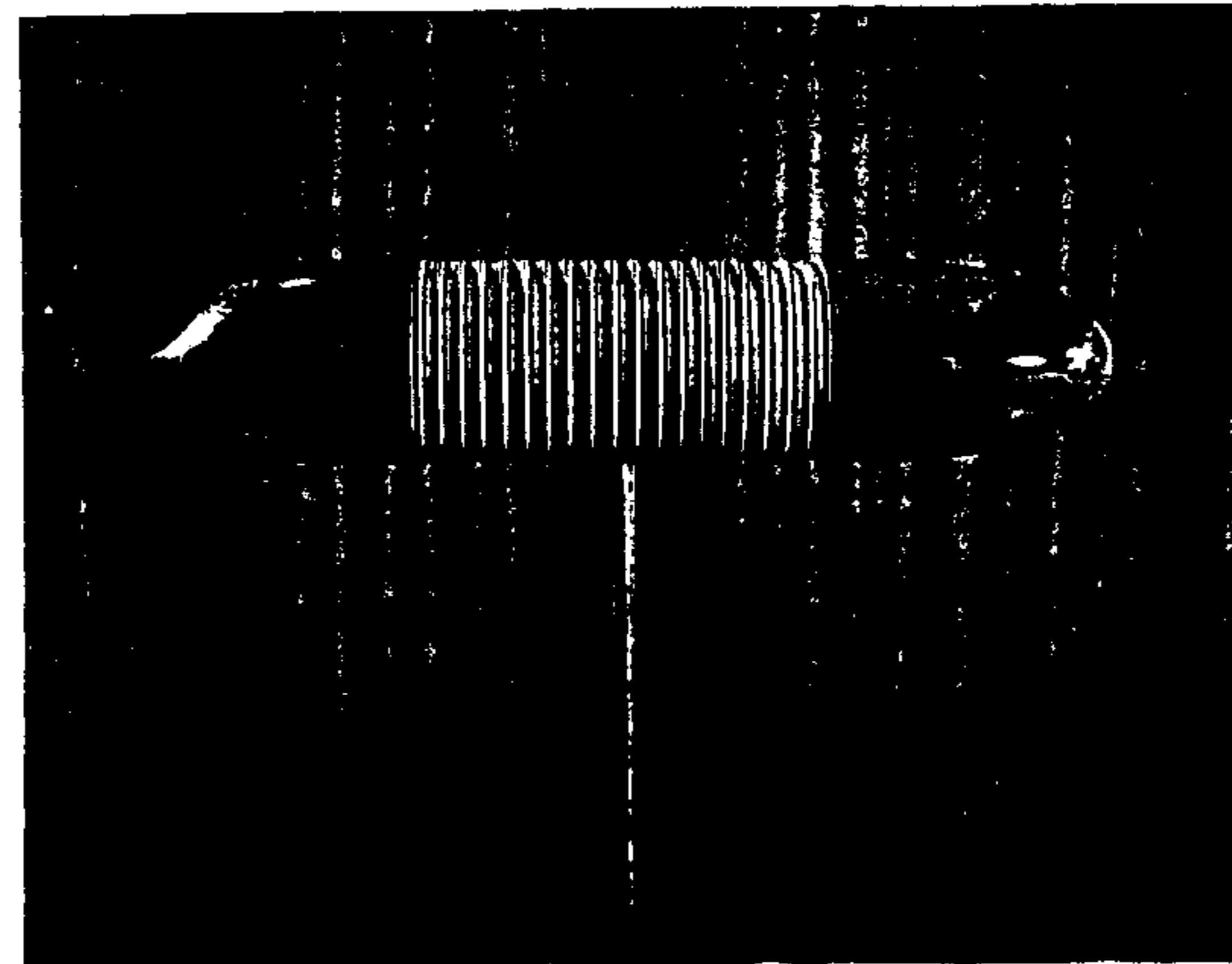
1. 2 afrikanische Schlitztrommeln (je 2 Tonhöhen, wie im ZYKLUS, z. B. )
1. 2 african wood drums (each one has two pitches, as in ZYKLUS eg. )
1. 2 tambours fendus africains (wood-drums) (chacun deux hauteurs, comme dans le ZYKLUS, p. ex. )



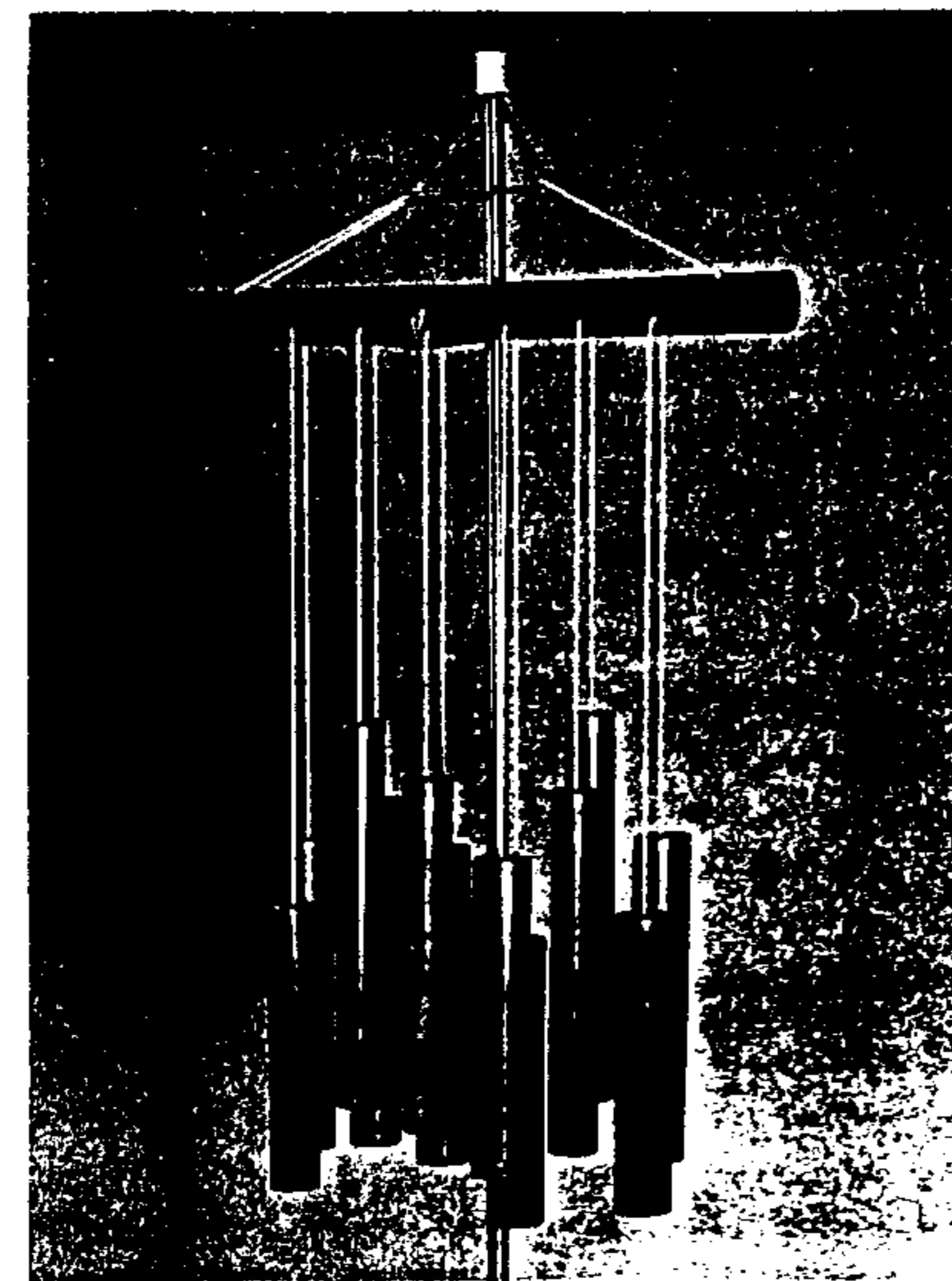
2. Marimbaphon:  klingend
2. marimbaphone, sounding: 
2. marimba: 



3. 3 Tomtoms mit aufgeleimter Sperrholzplatte anstelle des Schlagfelles. Kein Resonanzfell: Kessel unten offen. Durchmesser ca 45 cm, 35 cm, 25 cm.
3. 3 tomtoms with plywood glued on in place of the membrane. Remove resonating membrane: the drums should be open at the bottom. Circa 45 cms, 35 cms, 25 cms in diameter.
3. 3 tomtoms avec une feuille de contreplaqué collée à la place de la peau frappée. Pas de peau de résonance, la caisse reste ouverte vers le bas. Diamètre circa 45, 35, 25 cm.

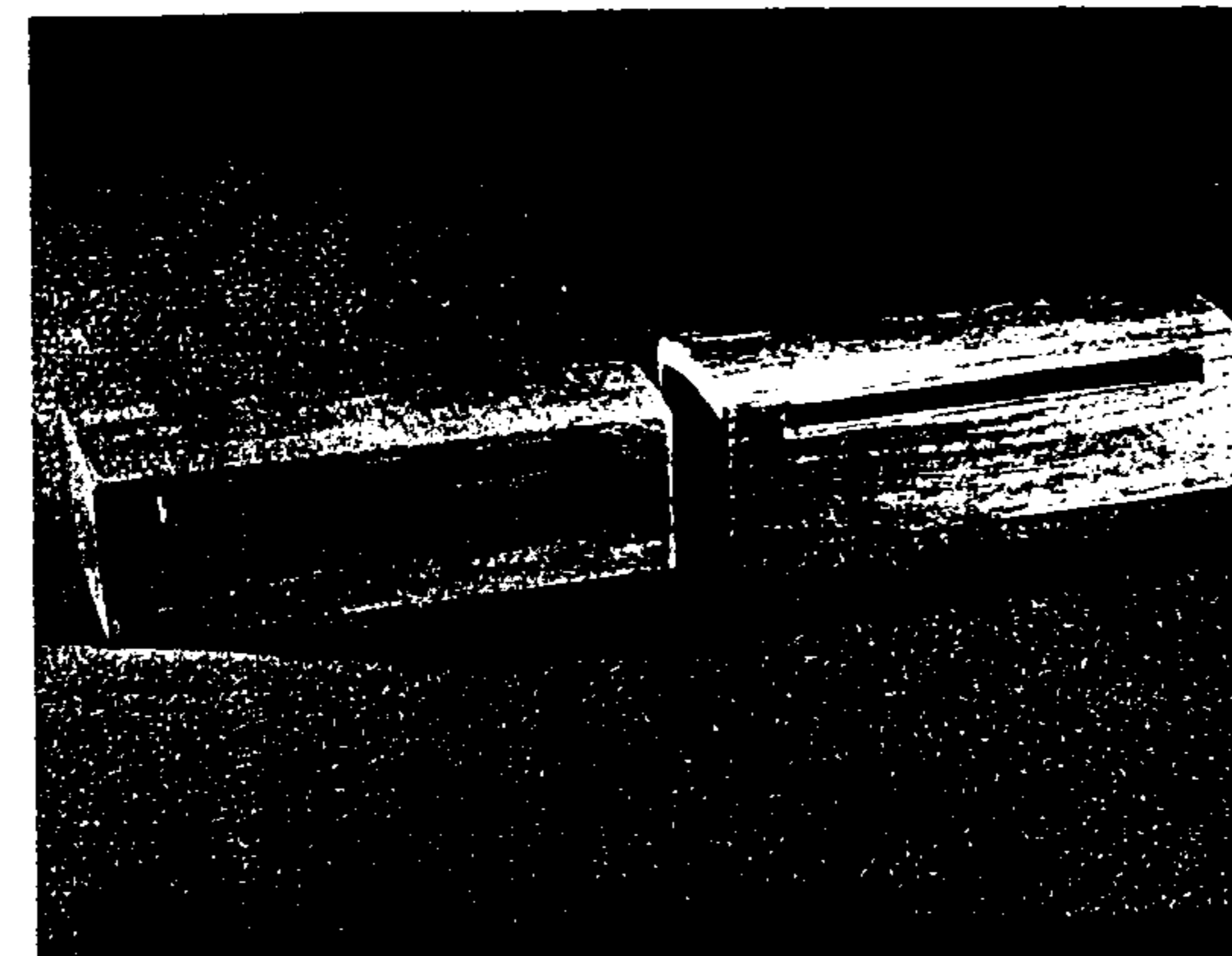


4. 1 Guero auf Ständer befestigt.
4. 1 guero fixed to a stand.
4. 1 guero fixé à un pied.



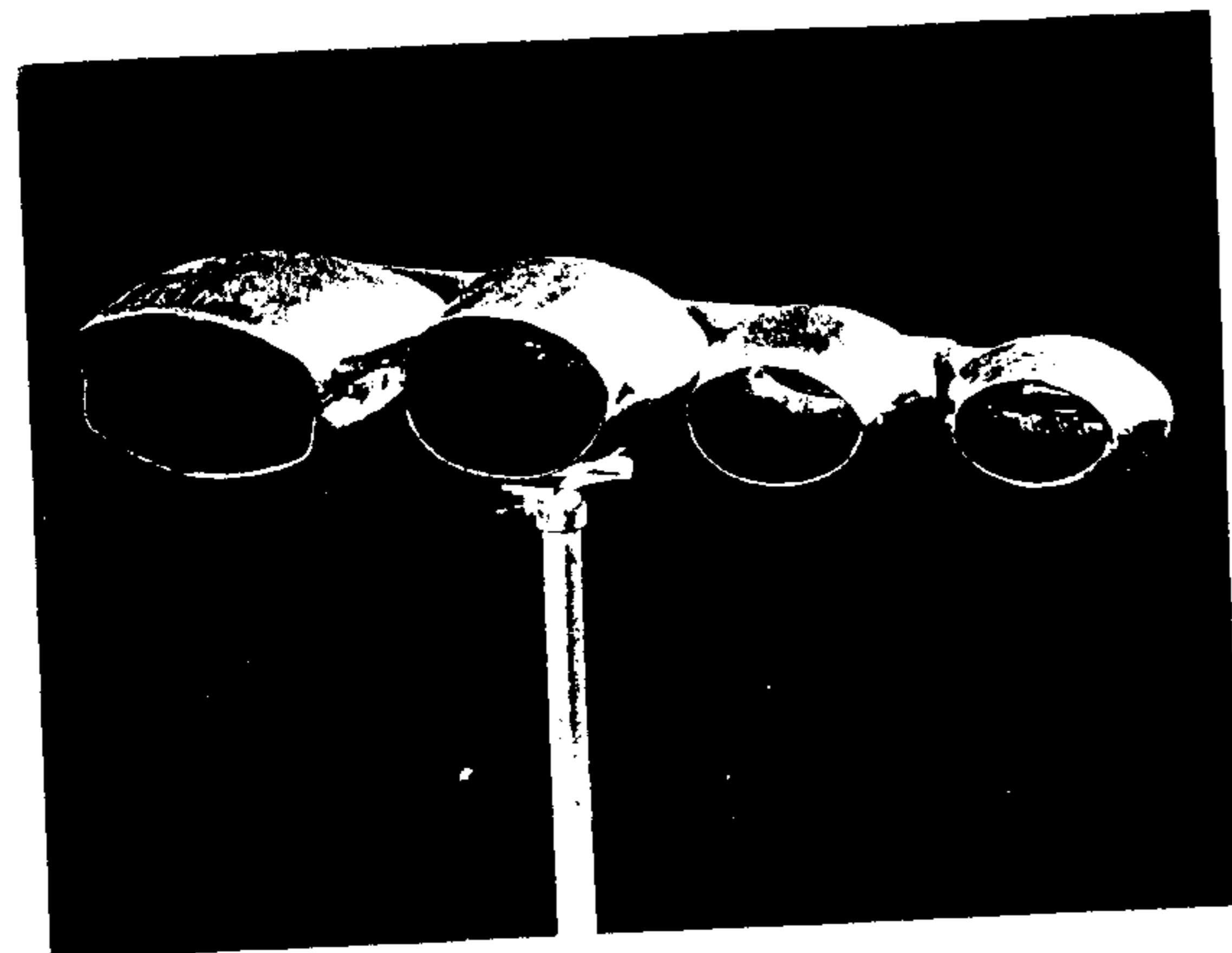
*bamboos*


5. 1 Pendelrassel aus 12 vertikal hängenden Bambus-Claves. Durchmesser ca 25 cm, Länge ca 18 cm.
5. 1 hanging rattle consisting of 12 vertically suspended bamboo claves about 18 cms long and 25 cms in diameter.
5. 1 carillon (wood-chimes) formé de 12 claves de bambou suspendues verticalement, diamètre circa 25 cm, longueur circa 18 cm.



*wood blocks*

6. 2 wood blocks. 1)
6. 2 wood blocks. 1)
6. 2 wood blocks. 1)

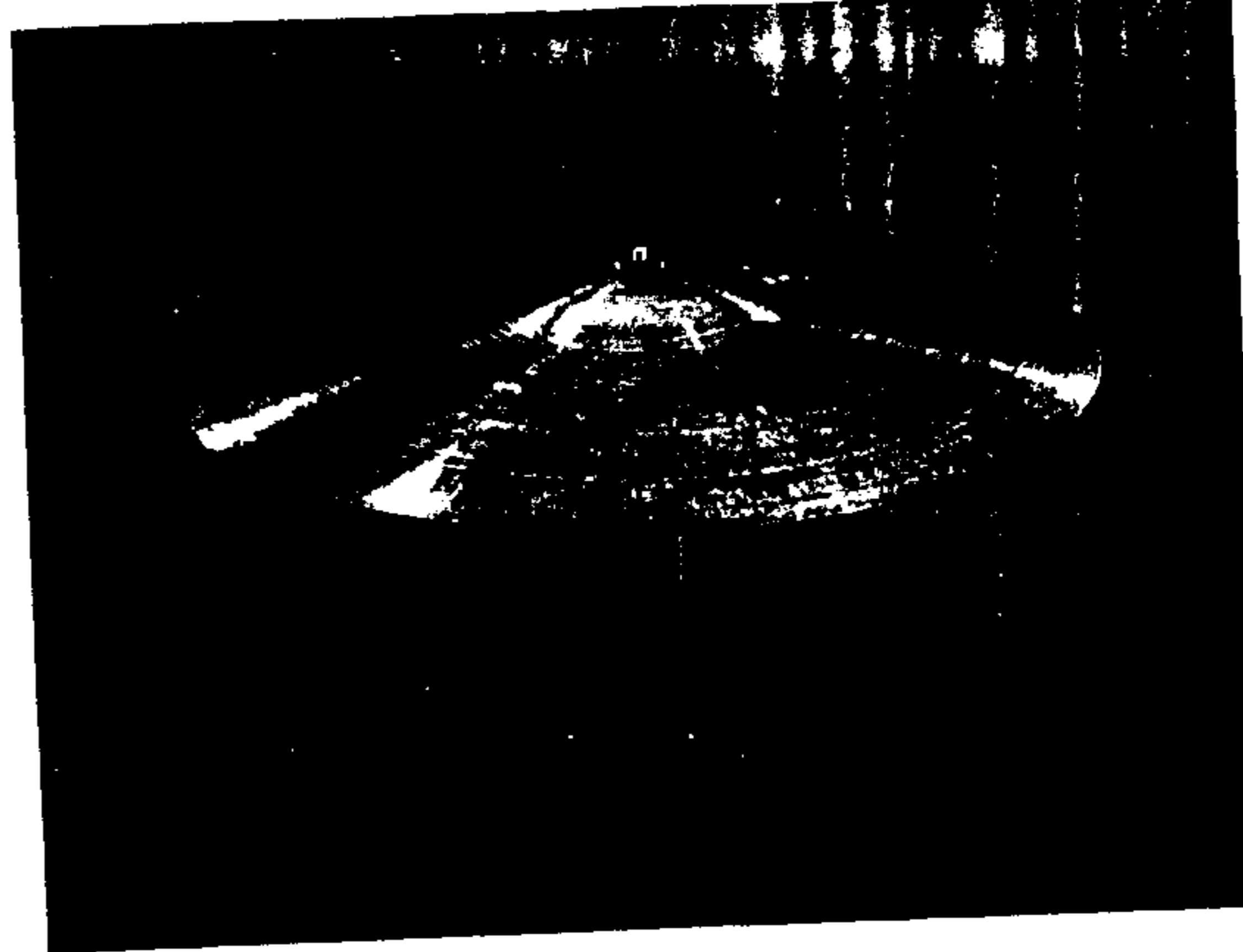





7. 4 Almglocken ("Viehschellen") ohne Klöppel an Ständer befestigt. 2)

7. 4 cowbells without beaters, fixed to a stand. 2)

7. 4 cloches de troupeau sans batte fixées à un pied. 2)







10. 1 Becken.


10. 1 cymbal.


10. 1 cymbale.

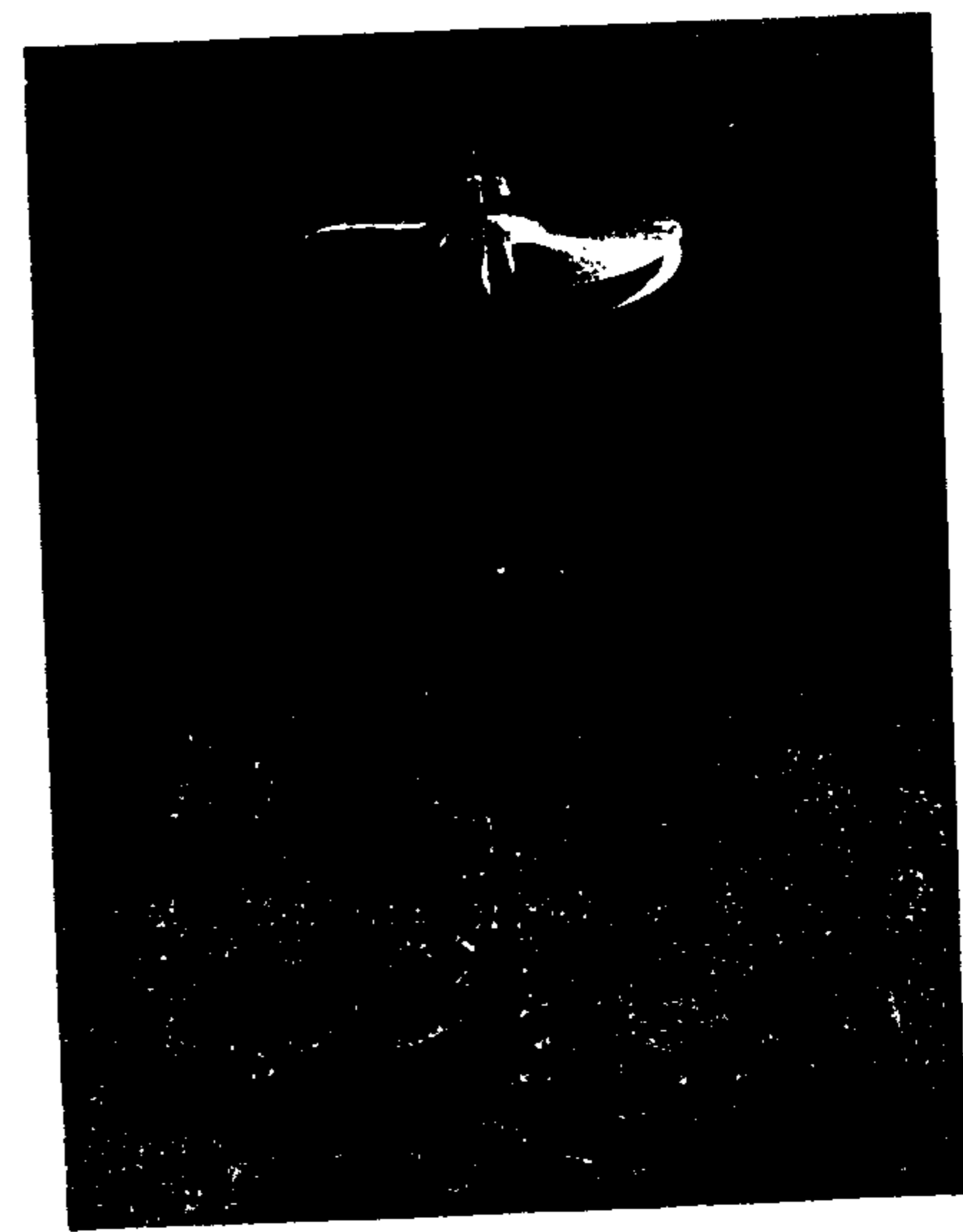





8. 13 cymbales antiques, chromatisch:  klingend, auf Brett in Klaviertastenanordnung befestigt.

8. 13 cymbales antiques, making a chromatic scale sounding: , mounted on wood with screws, as on a piano-keyboard, with the naturals underneath and the sharps above.

8. 13 cymbales antiques se succédant chromatiquement:  et fixées sur une planche selon la disposition d'un clavier.

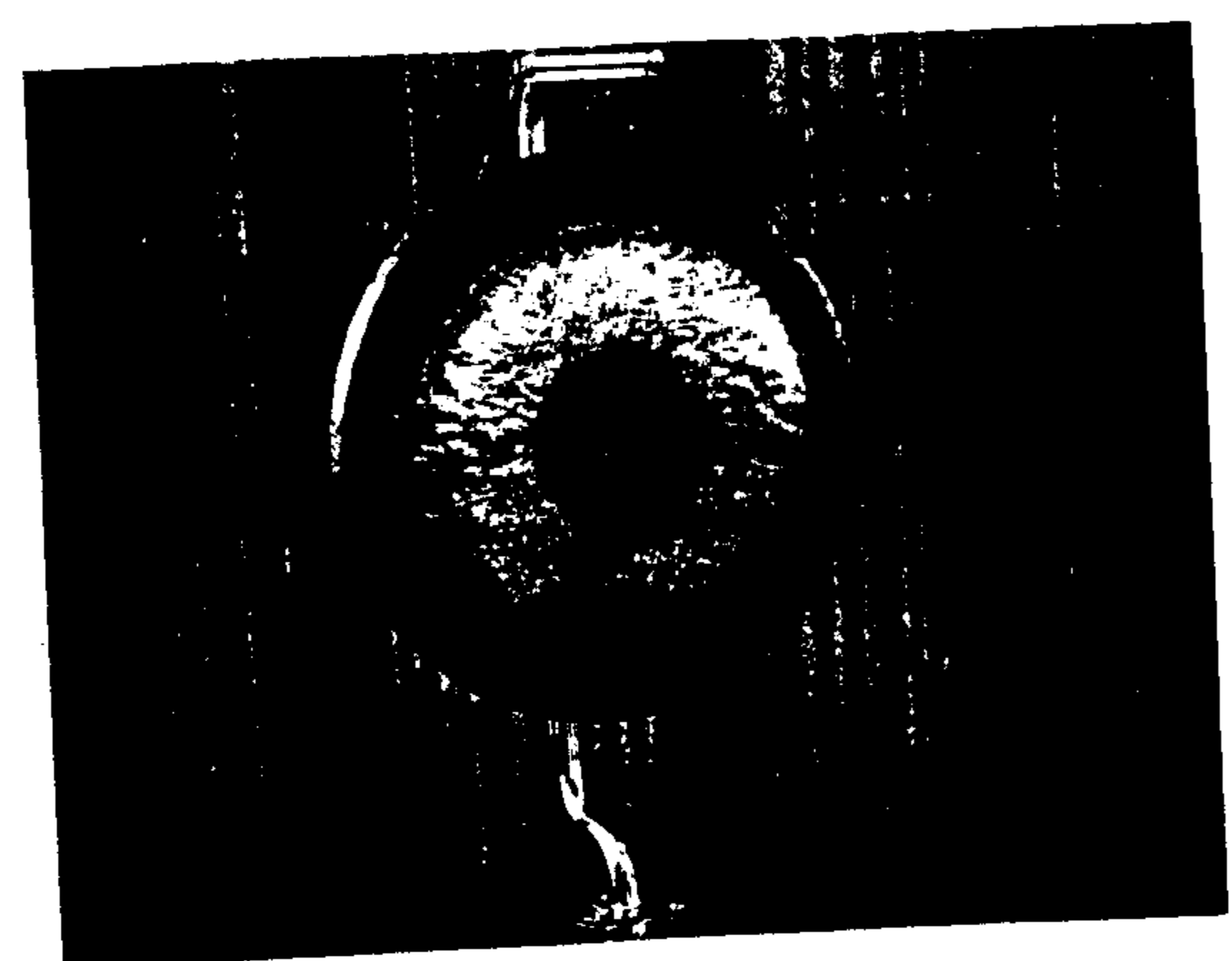





11. 1 Hihat.

11. 1 hihat.

11. 1 charleston ou hihat.

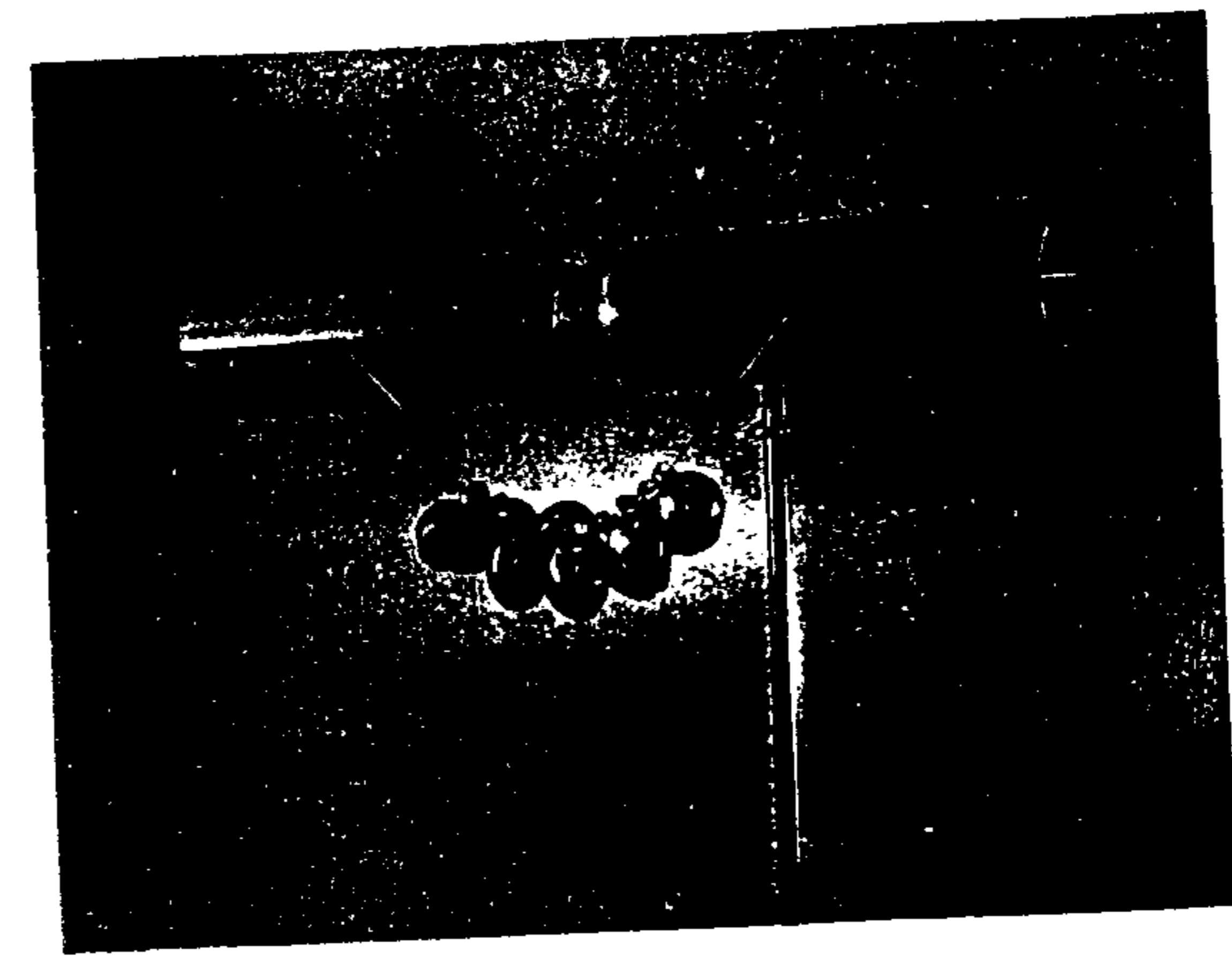





9. 1 kleineres Tamtam.

9. 1 small tamtam.

9. 1 petit tam-tam.

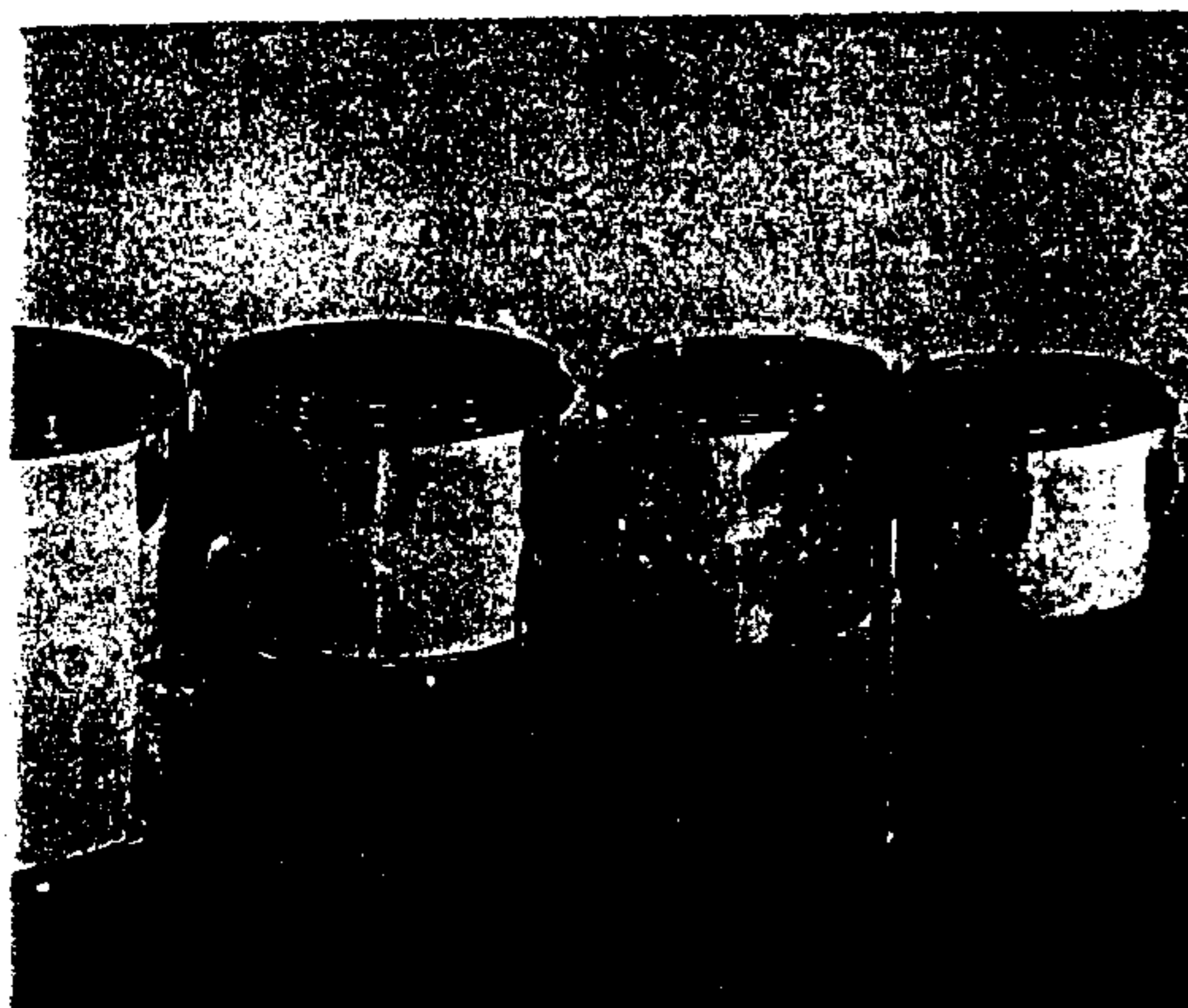




12. 1 Bündel kleine indische Sonn...

12. 1 bundle of small indian bells suspended.

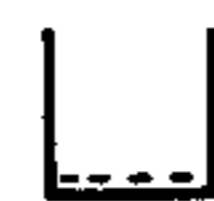
12. 1 gerbe de sonnailles hindu...



13. 1 Bongo, 3 oder 4 Tomtoms. Wenn nur das Zeichen für Tomtoms vor 4 Linien angegeben ist, so ist die oberste Linie für 4. Tomtom oder Bongo (eventuell 2 Bongos für Seite 14). Tonhöhen wie im ZYKLUS, z. B.

13. 1 bongo and 3 or 4 tomtoms. When the symbol for tomtoms is written in front of four lines, the top line is for the fourth tomtom or bongo (possibly 2 bongos on page 14). Pitches as in ZYKLUS, e. g.

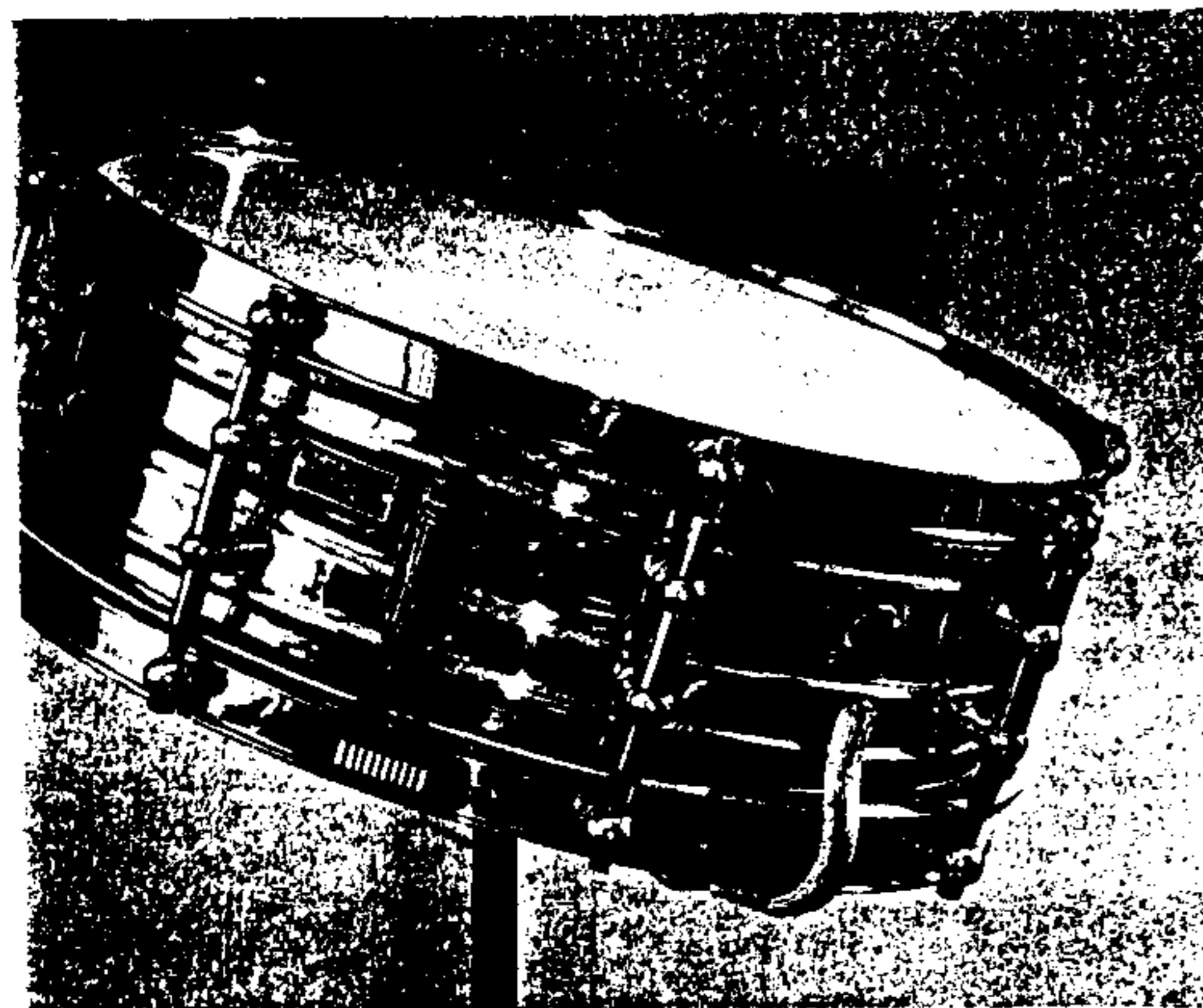
13. 1 bongo, 3 ou 4 tomtoms. Si le seul signe des tomtoms est placé devant un système à quatre lignes, la ligne supérieure est réservée au 4e tom-tom ou au bongo (eventuellement, 2 bongos pour la page 14). Hauteurs comme dans le ZYKLUS, p. ex.



14. 1 Bongo umgekehrt mit einigen Bohnen, die, wie in einer Rassel, auf dem Fell rollen, wenn es geschwenkt wird.

14. 1 bongo turned upside down, with a few beans that roll around on the membrane when the bongo is shaken (as in a rattle).

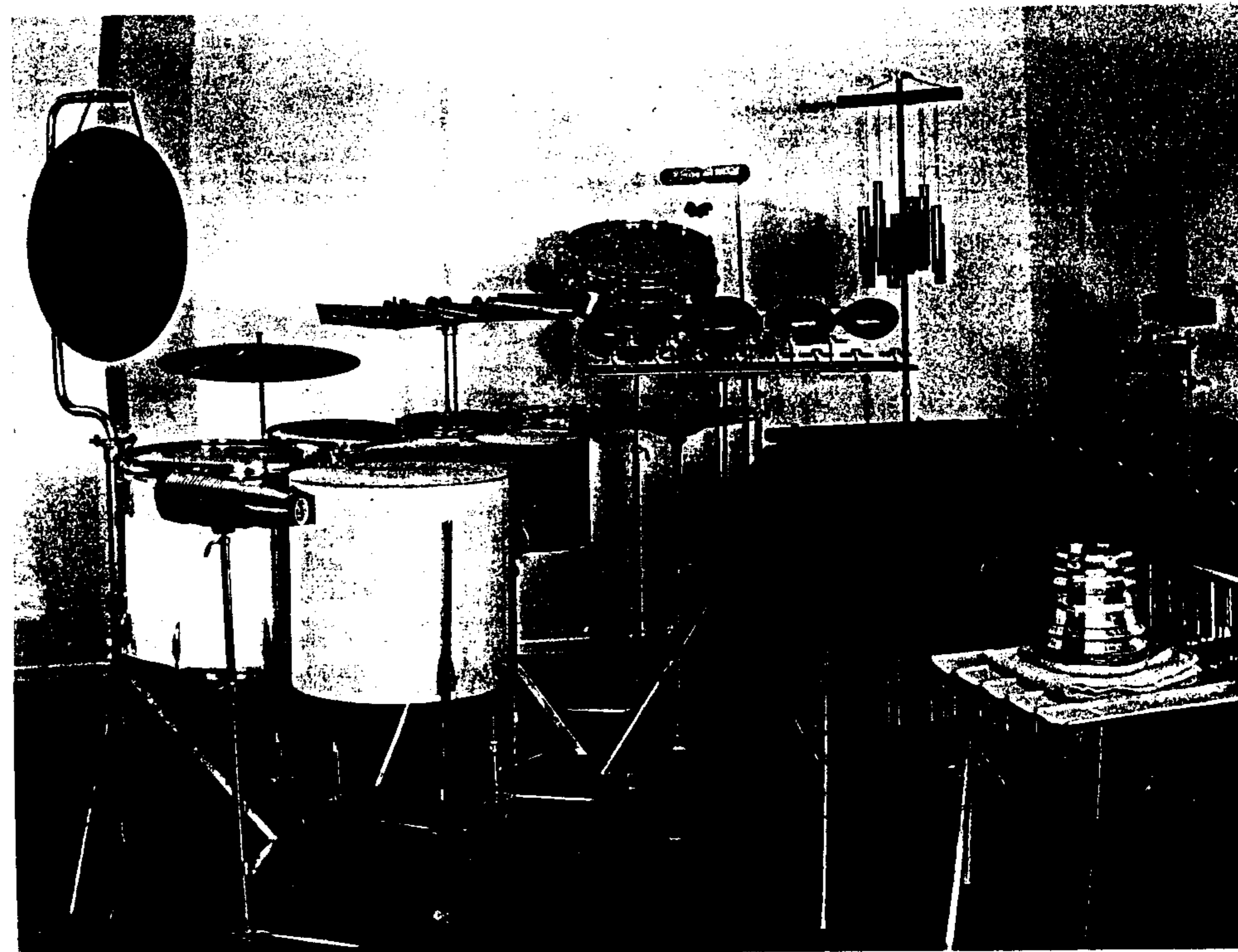
14. 1 bongo renversé avec quelques haricots secs qui roulent sur le fond (peau) lorsqu'on agite l'instrument.



15. 1 kleine Trommel mit Schnarrsaiten.

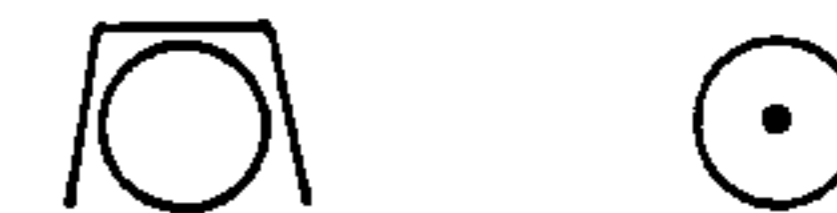
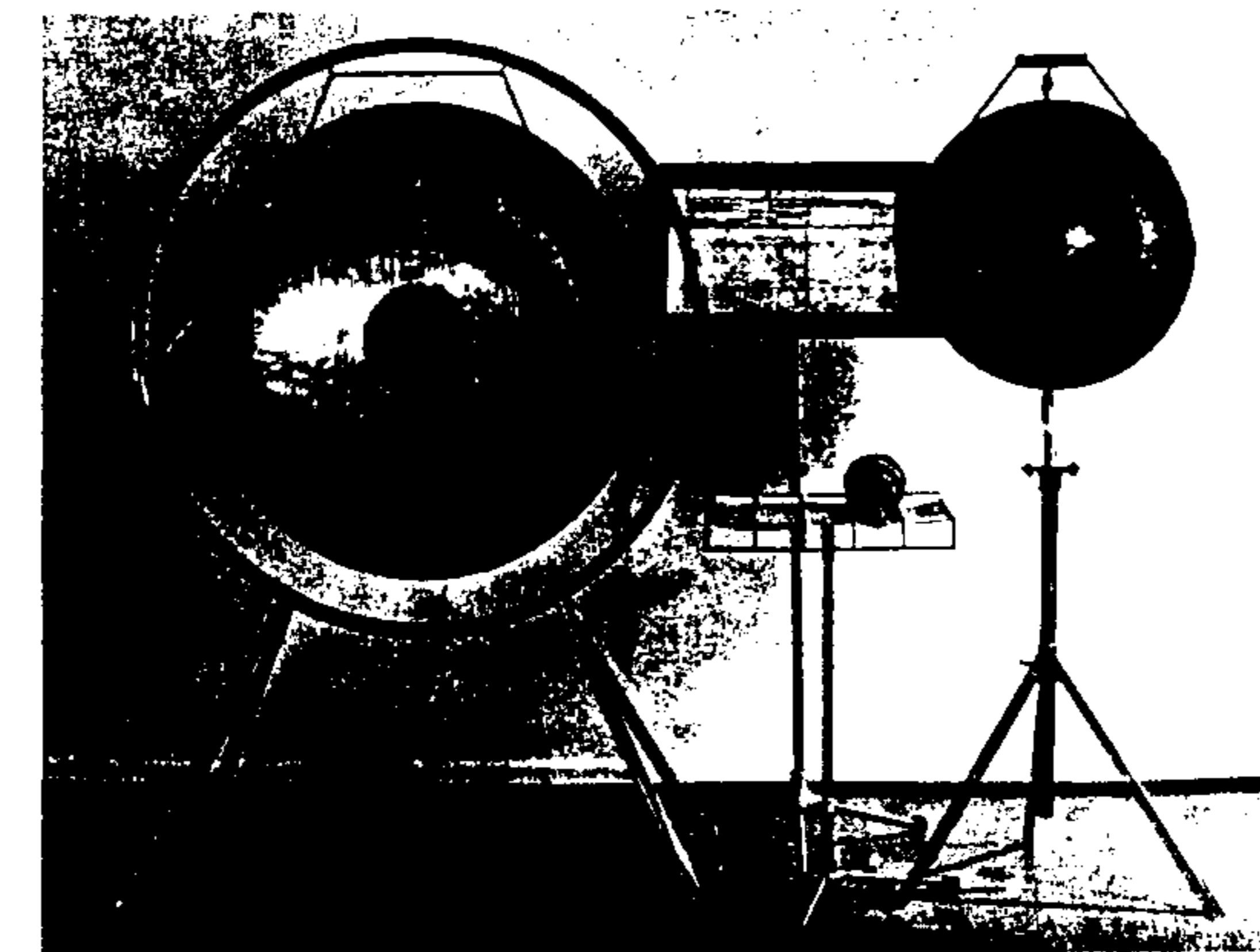
15. 1 side drum with snares.

15. 1 caisse claire avec timbre.



Alle Instrumente des Schlagzeugers in der von Christoph Caskel gewählten Anordnung.  
Photo shows all the instruments used by the percussionist, in the arrangement worked out by Christoph Caskel.  
Tous les instruments du batteur dans la disposition choisie par Christoph Caskel.

INSTRUMENTE in der Mitte zwischen Schlagzeuger und Pianist, von beiden zu spielen:  
INSTRUMENTS placed in the centre between the percussionist and the pianist and used by both:  
INSTRUMENTS placés au milieu et joués par les deux instrumentistes:



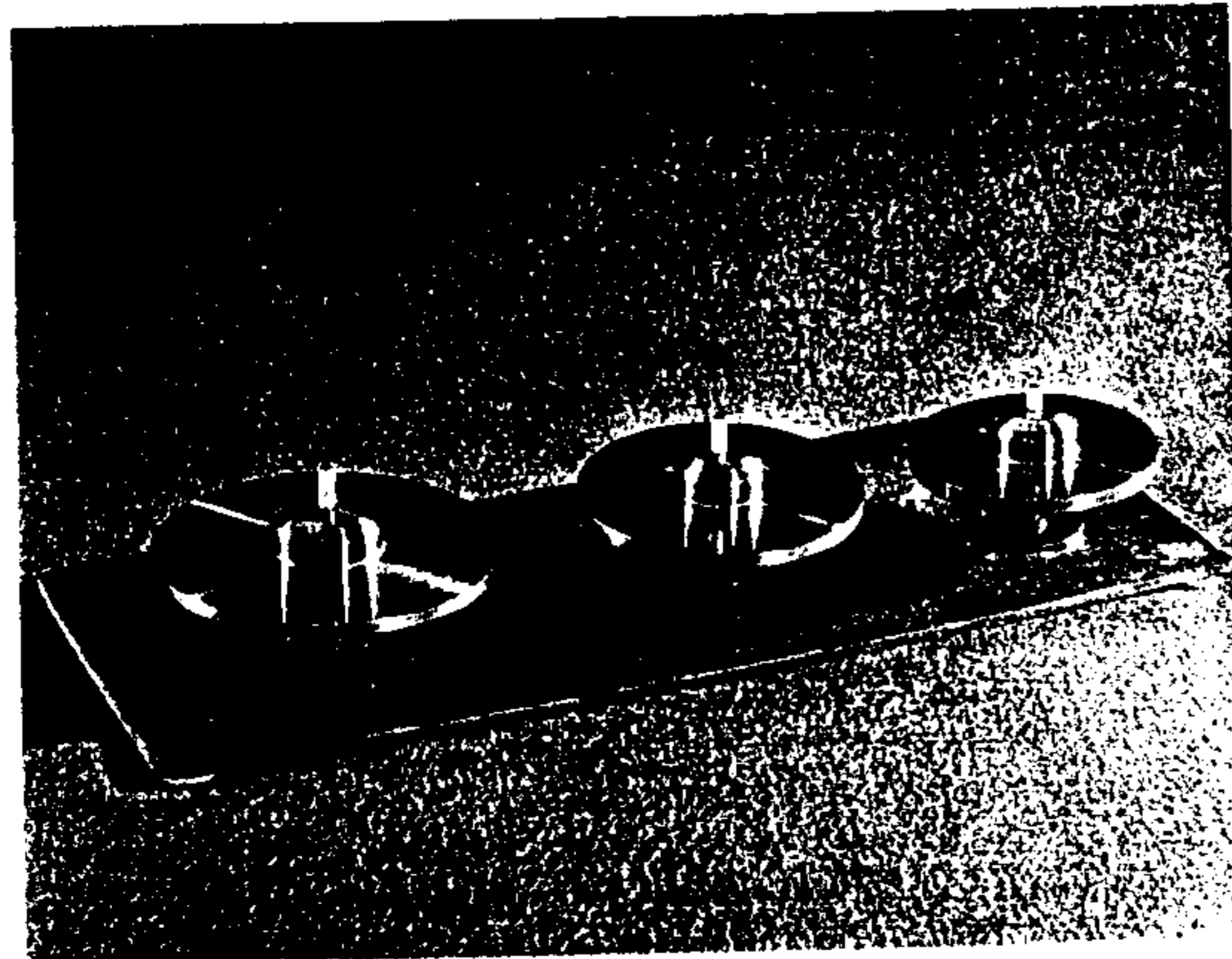
16. 1 Tamtam, Mindestdurchmesser 75 cm.  
17. 1 Gong mit Kuppe.


16. 1 tamtam, at least 75 cms in diameter.  
17. 1 gong with a dome in the centre.


16. 1 tam-tam d'un diamètre minimum de 75 cm.  
17. 1 gong à coupole.

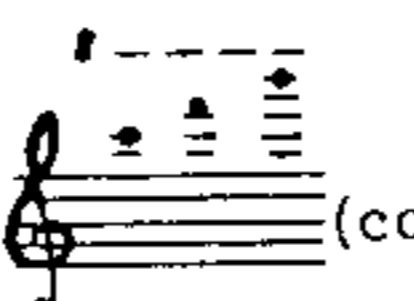
INSTRUMENTS used by the pianist (situated as far to the left as possible, as seen from the audience):  
 INSTRUMENTS du pianiste (le plus possible à gauche du public):

- |   |  |   |
|---|--|---|
| 18. 1 Pendelrassel (wie 5).<br>1 hanging rattle (as no.5)<br>1 carillon de bambou (comme 5) | 19. 2 wood blocks 1) (wie 6).<br>2 wood blocks 1) (as no. 6)<br>2 wood blocks 1) (comme 6) | 20. 4 Almglocken 2) (wie 7).<br>4 cowbells 2) (as no.7).<br>4 cloches de troupeau 2) (comme 7). |
|---|--|---|

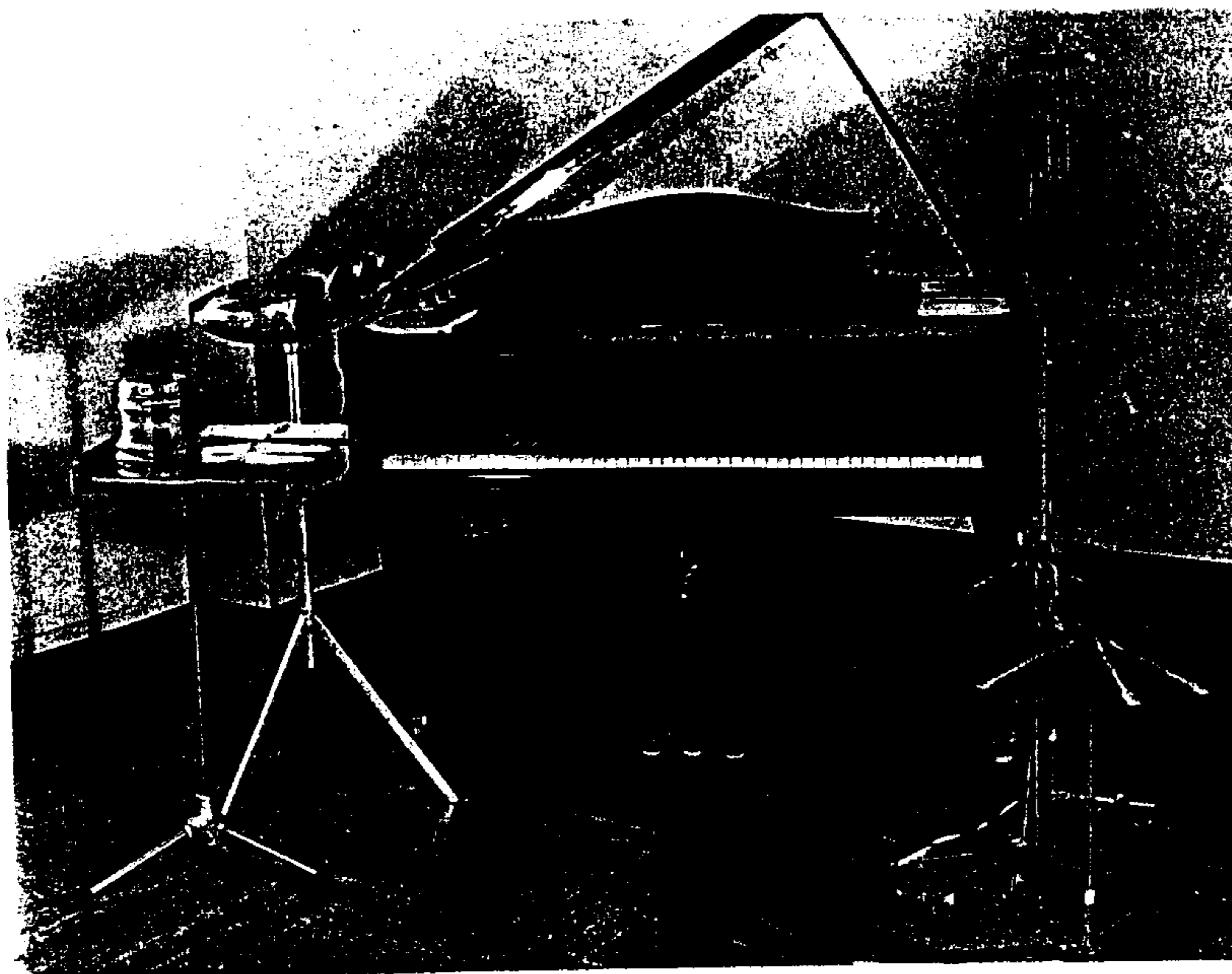


21. 3 einzelne cymbales antiques:  klingend (wie im REFRAIN).






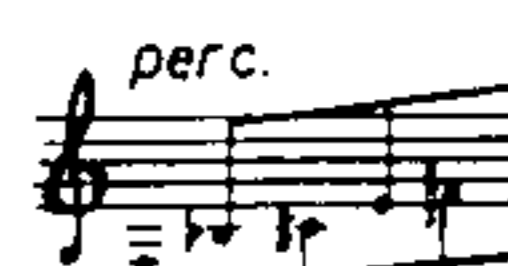
21. 3 single cymbales antiques, sounding (as in REFRAIN): 


21. 3 cymbales antiques sonnantes:  (comme dans le REFRAIN).


- |   |   |   |  |
|---|---|---|--|
| 22. 1 Becken (wie 10).<br>1 cymbal (as no.10).<br>1 cymbale (comme 10). | 23. 1 Hihat (wie 11).<br>1 hihat (as no.11).<br>1 hihat (comme 11). | 24. 1 Bündel kleine indische Schellen aufgehängt (wie 12).<br>1 bundle of small indian bells (sleighbells), suspended (as no.12).<br>1 gerbe de sonnailles hindoues suspendue (comme 12). | 25. 1 Bongo (wie 14).<br>1 bongo (as no. 14).<br>1 bongo (comme 14). |
|---|---|---|--|





Alle Instrumente des Pianisten in der von David Tudor und Aloys Kontarsky benutzten Anordnung.  
 Photo shows all the instruments used by the pianist, in the arrangement used by David Tudor and Aloys Kontarsky.  
 Tous les instruments du pianiste dans la disposition choisie par David Tudor et Aloys Kontarsky.

- 1) Die Tonhöhen der 4 wood blocks:  klingend (3 wie im REFRAIN).  
 The 4 wood blocks are pitched as follows (three of them as in REFRAIN):  actual sounds;  
 Hauteurs des 4 wood blocks:  (3 comme dans le REFRAIN).  
 2) Die Tonhöhen der 2x4 Almglocken:  klingend (wie im REFRAIN und oder wie in GRUPPEN für 3 Orchester:  
 The two sets of 4 cowbells are pitched as follows (as in REFRAIN and in ZYKLUS):  actual sounds; or as in GRUPPEN for three orchestras:  
 Hauteurs des 2x4 cloches de troupeau:  (comme dans le REFRAIN et ZYKLUS), ou bien, comme dans les GRUPPEN pour 3 orchestres: 


 harte Schlägel.  
hard sticks.  
baguettes dures.

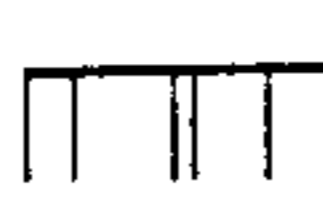
 weiche Schlägel.  
soft sticks.  
baguettes douces.


 Eisenklöppel.  
iron beater.  
batte métallique.


 Triangelschlägel.  
triangle beater.  
baguette de triangle.

Die Schlägel können, zusätzlich zu den Angaben in der Partitur, noch weiter variiert werden in den Kategorien hart und weich.  
 The sticks and beaters can be further varied within the categories "hard" (hard) and "weich" (soft) that are indicated in the score.  
 Les baguettes peuvent être variées que ne le prévoit la partition, tout en respectant les catégories principales de "dur" et "doux".

 so schnell wie möglich.  
as fast as possible.  
aussi vite que possible.

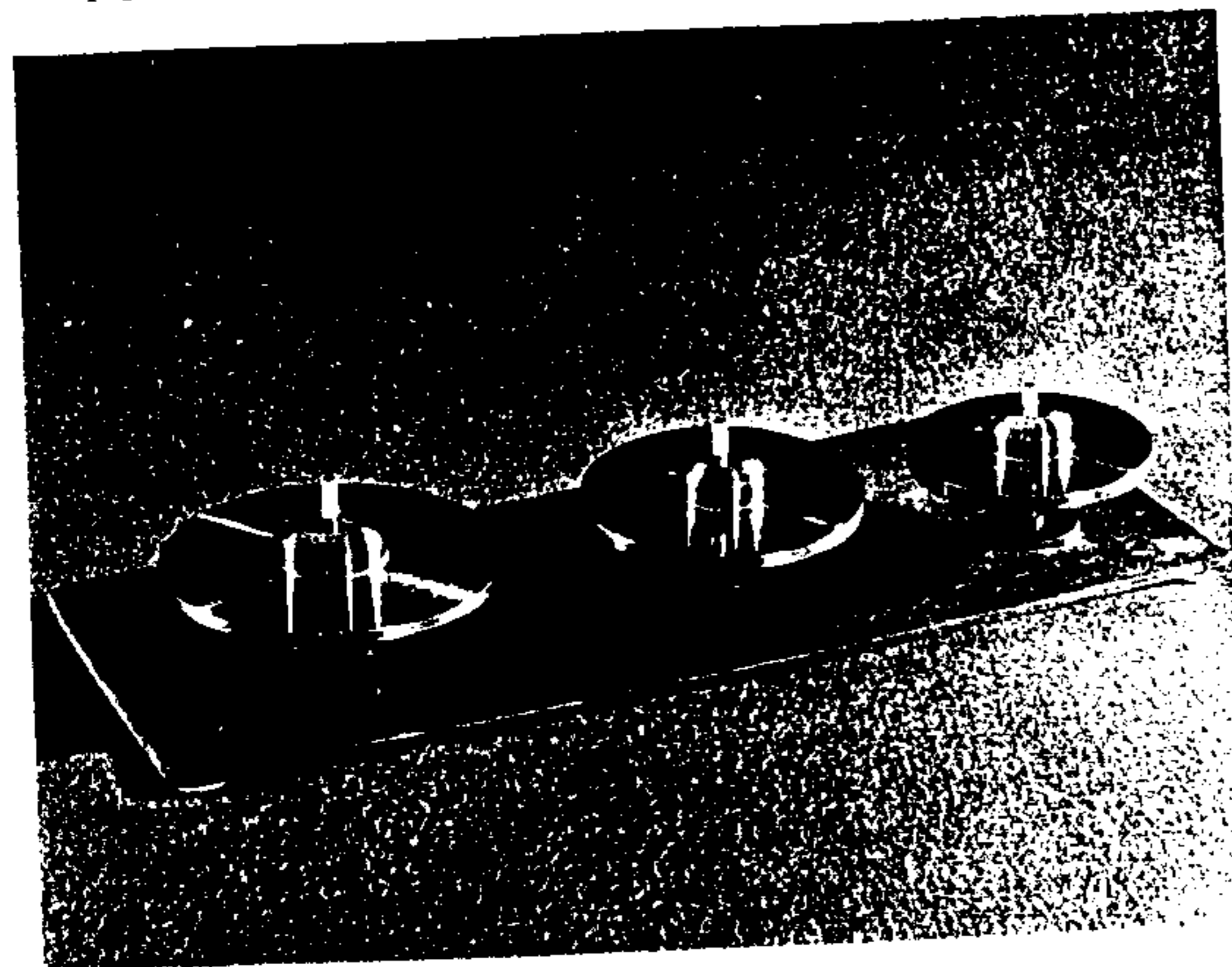
 Einsatzabstände der maßstäblichen Zeichnung entsprechend.  
the intervals of entry should correspond to the way they are drawn.  
les valeurs entre les attaques doivent correspondre à la proportion graphique.


 klingen lassen.  
laissez vibrer.  
laissez resonner.

 kurze Dauer.  
short duration.  
valeur brève.

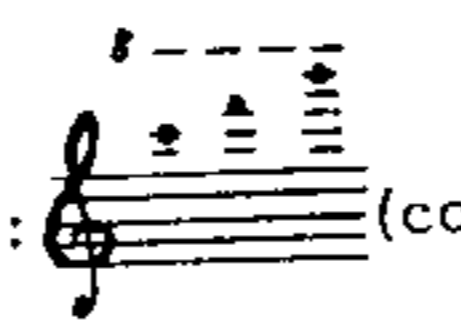
INSTRUMENTE des Pianisten (möglichst weit links, vom Publikum aus gesehen):  
 INSTRUMENTS used by the pianist (situated as far to the left as possible, as seen from the audience):  
 INSTRUMENTS du pianiste (le plus possible à gauche du public):

18. 1 Pendelrassel (wie 5).  
 1 hanging rattle (as no. 5)  
 1 carillon de bambou (comme 5)
19. 2 wood blocks 1) (wie 6).  
 2 wood blocks 1) (as no. 6)  
 2 wood blocks 1) (comme 6)
20. 4 Almglocken 2) (wie 7).  
 4 cowbells 2) (as no. 7).  
 4 cloches de troupeau 2) (comme 7).

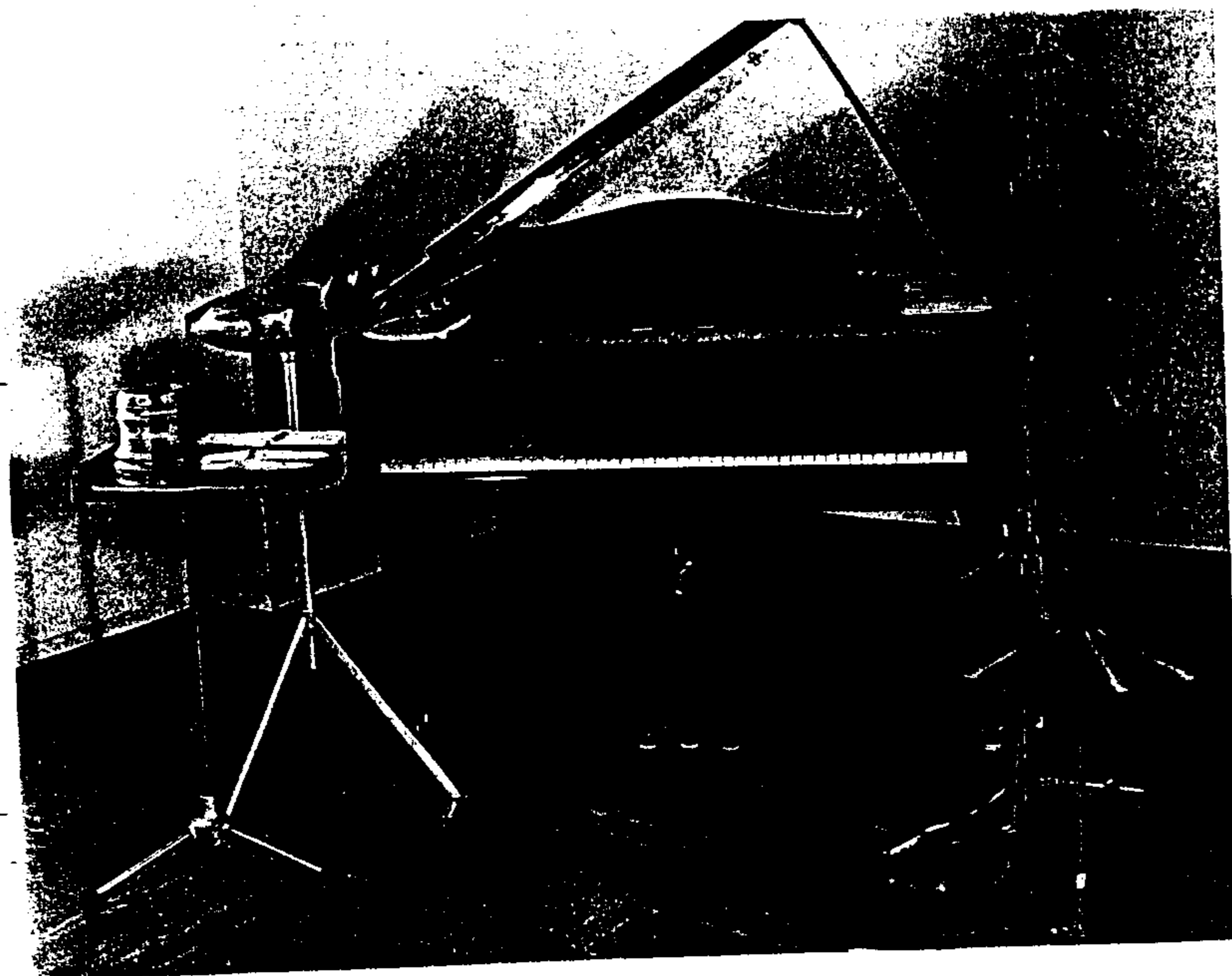


21. 3 einzelne cymbales antiques:  klingend (wie im REFRAIN).



21. 3 single cymbales antiques, sounding (as in REFRAIN):


21. 3 cymbales antiques sonnantes:  (comme dans le REFRAIN).



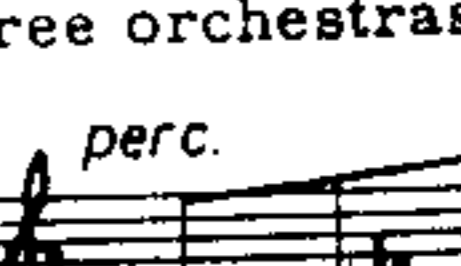
22. 1 Becken (wie 10).  
 1 cymbal (as no. 10).  
 1 cymbale (comme 10).
23. 1 Hihat (wie 11).  
 1 hihat (as no. 11).  
 1 hihat (comme 11).
24. 1 Bündel kleine indische Schellen aufgehängt (wie 12)  
 1 bundle of small indian bells (sleighbells), suspended (as no. 12).  
 1 gerbe de sonnailles hindoues suspendue (comme 12).
25. 1 Bongo (wie 14).  
 1 bongo (as no. 14).  
 1 bongo (comme 14).





Alle Instrumente des Pianisten in der von David Tudor und Aloys Kontarsky benutzten Anordnung.  
 Photo shows all the instruments used by the pianist, in the arrangement used by David Tudor and Aloys Kontarsky.  
 Tous les instruments du pianiste dans la disposition choisie par David Tudor et Aloys Kontarsky.


1) Die Tonhöhen der 4 wood blocks:  klingend (3 wie im REFRAIN).  
 The 4 wood blocks are pitched as follows (three of them as in REFRAIN):  actual sounds.


Hauteurs des 4 wood blocks:  (3 comme dans le REFRAIN).

2) Die Tonhöhen der 2x4 Almglocken:  klingend (wie im REFRAIN und im ZYKLUS oder wie in GRUPPEN für 3 Orchester:  
 The two sets of 4 cowbells are pitched as follows (as in REFRAIN and in ZYKLUS):  actual sounds; or as in GRUPPEN for three orchestras:  
 Hauteurs des 2x4 cloches de troupeau:  (comme dans le REFRAIN et le ZYKLUS), ou bien, comme dans les GRUPPEN pour 3 orchestres:

 harte Schlägel.  
 hard sticks.  
 baguettes dures.

 weiche Schlägel.  
 soft sticks.  
 baguettes douces.


 Eisenklöppel.  
 iron beater.  
 batte métallique.


 Triangelschlägel.  
 triangle beater.  
 baguette de triangle.


Die Schlägel können, zusätzlich zu den Angaben in der Partitur, noch weiter variiert werden innerhalb der Kategorien hart und weich.


The sticks and beaters can be further varied within the categories "hart" (hard) and "weich" (soft) that are indicated in the score.

Les baguettes peuvent être variées que ne le prévoit la partition, tout en respectant les catégories principales de "dur" et "doux".

 so schnell wie möglich.  
 as fast as possible.  
 aussi vite que possible.

 Einsatzabstände der maßstäblichen Zeichnung entsprechend.  
 the intervals of entry should correspond to the way they are drawn.  
 les valeurs entre les attaques doivent correspondre à la proportion graphique.

 klingen lassen.  
 laissez vibrer.  
 laisser résonner.

 kurze Dauer.  
 short duration.  
 valeur brève.

# Nr.12 Kontakte

Karlheinz Stockhausen

IA

IB

IC

ID

10,4"

15,7"

12,1"

24,3"

25,5"

27,2"

29,8"

33,6"

35,5"

39,3"

46,4"

47,8"

49,4"

II  
mf  
1/2

In allen Verschiedenes  
I / II / III / IV

Alternierend  
I ↔ III

In allen das Gleiche  
I / II / III / IV

6,4"

2,2"

6"

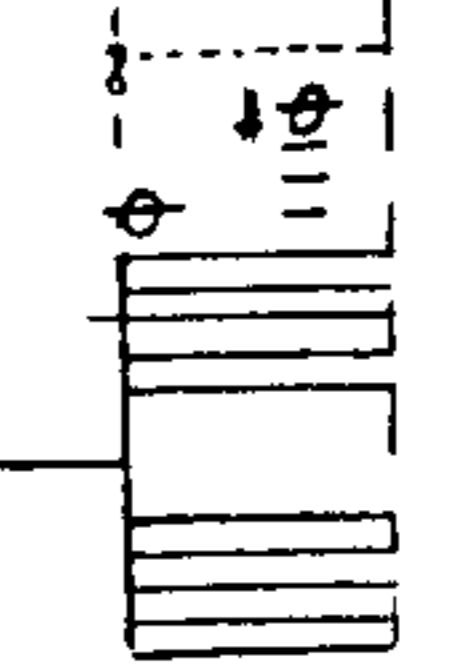
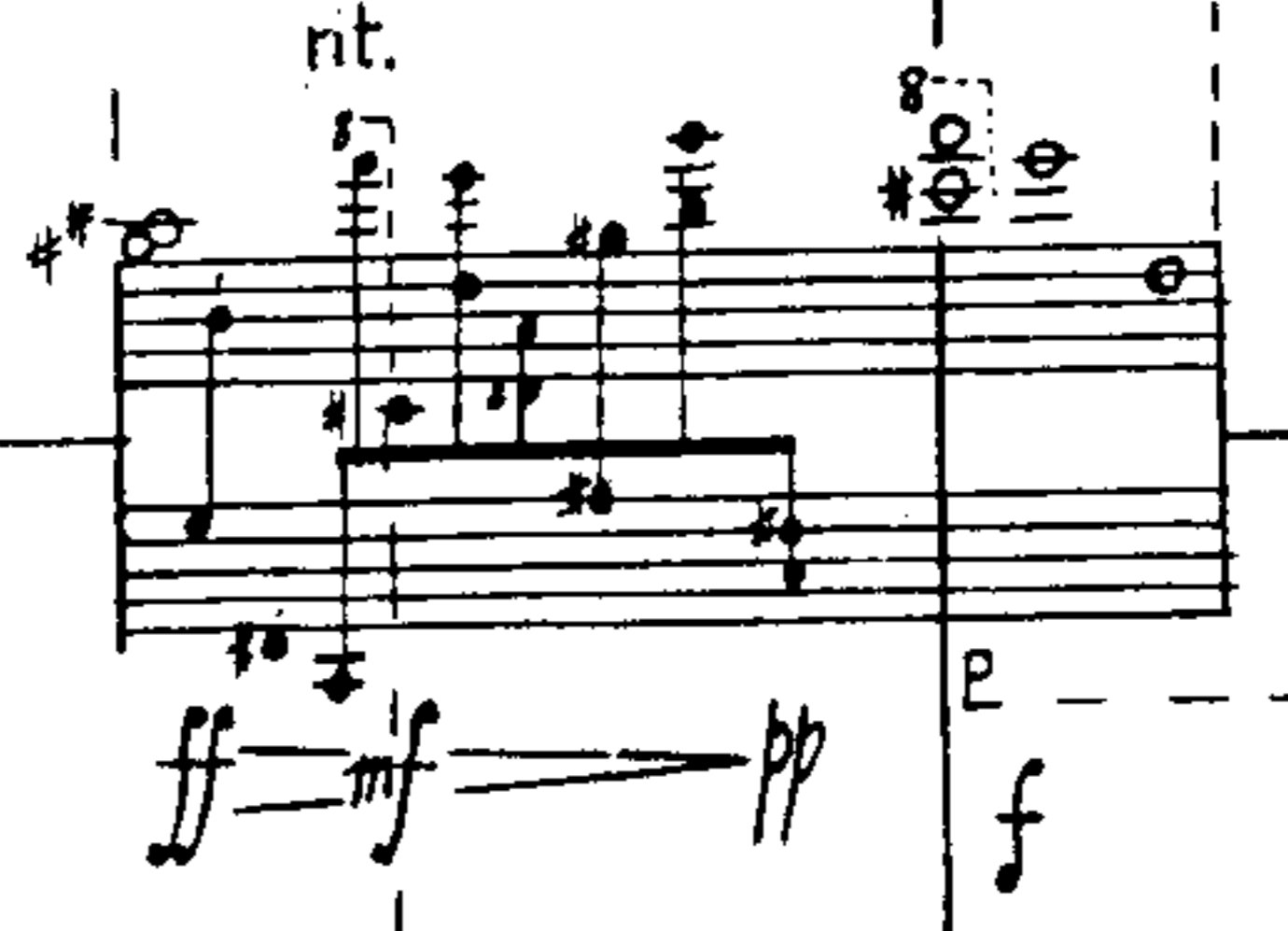
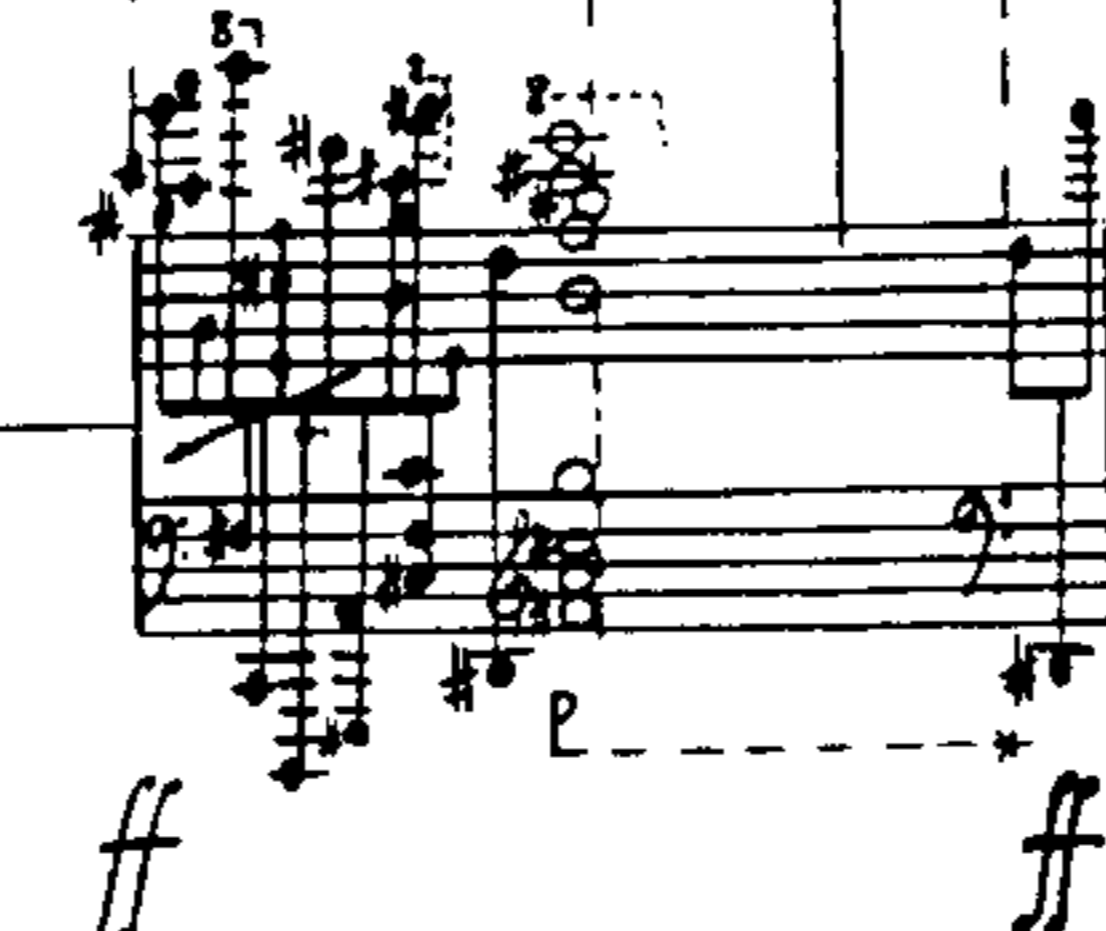
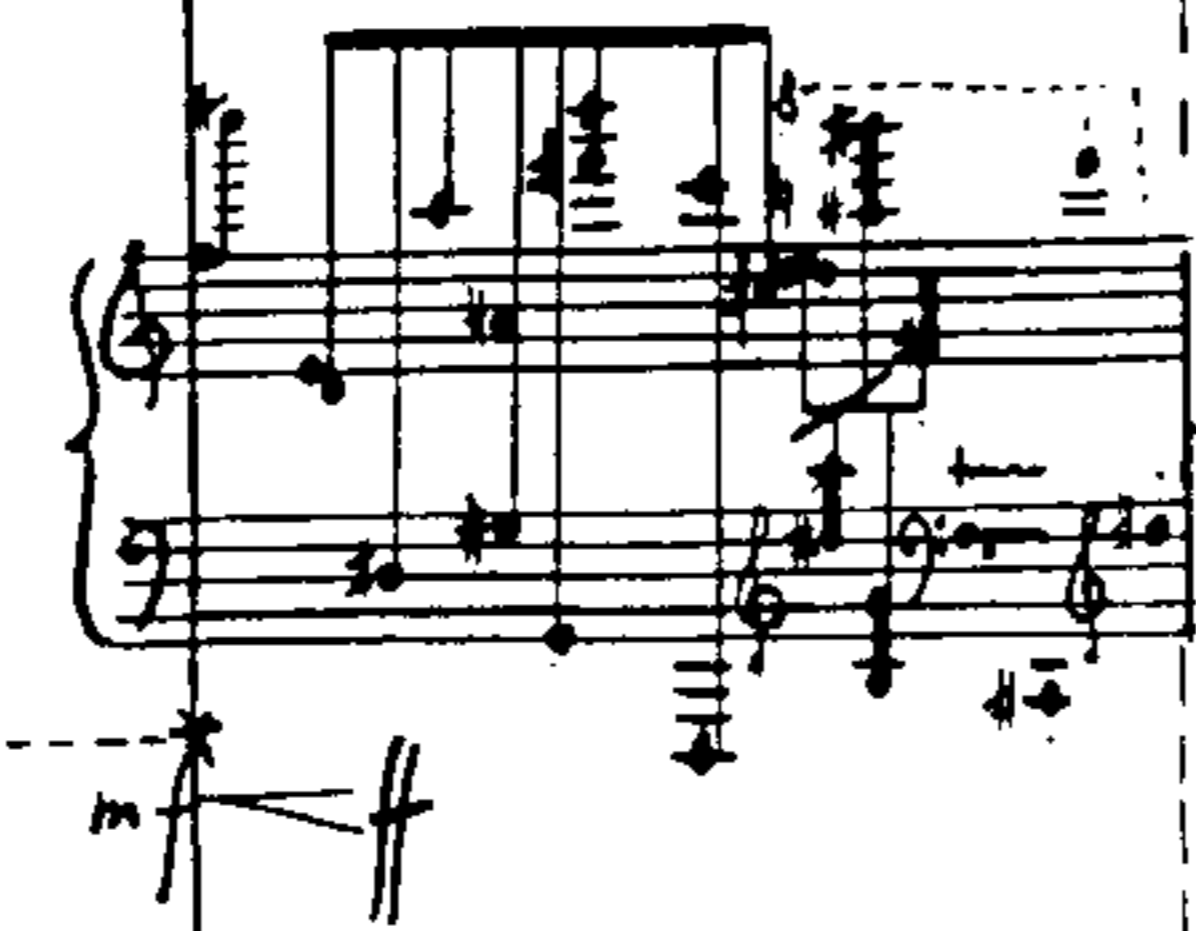
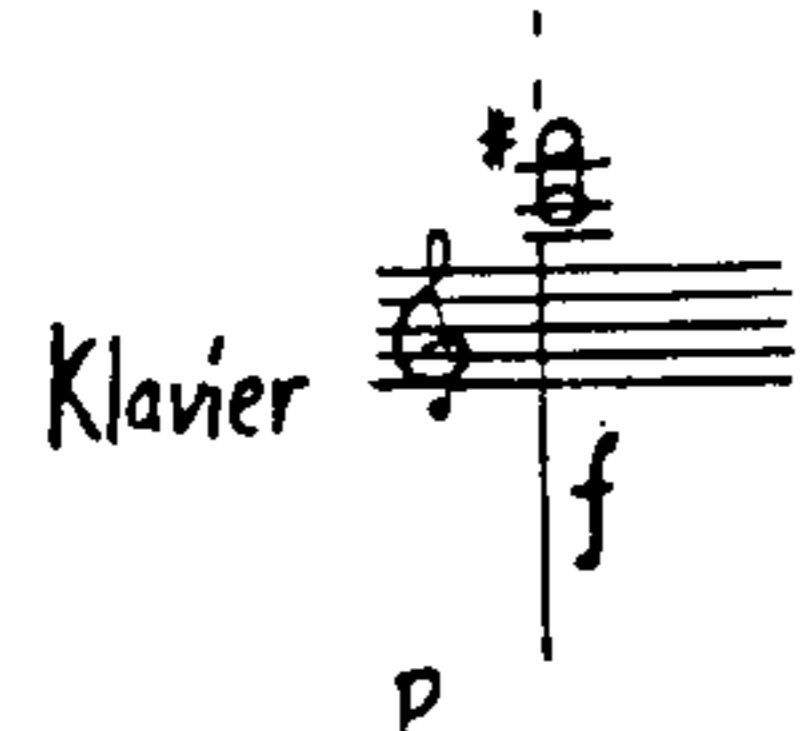
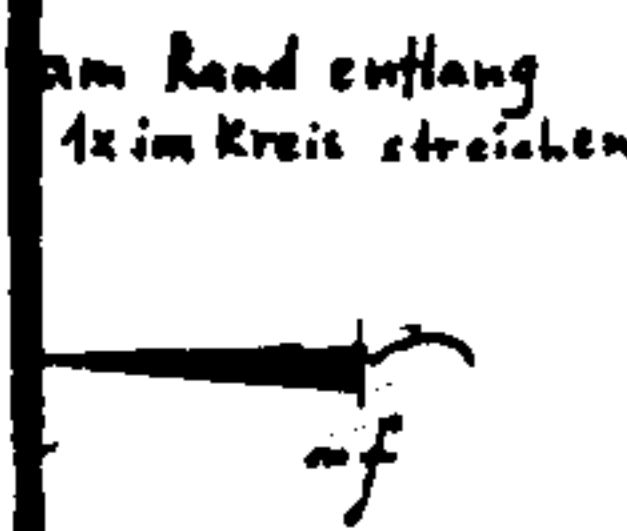
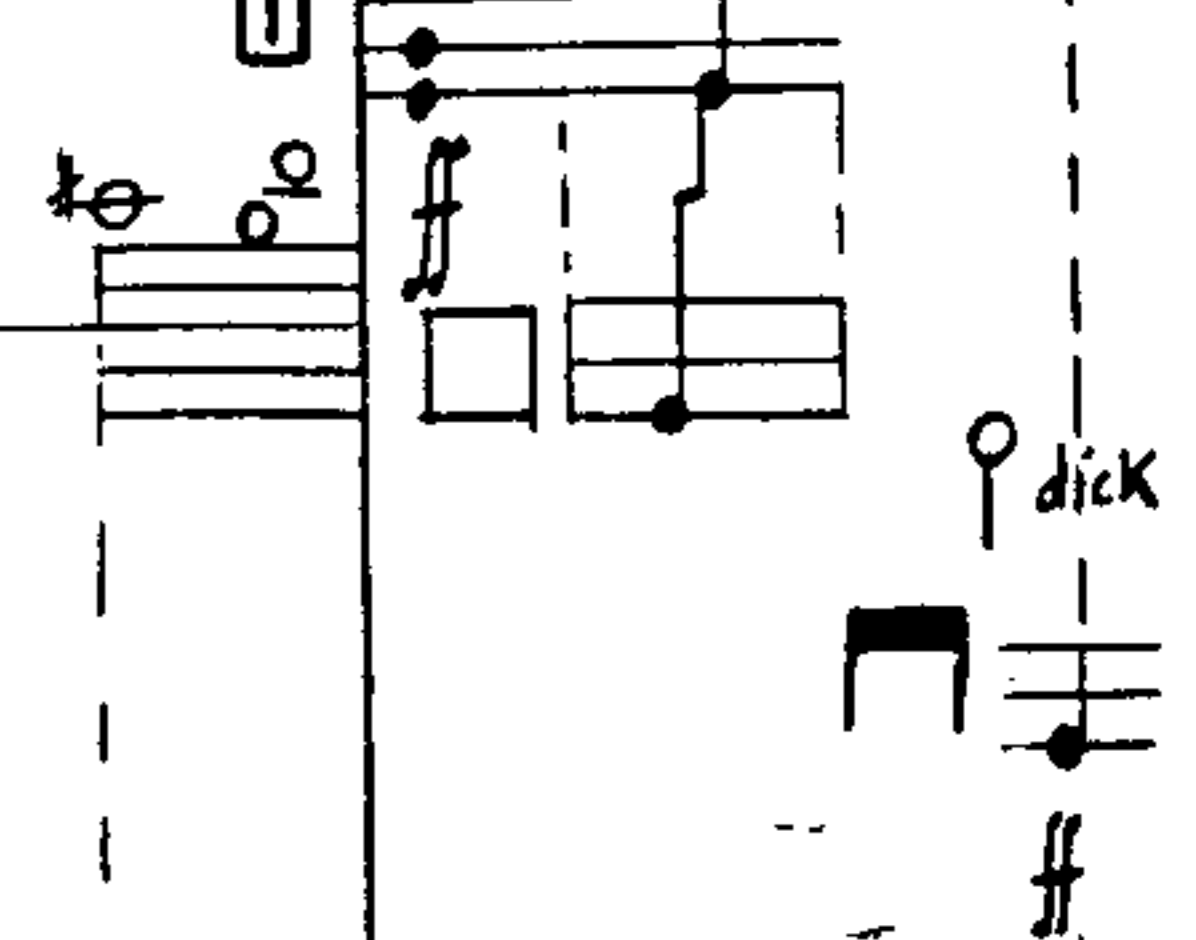
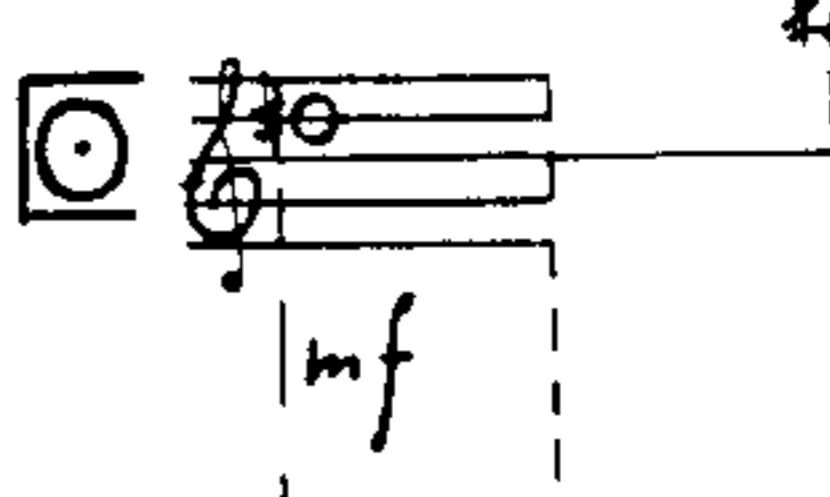
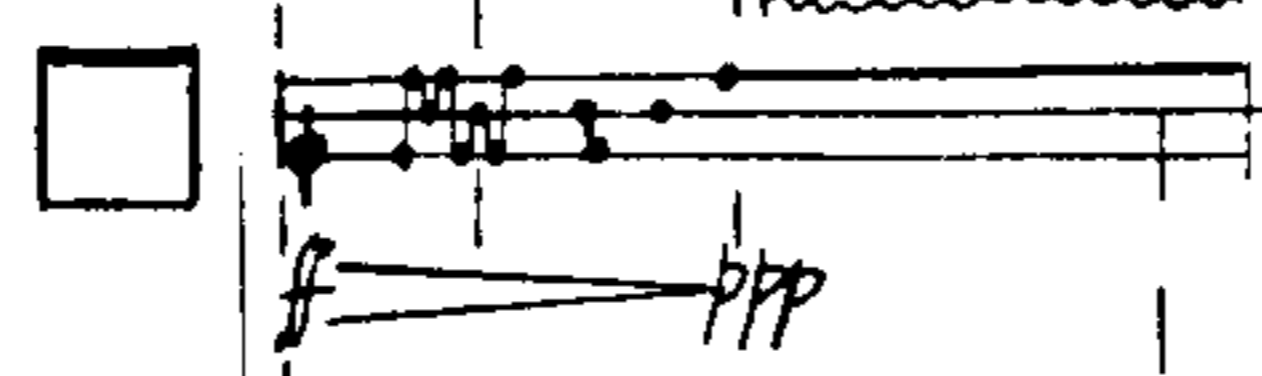
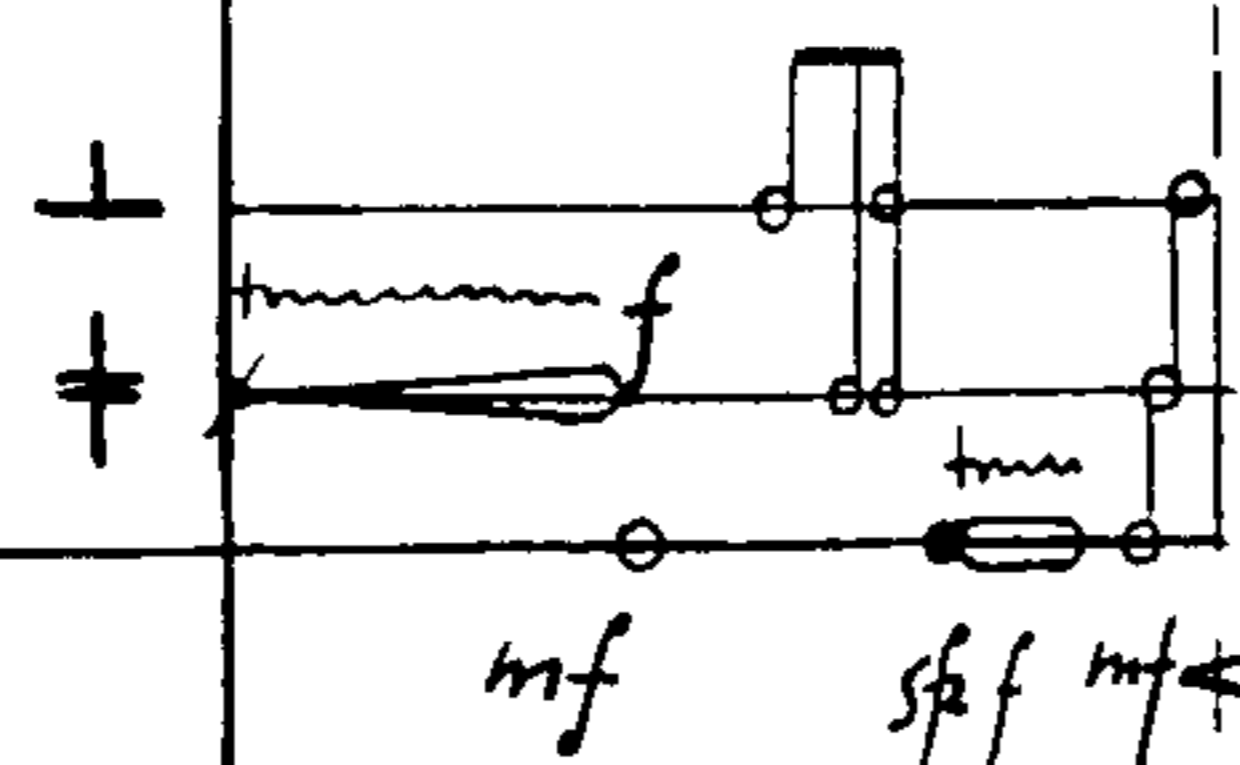
3,8"

5,7"

7,1"

47

5,8"





TE  
52,2"

IF  
1' 2,9"

14,3"

22,4"

28,3" 30,0"

33,8" 35,3"

Rotation I → II → III → I → etc.

Flutklang II → II

19...23 24

$\alpha/\beta/\gamma/\delta$

$\epsilon_a$   $\epsilon_b$   $\epsilon_c$   $\epsilon_d$

10,7" 11,4" 8,1" 5,9" 4,7" 3,8" 1,5" 5,8"

weich, aber f (Gummi) f hart (Kautschuk) Kuppe Rand bleibt xyloshlegel

harte Vibroschlegel xyloshlegel

auf Maximum des elektr. Klanges

Fuß mf

schnell mit Ellbogen

ff f sf p

mf

p

Detailed description of the musical score: The score is divided into several measures, each with specific performance instructions. The first measure (10.7") is marked 'weich, aber f (Gummi)'. The second measure (11.4") is marked 'f hart (Kautschuk)' and includes 'Kuppe' and 'Rand' markings. The third measure (8.1") is marked 'f' and 'bleibt xyloshlegel'. The fourth measure (5.9") is marked 'ff'. The fifth measure (4.7") is marked 'ff'. The sixth measure (3.8") is marked 'p'. The seventh measure (1.5") is marked 'p'. The eighth measure (5.8") is marked 'p'. The score includes various musical notations such as notes, rests, and dynamic markings (ff, f, mf, p, sf). There are also technical diagrams and annotations like 'auf Maximum des elektr. Klanges' and 'schnell mit Ellbogen'.

45,1" 46,6" 48,3"      2' 0,1" 1,3"      10" II      21,9" 25,9" 28,5"

The score is divided into several sections corresponding to the measurements above. The first section (45.1" to 48.3") includes a diagram of the instrument's body with labels  $E_c$ ,  $E_s$ ,  $E_h$ , and  $E_i$ . Dynamics range from  $pp$  to  $f$ . The second section (2' 0.1" to 1.3") features a diagram of the fingerboard with a  $p$  dynamic and a  $\langle p \rangle$  marking. The third section (10" II) includes a diagram of the bridge with a  $p$  dynamic and the instruction "1x langsam, etwas beschleunigend, im Kreis streichen". The fourth section (21.9" to 28.5") includes diagrams of the tailpiece and endpin with dynamics  $mf$  and  $f$ , and the instruction "im Kreis röhren".

**Performance Instructions:**

- äußerste Vorderkante
- dünner Metallstab am Rand entlang, Abstand zwischen Hand und Berührungsstelle des Stabes kontinuierlich verkürzen (gliss)
- Gummi
- im Kreis röhren

**Dynamic and Articulation Markings:**  $pp$ ,  $f$ ,  $p$ ,  $mf$ ,  $mp$ ,  $f$ ,  $rit.$ ,  $\langle p \rangle$ ,  $mf$  dim.,  $f$ .

3' 9,1"

15,5" III

40,9"

51,9"

59,3"

→ III

I-IV

*p dim.*

*f*

*f* (3,5)

11"

7,4"

9,7"

6,7"

17,9"

*p trem.*

*pp* *p* *p*

dicke Filz

*pp*

*harte Vibraschlegel*

*♩ = 60*

*pp* *pp* *ppp*

Trommel sehr tief und laut

*ff*

*f*

*♩ = 60*

*p* *pp* *ppp*

*f* *♯* *♯*

*mf*

*ppp* *p*

*p*

33,4"

44,6"

53,1"

46,1"

10,4"

15,7"

19,5"

21,7"

23,5"

The score is divided into several sections with dynamic markings: *f*(0), *f*(0), *mf*(14), *P*(20-25), *pp*(25), *ppp*(31), *mf*(47,5), *mf*, *f*, and *ff*. Performance instructions include "harte Vibraschlegel", "weiche Gummischlegel", "mit Fingern schnell Tremolo", "schließen", "langsam drehen, • = stoßen", and "accell.". The graphical layout shows the instrument's frame with various components labeled: "II", "I II III", "196", "110", "112", "114", "116", "12", "10,5", "7", "3,8", "2,2", "1,8", "4,9", "11,2", "8,5", "13", "4,3", "5,3", "3,8", "2,2", "1,8", "4,9", "langsam drehen, • = stoßen", "accell.", "P", "f", "f", "P".

28,4" 31,7"

51,9"

303 216 281,3 347 9,6"

I III IV, leise Klänge in II

rotierend I III IV

13 (7) f (0) 14 15 16a/b (31,5) 17 (24,5) (17,5) 18a/b/c mf 19 mf (14) 20 (10,5) 21 (7) 324,2

3,3" 8,0" 5,7" 7,4" 9,1" 5" (188,8) 4,6" 8,5"

hart Filz weicher Gummi harte Vibraschl.

pp (31,5) p (24,5) mf (17,5) mf (14) p (10,5) fpp (7)

ff mf p mf mf f mf

The score is divided into sections by vertical dashed lines. The top staff contains performance instructions and dynamic markings. The middle staff shows bowing techniques and dynamics. The bottom staff shows the musical notation for the strings. Handwritten measurements in inches are placed above the staff lines.

231,5      201,9      31,4"      I III      371,4      41,1"      454,7      53"      154,3      480,7      637,5

(3,5)      (7)      (0)(21)      (+6)

22 *f*      *mf cresc.*      *f*      *pcresc.*      *f*      25      26      *pp* 27      *ppp cresc.*      *p* (21)

6,1"      5,3"      9,7"      11,9"      4,0"      12,6"      16,7"

Vibraschl.

*p cresc.*      *ff*

↑ ↑      ↑ ↑  
 ZUM ZUR      ZUM ZUR  
 Rand Mitte      Rand Mitte

Metallstab (ca 95cm Ø)  
 Xyloshlegel  
*pp*

hart  
 weich  
*mf*

*sf*

*poco sfz*      *poco sfz*

mit linkem Unterarm und flacher Hand Tasten stumm niederdrücken

835,3

557

7'2,8"

IV  
IX 109

pp

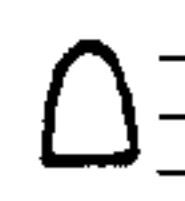
31  
ppp

(21,5) 30

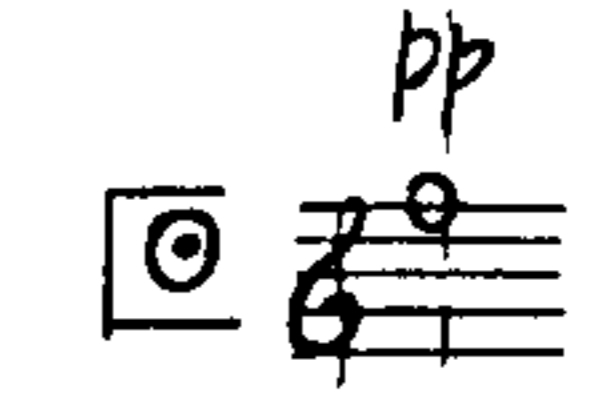
(28)

21,9"

14,6"



Metallstab



weich

ppp

pp

ppp

weich

ppp

p

p

mp

mp

p #

Musical notation on a grand staff (treble and bass clefs) with notes and dynamic markings. The notation includes notes on the treble clef staff and bass clef staff, with dynamic markings such as p, mp, and p #.

IV A 78,5

IV B   IV C   IV D   IV E   IV F

IV A 756,86

180,9
422
273,8
80,5
403,8
73,7
38
60
40
49
90
90
109
214,4
270,5

The musical score consists of several staves. The top two staves contain piano accompaniment with various chords and dynamics. The middle staff features a melodic line for the piano, and a lower staff shows the bongo accompaniment. Handwritten notes and markings are scattered throughout, providing performance cues. Vertical lines and dashed lines separate the different sections and measures. The bottom of the page shows additional piano accompaniment.



8'32,5" VB

The image shows a handwritten musical score with multiple staves and extensive technical annotations. At the top, a series of numbers (152, 73, 401,5, 111,5, 140,3, 57,5, 69, 165, 27,8, 25,5, 45, 283,1, 100, 21,8, 53, 165, 129,3, 117,3, 140,3, 110, 26,3, 93,5, 73,3) are written above the first staff. The score is divided into sections by a vertical line. Above the first section, fingerings (II, I, I, III, II, IV, II) and dynamics (mf, pp) are noted. A diagram shows a hand with fingers numbered 1-5, with arrows indicating finger positions and numbers in parentheses (24), (18), (20), (18), (7), (28), (20), (35), (14). A large bracket labeled '283,1' spans across the middle section. To the right of the vertical line, the text 'Rotation Rechts, accel. in allen' is written. Below this, 'I alternierend' and 'III' are noted with various  $\beta$  and  $\alpha$  symbols. Dynamics like 'f(0)', 'mf dim.', 'f', 'mf', 'fp', 'f', 'mf' are scattered throughout. A note 'alternieren mit Klavier' is present. The bottom part of the page contains musical notation on staves with various notes, rests, and dynamic markings.

248,5  
 67,5 77,5 111,5 53 63,3 69,5 45 49 41,5 25,5 27,8 34,3 30 35,3 34,5 19 23,5 27,8 24 6 16 20 13,5 22 45  
 9'252"  $\nabla C$  603,1 73,3 67,5 93,5 101,5 422"  $\nabla D$  77,5 73,5 41,6 53"  $\nabla E$  Rotation links langsam-accel 34,2

123  
 Rotation  
 15C  
 A<sub>9</sub> B<sub>10</sub> B<sub>11</sub> B<sub>12</sub> B<sub>13</sub> B<sub>14</sub> A<sub>15</sub> B<sub>16</sub> B<sub>17</sub> A<sub>18</sub> A<sub>19</sub> A<sub>20</sub> A<sub>21</sub> A<sub>22</sub>  
 I  
 a<sub>2</sub>  
 II  
 a<sub>8</sub> a<sub>9</sub> a<sub>10</sub> a<sub>11</sub> a<sub>12</sub> a<sub>13</sub> a<sub>14</sub> a<sub>15</sub> a<sub>16</sub> a<sub>17</sub> a<sub>18</sub> a<sub>19</sub> a<sub>20</sub> a<sub>21</sub> a<sub>22</sub>  
 dim 6,5' 14,1" 4,0" 12,2" 15,8" 10,8" 3,0"

17a 17b 17c 17d 17e 17f  
 A<sub>23</sub> 17b 17c 17d 17e 17f  
 f  
 I (10)  
 f mf pp f f(0)

sfz  
 Trem.  
 p  
 fp  
 mp  
 f  
 f  
 mf  
 f  
 mp  
 f  
 ff  
 f  
 f  
 p  
 mf  
 f  
 f accel.

sfz  
 mf  
 p  
 f  
 f

f  
 f  
 p  
 mf  
 f

f  
 f

218 165 93,5 15 32,5 10' 16,9" VF 122,5 86,5 57,5 24,1" VI 121,9 57,1 80 87,7 179 199,1 53,1 VIIA

6" 4,3" 2,5" 1,2" 0,9" 7,2"

steht in IV  
20(A 224)  
(46)

Rot. rechts  
Schnell rit.

bleibt in IV  
Rot. links  
sehr schnell rit.

Schleifen  
α<sub>1</sub> α<sub>2</sub> α<sub>3</sub> α<sub>4</sub> α<sub>5</sub> α<sub>6</sub> α<sub>7</sub>  
II β<sub>1</sub>  
sffz  
in I-IV

f (0) 19 f (0) 21 f (0) 22 f (0) 25

266,7 400 29" 121,9 80 179,1 57,1

atmählich öffnen

accell.

langsam drehen

einige Stöße in unregelmäßigen Zeitabständen

geht zu Gong und Tamtam

dickster Filz

geht zurück

f p p f f mf ff

I-II (II 5)

11' 19,3"

35,2" VII B

899.4  
437.8 21,7 121,7 17,8

1000

I-IV I II III

(12) (25) (72) (35)

pp ppp

dim.

I II III

*f* *p*

*f* *p*

(40) (48) (45) (40)

pp

26,2"

15,9"

23,6"

sehr harter Gummi

Kuppe (nur a)

Rand (nur g)

*p*

*p*

rit...

*pppp*

*mf*

*f*

*mf*

*f*

*mf*

*p*

*f* *f* *p*

*f* *p*

*p*

möglichst schnell und scharf

*p* →

58,8" VII C

12' 5,9" VII D 182,9

10,7" VII E

410,5

21,5" VII F

27,1"

35,6" 99,8

38,2" 64,8

39,9" 148,6

43,8" 487,7

außer Maßstab →

Musical score for the first system, featuring various notes, rests, and dynamic markings like pp, mf, f, ff. Includes performance instructions such as 'Halbzeit gegen hand' and 'Fuß'.

76 77 78 79 80 81 82 83 84...88 89 90 91 a/b 92-94 95 96 97 98 99 100 101 102 103 104 107 113 119 128 131 139 145 151 158 159

7,1" 4,8" 10,8" 5,6" 8,6" 12,6" 4,2" 3,9" 12,8" →

Bis 13. entweder auf **2 Bongos**  
 mit Händen möglichst viele Tonhöhen- und Klangfarbenunterschiede spielen;  
 Gruppen sollen unbedingt synchron mit elektr. Klängen sein.

oder **Bongo+3 Tomtoms**  
 frei verwenden  
 (obere Linie für die beiden höheren, untere Linie für die beiden tieferen)

Musical score for the second system, including a section for 'Bongo+3 Tomtoms' with specific performance instructions.

synchron  $\text{♩} = 60$

synchron  $\text{♩} = 60$

Musical score for the third system, including a section for 'Fuß' and various rhythmic patterns.

→ wieder im Maßstab  
56,6" VIII A/B

13'7,3" VIII C

12,1" VIII D

408,4

189,2

720,4

(487,7)

The score consists of several staves. The top staff is a vocal line with notes and lyrics. Below it are two piano staves: the upper one contains triplets and chords, while the lower one contains chords and bass notes. To the right of the piano part is a harpsichord part with various dynamic markings and performance instructions. The harpsichord part includes a section labeled 'Fib.' with notes and a section labeled 'Fuß' with notes and a dynamic marking. There are also sections with dynamic markings like 'f', 'mf', 'p', 'ff', 'sfz', 'fp', and 'p'. The harpsichord part also includes instructions like 'allmählich öffnen' and 'schließen mit fuß'. The score is divided into sections by vertical dashed lines, with measurements like '12,8"', '10,7"', '4,8"', and '18,9"' indicating the length of these sections. The piano part has measure numbers 163, 169, 173, 175, 182, 186, 188, 195, and 202. The harpsichord part has measure numbers 14, 15a, 15b, 15c, 16/19, 20, 22, 27, 18, and 23.

p ↔ mf Intensitäten variieren

31,0" 739 50,4" VIII E+f 14' 1" 888,7

231 404,5 (30)  $\alpha_2$  mf

I → II (30)  $\alpha_1$  pp → f → pp

(20) wandert I → IV (30) mf (Summe 10)

III → I pp → f → mf

19,4" 10,6" 23,3"

p pp im Kreis langsam mit dünnem Metallstab am Rand entlang p

zweimal klingen lassen f

Kautschukschlegel mf

fester Gummi ff, stacc.

pp trem. sfz

Detailed description of the musical score: The score is divided into several sections. The top section shows a diagram of the instrument's body with measurements (31.0", 50.4", 14' 1", 888.7) and a table of numbers (231, 404.5, 194.2, 19, 33.5, 44.8, 33.2, 56, 36, 165, 126, 216.2, 56). Below this, there are musical staves for different parts of the instrument. The first staff has dynamics like 'pp' and 'mf' and includes the instruction 'wandert I → IV'. The second staff has dynamics 'pp', 'f', and 'mf' and includes the instruction 'im Kreis langsam mit dünnem Metallstab am Rand entlang'. The third staff has dynamics 'p' and 'pp' and includes 'trem.' and 'sfz'. The fourth staff has dynamics 'f' and 'mf' and includes 'zweimal klingen lassen' and 'Kautschukschlegel'. The fifth staff has dynamics 'ff, stacc.' and includes 'fester Gummi'. The diagram shows the instrument's body with various markings and measurements.

24,3" 284,7 31,8" IXA DREI 224 37,6" 15,3 40,1" 148,6 44" SECHS 331,5 52,7" 179 57,4" 67,5 59,2" 429,3 152,6" 247,5 9,1" 17,5 11,6" 53 13" 129,3 16,4" 129,5 19,8" SIEBEN

Handwritten musical score for four staves (I, II, III, IV). The score includes various notes, rests, and performance markings. Dynamics include *pp*, *p*, *f*, *mf*, *pp sempre*, *sfz*, and *pp*. Performance markings include *rit.*, *acc.*, and *synchron*. The score is divided into sections labeled "DREI", "SECHS", and "SIEBEN".

oben härtere } Gummischlagel  
unten weichere }

Handwritten musical score for a single staff. The score includes various notes, rests, and performance markings. Dynamics include *sfz*, *f*, *p*, *mf*, *f*, *ff*, *f*, *mf*, *f*, *mf*, *f*, *mf*, and *mf*. Performance markings include *rit.*, *acc.*, and *synchron*. The score is divided into sections labeled "DREI", "SECHS", and "SIEBEN".



19,8" 228,3 25,8" 218 31,5" 97,6 35,9" 69,7 43,2" 111,5 48" 77,5 50,9" 111,3 54,7" 99 58,1" 117,3 16'1,2" IXC 82" IXD Alternierend I↔II

The score is divided into sections labeled IXB, IXC, and IXD. It includes various musical notations such as notes, rests, and dynamic markings (ppp, p, mf, f, sfz, rit.). Performance instructions include 'Crescendo', 'Vibraschl. Mitte → Rand → Mitte', 'mit Stock', 'Hohstiel', 'p (sehr dumpf)', 'Trommelstöcke dickes Ende', 'Faustbreite Cluster', 'hart', and 'weicher'. There are also diagrams of drumsticks and a small musical notation with a circled '8'.

899,4

336" IX E+F

453" II ↔ III alternierend (zwischen jedem Maximum)

170,5" II → I-IV

I ↔ III alternierend

67,8 119,3 43,5 41,5 32,5 34,3 45 73 62,3 73,3 86,3 101,5 119,3

39a 39b 39c 39d 39e 39f 39g

42a 42c 42d

44a 44b 44c

45a 45b

ff dim

f

pp

pp >mpre

pppp

dim.

ca 8"

ca 6"

25,4"

11,7"

15,2"

bleibt Gummi

rit.

f → mf → ff → f → pp

Rand → Mitte → Rand → Mitte

pp crescendo — — — ff

sofort dämpfen

accell. — — — rit.

Klavier

ff

pp

ca 32"      32,5"      ca 6"      38,5"      46,5"      55,5"      18'4,5"

dicke weiche Filzschl.  
langsam und unregelmäßig

13,5"

18'26,5"

10"

36,5"

11"

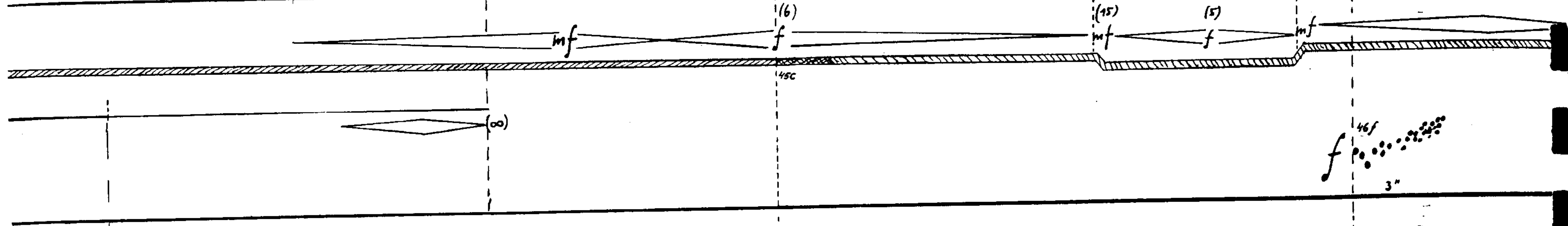
47,5"

7"

54,5"

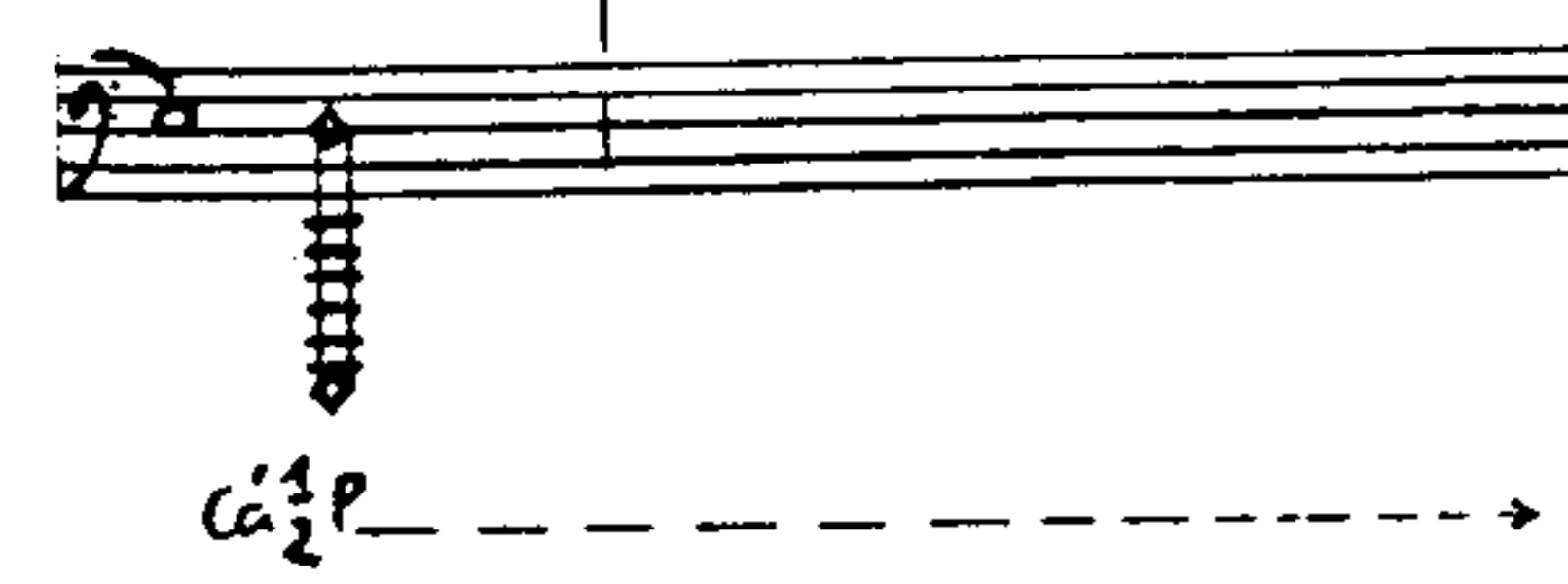
56,5"

10"

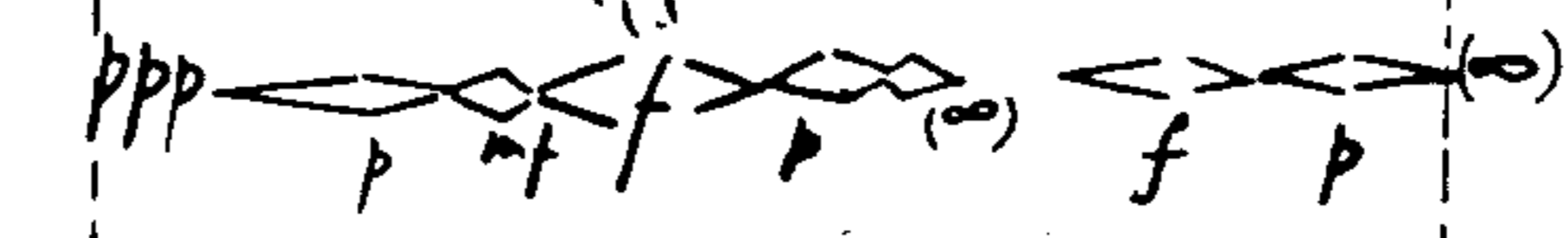
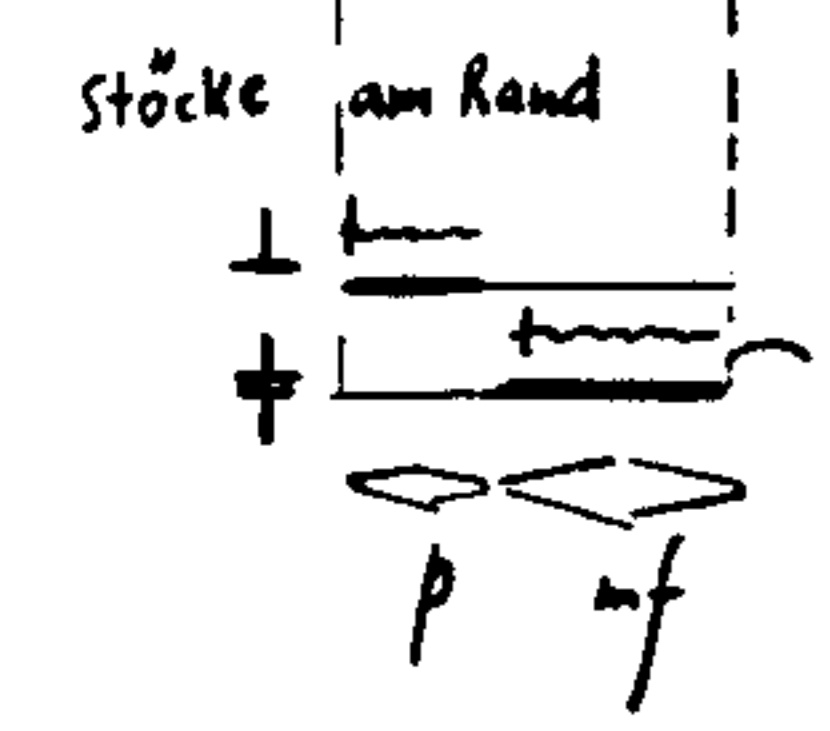
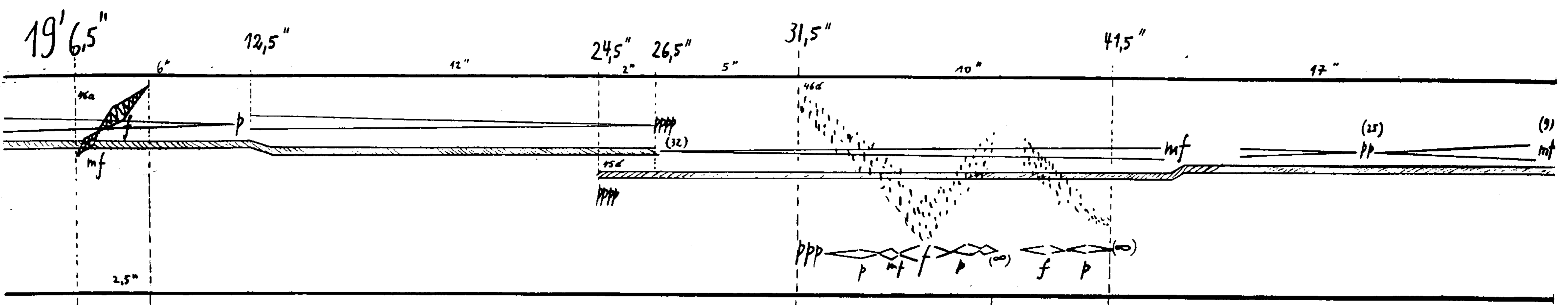


Anstoß mit  
Handfläche  
und ausschlagen lassen

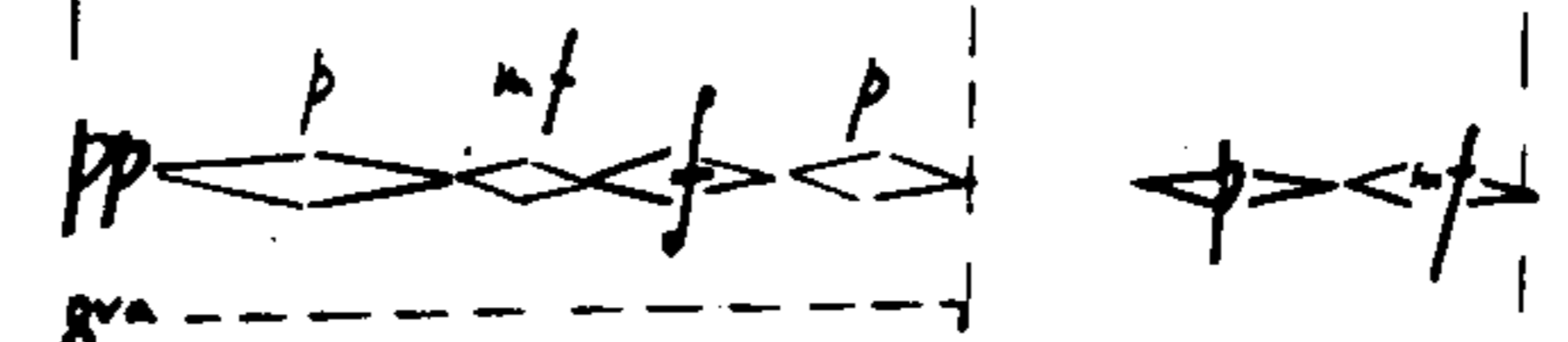
Bamboos → mf



p →



so schnell wie möglich  
(dynamische mit Lautsprecher parallel)

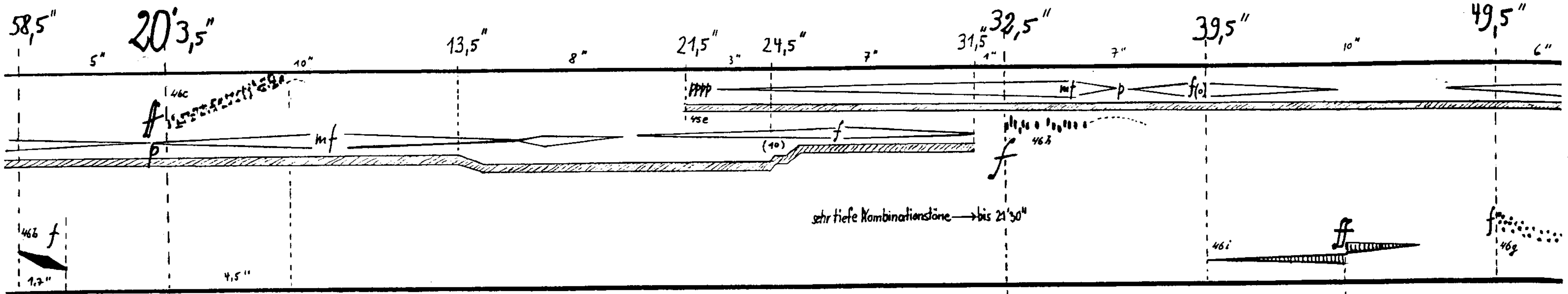


8va

staccato

$\frac{2}{3}$  Ped

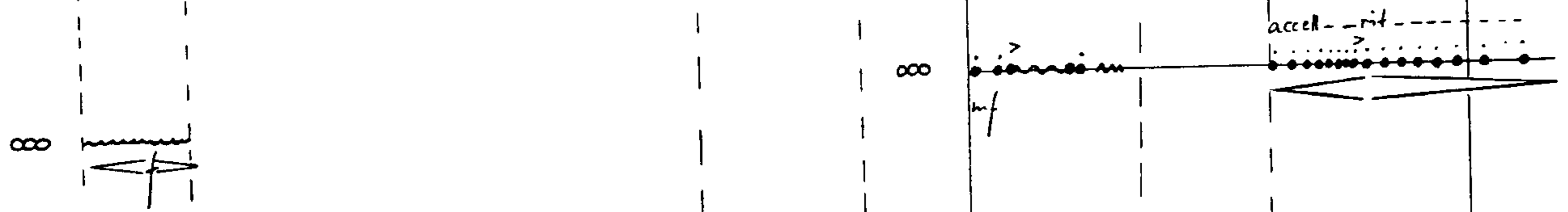
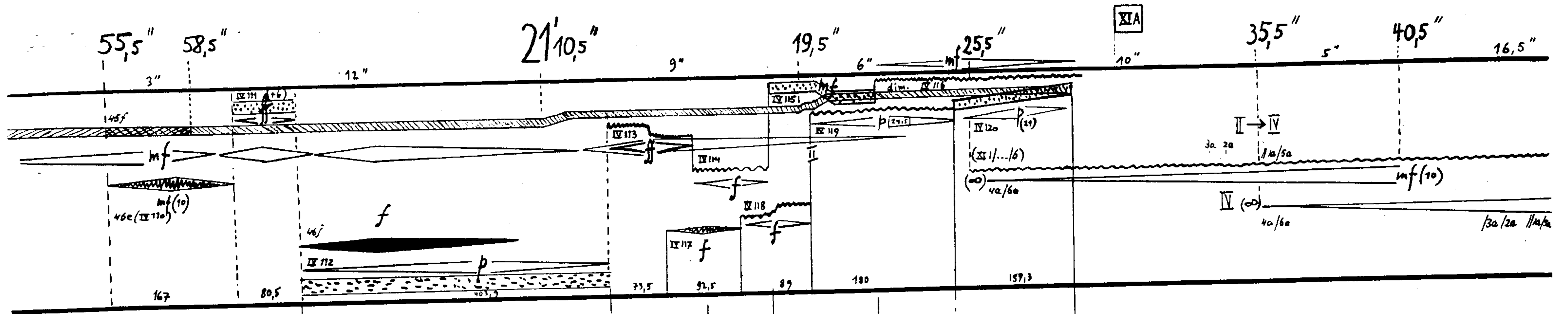
Musical notation for a piano piece, including staccato and pedal markings. The notation is in treble clef and shows a series of notes with staccato markings and a pedal marking.



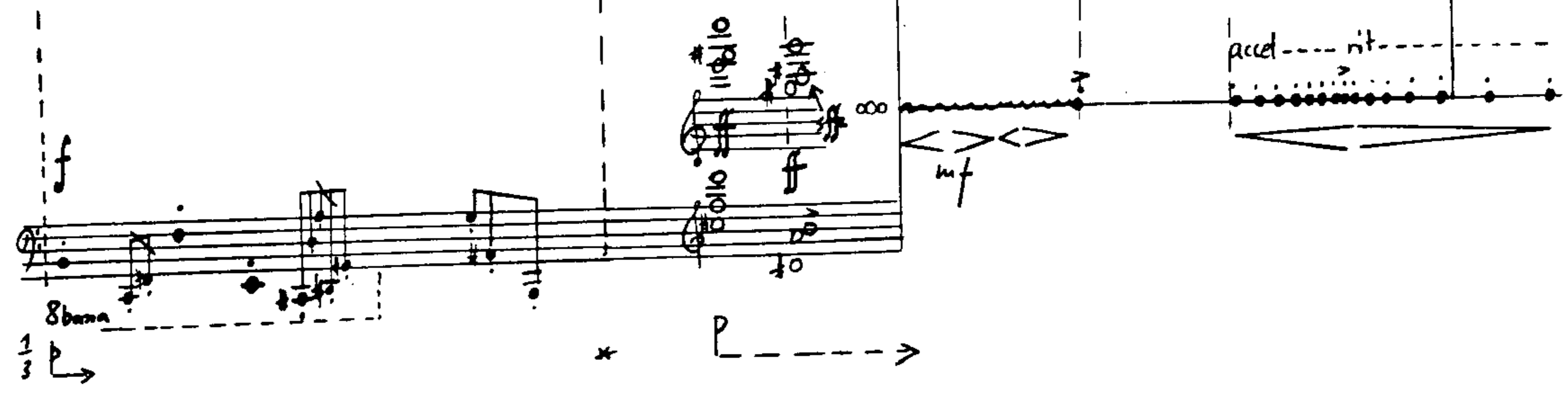
schr tiefe Kombinationstöne → bis 21'30"

gliss.  
klingen lassen  
f

Fvß mf  
f  
sfz  
p



Fuß p ausklingen lassen



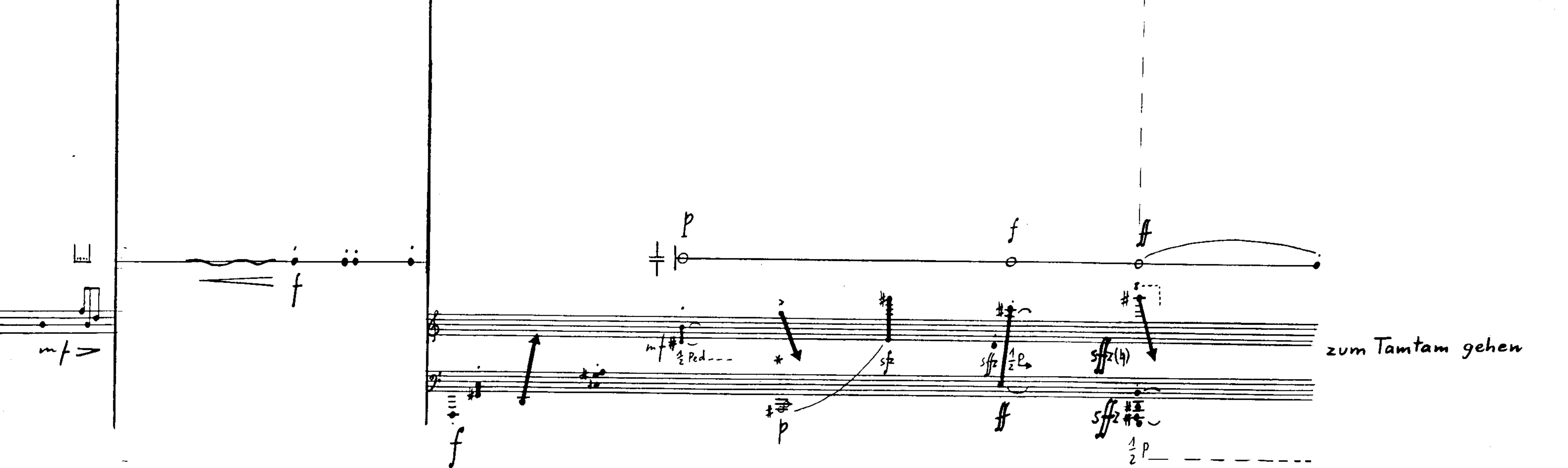
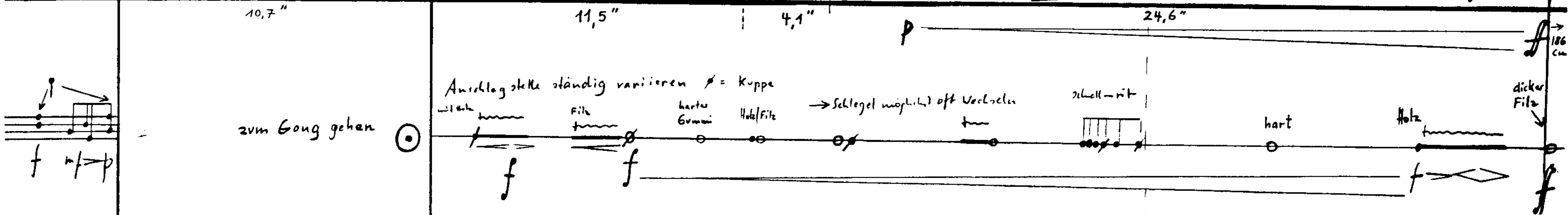
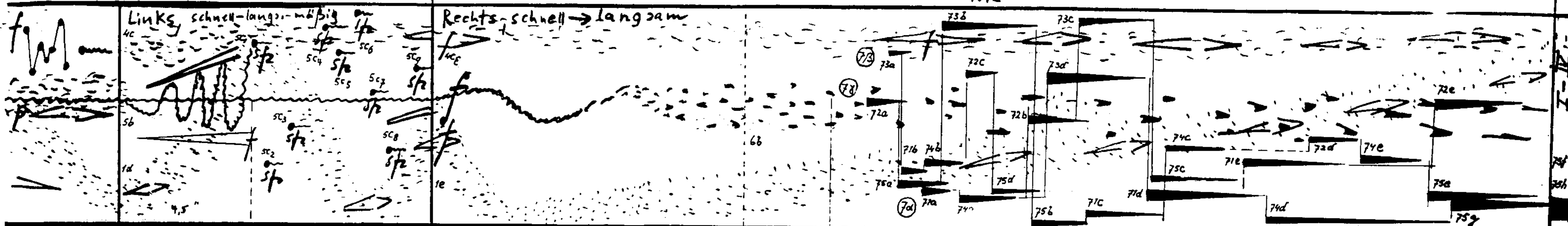


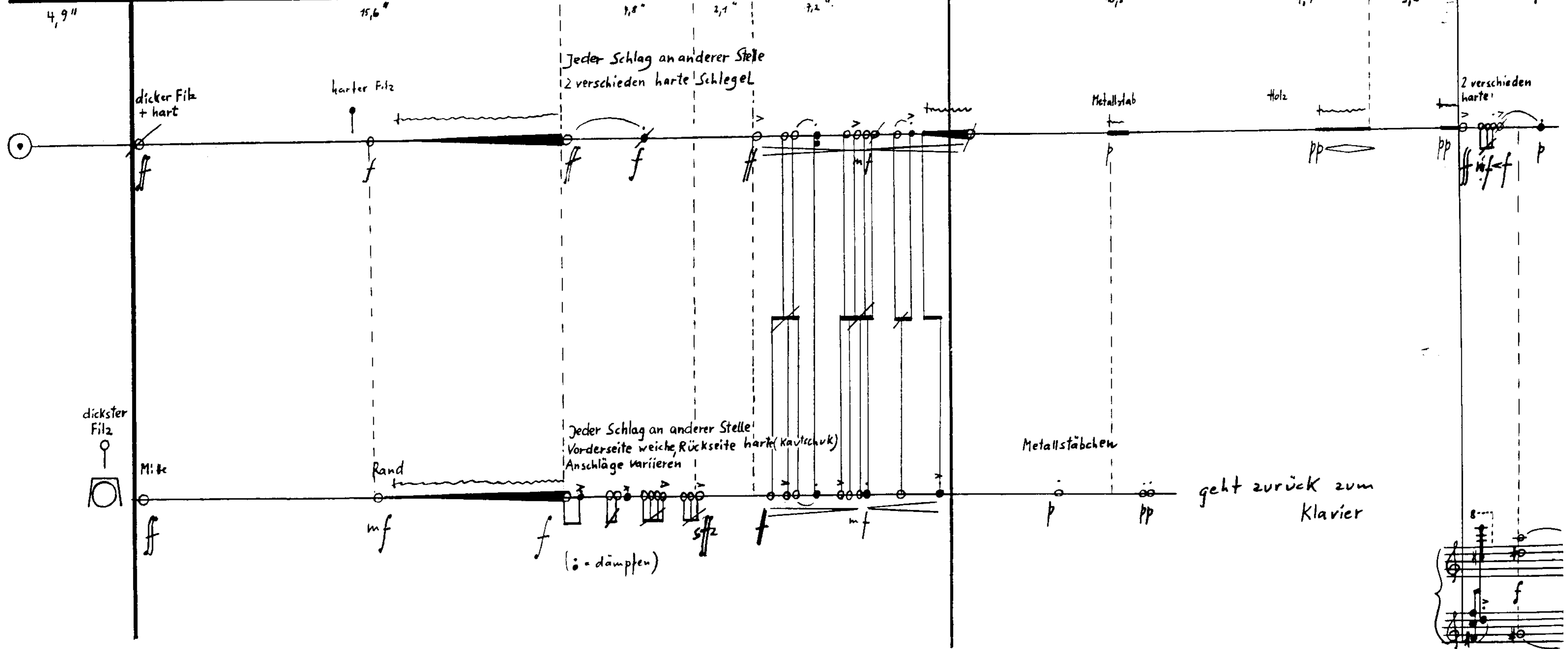
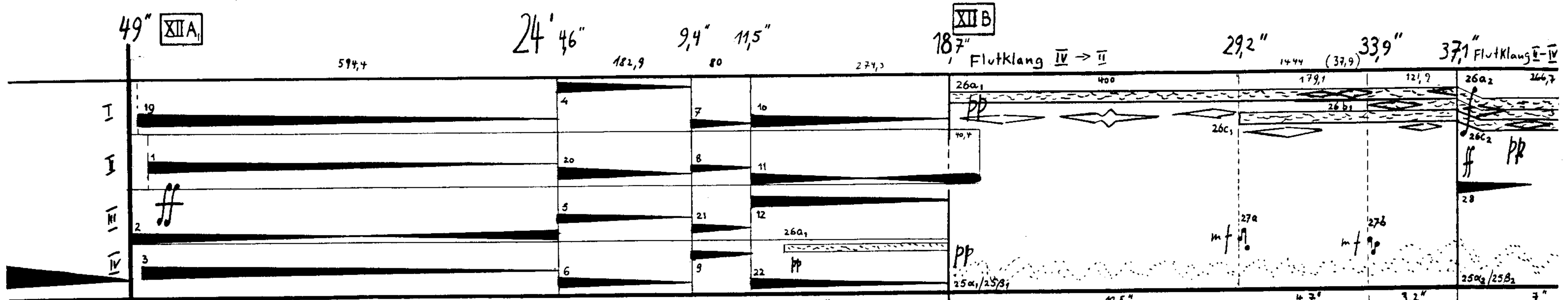


53,2" XIE

23' 39" XIF

44,7"





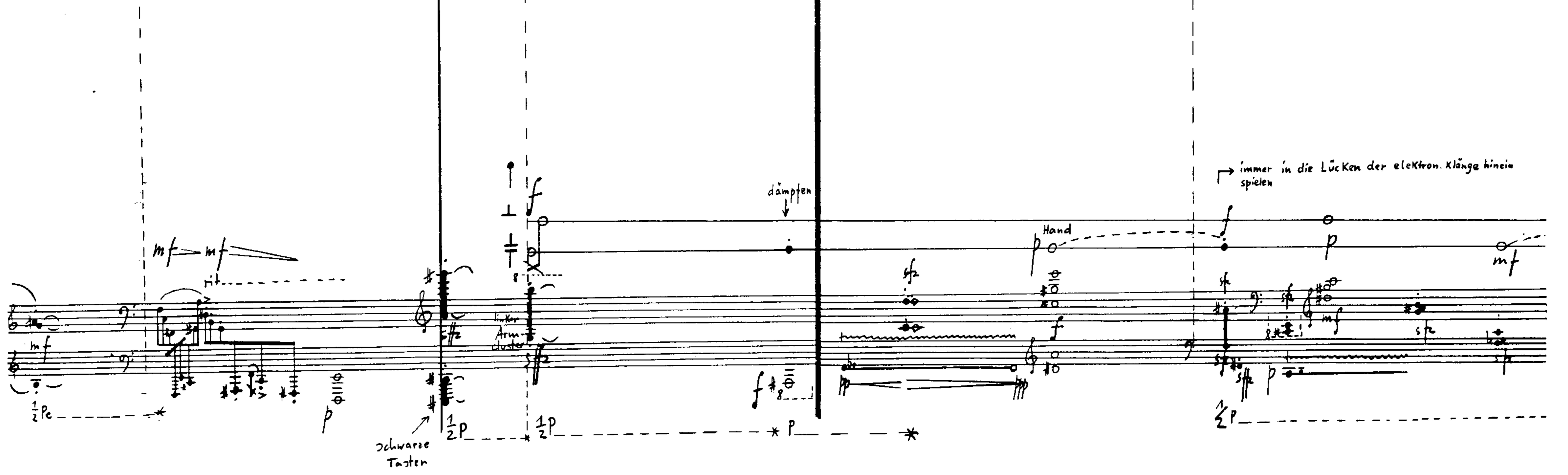
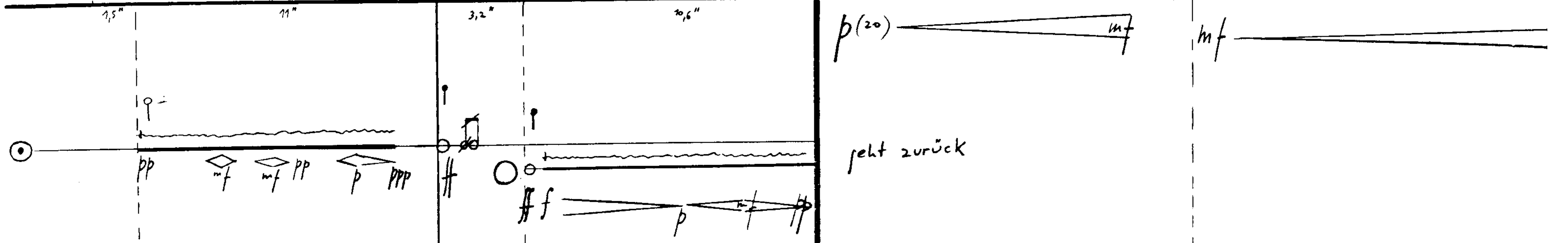
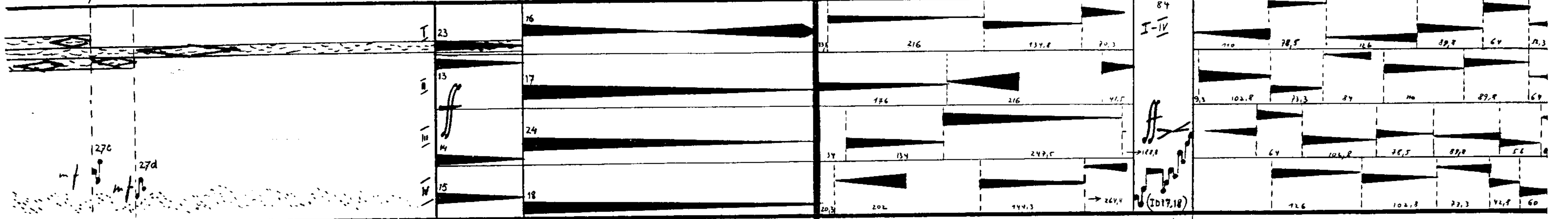
44,1" 45,6"

XIIA<sub>2</sub>  
566" 12,9 59,8"

403,9

25' 10,4" XIII A

115,4" (30,3")



XIII A<sub>b</sub> 40,7"      338,5"      49,6"      26' 51" XIII A<sub>d</sub>      XIII A<sub>c</sub> 9,2"      XIII A<sub>f</sub> 15,2"      228,8"      226"      189,8"      276"      125,9"      309"      331"

The score is divided into three main sections corresponding to the instruments XIII A<sub>b</sub>, XIII A<sub>d</sub>, and XIII A<sub>f</sub>. Each section features a spectrogram at the top showing frequency content over time, with various annotations such as *f*, *pp*, and *I-IV*. Below the spectrograms are musical staves with notes, rests, and dynamic markings.

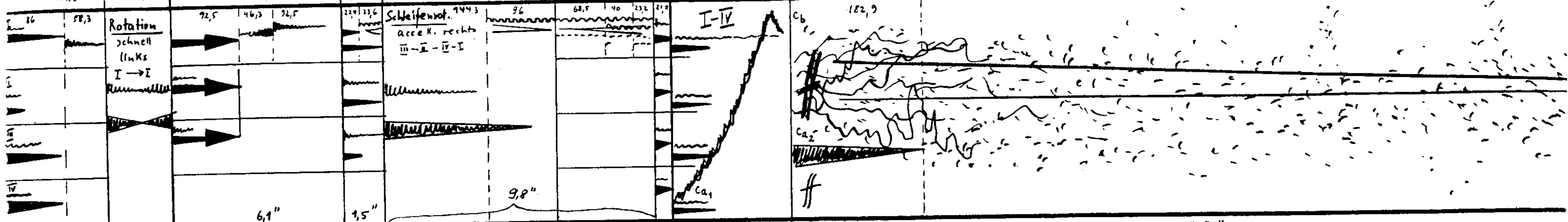
**Section 1 (XIII A<sub>b</sub>):** Includes performance instructions like "mit *f*/*p*", "ff", and "f". A time signature of  $\frac{3}{8}$  is indicated at the bottom left.

**Section 2 (XIII A<sub>d</sub>):** Includes performance instructions like "f", "F<sub>u</sub>/*p*", and "f". A time signature of  $\frac{1}{4}$  is indicated at the bottom left.

**Section 3 (XIII A<sub>f</sub>):** Includes performance instructions like "ff", "möglichst schnell (mit *f*/*p*)", "rit.", and "p". Time signatures of  $\frac{1}{2}$  and  $\frac{1}{3}$  are indicated at the bottom.

Additional notes include "Holz langsam öffnen" (Wood slowly open) and "p (25)".

344 XIII B 38,2" 40,6" 46,7" 48,2" 58,6" 62,8" XIII C 1625,3



Musical score for piano and violin. Labels include:
 

- Filetuch auflegen
- mit einer Hand
- sfz
- mf
- f
- p
- pp
- sf/f
- mf/sfz/mf
- sfz/p
- sfz pp
- 8va
- mf
- sfz
- sfz pp

27' XIII 45,5" 47,7" 51,0" 56,0" 28' 3,4" 14,6" 20,2" 613,4"

|            |   |                |                |   |                           |                                 |
|------------|---|----------------|----------------|---|---------------------------|---------------------------------|
| <p>ppp</p> | <p>I III<br/>D♭+D<br/>(M) pp sempre<br/>(H)</p> | <p>verhätt</p> | <p>verhätt</p> | <p>rotiert mit<br/>Schleifen rotation links<br/>IV-I-III-II langsam</p> | <p>alternierend II/IV</p> | <p>D(♭+♯)/C<br/>pp</p>          |
|            | <p>f 2,2"<br/>(?)mf</p>                         | <p>3,3"</p>    | <p>5,0"</p>    | <p>7,4" ← 35,9"</p>   | <p>11,2"</p>              | <p>5,6" 16,7"<br/>sfz sfz f</p> |

Guero sehr kurz und dumpf



Handwritten musical score on page 33, featuring various staves and annotations. At the top, measurements in inches are provided: 30,2", 32,1", 39,1", 44,1", 47,0", 49,3", 50,4", 55,6", 58,5", (1062,7)", 30'7,7", 15,1", 17,1".

The score includes the following elements:

- Staff 1:** Piano part with dynamic markings *pp*, *mf*, and *pp*. Includes the instruction "7a (MG4)".
- Staff 2:** Bamboo part with the instruction "Bamboos" and the performance note "mit allen fingern durcheinander stoßen." (strike with all fingers against each other). It features a dynamic marking *f*.
- Staff 3:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 4:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 5:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 6:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 7:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 8:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 9:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 10:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 11:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 12:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 13:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 14:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 15:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 16:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 17:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 18:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 19:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 20:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 21:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 22:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 23:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 24:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 25:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 26:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 27:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 28:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 29:** Piano part with dynamic markings *f*, *mf*, and *sfz*.
- Staff 30:** Piano part with dynamic markings *f*, *mf*, and *sfz*.

|| = weiße Tasten

( $\frac{1}{2}P$ )

$\frac{1}{2}P$

$P$

$\frac{1}{2}P$

$\frac{1}{2}P$

$\frac{1}{2}P$



1664,1    35,1"    37,7"    47,5"    51,5"    53,3"    31' 0,8"    XIV    2,3"    4,4"    7,6"    12,3"    1109,8

The score consists of several systems of staves. The top system includes a series of measurements and a boxed Roman numeral 'XIV'. Below this, there are staves with notes and dynamics such as *pp*, *f*, *sfz*, and *ff*. A large section is labeled 'Bamboos' and includes performance instructions like 'mit 4 Schlegeln' and 'mit beiden Händen zusammenschlagen'. The bottom part of the score features a series of notes with dynamic markings *p*, *1/2 p*, and *pp*.

The score is divided into sections labeled XV A through XV F, with various measurements in inches and centimeters. Section XV A includes measurements like 19,3", 29,8", 594,4, and 90". Section XV B has 454" (80) and 475". Section XV C has 274,3. Section XV D has 54,7" (182,9). Section XV E has 59,5" (403,9). Section XV F has a large measurement of 32' 10,1" (121,9).

**Staff 1 (Top):** Features complex rhythmic patterns with dynamic markings like *f* and *pp*. Includes notes such as 9c", 9h", 9i", and 9j".

**Staff 2:** Similar to Staff 1, with dynamic markings and notes like 9k", 9l", 9m", and 9n".

**Staff 3:** Contains notes like 267 and 15,6".

**Staff 4:** Includes notes like 10,5", 2,1", 7,2", 4,8", 10,6", and 3,2".

**Staff 5 (Middle):** Labeled "Bamboos" and "mit Saiten". Includes dynamic markings *pp*, *f*, and *mf*. Instructions include "leichte Stöcke mit harten Kugeln (auch für Kl. Tr.)" and "Besen/Kurzer Stöck auch mit Metallstiel".

**Staff 6 (Bottom):** Labeled "Bamboos" and "mit Saiten". Includes dynamic markings *mf*, *p*, *f*, and *pp*. Includes instructions like "Bambus (mit Metallstiel) schnell hint her" and "Stöcke".

**Staff 7:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 8:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 9:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 10:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 11:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 12:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 13:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 14:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 15:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 16:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 17:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 18:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 19:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 20:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 21:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 22:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 23:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 24:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 25:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 26:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 27:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 28:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 29:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 30:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 31:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 32:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 33:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 34:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 35:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 36:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 37:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 38:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 39:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 40:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 41:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 42:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 43:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 44:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 45:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 46:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 47:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 48:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 49:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

**Staff 50:** Includes dynamic markings *f*, *mf*, and *pp*. Includes notes like *st/mf* and *ok.*

13,3"

XVIA

26,1" 27,8"

33,5"

37,4"

46,0"

XVIB 48,6"

XVIC 53,4"

Rotation accel. → (rechts) XIII F 4e 5e 6e 7e

rit. →

steht kurz in III. Rot. langsam 1b7 2a7

steht in I Rotation sehr schnell, links / accel. →

XIV 4a2

XV 4a2

2e1 2e2 2e3 2e4 2e5 2e6

1b1 1b2 1b3 1b4 1b5 1b6

12,8" 17" 5,7" 3,9" 8,6" 2,6" 4,8" 15,7"

Bambos

Schläge mit Besen ganz flach aufschlagen, so daß Stielende (Metall) mit aufschlägt.

Stöcke Besen

Besensstriche (mit Metallstiel) mit Stock streichen

Besen Stöcke

Schläge

Hand

Bambos

Bambos

Stöcke

Besen langsam

Stöcke

Besem (mit Metallstiel) schnell hinther

Hand

Stöcke mit Metallstiel

Bambos

Bambos

Bambos

33'9,1" XVII

XVII 19,8"

24,6"

31,7" 899,2

434"

Rotation/sehr schnell

II, skht Rotation

schnell, rechts, rit.

Rotation, links langsam - accel -->

Diagram of the instrument's structure with various sections and annotations:

- Sections: 2a<sub>14</sub>, 2c<sub>14</sub>, 2e<sub>14</sub>, 2a<sub>15</sub>, 2a<sub>16</sub>, 2a<sub>17</sub>, 2a<sub>18</sub>, 2a<sub>19</sub>, 2a<sub>20</sub>, 2e<sub>15</sub>, 2e<sub>16</sub>, 2e<sub>17</sub>, 2e<sub>18</sub>, 2e<sub>19</sub>, 2e<sub>20</sub>, 2e<sub>21</sub>
- Annotations:  $\frac{1}{2}$ ,  $\frac{1}{2}$ ,  $\frac{1}{2}$ , IX F43e, f, 15"
- Other notes: fp etc., Th + IV, 1d, 1d<sub>2</sub>, 1d<sub>3</sub>, steht vor II, pp

Musical notation for bamboo and broom stick parts:

- Staves: Bamboo #, Besenknopt #, Besenknopt b<sub>0</sub>
- Dynamic markings: f, mf, pp, p,  $\leq p >$ , mf, p
- Other notes: Hand, Hand (Hand), tr., f, p, p, p, mf

Detailed musical notation for bamboo parts:

- Staff: Bamboos #, Bamboos #
- Performance instructions: mit beiden Händen zusammen schlagen, Besen Metallstiel
- Dynamic markings: f, p, mf, f, f, f, f, f, f, p, p, mf, p
- Other notes: f, f, f, f, f, f, p, p, mf, p

~ 34' 31,8"

