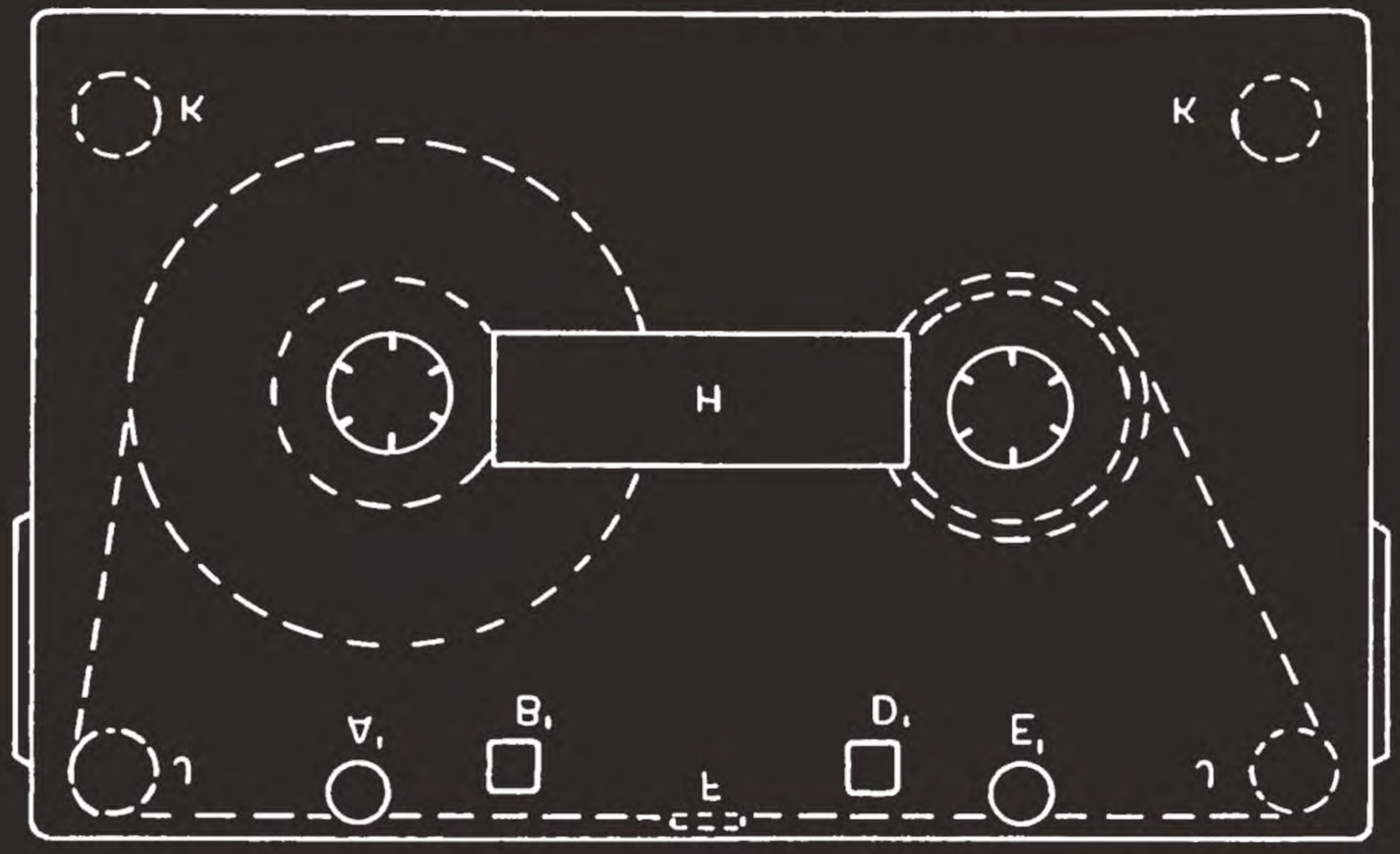
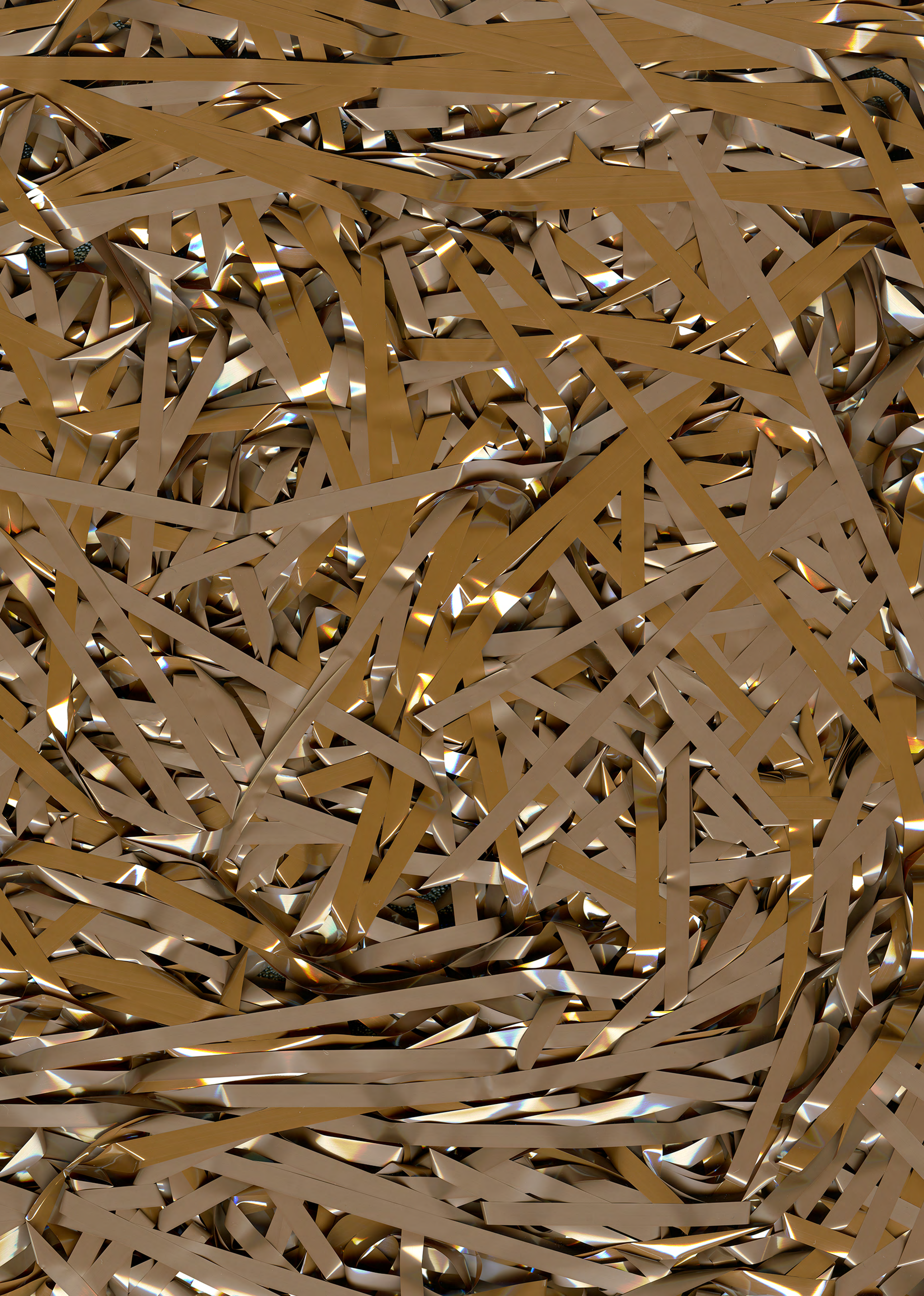
Start Here: the art of the audio cassette



Andy Birtwistle



IN THE BEGINNING WAS THE WORD

The origins of the compact audio cassette date back some 13.7 billion years to the birth of the universe. The elements from which cassettes are constructed were created by fusion reactions in the cores of dying stars, and distributed across the universe by supernova explosions as these stars collapsed. Some of this matter formed planets, like our own planet Earth, which was created by the accretion of gas, ice and dust approximately 4.5 billion years ago. 2.5 billion years later bands of iron were laid down in sedimentary rocks, forming the ore from which one of the principal elements of the compact audio cassette is produced – ferric oxide1. This is the magnetic material on which the cassette tape preserves its recordings of sound. The base onto which this coating is applied – a polyester-type plastic film – is derived from oil, the oldest deposits of which were created approximately 500 million years ago from the accumulation of dead plant matter and marine organisms on sea and lake beds.

However, a more recent history of the cassette tape might begin with the development of magnetic tape recording in Germany in the 1930s. The first commercially produced reel-to-reel tape recorder – the Magnetophon K1 - was manufactured by Allgemeine Elektricitäts-Gesellschaft (AEG) in 1935, but it wasn't until after World War II that the use of magnetic tape started to make an impact in the radio and recording industries. And it was not until the 1950s that manufacturers began producing tape recorders for domestic use.

One of the issues faced by both manufacturers and consumers at this time was that reel-to-reel tape recorders were quite bulky, not particularly portable, and required some degree of technical knowledge on the part of the user. While the quality of recordings made on reel-to-reel tape tended to be good, it was not a convenient format for general consumer use. Each time the user

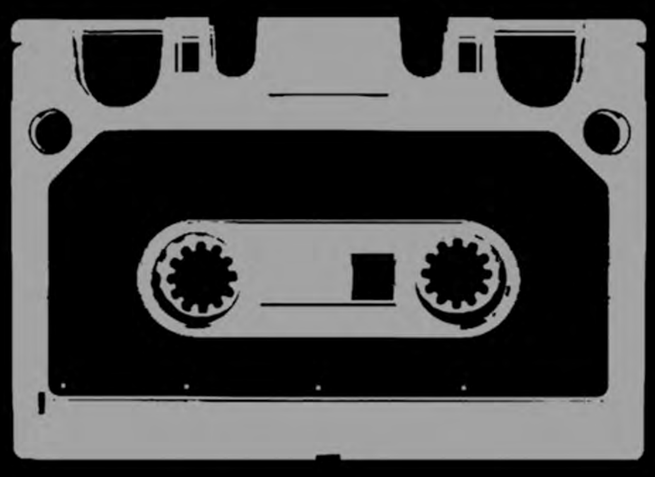
wanted to change tapes, the old tape had to be rewound, and the new tape threaded carefully past tape guides, erase, record and playback heads, capstans and pinch rollers, and onto the take-up spool.

In 1958 the Radio Corporation of America (RCA) devised a solution to this problem, enclosing the spools of tape in a large plastic cassette. However the RCA tape cartridge, while easier to use than reel-to-reel tape spools, was not a success, and by 1964 the format had largely disappeared. This cartridge was the immediate forerunner of the compact audio cassette, developed by Philips in the early 1960s and launched at the Berlin Radio Show in the summer of 1963. The Philips cassette was in effect a smaller (hence 'compact') version of the more cumbersome RCA tape cartridge, and the battery operated player-recorder that went with it - the Philips EL 3300 – was much more portable than the RCA's tape cartridge players. As Philips' American brand Norelco put it in a 1967 advertisement, the tape cassette "took the tangle out of tape recording".(2)

Some writers have claimed that when the compact cassette was released by Philips in 1963 it was sold and promoted primarily as a tool for dictation. In the beginning was the word.



1/4 inch tape spool



RCA tape cartridge



compact cassette

LIST OF START HERE CASSETTES

Audio Cassette Tape No. 1 – Salute to Vinyl

Audio Cassette Tape No. 2 – The International Refuse Collection

Audio Cassette Tape No. 3 – Audio Cassette Tape

Audio Cassette Tape No. 4 – Needle Drops and Run-out Grooves

Audio Cassette Tape No. 5 – Chewed

Audio Cassette Tape No. 6 – Music Is Killing Home Taping

Audio Cassette Tape No. 7 – Level Crossings

DAVE BRUBECK QUARTET — MUSIC FROM "WEST SIDE STORY" AND OTHER WORKS

LUDWIG KOCH – RECOLLECTIONS AND RECORDINGS

SERGIO [illegible] BRASIL '66 · A & M RECORDS

A SALUTE TO LUDWIG KOCH

BBC WILDLIFE SERIES NO. 1

POKAREKARE

CARAMBA!

LOS MACHUCAMBOS

DECCA PHASE FOUR STEREO

FFS 4089

JAZZ 'N' SAMBA

MILT JACKSON

JAS 32

JASMINE

NANCY AMES

THIS IS THE GIRL THAT IS

NANCY AMES

HM 531 THE LATIN DANCE BEAT OF XAVIER CUGAT AND HIS ORCHESTRA

UNICORN

PETER MAXWELL DAVIES & THE FIRES OF LONDON — EIGHT SONGS FOR A MAD KING — PETER MAXWELL DAVIES

RHS 308

VARIOUS ARTISTS

DANCE JUICE

DANCE JUICE - VOLUME 2

VARIOUS ARTISTS

BGP 1016

BGP 1005

ANTILLES AN 8712

VARIOUS ARTISTS

JAZZ WARRIORS - 'OUT OF MANY, ONE PEOPLE'

STREETSOUNDS SOUND 9

CHURCH BELLS OF KENT

Saydisc SDL 302 Stereo

BST 84169

LEE MORGAN

THE RUMPROLLER

BLUE NOTE®

Polyphonix I

LEE MORGAN

SEARCH FOR THE NEW LAND

BLUE NOTE®

STEREO

Première anthologie sonore

GE1418

SONNY ROLLINS ON IMPULSE

BLOWIN' THE BLUES AWAY

HORACE SILVER QUINTET & TRIO

JAS 2

JASMINE

MILESTONE STEREO M-9091

McCOY TYNER

PASSION DANCE

© Milestone Records, Inc./Riva Records Limited

Messiaen

Quartet for the End of Time

Beroff/Gruenberg/de Peyer/Pleeth

PHILIPS INTERNATIONAL SERIES LOS PARAGUAYOS

6458 503

CBS

STRAVINSKY FIREBIRD/PETRUSHKA

BERNSTEIN/NEW YORK PHILHARMONIC

61122

MASTERWORKS 76305

SCHOENBERG/BERG • BOULEZ/N.Y.P.

AMALIA RODRIGUES - FADOS E GUITARRADAS AU PORTUGAL - ALBUM FESTIVAL 113

PHILADELPHIA RECORDS

QUDAN JAZZ - WALFREDO DE LOS REYES AND HIS ALL STAR BAND

FLD 102

CBS 65588 1

LAMBADA

BAMI MUSTAPHAS PLAY STEREO - THE THREE MUSTAPHAS THREE - FEZ 001

Let's Do The Bossa Nova! — Tito Rodriguez and his Orchestra

AMAZONIA • CULT MUSIC OF NORTHERN BRAZIL

TYPHOON LEST 7300

AMERICAN INDIAN DANCES UD 301513

WB 56 903 (BSK 3550)

STEPHANE GRAPPELLI/DAVID GRISMAN · LIVE

STEREO

SIR ADRIAN BOULT CONDUCTS MUSIC BY ERIC COATES

LYRITA STEREO SRCS. 107

BOULEVARD 4019

ADIOS AMIGOS

A Festival of British Light Music

CBS 54552

MANITAS DE PLATA • FETE GITANE •

Dunn ESD 7063

STEREO

WILLIE COLON AND THE LEGAL ALIENS ■ TOP SECRETS ■ MESSIDOR 15979

PIVA

JUAN PENA LEBRIJANO & ORQUESTA ANDALUSI DE TANGER – 'ENCUENTROS'

LSY-62385

ORB 024

JACQUES BREL / BARCLAY 200277

Beethoven

CHARISMA CAS 1049

Symphony No.2 in D major

ANOTHER MONTY PYTHON RECORD

STEREO

YAMBU

MONGO SANTAMARIA

ORB 036

The James Taylor Quartet

MISSION IMPOSSIBLE

REAGAN 2

JOSE FELICIANO

IN LATIN MOOD

RCA CAMDEN MONO CDM 1066

BBC SOUND EFFECTS No.3

X-RAY SPEX

GERM FREE ADOLESCENTS

EMI STEREO INS 3023

VARIOUS ARTISTS

THE RIVERSIDE JAZZ SAMPLER

RED 102M

RIVM 001

PLAY AWAY

ROUNDABOUT 19

CHARLIE PARKER

"BIRD ON VERVE. VOL. 4"

CHARLIE PARKER CHARLIE PARKER CHARLIE PARKER

VERVE 817 445-1

CHARLIE PARKER CHARLIE PARKER CHARLIE PARKER

CBS

DAVE BRUBECK • TIME OUT/TIME FURTHER OUT

CBS 22120

CBS 22013

DAVE BRUBECK • TIME OUT/TIME FURTHER OUT

CBS

THE ESSENTIAL ASTRUD GILBERTO

VRV 6

ELLA FITZGERALD

THE GEORGE GERSHWIN SONGBOOK VOL. I

METRO STANDARD DOUBLE 2682 004

Music in Education / JBHF04LP

Classroom Projects / Incredible music made by children in schools

DONALD BYRD QUINTET

BYRD IN PARIS VOL. I

T 455

T 455

SAMMES SESSION

T 455

MUSIC PETER LAWSON

CFP 40329

DAVE BRUBECK QUARTET

TIME FURTHER OUT

CL 1690

NL 46026

TV ACTION JAZZ

RCA

TED HEATH AND HIS MUSIC - ROLAND ROS AND HIS ORCHESTRA

DECCA TAB 84

STEREO

NEW THING AT NEWPORT

JOHN COLTRANE / ARCHIE SHEPP

A-94

IMPULSE!

RAMSEY LEWIS/HIS GREATEST SIDES, VOL. 1

CRESS JAZZ

BENNY GOODMAN: COLLECTOR'S EDITION

CBS MASTERWORKS

GNP9-9074

LEE MORGAN

GARY BURTON, SONNY ROLLINS, CLARK TERRY

RCA VICTOR STEREO

AUDIO FIDELITY AFLP 1848

LA ZAMBRA, MUSIC OF SPAIN

HONEYMOON IN SOUTH AMERICA/RIO CARNIVAL ORCHESTRA

MARBLE ARCH RECORDS MAL 582

A HOLIDAY IN MEXICO

MY GOLDEN GUINEA

7567-81471-1

THE BLUES BROTHERS / ORIGINAL SOUNDTRACK RECORDING

CHOPIN RECITAL CRISTINA ORTIZ CIMP 872

JMVS [illegible] Celia Cruz: The 'Brillante' Best

Vaya Records

BOOKER T & THE MGs

SOUL LIMBO

SXE 009

LSEMI 78076

brazil classics 1 beleza tropical

compiled by david byrne

luaka bop records ltd.

PEGGY LEE LATIN A LA LEE

Chico Arnez & His Cubana Brass

LOS INDIOS TABAJARAS

RCA INTERNATIONAL INTS 1151 (LSP 4007)

CELIA CRUZ & WILLIE COLON · THE WINNERS · HOT 113

THE SWINGING JOHNNY GRIFFIN

HISPAVOX 130 128

The Best Of Frank Sinatra

CELINA GONZALEZ: FIESTA GUAJIRA

WCB 006

BBC RECORDS

ON THE AIR — 60 YEARS OF BBC THEME MUSIC

REF 454 STEREO

LIVE AT DRURY LANE

CLASS 4 STEREO

RECOVERY RECORDS

MAROCCO / PIZZI — THE TRIO

DS-838

GUITAR MUSIC OF VILLA-LOBOS · PONCE · SAINZ DE LA MAZA · LAURO

JULIAN BYZANTINE

CFP 4526

BRAZILIANA

MARIA CREUZA

STYLUS

PHILIPS ■ CASTRO MARIN ■ PACO DE LUCIA ■

6301 027

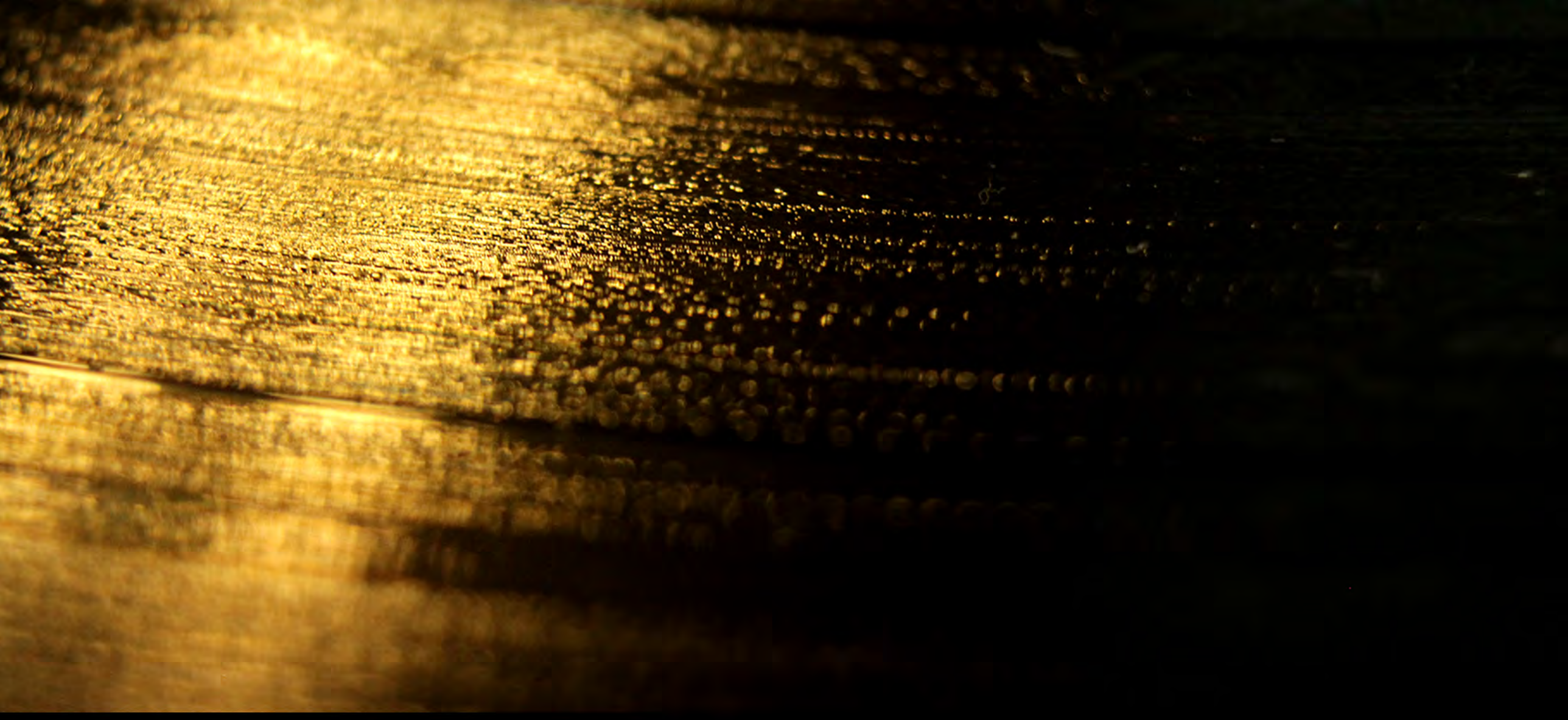
RODRIGO: CONCIERTO DE ARANJUEZ · ARNOLD: CONCERTO FOR GUITAR AND ORCHESTRA · MICHAEL CONN · CMP 8-9

The Soviet Army Ensemble

BERG: "KAMMERKONZERT" — STRAVINSKY: SYMPHONIES

Audio Cassette Tape No. 1

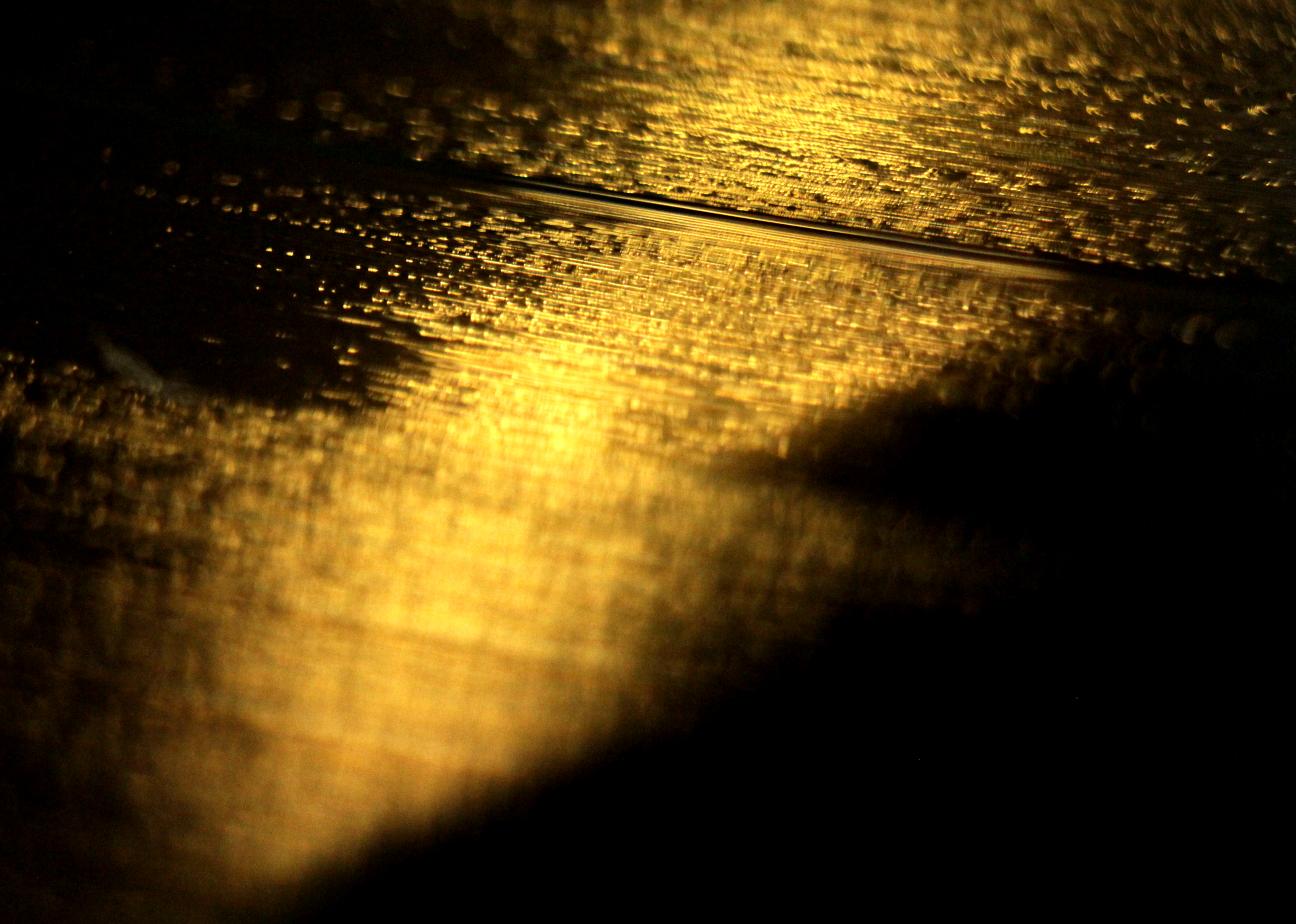
SALUTE TO VINYL



SALUTE TO VINYL

Salute to Vinyl features the surface noise recorded from both sides of a blank long playing vinyl disc played at thirty-three and a third revolutions per minute. This sound is generated by physical contact between the turntable stylus and the moving surface of a vinyl record. The continuous sound that results from the friction between these two surfaces is interspersed with intermittent sounds produced when the stylus encounters the damaged wall of a recording groove or particles of dirt. This is the sound of vinyl, brought to you through the medium of magnetic tape.

When I was a kid, before I got my first cassette recorder, I would flick through the pages of Exchange and Mart dreaming about the cassettes I would buy one day. I noticed that a number of the more affordable cassettes had titles that began with ‘Salute To’ or ‘Sounds Like’, and it was explained to me that this signified the music wasn’t being performed by the original artist. These were recordings by a soundalike - not the real thing - fake. But of course, when we listen to a recording we’re never really listening to the real thing: it’s the recording that’s the real thing. And when we listen to a recording we’re not just listening to music, singing or the spoken word: we’re also listening to the medium - to the technology.





Audio Cassette Tape No. 2

THE INTERNATIONAL REFUSE COLLECTION



THE INTERNATIONAL REFUSE COLLECTION

Side 1: 25°00'33.4"N 121°37'35.5"E

Shenkeng, New Taipei City, Taiwan.

20.08.2012

In Shenkeng the daily arrival of the municipal garbage truck is announced by an electronic recording of A Maiden's Prayer, written by the nineteenth century Polish composer Tekla Bądarzewska-Baranowska. Each evening this melody calls residents from their homes to dispose of their household refuse in the back of a passing garbage truck. Once the distant melody becomes audible, small groups of residents carrying bags of household waste gather in the dark, standing outside apartment blocks and houses, anticipating the imminent arrival of the garbage truck. This daily event provides an opportunity for neighbours to chat, passing the time with one another as they wait for the arrival of the refuse collectors. Then, once the truck has passed and the residents have disposed of their garbage, these groups melt away once again.

Most of the compact audio cassette tapes that have been produced since the format was introduced in 1963 are either already in, or shortly destined for, landfill. To enjoy this cassette at its best,play once and then dispose of promptly and safely.

Side 2: 51°17'08.0"N 1°04'24.1"E

Canterbury, United Kingdom.

28.07.2011

When I lived on Mandeville Road in Canterbury, the fortnightly collection of recyclable waste was heralded by a screeching sound. This was produced by the mechanism that tips waste into the hopper at the back of the bin lorry. The metallic grating noise echoed the sound made by trains approaching the nearby Canterbury West railway station, each train producing a characteristic squealing noise as it negotiates a curve in the track.

Also audible in the recording are the cries of herring gulls nesting on nearby rooftops. This sound, traditionally associated with coastal areas, has increasingly become a feature of urban environments. In towns and cities discarded food and other sources of accessible rubbish - such as landfill sites - provide a rich foraging habitat for these birds.



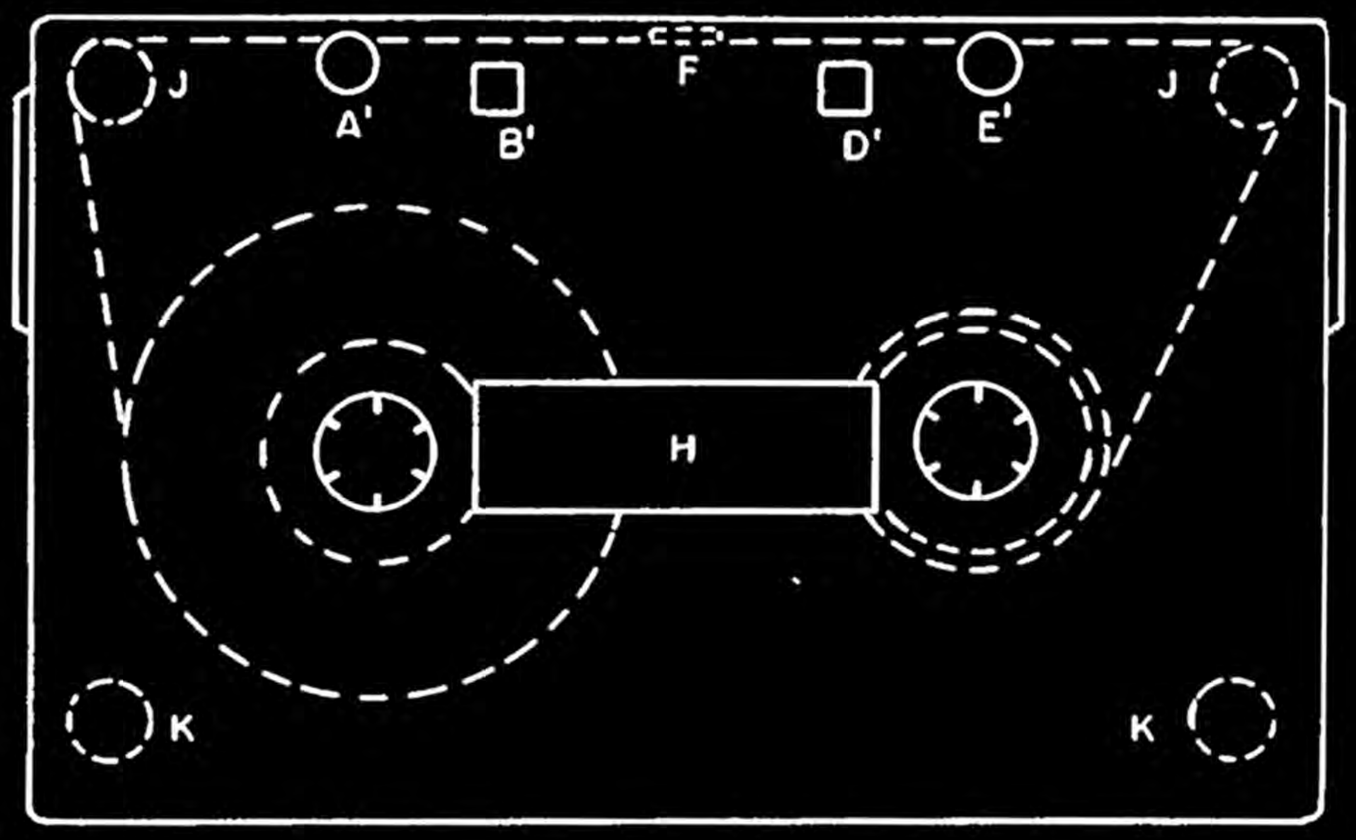



PROFESSIONAL
AUDIOCASSETTE
SIDE ONE
FERRIC BIAS • IEC1 • 7.5 MI

Audio Cassette Tape No. 3

AUDIO CASSETTE TAPE





AUDIO CASSETTE TAPE

The Philip's type of audio cassette which is referred to as the "compact cassette" was developed by Philips Electrologica of Eindhoven, Holland. This is the most prevalent type of cassette that is used for digital applications and is produced under a cost-free license by a large number of companies .

Physical details of the Philip's type cassette are as follows : In most cases, the outside shell of the cassette is made of a noninflammable, high impact polystyrene plastic. One model is available with a metal shell. The shell consists of two pieces which are joined together either with screws near the four corners or by ultrasonic welding. The welded cassette cannot be opened without destroying the shell.

The front edge of the cassette shown in Figure la has5 holes which serve the following functions : holes A and E are for pinch rollers (usually solenoid activated) which enter the cassette and engage capstans which are directed into holes A’ and E’ (figure 1b) when the cassette is inserted into the transport; holes B and/or D are used for BOT/EOT optical sensing and hole B for an erase head when one is used; hole C is used for the record and/or read head. The side view (figure lb) shows the location of the pressure pad F. There Is no general agreement about the need for a pressure pad; some transports require a pad, while others are unable to use a cassette with a pad.

The back edge of the cassette (figure Ic) has two U- shaped cuts in the shell which enclose areas that can be punched out to allow read only operation. A write enable plug can be inserted into these areas when a write operation is desired. The use of this write enable plug has not been entirely satisfactory because it is small in size and is easily lost. One cassette manufacturer covers the hole with a metal plate inside of the cassette so that it can be "read-only" or "write enabled" by rotating a small disc that is built into the side of the cassette. This controls the opening or closing of the hole when the write enable sensing pin in the transport engages the metal plate [...]

The tape is wound on 2 flangeless hubs within the cassette. These hubs are loosely fit in order to allow forthe easy engagement of the tape supply and take-up drive shafts. One manufacturer has used precision mounted ball bearing tape hubs in the cassette shell. A hub usually has provisions for fastening the tape leader to its outer surface. Rollers are provided at position J (figure Ib) for tape guidance. There are several configurations for these rollers.In one model they are spring loaded in order to fix their position in the cassette and the tape contacting surface is convex shaped to keep the tape centred on this roller surface. In another case, the rollers are free to move between the cassette shells and the important tape guidance is performed closer to the head.

From The U.S National Institute of Standards and Technology, NBS Technical Note 731, Calibration of Secondary Magnetic Tape Cassette (Computer Ampliture Reference) Phase I, pp.5-7.



A.Front Edge



C. Back Edge

The Seekers. A world of Our Own.
Columbia. SX 1722

English with an Accent
BBC Records. Rec 166

The Lennon Sisters
On the Groovy Side
Ranwood. R 8004

Adventures with Stuppy the
bush kangaroo
Narrated by John McCallum.
feat. Eric Jupp and his Music.
Parlophone. PMEO 9722

Audio Cassette Tape No. 4

NEEDLE DROPS AND RUN-OUT GROOVES

Side 1.

NEEDLE DROPS AND RUN-OUT GROOVES from:

1. 2,000 Words in the English Language Frequently Mispronounced. Spoken by Carleton Hobbs. Recordiction
2. Eric Jupp and His Music. Adventures with Skippy the bush kangaroo. Narrated by John McCallum. Parlophone. PMEO 9722
3. Amazônia – Cult Music of Northern Brazil. Lyrichord. LLST 7300
4. American Indian Dances. Unidisc Société Nouvelle. UD 30. 1513
5. Amici, Buona Sera! Record 2 lessons 17 – 30. BBC Radio. OP 148
6. A Salute to Ludwig Koch. BBC Wildlife Series No. 1. BBC. RED 34M
7. Bert Kaempfert and His Orchestra. A Swingin' Safari. Polydor. 46384
8. The International Pop Orchestra & Chorus. At Last 26 Non-Stop Hits for Dancing. Contour. 2870158
9. BBC Sound Effects No. 3. BBC. RED 102M
10. Lord Invader. Calypso. Audio Fidelity. AFLP 1808
11. Cuban All Stars. Charanga Volume 2. Seeco. SCLP 9219
12. Church Bells of Kent. Saydisc. SDL 301
13. Eduardo Meets Archie at the Club Português. Gallotone. GALP 1364
14. English with an Accent. BBC Records. REC 166
15. Bill Evans. Everybody Digs Bill Evans. Riverside. RSLP 291
16. Stanley Black and his Orchestra and Chorus. Exotic Percussion. Decca. PFS 34008
17. Flora Purim. Flora é M.P.M. Odeon. MFOB Z. 023
18. The New Stan Getz Quartet featuring Astrud Gilberto. Getz Au Go Go. Verve. SVLP 9081
19. John Coltrane. Giant Steps. Atlantic. ATL 50 239
20. Hammond Fever. Deacon Records. DEA 10577572
21. Les Swingle Singers. Jazz Sebastien Bach. Philips. BL 7572
22. Alban Berg - Igor Strawinsky. "Kammerkonzert" - Symphonies. Suprahon. SUA 10679
23. King Pleasure and Annie Ross. King Pleasure Sings Annie Ross Sings. Prestige. OJC – 217

Note: Each title is presented as follows: needle drop side A; run-out groove side A; needle drop side B; run-out groove side B. Recordings of run-out grooves feature 4 revolutions of the disc. There is a 6 second interval between each title, and 3 seconds between recordings within a title.

Side 2

NEEDLE DROPS AND RUN-OUT GROOVES from:

1. Yma Sumac. Legend of the Jivaro. Capitol. 1552981
2. The Original Finnish, Letkiss-Jenka Band. Let's Letkiss. Ember Records. EMB 3363
3. Los Machucambos. Los Machucambos in Sound 4. Decca. PFM 24006
4. Tito Puente & His Orchestra. Mamborama. Palladium Records. PLP – 100
5. Ellis Regina/Zimbio Trio. O Fino Do Fino. Fontana. 830 060-1
6. The Lennon Sisters. On the Groovy Side. Ranwood. R8004
7. Sir Bernard Lovell F.R.S. 'Our Present Knowledge of the Universe'. BBC Radio Enterprises. REA 1M
8. St Joseph's Maori Girls Choir. Pokarekare. Viking. VP 162
9. The Brazilian Trio. Portugal – Fado (Samba – Bossa Nova).Gallotone. GALP. 1406
10. The Exotic Sounds of Martin Denny. Primitiva. Liberty. LRP 3087
11. Mike Sammes Singers. Sammes Session. World Record Club. T 455
12. San Remo Festival 1960. Durium. TLU 97026
13. Sergio Mendes and Brasil '66. Herb Alpert presents Sergio Mendes and Brasil '66. A & M. 116
14. Shorthand Dictation 50 – 100 WPM. Speedwriting International.
15. Beny More. Sonero Mayor Volume II. Areito. LD 4050
16. Ken Nordine. Son of Word Jazz. Dot. DLP 3096.
17. Mighty Sparrow. Sparrow at the Hilton. National Recording Company. NRC 8070.
18. Step Up Your Selling: A Study in the Art of Carpet Salesmanship. DuPont/CBS. WSR 954
19. The Dudley Moore Trio. The Other Side of Dudley Moore. Decca. LK 4732.
20. The Soviet Army Ensemble. The Soviet Army Ensemble Conducted by Colonel Alexandrov. HMV. XLP 30062
21. Lambert, Hendricks and Ross. The Swingers. Affinity. SFF 131
22. Nancy Ames. This Is The Girl That Is. Liberty. LRP 3369
23. Thrill to the Sensational Sound of Superstereo. CBS. CBS PR5
24. Dave Brubeck Quartet. Time Further Out. Columbia. CL 1690
25. Wild Stereo Drums. Capitol. ST 1553



Audio Cassette Tape No. 5
CHEWED

CHEWED

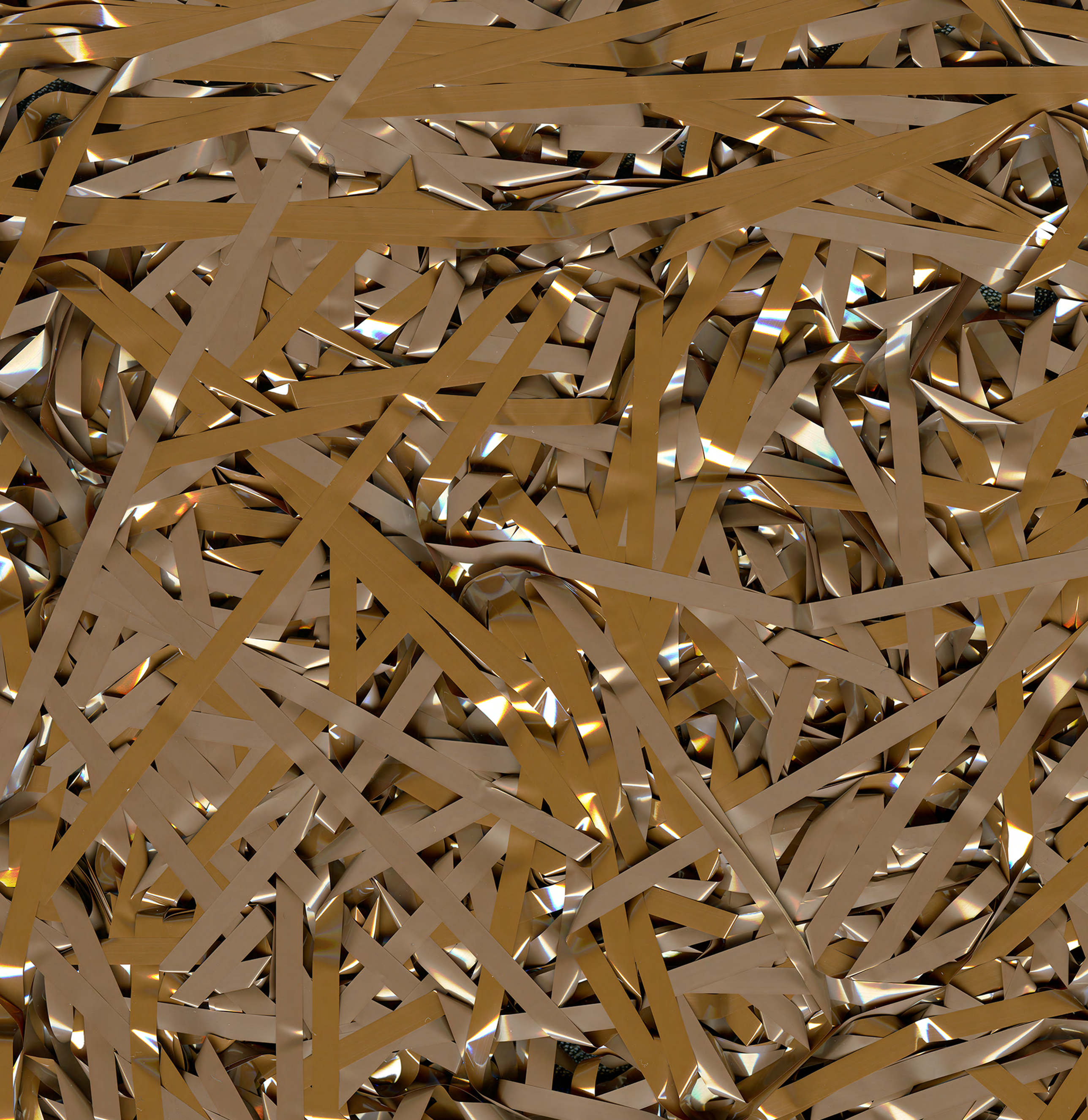
Side 1: Ten Thousand to Forty
Side 2: Forty to Ten Thousand

The compact audio cassette has rarely been accorded the reverence bestowed on vinyl. Where vinyl induces the fear that it may be damaged simply by being in the world, the compact audio cassette imbues the user with a sense of confidence and reassurance. Robust and down-to-earth, the cassette itself rarely fails – its flimsy contents protected from the careless vinyl-scratching, oily-fingered, dust-generating human user by its remarkable armour (a nonimflammable, high impact polystyrene plastic shell). Rather, what usually fails is the cassette player. In time this machine may begin to destroy the very thing that justifies its own existence – stretching, creasing, twisting and warping the contents of the cassette, binding and choking its own its own internal workings with magnetic tape (this tendency towards self-destruction was recognised by Radio Shack, who marketed a cassette repair kit aimed specifically at enabling you to “Save your good recordings”). Such failures may become audible as wow and flutter, or as more radical variations in playback speed that ultimately terminate in silence.

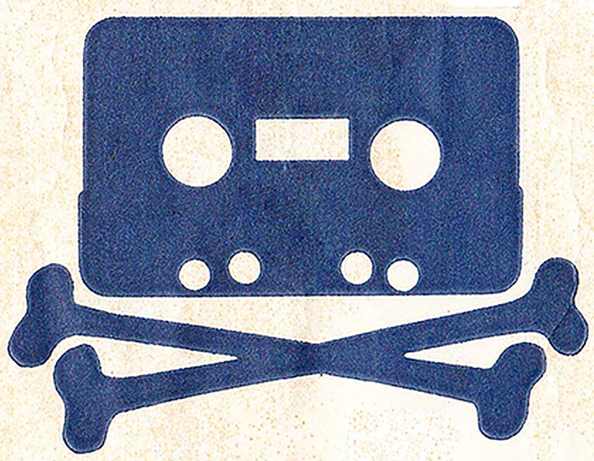
Rather than hearing these sounds as a problem, the tape you are listening to locates them at the centre of the listening experience.

To isolate and foreground the sounds produced by the deformation of magnetic tape, I chose to work with sine wave tones – the idea being that these would render variations in playback more audibly than other types of source material. The tapes were then played back on a faulty Technics RS-HD350 Stereo Cassette Deck.

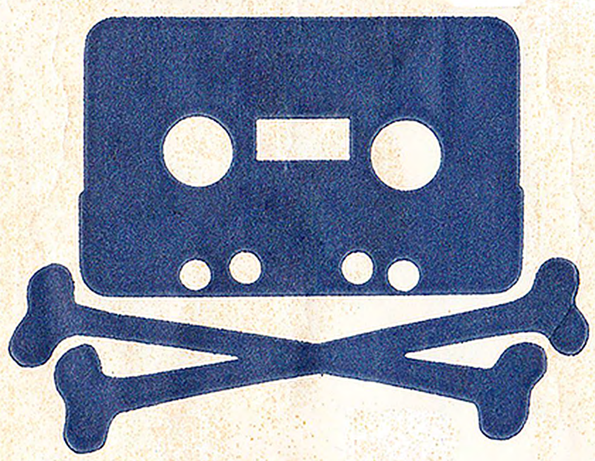
This, then, is the sound of technology – a sounding of the materiality of the compact audio cassette and the mechanics of cassette tape playback.



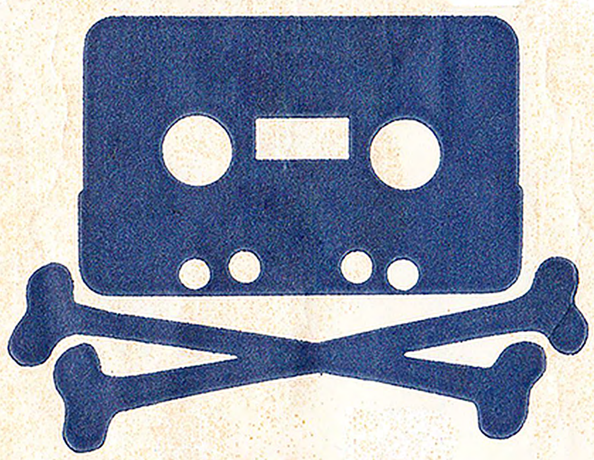
MUSIC IS KILLING HOME TAPING



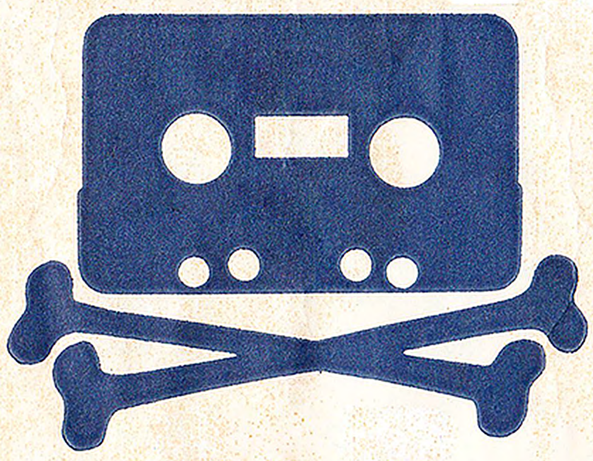
MUSIC IS KILLING HOME TAPING



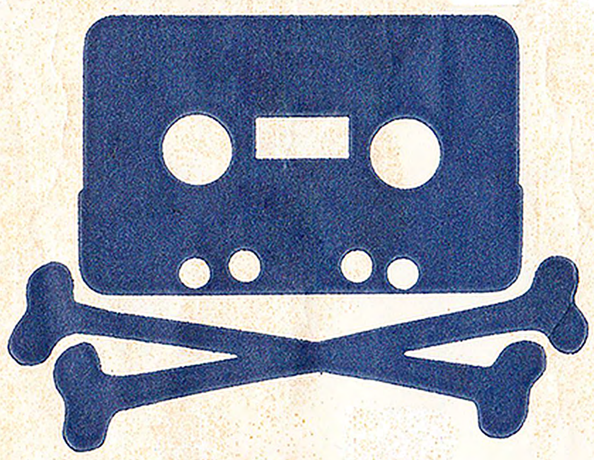
MUSIC IS KILLING HOME TAPING



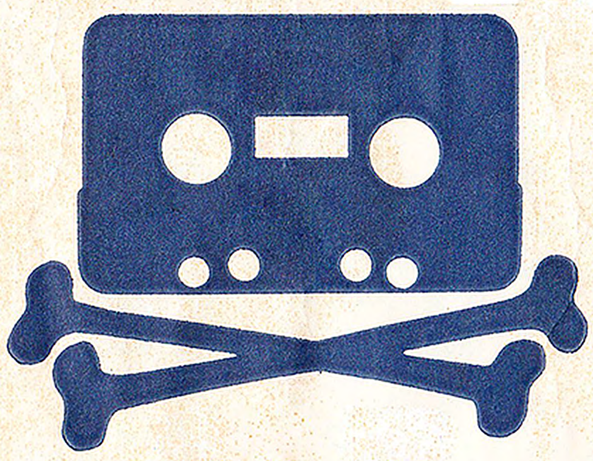
MUSIC IS KILLING HOME TAPING



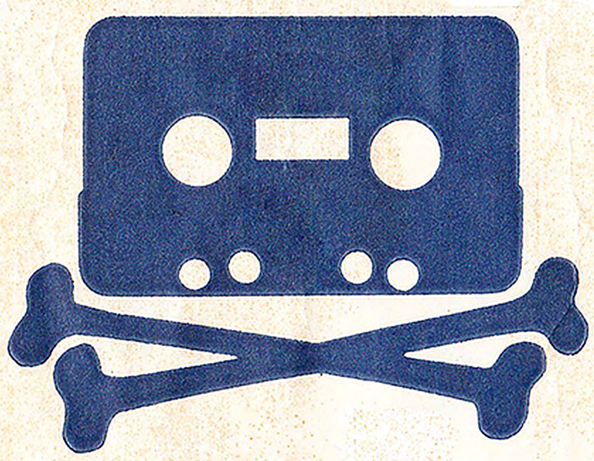
MUSIC IS KILLING HOME TAPING



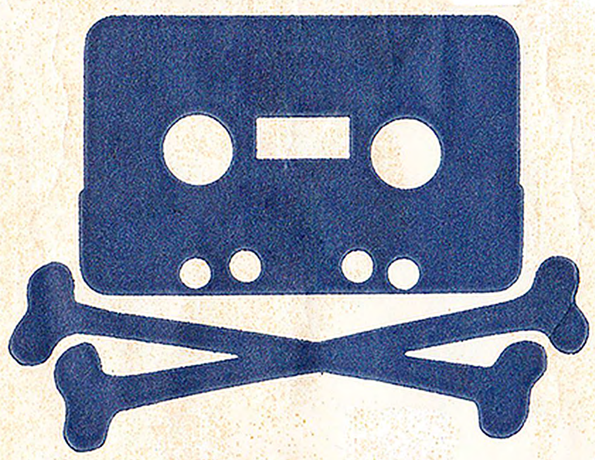
MUSIC IS KILLING HOME TAPING



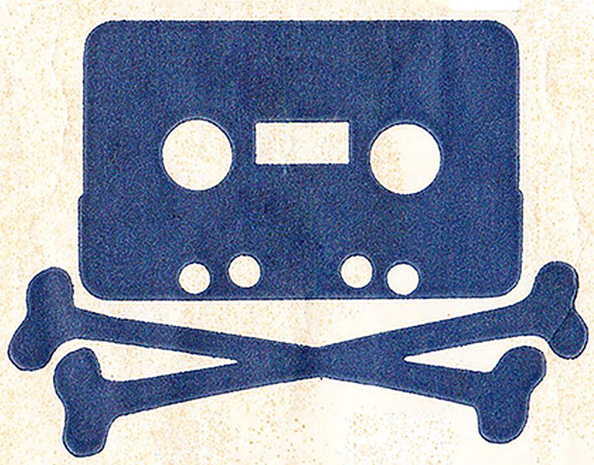
MUSIC IS KILLING HOME TAPING



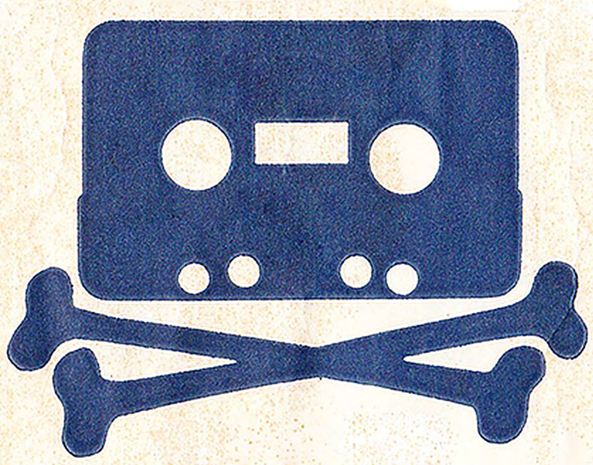
MUSIC IS KILLING HOME TAPING



MUSIC IS KILLING HOME TAPING



MUSIC IS KILLING HOME TAPING



Audio Cassette Tape No. 6

MUSIC IS KILLING HOME TAPING



MUSIC IS KILLING HOME TAPING

In 1981 the British Phonographic Industry launched an anti-piracy campaign with the slogan ‘Home Taping is Killing Music’. The campaign set out to discourage consumers from dubbing copyright music onto blank tapes. But if one looks at the history of the cassette tape it becomes apparent that, in fact, music killed home taping.

Back in 1935, before sound recording technology was available for consumer use, the composer and filmmaker Jack Ellitt published a manifesto in which he proposed a new art of recorded sound. Ellitt thought that sound recording technology would create a new kind of sonic art – one that wasn’t made by orchestras, pianos, etc. He argued that this new art would be made with the sounds of the world, and that it could be made by anybody. All they needed was the technology:

“When good recording apparatus is easily acquired, many people will record simple and everyday sounds which will give them pleasure. The next step would be to mould these sound-snaps into formal continuity. Such sound-construction as this can have no more pretension or esoteric meaning than may be found in the energy expended on arranging some flowers in a vase.” (3)

Fast-forward to the 1960s, and the manufacturers of cassette recorders were actively promoting their products as the means by which users could make their own sound recordings. Thus the brochure for the General Electric M8300B portable cassette recorder proclaimed: “Sound can be more than entertainment. When you record it on this new General Electric cassette tape recorder, it can do all kinds of work ... record meetings ... speeches ... lectures ... notes or voice letters”.(4) In addition to these slightly dry business and educational applications, GE also promoted the M8300B for more personal uses, such as “recording the sound of weddings, and honeymoon and vacation trips.”

But in reality music soon came to dominate the use of the new format. By 1965, two years after inventing the compact audio cassette, Philips had already begun producing pre-recorded Musicassettes. Other companies followed, and by 1967 Billboard magazine was able to report that 72 music labels were releasing their work on cassette, totalling approximately 150 titles.(5) As Coen Solleveld, President of Philips Phonographic Industries put it: “Now the ‘recorder’ (or at least the ‘play-back’ part of it) has definitely chosen the side of the music industry with the advent of the musicassette”.(6) But as the ‘Home Taping is Killing Music’ campaign demonstrated two decades later, even when people did make their own home recordings, these were often dubs of LPs or music recorded from the radio.

Looking back at the history of the cassette, music has dominated its use as a format for both for listening to and recording sound. Music killed home recording.



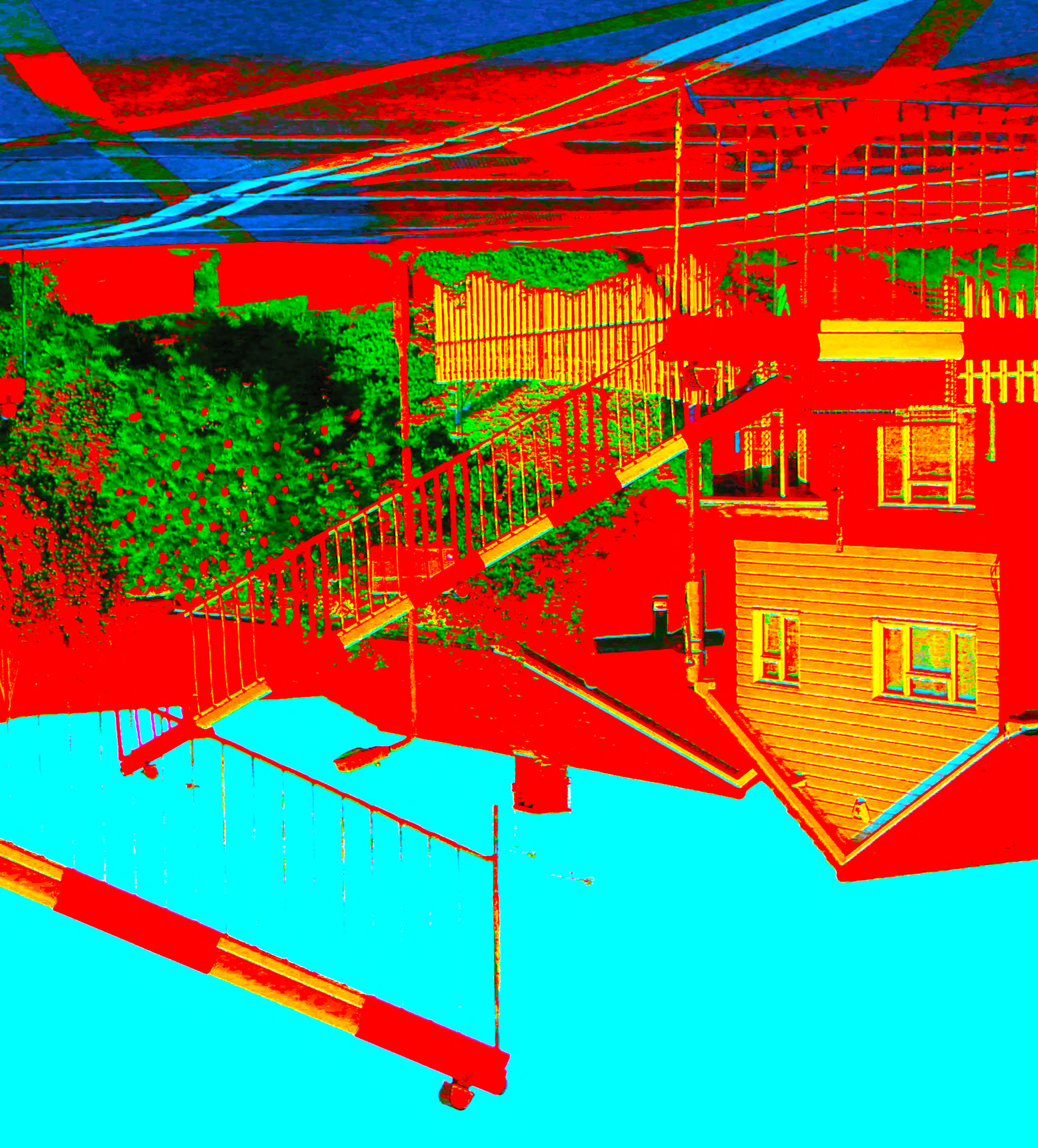
Audio Cassette Tape No. 7

LEVEL CROSSINGS

LEVEL CROSSINGS

Sound recording is all about levels. Record something at too low a level, and the signal to noise ratio becomes a problem: too much tape hiss. Record at too high a level, and the sound distorts: over-modulation. The tape saturation that results from over-recording produces a distinctive effect that clearly distinguishes analogue sound recordings made on magnetic tape from recordings made on other media. While distortion is usually thought about in relation to the sound being recorded, we might also think about it as the sound of the cassette medium itself: a sounding of the oxides that coat the polyester tape inside the cassette shell, and a sounding of the electrical circuits within the cassette player.





ABOUT START HERE

The Start Here audio cassette label aims to bring discerning listeners the finest in magnetic tape-based media archaeological art.

According to Jussi Parikka, media archaeology involves “thinking the new and the old in parallel lines, cultivating enthusiasm for media, technology and science through aesthetics, politics and other fields of critical enquiry”.(7) Hence media archaeology is often concerned with ‘dead’ or obsolete media and dated media formats. The Start Here label focuses on the contemporary use of the compact audio cassette, and the cassettes released by the label attempt to foreground and celebrate the unique qualities of the format.

ABOUT THE AUTHOR

Andy Birtwistle is a sound artist and filmmaker whose work has been broadcast and exhibited internationally. He is Reader in Film and Sound at Canterbury Christ Church University and is the author of Cinesonica: Sounding film and video (Manchester University Press, 2010).

For more information go to www.andybirtwistle.com

The project has been made possible with the generous support of a Canterbury Christ Church University Faculty of Arts and Humanities Knowledge Exchange Award.

Published by Start Here
Copyright 2017.
Design by Ben Rowley
ISBN 978-1-5272-1207-7

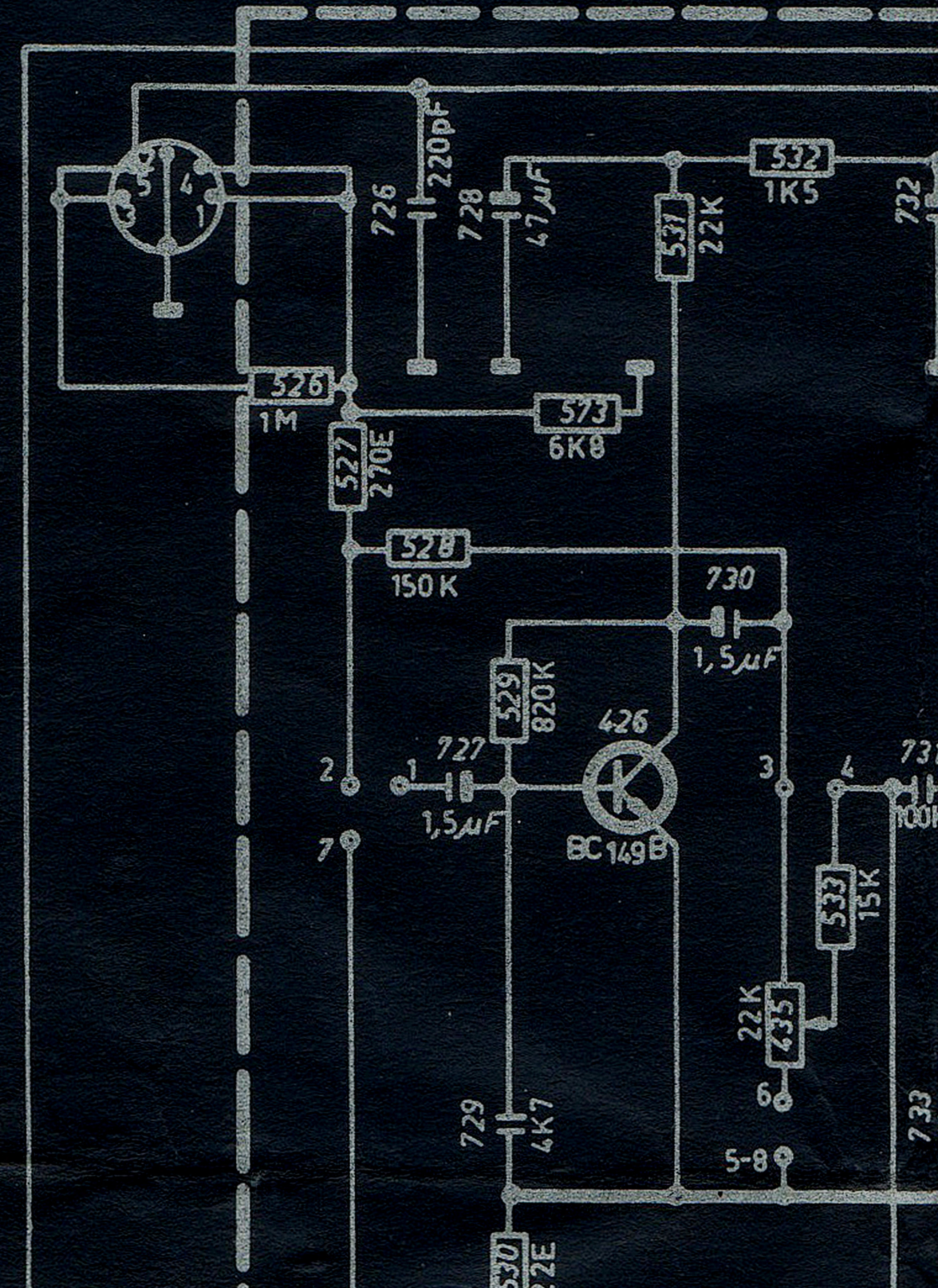
Canterbury Christ Church University

Start Here

ENDNOTES

1. Other oxides are available: e.g. Chromium Dioxide.
2. *Billboard* (1967) 'In 1965 there was one one cassette recorder in America' [Advertisement]. Vol. 79 No. 14, 8 April. Philips Cassette Section, p. 2.
3. Ellitt, J. (1935) 'On Sound', *Life and Letters Today*, December, p.183.
4. *The Lively Set! Cartridge Tape Recorder Model M8300B* [brochure] [c.1967]
5. Brack, R. (1967) 'Philips, Licensees in U.S. Playback Forefront', *Billboard*, Vol. 79 No. 14, 8 April. Philips Cassette Section, p. 4.
6. Solleveld, C. (1967) 'Solleveld Cites Global Standard Need for Cartridge Industry', *Billboard,* Vol. 79 No. 14, 8 April. Philips Cassette Section, p. 3.
7. Parikka, J. (2012) *What is Media Archaeology?* Cambridge: Polity Press, p.2.

Cover: *Physical details of a digital magnetic tape cassette. From The U.S. National Institute of Standards and Technology, NBS Technical Note 731, Calibration of Secondary Standard Magnetic Tape Cassettes (Computer Amplitude Reference) Phase I (1972).*


726
220pF
728
47µF
532
1K5
22K
732
526
1M
527
270E
573
6K8
528
150K
730
1,5µF
529
820K
426
727
1,5µF
BC 149B
735
22K
729
4K7
530
470E

