

Roberto Gerhard's Tape Collection

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This document provides a description of Roberto Gerhard's magnetic tape collection deposited at the Cambridge University Library.

Background

Roberto Gerhard was one of the most noteworthy European contemporary music composers of the second third of the XX century. Escaping from the Spanish Civil War, he established his home in Cambridge in 1939, where he developed his career as a composer until the end of his life. In the 1950s and 60s, Gerhard gathered a considerable collection of magnetic tapes, consisting mainly of recordings of his own music¹. Contemporary graphical documentation of the collection includes two series of photographs² taken in the late fifties in his "Home Office", which offer different perspectives of four tape recorders³, hundreds of reels, and countless tape splices bordering his grand piano. Admittedly, the composer was one of the few of his generation to have a private tape assembly studio at home and to start introducing

¹ The preliminary data advanced in this report provides evidence that the collection represents a major repository of historical sound recordings of Gerhard's music.

² Said to be taken in the late fifties at his home in 14 Madingley Road. [Envelope 1. Prints F1 & B946 + Negs. Roberto Gerhard Collection. CUL]

³ Possibly Ferrograph tape recorders.

magnetic tape as an ingredient in his compositions⁴. After Roberto's death in 1970, his wife Poldi kept the collection, contributing with a number of handwritten labels to identify the contents of the tapes. Poldi died in 1994, and the tapes were stored in boxes and later deposited by Dr. Rosemary Summers at their current location at the Cambridge University Library.

The collection

The tape collection was sorted and documented during two visits to the Library in December 2007⁵ and February 2008, including the compilation of a preliminary inventory of 714 items. The following table summarizes the correspondence between the inventory unit and the number of tapes and containers, providing an overview of the contents of the collection:

| | <i>Database Items</i> | <i>Tapes</i> |
|--------------------------------|-----------------------|--------------|
| Containers with a single tape | 182 | 182 |
| Containers with multiple tapes | 15 | 38 |
| Orphan tapes* | 220 | 220 |
| Orphan containers* | 126 | 0 |
| Unnumbered tapes** | 169 | 169 |
| Unknown | 2 | ? |
| Total | 714 | 609 |

*At this point, no attempts were made to match together unboxed tapes and empty containers.

**A separate group of smaller 3" reels, presumably corresponding to composition fragments, either unboxed (58 tapes) or inserted in spikes (111 tapes), were left unnumbered.

A total number of 609 magnetic tape reels of different sizes were counted (fig. 1). Containers include an assortment of commercial cardboard tape packages and plastic boxes⁶. Annotations found on boxes and tapes largely correspond to historical recordings of Gerhard's own music, including an important number of materials that the

⁴ Gerhard was the first composer in Britain to start working with magnetic tape as early as 1954. Previous works already underlined the significance of his pioneering work in this field [Davis, 1981] [Cholij, 1996]

⁵ See a previous research report submitted to the Music Department of the University Library for more specific details [García, 2007]

⁶ About one third are Scotch 3M boxes. Other brands represented are EMI, BASF, Irish, New International Electronics, Ampex, Zonatape, Verrio, Synchronotape, Ferrotape, DuPont and Philips.

composer himself produced at his private studio (fig. 2). Preliminary indexes of the contents of the collection based on the annotations found on the boxes can be found at the end of this report.

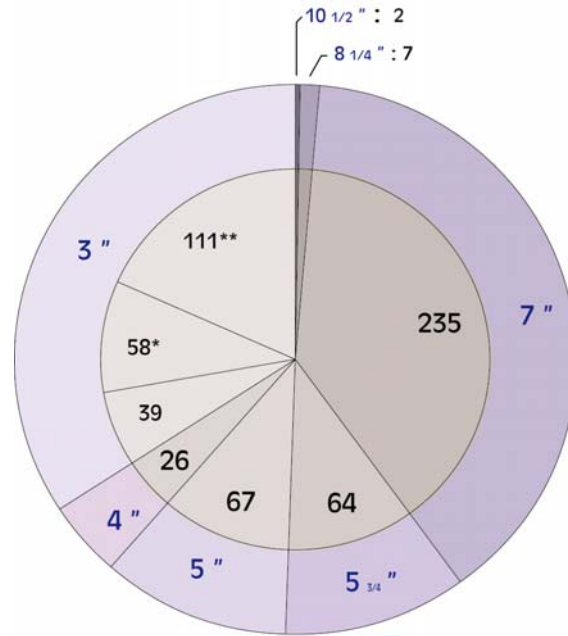


Fig 1: Tape population distribution as a function of Reel diameter
 * unnumbered 3" reels ** unnumbered 3" reels in spikes

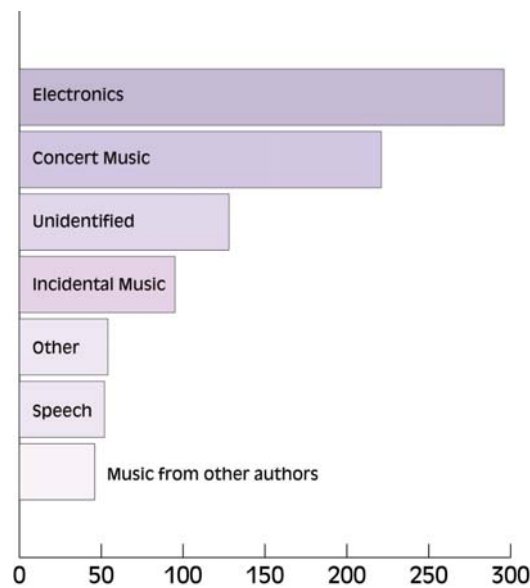


Fig 2: Declared contents.
 Categories are non exclusive, statistic also reflects annotations on empty containers

All the tapes in the collection present a single width of 1/4", and are wound on plastic *cine* type reels with 3-spline center spindle⁷. The rather sparse technical observations on reels and boxes inform about tape speed (fig. 3) and track width (fig. 4), including full-track mono, full-track stereo, half-track mono and half-track stereo formats. Further annotations, such as equalization or noise reduction are very rare⁸ or nonexistent.

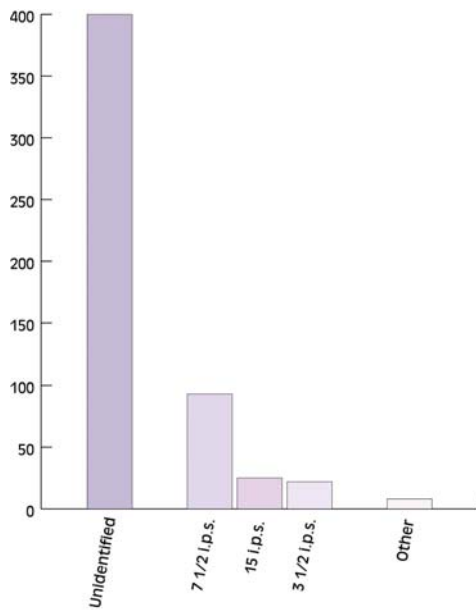


Fig 3: Declared tape speeds

Categories are non exclusive, statistic also reflects annotations on empty containers

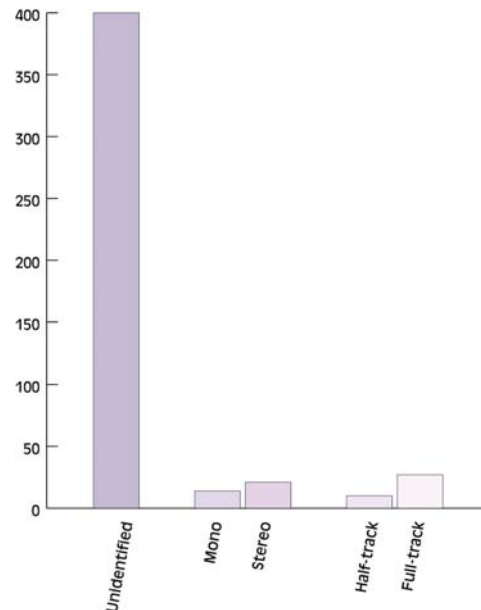


Fig 4: Declared track formats

Visual inspection of the tapes suggests an approximately equal number of acetate and plastic based carriers⁹ (fig 5). Regarding tape condition, common problems are irregular or loose winds, and occasional mechanical deterioration of loose tape headers and dust, in cases of poorly stored tapes. Signs of more serious chemical degradation are also encountered including a number of cases of



Fig 5: Estimate of Acetate / PVC-Polyester ratio based on a sample of 300 tapes, acetate tested translucent to light

⁷ With the exception of a single tape with a NAB hub.

⁸ CCIR EQ. found on 2 tapes.

⁹ A number of reels feature both acetate and plastic base films wound together.

severe curly tape deformation. A dozen tapes were found suspect of being affected by moulds.

Conclusions

This report provides data supporting that Roberto Gerhard's Tape Collection is potentially a major repository of the composer's own music. It also contributes to enlighten Gerhard's engagement in the activity of tape assembly. Electronic scores on millimetre paper, detailed instructions for the assembly of electronic compounds, fresh thoughts on electronic sound composition¹⁰, add up together with the statistics provided to raise further interest about this facet of his music. It is hoped that further work on this group of tapes will contribute to clarify their significance. For the moment what can be said is that –in the domain of his tape compositions- the collection acquires the increased value of being the physical support of the creative work itself¹¹. Looking to the future, an extrapolation of the available data would anticipate a nominal amount of footage of around 300-600 hours¹². Of course, a critical attitude is expected when interpreting any of the data provided, until the actual contents of the tapes may be actually accessed. Graphical documentation collected during this research, including details of ongoing deterioration processes, is supplied as an addendum.

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¹⁰ Concrete references taken out of his notebooks: Gerhard.7.102. Gerhard.7.103 f23-24. Gerhard.7.111 f 9-12. Gerhard.7.115 f 20. Gerhard 7.116. Gerhard 7.121 f3-4v, f20. Gerhard.7.130 f1 ,f10-11. Gerhard 9.101 f1-10. Gerhard 9.103 f1-7, f8-23. Gerhard.9.104 f2-3. Gerhard.9.108 f1-20, f20v. Gerhard.9.112 f58v. Gerhard.9.113 f46v. Gerhard.9.115 f3, f13-22. Gerhard.9.116 f24v-24, f26--27v. Gerhard.9.117, f1. Gerhard.10.101, f35, Gerhard 10.108 f5, f6v. Gerhard.10.121 f29. Gerhard.10.152 f35-33v.

¹¹ Supposedly the tapes would contain materials ranging from the very first compositional sketches to the final master tapes.

¹² This value has been obtained as a weighted estimate of the reel sizes, the available speed data, the mean amount of wound tape in 300 reels, and the number of 1.5 mm. 1 mm. and 0.5 mm tape packages. (A 7" reel full of 1 mm. tape at 7 ½ in/s, holding 45 minutes in one direction). [Fine]

Fine, Tom. quoted in "Restoration Tips & Notes >> Tape Timing Chart"

<<http://richardhess.com/notes/formats/magnetic-media/magnetic-tapes/analog-audio/tape-timing-chart/>>

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*Preliminary Indexes***Musical Works**

- The Akond of Swat* (1954): 44, 45, 356
Alegrias (1942): 27, 48, 50, 91, 286, 403, 404
All Aboard (1952): 45, 21, 212, 230, 232, 287, 288, 289, 290, 355
The Anger of Achilles (1964): 61, 194
Asylum Diary (1959): 11, 20, 227, 292, 357
Audiomobile 1 (Sculpture): 215, 235, 291, 361, 437, 540, 542, 543, 544
Audiomobile 2 (DNA): 48, 56, 77, 116, 186, 187, 211, 269, 405
Audiomobile 3 (Sculpture): 13, 15, 16, 49, 77, 116, 219, 231, 239, 271, 291, 437, 540, 542, 543, 544
The Barber of Lavapies: 112, 118, 119, 122, 155, 222, 229, 242, 293, 294, 421
Caligula (1961): 3, 13, 14, 15, 103, 289
Cançons populars Catalanes (1917): 34, 258
Cancionero de Pedrell: 136, 170
Canciones Toreras (1943): 50
Cantares (1956), seven Spanish songs for voice and guitar: 69, 97, 136, 145, 194, 428
Capriccio (1949) for Solo Flute: 68, 195
Chaconne (1949) for solo violin: 170, 215, 267, 295, 408, 409, 410
The Cherry Orchard (1961): 22, 142, 323, 359, 488, 489, 509
Concert for Eight (1962): 250, 411, 490
Concerto for Harpsichord, String Orchestra and Percussion (1955-1956): 43, 48, 106
Concerto for Orchestra (1965): 53, 88, 89, 191, 205, 296
Concerto for Piano and String Orchestra (1951): 26, 70, 75, 214, 412
Concerto for Violin and Orchestra (1942-43): 18, 19, 102, 144, 180, 247, 430
Coriolanus (1959): 76, 510
The Count of Monte Christo (?): 21, 41
Cymbeline (1949): 105, 140
Don Quixote: 34, 227, 258, 423, 424
The Duenna (1945-47): 59, 101, 125, 143, 146, 155, 156, 166, 167, 168, 183, 220, 221, 223, 280, 281, 282, 297, 298, 379, 413, 414
Epithalamium (1966): 2, 179, 306
L'Etranger (1954): 38, 382
Fantasia for Guitar: 90, 146
For Whom the bell Tolls (1965): 332
Funnyhouse of a Negro (1964): 58, 151, 157, 381, 383
Gemini. Duo concertante (1966): 23, 67, 69, 70, 76, 177, 213, 233, 360, 384, 415, 469
7 Haiku (1922, 1958): 90, 246, 262
Hymnody (1963): 62, 63, 87, 152, 270, 415, 470
King Lear (1955): 44, 45, 97, 130, 135, 491
Lament for the Death of a Bullfighter (1959): 28, 120, 127, 128, 183, 195, 218, 224, 227, 238, 267, 272, 307, 385, 386, 387, 416, 417, 418, 419, 460, 508
A Leak in the Universe (1955): 310
Leo (1969): 110, 111, 129, 144, 178, 217, 308, 309, 422
Libra: 47, 71, 76, 114, 145, 174, 175, 176, 177, 212, 215, 234, 268, 420, 492
Macbeth (1962): 142
The Man Born to be King (1966): 138, 139, 208, 209, 227, 327, 459
Nonet (1956-57): 24, 114, 169, 411, 471
Pandora (1943-45): 144, 243
Pedrelliana (1941): 174, 216, 223, 236, 243, 255, 283, 311
Pericles, Prince of Tyre (1958): 83, 107, 113, 137, 181, 182, 254, 265, 274, 275, 276, 312, 400
The Philosophers Den (1963): 134
The Plague (1963-64): 54, 137, 164, 165, 222, 279, 313, 314, 315, 362, 381, 425, 426, 427
The Prisoner (1954): 248
The Revenge for Love (1957): 37
Sardana: 493

Sculpture I (1963) Sound Variations on a Musical construction by J. Youngman: 532
(¿) Seguidillas & Triana: 494
Soirées de Barcelone (1936-39): 472
Sonata for cello and piano (1956): 90, 170, 263, 363
String Quartet No. 1 (1950-55): 1953
String Quartet No. 2 (1960-62): 71, 217, 224, 237, 244, 249, 256, 257, 258, 430, 495
Symphony No. 1 (1952-3): 31, 52, 187, 198, 216, 236, 320, 321, 429
Symphony No. 2 (1957-9): 102, 119, 228, 277
Metamorphoses (1967-68): 207
Symphony No. 3 "Collages" (1960): 4, 5, 6, 7, 8, 9, 10, 12, 51, 66, 79, 121, 123, 124, 126, 131, 132, 158, 159, 160, 161, 162, 163, 210, 227, 235, 238, 299, 300, 301, 302, 303, 304, 305, 358, 380, 381, 406, 407, 466, 467, 496
Symphony No. 4 (1967): 55, 109, 153, 154, 155, 172, 173, 196, 201, 211, 213, 217, 219, 240, 241, 499, 533
The Tower (1962): 74, 193, 535
Trio (1917/18): 385
(?) Virgo : 35, 193
Vox Humana (Unfinished): 1, 85, 104, 185, 186, 511
War in the Air (1952): 2, 95, 122, 189, 228, 322, 497
The World's great stage (1962): 473, 498
Woyzeck (1961): 29 (1960), 56, 64, 106, 431
You Know What People Are (1955): 42
Your Skin (1958): 81

Speech

John Amis: 171, 208, 209, 327
 Anthony Bernard: 258
 D. Geoffrey Bridson : 151
 The Dean of Ann Arbour: 536
 Alan Frank: 389
 Anthony Friese-Green: 60, 75
 Poldi Gerhard: 355, 436
 Roberto Gerhard:
 For Dorati: 240, 241, 499
 Heritage of Spain: 149, 150, 284, 326, 439
 Interview with Hans Keller: 285, 444
 Intevew with John Amis: 171, 208, 327
 Instruction Tape: 512
 Introduction to Lorca's Bullfighter: 227
 Radiophonic Music: 184, 206, 209, 442
 Sound Observed: 115, 116, 316, 315, 317, 318, 319, 440
 Talk on Electronic Music: 441
 Thoughts on Art and Anarchy: 199, 200, 202, 203
 On Webern: 245
 Very Loud: 25
 Edward Greenfield: 236
 Robert Henderson: 533
 Hans Keller: 285, 444
 Patricia: 475
 Sasha Moorsom: 227, 354.1, 354.2, 354.3
 Stephen Murray: 183, 272, 417
 Stock.: 119
 Arnold Schönberg: 476
 BBC Announcer: 119, 269
 Unidentified: 182, 329, 381, 445

Music Other Composers

Robert Ashley: 33, 253
Berg: 56, 91, 113
Berio: 2, 33
Wallace Berry: 42
Boulez: 56, 62, 63, 113, 114, 194
Earle Brown: 40, 134
Michel Decoust: 57
Castiglione: 93, 120
Debussy: 113
Henze: 61
Klaus Huber: 93
Homs: 244
Kotonski: 2
Jacques Lerot: 57
Ligeti: 2
Lutoslawsky: 61, 93
Maderna: 33, 91
Gerard Masson: 57
Mestres-Quadreny: 244, 266
Nono: 120
Prokofiev: 27
Roger Reynolds: 78, 434
Schoenberg: 32, 40, 56, 93, 117, 135, 147, 195, 224, 259, 446
Stockhausen: 57, 114, 187
Strawinsky: 148, 196
Toru Takemitsu: 57
Varèse: 40, 134, 148
Webern: 36, 38, 56, 244, 396
John Williams: 194

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