

Sounds Beyond Music

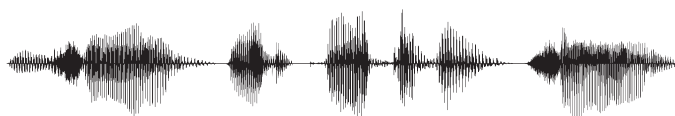


Selected Objects From The Museum Of Portable Sound

University of Portsmouth Library - museumofportablesound.com/soundsbeyondmusic



Sounds Beyond Music



Selected Objects From The Museum Of Portable Sound

by John Kannenberg

Credits

Exhibit curated & designed by John Kannenberg.

Catalogue design & text by John Kannenberg.

Photography by Patrick Galway (unless otherwise noted).

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the Museum of Portable Sound's Patreon supporters;
Andrew Whalley & Megan McSweeney;
and Dr Lara Torres.

museumofportablesound.com/visit

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Curator's Introduction

THE MUSEUM OF PORTABLE SOUND (MOPS) is an independent institution based in Portsmouth dedicated to collecting, preserving, and exhibiting sounds as objects. MOPS focuses primarily on non-musical sound because, let's face it, music is the most talked-about form of sound there is – and we feel there's a whole world of sounds *beyond* music that are just as worthy of everyone's attention.

This exhibit is drawn from the MOPS Physical Object Collection, a secondary complement to our primary Permanent Collection of Sounds. MOPS began as a museum that is listened to rather than looked at, and we hope the subjects we've covered here might inspire a curiosity to give attention to sounds in the world around you that you might otherwise ignore.

DR JOHN KANNENBERG
Director & Chief Curator
Museum of Portable Sound

Exhibit Object List

Can a Sound be an Object?

- 1 Seashell *Sesimbra, Portugal, 2023* (MOPS2023-025)
- 2 Bicycle/Taxi/Clown Horn *Brighton, UK, 2019* (MOPS2019-004)
- 3 Bird Call Water Whistle *Barcelona, Spain, 2017* (MOPS2017-006)
- 4 Shopkeeper's Bell *Brighton, UK, 2019* (MOPS2019-005)
- 5 Rice Krispies® Breakfast Cereal *Battle Creek, MI, US, 1927* (MOPS2023-055)
- 6 Metropolitan Police Whistle *ACME Whistle Co, London, 2020* (MOPS2020-002)
- 7 KOSS Pro/4AA stereophones *Milwaukee, WI, US, 1970* (MOPS2022-013)

Replaced by Smartphones

- 1 NEC TAC cellular portable telephone *UK, 1987* (MOPS2023-047)
- 2 Olympus PearlCorder S711 *Japan, 1990s* (MOPS2016-009)
- 3 BT Lyric Pager *UK, 1995* (MOPS2023-050)
- 4 Creative Zen Micro 4GB MP3 Player *Singapore, 2004* (MOPS2022-034)
- 5 Recoton Dictaphone Voice Letter *Milwaukee, WI, US, 1953* (MOPS2020-026)
- 6 Nike+iPod Sports Kit *US, 2006* (MOPS2023-012)
- 7 Brifit Silent Alarm Clock *China, 2023* (MOPS2023-048)
- 8 Sony DT-30 Discman Radio/CD Player *Japan, 1988* (MOPS2023-024)
- 9 Xavax Egg-Shaped Kitchen Timer *Germany, 2021* (MOPS2021-046)

Aural Diversity

- 1 OhroPax™ Earplugs *Germany, 1907/2023* (MOPS2023-059)
- 2 *Sound: A Story of Hearing Lost & Found* *Bella Bathurst, 2017*
- 3 Powertone Model F-138 Hearing Aids *Germany, 2023* (MOPS2023-060)
- 4 British Tinnitus Association Pamphlet *tinnitus.org.uk, 2015* (MOPS2021-004)
- 5 *Earwitness: A Search for Sonic Understanding in Stories* *Ed Garland, 2019*
- 6 Misophonia Cards *SoQuiet.org, Denver, CO, US, 2023* (MOPS2023-054)
- 7 Lip Reading Face Mask *Portsmouth, UK, 2021* (MOPS2023-015/016)
- 8 DOHM White Noise Machine *US, 2023* (MOPS2023-065)

#CassetteCulture

- 1 Philips C-90 Compact Cassette Tape *Austria, 1976* (MOPS2023-063)
- 2 Grundig DC-International Cassette *Germany, 1965-7* (MOPS2023-035)
- 3 Philips 30-minute Mini Cassette *Austria, 1960s* (MOPS2023-042)
- 4 *In God We Trust, Inc.*, Dead Kennedys *Alternative Tentacles Records, 1981* (MOPS2021-007)
- 5 AT&T Answering Machine Microcassette *Korea/US, 1980s* (MOPS2023-040)
- 6 *Horizons: Software Starter Pack*, ZX Spectrum *Psion Software, UK, 1982* (MOPS2023-054)
- 7 The World's First Cassingle *EMI Records, London UK, 1980* (MOPS2020-030)
- 8 Official Cassette Rewinder *UCLA Ethnomusicology Archive, 2019* (MOPS2019-007)
- 9 Indian Classical Music Cassettes *Maharashtra, India, 1980s-2000s* (MOPS2021-048A-G)
- 10 The World's Smallest Cassette Tape *Sony NT, Japan, 1992* (MOPS2023-049)

Playing With Sounds

- 1 Electronic Moving Dalek *UK, 2015* (MOPS2023-057)
- 2 Classic Metal Hand Buzzer *Cardiff, Wales, 2023* (MOPS2023-052)
- 3 NPW Sound Machine (*Halloween Edition*) *Cincinnati, OH, US, 2020* (MOPS2022-026)
- 4 World's Smallest Voice Changer *Kidbrooke, London, 2021* (MOPS2021-045)
- 5 Neck Cracker Prank *China, 2021* (MOPS2021-028)
- 6 Lord Phartwell's Whoopee Cushion *House of Marbles, Devon, UK, 2022* (MOPS2022-024)
- 7 *Star Wars*® CommTalk™ Reader & Sound Chips *Germany, 1999* (MOPS2023-015/016)
- 8 Nintendo Wii Remote *China, 2006* (MOPS2023-010)
- 9 Japanese Scream Vase *Japan, 2019* (MOPS2023-058)
- 10 Clackers *Wales, UK, 2021* (MOPS2023-051)

The Cabinet

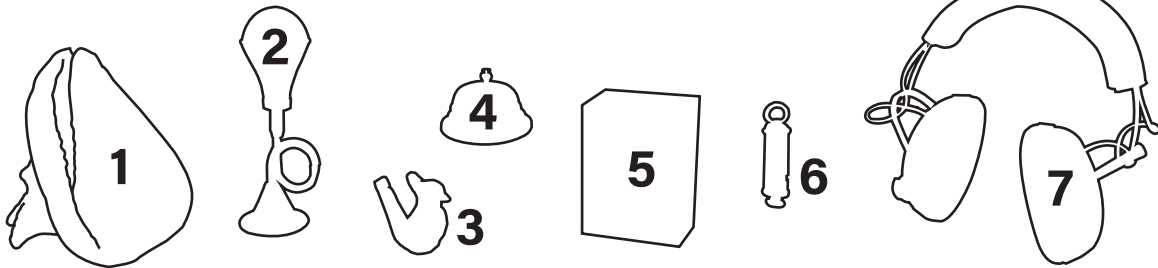


Photo by John Kannenberg

Shelf 1

Can a Sound Be an Object?

The objects on this shelf make sounds. For some, their only function is to make a single sound—one that might be so recognisable, you may be hearing it in your mind as you look. Could those sounds *also* be considered objects on their own?



1 Seashell

Sesimbra, Portugal, 2023 (MOPS2023-025)

Put a seashell like this one up to your ear on the beach and you'll hear the sound of the sea inside it. But listen to it in a quiet room and you'll hear nothing. Why? Because the interior structure of a seashell acts as a **resonator**, simply amplifying and distorting external sounds rather than 'producing' any sound on its own.

2 Bicycle/Taxi/Clown Horn

Brighton, UK, 2019 (MOPS2019-004)

19th century European bicyclists used small bugles to alert pedestrians of their presence. Once European colonialists learned of rubber from indigenous South Americans, bugles became easier-to-sound horns requiring no lung power.

3 Bird Call Water Whistle

Barcelona, Spain, 2017 (MOPS2017-006)

This clay bird call obtained from a street vendor in Barcelona's Park Güell contains a small reservoir which, when full of water, mimics a warbling bird call.

4 Shopkeeper's Bell

Brighton, UK, 2019 (MOPS2019-005)

While bells may often be thought of as musical instruments, this particular form of bell is solely intended as a communications device – specifically, one to attract the attention of a shopkeeper in order to attend on a waiting customer.

5 Rice Krispies® Breakfast Cereal

Battle Creek, MI, US, 1927 (MOPS2023-055)

Few foods are known as much for the sound they make as Rice Krispies cereal, invented in 1927. The words '**Snap! Crackle! Pop!**' began being used to advertise the cereal in radio and print adverts in 1932. Soon after, the illustrator Vernon Grant personified the sounds as three gnomes, and a cultural phenomenon (and advertising powerhouse) was born. The three words have been translated into dozens of languages, our favourite being the German '**Knisper! Knasper! Knasper!**'

6 Metropolitan English Police Whistle

ACME Whistle Co, London, 2020 (MOPS2020-002)

English farmer **Joseph Hudson** invented this whistle in 1883, in answer to a newspaper advert placed by the Met seeking inventions to replace their then-current noisemaker – a large wooden rattle. Hudson's design was chosen, and he soon became the owner of what became the ACME Whistle Company in Birmingham, who still manufacture the original Met whistles today.

7 Koss Pro/4AA stereophones

Milwaukee, WI, US, 1970 (MOPS2022-013)

John Koss invented the world's first stereo headphones in Milwaukee, Wisconsin in 1958. Experiencing stereo through the intimacy of headphones proved so popular that Koss's company quickly had the means to invest in continually improving their products. By 1970, the Koss Pro/4AA stereophones seen here had become the state of the art worldwide, used by the sound designer of the original *Star Wars* films & the US government investigators of the **Watergate tape scandal** alike.

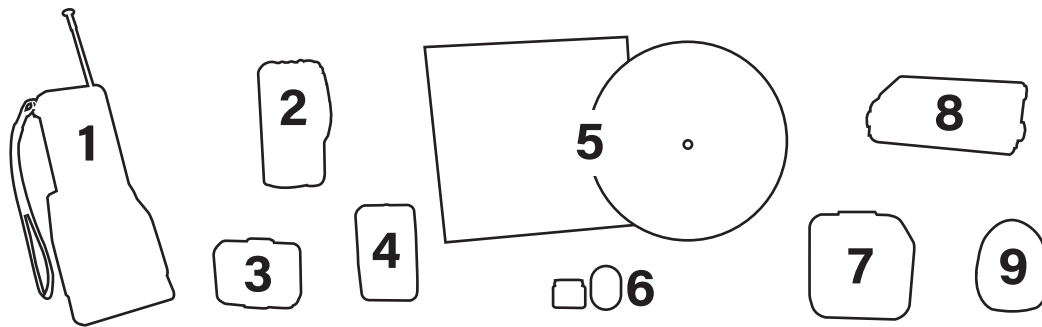


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Photos by Patrick Galway

Replaced by Smartphones

In 2007 Apple's iPhone began the age of the **smartphone**, an all-in-one device that has since made the objects here (and many others) obsolete. But is less always more?



1 NEC TAC cellular portable telephone

UK, 1987 (MOP2023-047)

One of the first British cellular telephones, the NEC TAC is the epitome of the so-called "dumb phone": a portable device that basically just calls people.

2 Olympus PearlCorder S711

Japan, 1990s (MOP2016-009)

Olympus created the **Microcassette** format in 1969. The format was primarily used for recording voice, and became a standard for dictaphone machines. Its variable speed allowed for recording up to three hours on a single 90-minute microcassette.

3 BT Lyric Pager

UK, 1995 (MOP2023-050)

Pagers are telecommunications devices whose usage peaked in the 1990s, used by emergency services, IT professionals, and those dealing in illicit activities. When you 'got a page', it beeped (or vibrated); its screen showed the caller's number, then you found a public payphone and called them back. NHS doctors still use them due to their reliability, even though UK health minister Matt Hancock banned their use in 2019.

4 Creative Zen Micro 4GB MP3 Player

Singapore, 2004 (MOP2022-034)

Creative released one of the world's first MP3 players, but in 2004 they, like everyone else making digital audio players, were playing catch-up to Apple's iPod - and were soon to be made obsolete by smartphones.

5 Recoton Dictaphone Voice Letter

Milwaukee, WI, US, 1953 (MOP2020-026)

'Voice Letters' were short dictaphone recordings made directly to a vinyl disc and posted through the mail. In the 1950s, these were the equivalent of a WhatsApp voice message...just a *lot* slower.

6 Nike+iPod Sports Kit

US, 2006 (MOP2023-012)

A pre-iPhone collab, this kit was Apple's first foray into activity tracking. Users plugged the 30 pin connector receiver into an **iPod Nano** (sold separately) and the pill-shaped, Nike-branded transmitter - inserted into the bottom of a custom **Nike shoe** (also sold separately) - broadcast pedometer data back to the iPod Nano.

7 Brifit Silent Alarm Clock

China, 2023 (MOP2023-048)

While it might seem like an oxymoron, the silent alarm clock was a godsend for people who needed something to wake them up that didn't also make constant ticking sounds while they were trying to sleep.

8 Sony DT-30 Discman Radio/CD Player

Japan, 1988 (MOP2023-024)

Believe it or not, even in the peak MP3 player years of 2005-2007, many people (including hip hop artist **Eminem**) still carried around portable **Compact Disc** players and wallets filled with CDs.

9 Xavax Egg-Shaped Kitchen Timer

Germany, 2021 (MOP2021-046)

This egg-shaped egg timer's bell rings approximately 30 seconds before it actually stops ticking. What it lacks in temporal accuracy is more than made up for by its solid stainless steel construction and pleasant ovoid form factor. Its analog bell sound now seems quaint compared to the wide variety of possible timer sounds available on smartphones.



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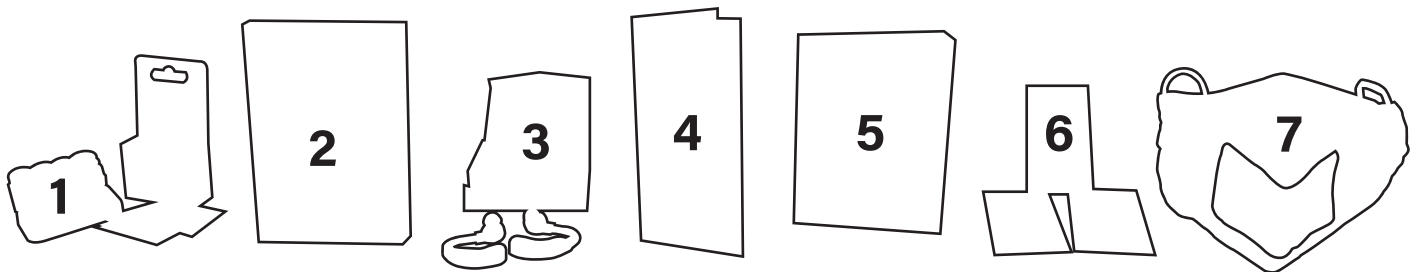


Photos by Patrick Galway

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Aural Diversity

We all hear differently: that is the key concept behind **aural diversity**, a research initiative led by UK academics Andrew Hugill & John Levack Drever bringing attention to the human experience of hearing as a varied spectrum rather than the too-often assumed *'auraltypical'*.



1 The First Commercially Available Earplugs

Germany, 1907/2023 (MOP2023-059)

Book XII of Homer's *Odyssey* contains the first known reference to earplugs: the Greek goddess **Circe** warns Odysseus to "use wax to plug your sailor's ears" when sailing past **the Sirens**, whose distracting songs caused ships to crash upon rocks. In 1907, this story inspired the German man **Maximilian Negwer** to essentially steal a patent from a woman, professor **Jenny PreiB**, to 'invent' wax earplugs that he named **OhroPax™**, combining the German word for 'ear' and the Latin word for 'peace'. Wax-based OhroPax™ earplugs are still sold worldwide today.

2 Sound: A Story of Hearing Lost & Found

Bella Bathurst, 2017 (MOPS Research Library)

English writer **Bella Bathurst** went partially deaf in 1997, then unexpectedly regained her hearing twelve years later. This essay/memoir published by London's **Wellcome Collection** explores what it's like to regain something you thought you'd lost.

3 Powertone Model F-138 Hearing Aids

Germany, 2023 (MOP2023-060)

Behind the ear (BTE) hearing aids are a design standard, as is their default "beige" colour – because obviously, people who need hearing aids all have the same skin tone.

4 British Tinnitus Association Pamphlet

tinnitus.org.uk, 2015 (MOP2021-004)

Tinnitus, according to this pamphlet, "is the perception of noises in the head and/or the ears which has no external source." It is not an illness on its own, but a rather a symptom of one of many possible afflictions. Sufferers of tinnitus often hear a ringing or buzzing in one or both ears that, once it manifests, may never go away. People of all ages can suffer from it, and about 10% of UK adults suffer from it permanently. This pamphlet provides contact information for one of many local associations around the world dedicated to helping tinnitus sufferers.

5 Earwitness: A Search for Sonic Understanding in Stories

Ed Garland, 2019 (MOPS Research Library)

Winner of a 2018 **New Welsh Writing Award**, this brief but powerful memoir explores one man's use of reading literature as a therapeutic tool to help ease his suffering with tinnitus. Garland's brutal honesty and humour helps those without tinnitus understand what it's like, and what it takes to remain sane when your ears won't stop ringing.

6 Misophonia Cards

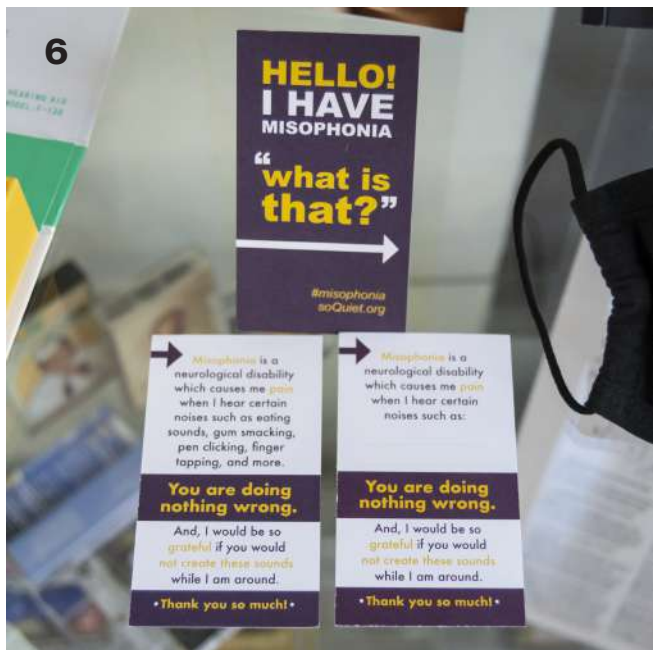
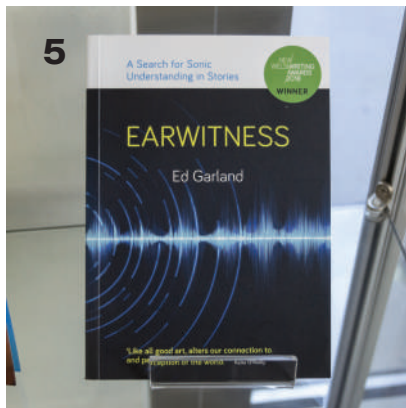
SoQuiet.org, Denver, CO, US, 2023 (MOP2023-054)

Misophonia is a dramatically decreased tolerance for certain sounds that can cause the sufferer daily distress and disruption. Startlingly, studies suggest as many as 18% of people may experience a form of it. The **soquiet.org** website offers these free cards that can be used in awkward situations when someone else's sound is triggering misophonia in a sufferer. They are customisable because, as with all human hearing, each Misophonia sufferer's triggers are different.

7 Lip Reading Face Mask

Portsmouth, UK, 2021 (MOP2023-015/016)

One of the many aspects of the COVID-19 pandemic that caught the world by surprise was the impact it had upon the Deaf and hard of hearing people who rely on **lip reading** to communicate. While transparent face masks like this one were a step in the right direction, it quickly became obvious that further design development was required – the clear PVC material easily fogged up as soon as the wearer began talking, preventing their lips from being read.

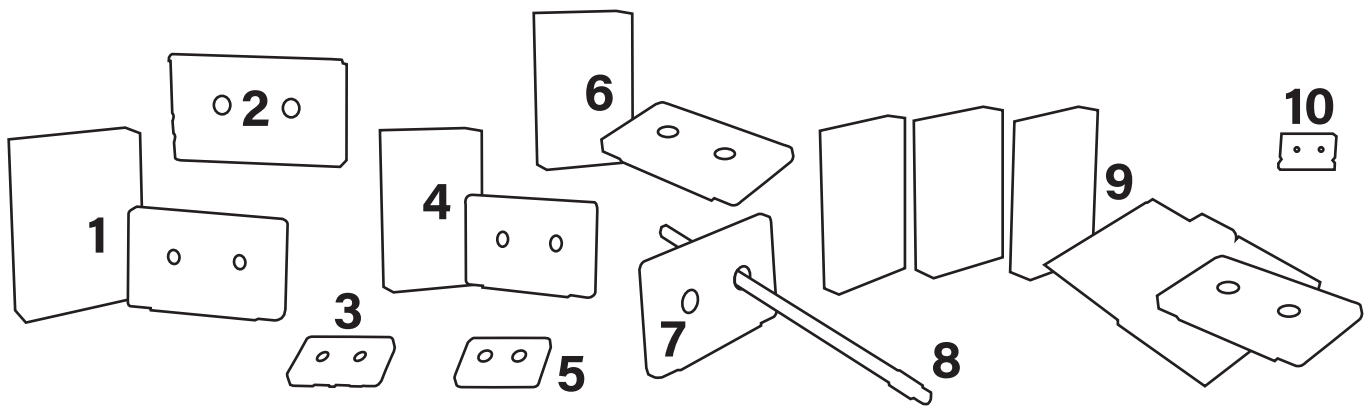


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#CassetteCulture

When the team at Philips Electronics led by **Lou Ottens** created the **Compact Cassette** in 1963, they never could have predicted its long-lasting popularity.



1 Philips C-90 Compact Cassette Tape

Austria, 1976 (MOP2023-063)

Just a little more than a decade into its history, the Compact Cassette had become a world-wide standard for low & high fidelity audio.

2 Grundig DC-International Cassette

Germany, 1965-7 (MOP2023-035)

German company **Grundig** had worked with Philips during the development of the cassette, but Philips ended the partnership. Grundig tried to compete, producing the bulkier **DC-International** format which only lasted two years.

3 Philips 30-minute Mini Cassette

Austria, 1960s (MOP2023-042)

Dictaphones – voice recorders used primarily as a form of audio note-taking in offices – became ubiquitous in the 1950s, but their formats (magnetic belts, wax records & reel-to-reel tape) were large & unwieldy. The Compact Cassette paved the way for miniaturization, and Philips' **Mini Cassette** made tiny recorders possible.

4 In God We Trust, Inc, Dead Kennedys

Alternative Tentacles Records, 1981 (MOP2021-007)

As recordable cassette sound quality improved, the recording industry panicked: if consumers could make great sounding copies using tape, there was no need to pay for records. **'Home Taping Is Killing Music'** was their anti-taping campaign, which San Francisco punk band **Dead Kennedys** mocked by making side 2 of this EP blank so users could copy something else on it.

5 AT&T Answering Machine Microcassette

Korea/US, 1980s (MOP2023-040)

The **telephone answering machine** combined miniaturised cassette recording technology and telecommunications to allow people to contact each other when they weren't available – a precursor to our contemporary 24/7 smartphone culture. The example tape here was manufactured in Korea for the telephone company **AT&T**, who held a monopoly over telecommunications in the United States until the US government forced it to break up into multiple companies on 1 January 1984.

6 Horizons: Software Starter Pack, ZX Spectrum

Psion Software, UK, 1982 (MOP2023-054)

Believe it or not, computer **apps** used to be stored as real-time audio recordings on cassettes. This cassette tape, bundled with all **ZX Spectrum** home computers in the UK, contains eight programs written in **BASIC**. Was there a time when we waited half an hour for an 8-bit video game to load? Yes, there was.

7 The World's First Cassingle

EMI Records, London UK, 1980 (MOP2020-030)

After the Sex Pistols broke up, their manager **Malcolm McLaren** created **Bow Wow Wow**, a vastly inferior new wave group. McLaren wrote their first single, **'C-30 C-60 C-90 Go!**', an ode to the Compact Cassette tape, and initially released it exclusively on cassette – making it the world's first **'cassingle'**, the magnetic tape version of the 7-inch 45RPM vinyl single.

8 Official Cassette Rewinder

UCLA Ethnomusicology Archive, 2019 (MOP2019-007)

Pencils (and biro) were used by Compact Cassette owners to precisely wind their tapes, particularly useful when making **mix tapes** to ensure that your music began after the unrecordable leader tape at the beginning of each side. This official cassette rewinder was donated to our museum by the **UCLA Ethnomusicology Archive**.

9 Indian Classical Music Cassette Collection

Maharashtra, India, 1980s-2000s (MOP2021-048A-G)

In India, as in much of the Global South, Compact Cassettes remained the primary format for recorded sound well past the advent of the Compact Disc and the MP3. These cassettes are part of a personal collection donated to us by **Mr Mukhatyarsing Patil** of Mumbai.

10 The World's Smallest Cassette Tape

Sony, Japan, 1992 (MOP2023-049)

In their lengthy (and ultimately unsuccessful) bid to develop a digital successor to the Compact Cassette, Sony invented **Digital Audio Tape (DAT)** in 1987. Instead of storing analog sound vibrations, DAT stores sound as digital data, and can quickly call up individual tracks like a CD player. This format was eventually applied to the ever-lucrative portable voice recorder market, leading to Sony's **NT Digital Micro Tape** format. At an astonishing **30mm × 21.5mm × 5mm** in size (and a tape width of **2.5mm**), it is officially the smallest functional cassette tape in the world.



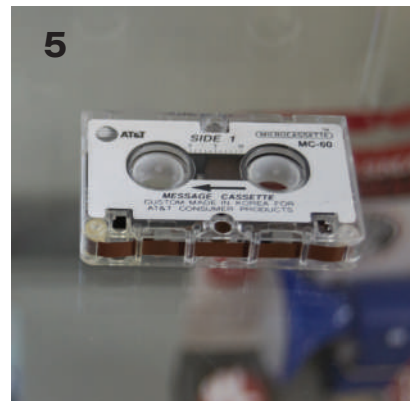
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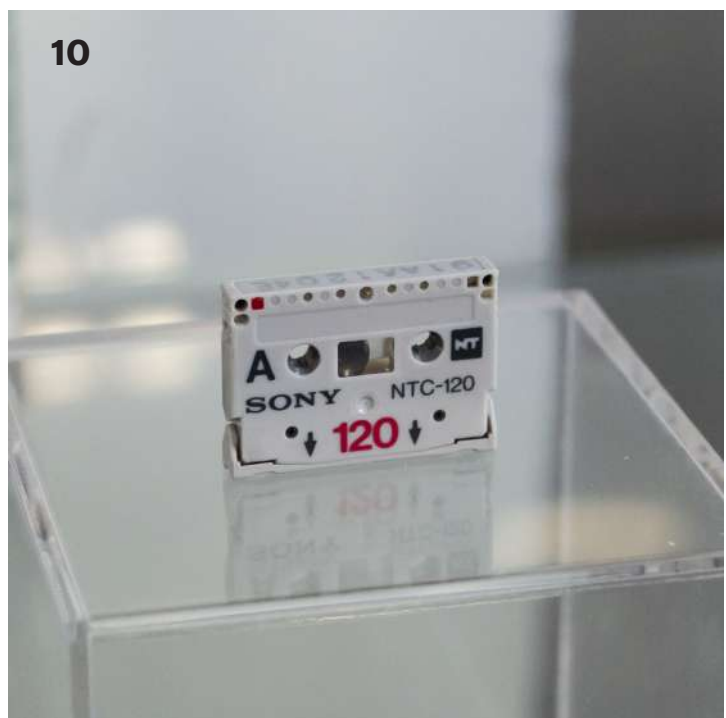
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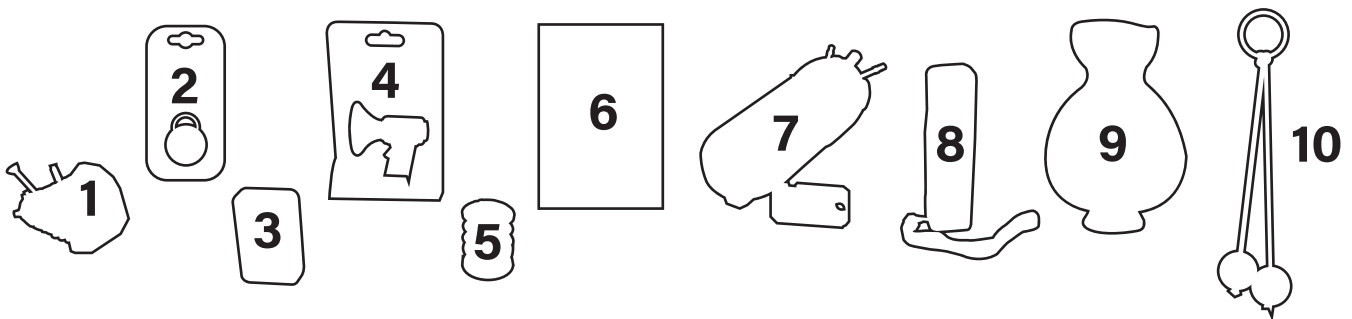
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Playing With Sounds

Most children learn that sound is, at its core, fun. As we grow older, society tries its best to drain the fun out of it. Don't forget to have fun.



1 Electronic Moving Dalek

UK, 2015 (MOP2023-057)

The arch-enemies of BBC TV's *Doctor Who* are known for their inability to climb stairs. This mechanical toy Dalek, as its packaging stated, 'GLIDES on a wave of SOUND' – well, technically, it's just some vibrating brushes. But they do 'buzz'.

2 Classic Metal Hand Buzzer

Cardiff, Wales, 2023 (MOP2023-052)

Invented in the 1930s, hand buzzers startle their victims via a rapidly uncoiling spring vibrating in their palm during a handshake. They are *not* capable of causing death – contrary to their depiction in the 1989 *Batman* film as used by Jack Nicholson's Joker.

3 NPW Sound Machine (Halloween Edition)

Cincinnati, OH, US, 2020 (MOP2022-026)

Though tiny, these sound machines can be quite loud. With over-use in certain social situations, their size becomes inversely proportional to their annoyance factor.

4 World's Smallest Voice Changer

Kidbrooke, London, 2021 (MOP2021-045)

We're not one hundred per cent certain about the reliability of the claim that this is the world's smallest, but it *is* quite wee. And it does change your voice.

5 Neck Cracker Prank

China, 2021 (MOP2021-028)

This toy simulates the sound of cracking vertebrae when placed upon the back of the neck and squished; it is surprisingly convincing.

6 Lord Phartwell's Whoopee Cushion

House of Marbles, Devon, UK, 2022 (MOP2022-024)

The first recorded use of a whoopee cushion was by the adolescent Roman emperor **Elagabalus** (218CE) who put inflated pigs' bladders on the chairs of banquet guests. Our modern example was acquired at the Nauticalia shop in the **Portsmouth Historic Dockyards**.

7 *Star Wars*® Episode I: The Phantom Menace™ CommTalk™ Reader & CommTalk™ Sound Chips

Germany, 1999 (MOP2023-015/016)

Drunk with power, **George Lucas** attempted to create his own portable sound format with the CommTalk™ ('CommTech™' in the US) system for the action figures released in conjunction with 1999's *Star Wars*® Episode I: The Phantom Menace™. Small plastic chips containing RFID technology were placed on top of the bulky CommTalk Reader device (designed to mimic the 'Jedi Communicator' used by Liam Neeson in the film, itself designed by repainting a women's razor). The sounds (dialogue & sound effects) were low quality and not even performed by the original actors. Fortunately for the world, the format was quickly cancelled.

8 Nintendo Wii Remote

China, 2006 (MOP2023-010)

The first video game console controller to include a sonic element, the Wii Remote's tiny speaker was effectively used to extend the sound world of games from the TV screen to the palm of the player's hand.

9 Japanese Scream Vase

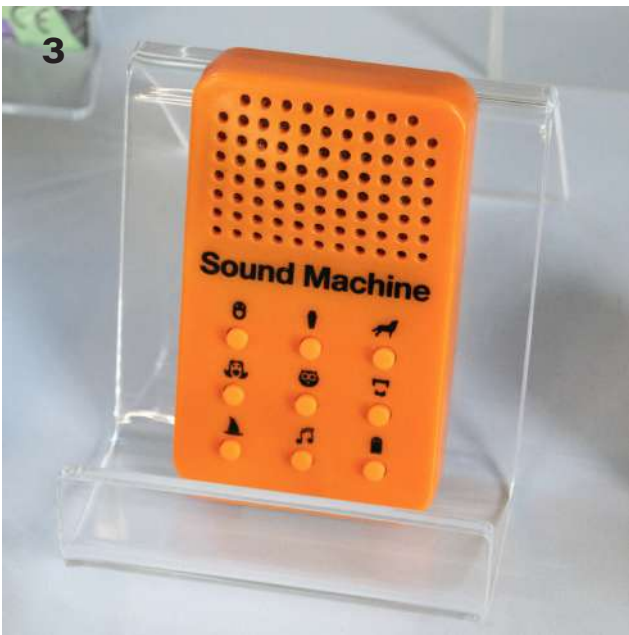
Japan, 2019 (MOP2023-058)

This stress reliever's clever acoustic design allows a user to place it over their mouth to scream, effectively muffling the noise. Afterwards, it stores the user's stress for them.

10 Clackers

Wales, UK, 2021 (MOP2023-051)

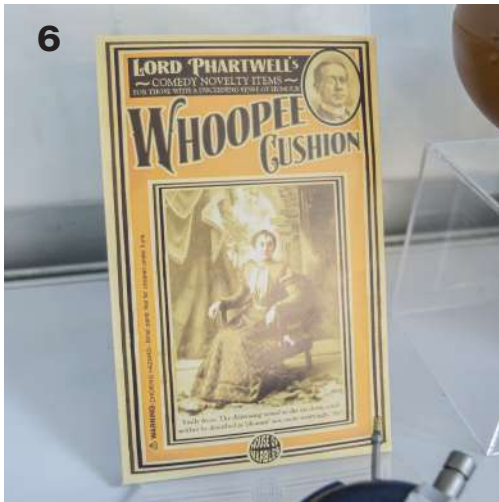
Originally made of (breakable) tempered glass in the 1960s, Clackers – intended as a toy, effective as a weapon – were eventually outlawed in the US, Canada & the UK. Their original design was at least three times the size of our example here, and our acquisition of this set was almost prevented by **eBay** as a potentially illegal sale. Meanwhile, in 2017 Egypt, Clackers became popularised as 'Sisi's Balls', in reference to thin-skinned president **Abdel Fattah El-Sisi's** anatomy, who then made the toy illegal. Egyptian Police confiscated 1,403 pairs of the devices and arrested 41 hapless clacker merchants.



- 1 Electronic Moving Dalek
UK, 2015 (MOPS2023-057)
- 2 Classic Metal Hand Buzzer
Cardiff, Wales, 2023 (MOPS2023-052)
- 3 NPW Sound Machine (Halloween Edition)
Cincinnati, OH, US, 2020 (MOPS2022-026)
- 4 World's Smallest Voice Changer
Kidbrooke, London, 2021 (MOPS2021-045)
- 5 Neck Cracker Prank
China, 2021 (MOPS2021-028)



Photos 2-4
by Patrick Galway



6

6 Lord Phartwell's Whoopee Cushion *House of Marbles, Devon, UK, 2022* (MOPS2022-024)

7 *Star Wars*® CommTalk™ Reader & Sound Chips *Germany, 1999* (MOPS2023-015/016)

8 Nintendo Wii Remote *China, 2006* (MOPS2023-010)

9 Japanese Scream Vase *Japan, 2019* (MOPS2023-058)

10 Clackers *Wales, UK, 2021* (MOPS2023-051)



8



7



9



10

Shelves 1 and 2



Shelf 3

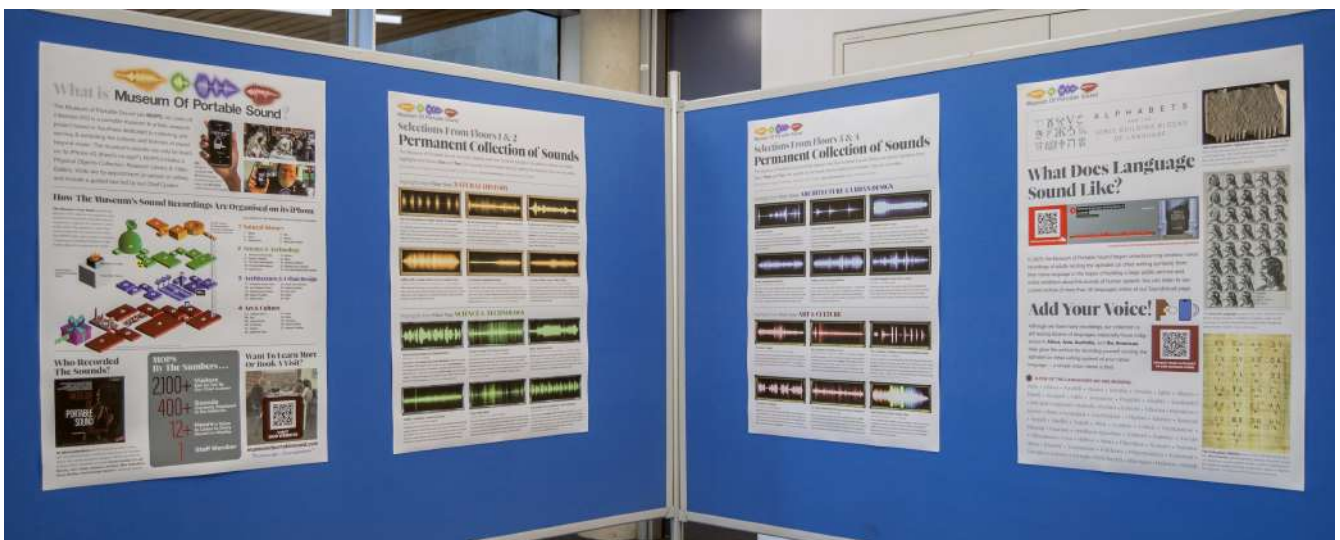


Photos by Patrick Galway

Shelves 4 and 5



Posters



Photos by Patrick Galway

Object Spotlight: White Noise

The white noise machine in our display is the modern DOHM.

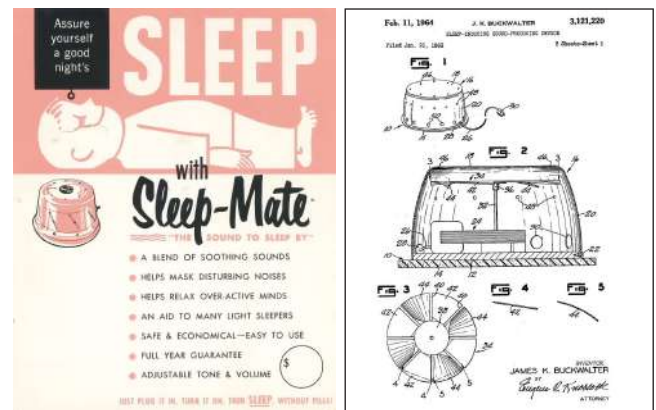


What you're listening to is the world's first electric white noise machine invented in 1962.

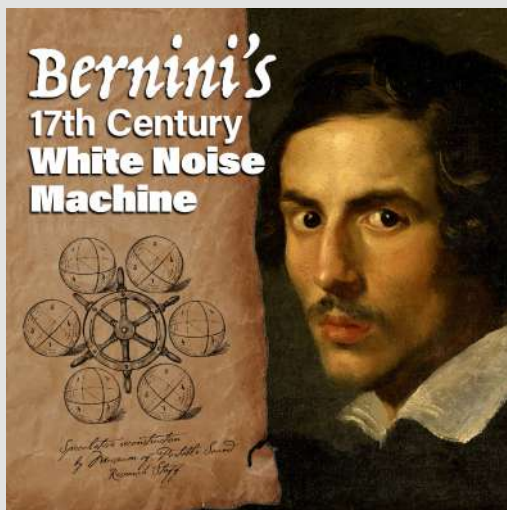
What is White Noise?

Just as white light contains every possible frequency of light waves, white noise contains all the frequencies of sound that humans are capable of hearing. The frequencies change constantly and randomly, but all occur at the same intensity.

Who Invented the Electric White Noise Machine?



Who Built the First White Noise Machine?



On the day of his election in 1667CE, **Pope Clement IX** commissioned famed Italian sculptor & architect **Gian Lorenzo Bernini** to solve his chronic insomnia. Since he knew the sound of a water fountain helped the hapless pope to sleep better, Bernini constructed the world's first known white noise machine: a manually operated wheel that struck a series of paper globes, providing an effective simulation of the sound of running water. It worked, and the new pope got his first decent night's sleep in ages.

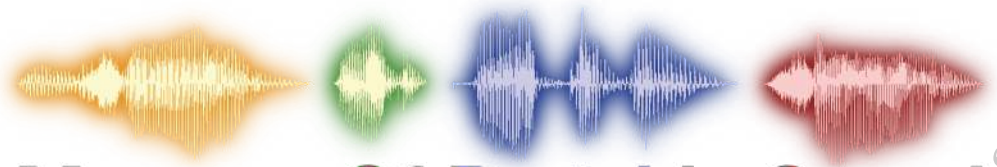
Traveling salesman **James K. Buckwalter** noticed that his insomniac wife slept better in air-conditioned hotel rooms. After tests (and, one assumes, simply by asking his wife), he learned that it wasn't the cold air that helped her sleep more soundly - it was the sound of the mechanical air conditioner masking other distracting sounds.

Above Left A 1960s advert for the Sleep-Mate. **Above Right** Buckwalter's 1964 patent. **Right** The fan inside a Dohm.



Realising this sound might help other insomniacs, Buckwalter invented a simple analog device: a small high-powered fan in a plastic housing. He named it the **Sleep-Mate**, and it sold like hotcakes. Later the company renamed its device the **Marpac DOHM**, and even today it is still called **Dohm**, although the company has rebranded itself as the somewhat cringeworthy **Yogasleep**.

The original physical fan version is still preferred by many over the digital **white noise apps** now available for smartphones - much like **vinyl snobs** prefer listening to records rather than digital audio.



What is Museum Of Portable Sound?

The Museum of Portable Sound (*aka MOPS, est. London, UK, 11 November 2015*) is a portable museum & artistic research project based in Southsea dedicated to collecting, preserving & exhibiting the cultures and histories of sound beyond music. The museum's sounds can only be heard on its iPhone 4S (there's no app!*). MOPS includes a Physical Objects Collection, Research Library & Video Gallery. Visits are by appointment (in person or online), and include a guided tour led by our Chief Curator.

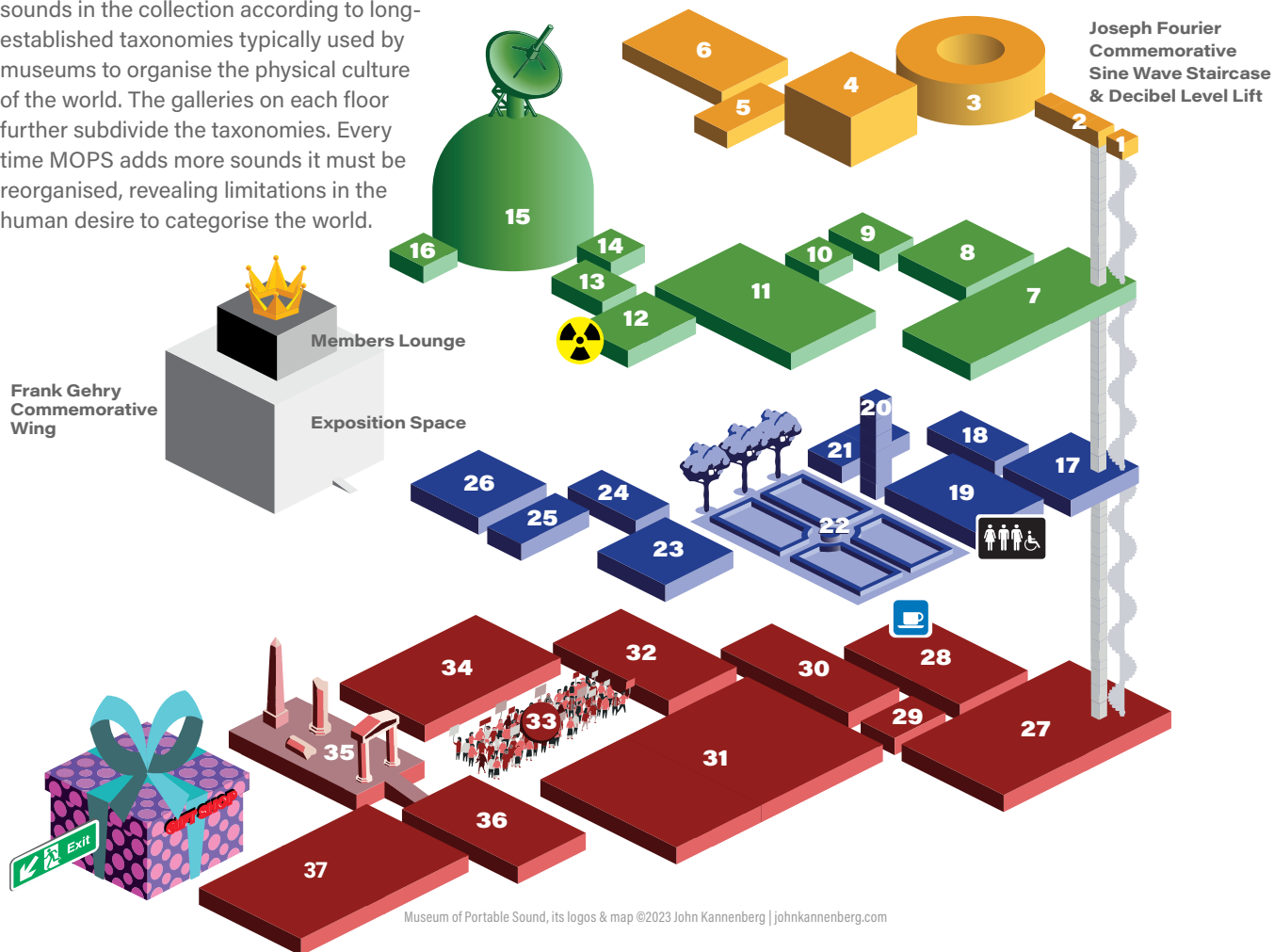


ABOVE TOP Chief Curator Kannenberg (centre) leads a tour group at the V&A museum, London. Photo ©2019 Hydar Dewachi **ABOVE BOTTOM** An online tour during the COVID-19 pandemic. Photo via MOPS Archives

ABOVE The iPhone 4S containing MOPS.

How The Museum's Sound Recordings Are Organised on its iPhone

The Museum's Four Floors classify the sounds in the collection according to long-established taxonomies typically used by museums to organise the physical culture of the world. The galleries on each floor further subdivide the taxonomies. Every time MOPS adds more sounds it must be reorganised, revealing limitations in the human desire to categorise the world.



GALLERIES OF THE PERMANENT COLLECTION OF SOUNDS:

1 Natural History

- | | |
|-------------------|--------------------------|
| 1 Humans | 4 Birds |
| 2 Insects | 5 Mammals |
| 3 Underwater Life | 6 Woods, Water & Weather |

2 Science & Technology

- | | |
|---------------------------------|---|
| 7 A History of Sound Recording | 12 Machines |
| 8 Acoustics & Audiology | 13 Glitches |
| 9 20th Century Audio Equipment | 14 Laboratories & Medicine |
| 10 21st Century Audio Equipment | 15 Astronomy & Space Exploration |
| 11 Audio Interfaces | 16 The Five Most Annoying Sounds in the World |

3 Architecture & Urban Design

- | | |
|------------------------------------|-------------------------------|
| 17 Construction, Exteriors & Tours | 22 Gardens, Parks & Memorials |
| 18 Doors, Windows & Fixtures | 23 Fountains & Sprinklers |
| 19 Plumbing, Heating & Cooling | 24 Bells & Clocks |
| 20 Elevators & Escalators | 25 Busking |
| 21 Railway Stations | 26 Walks |

4 Art & Culture

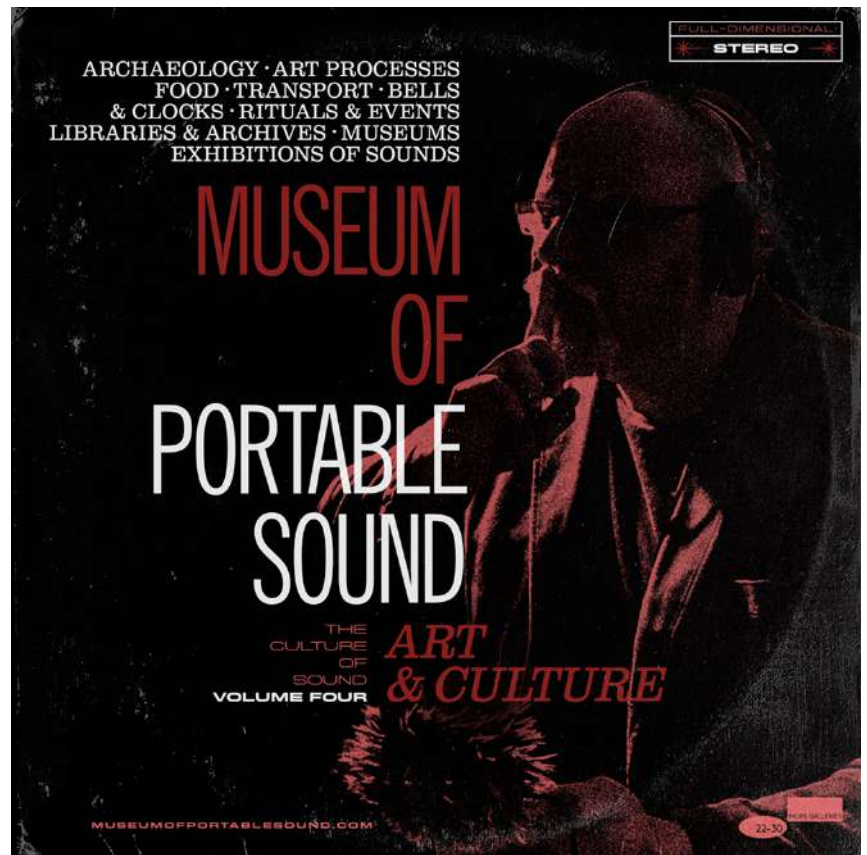
- | | |
|-----------------------|--------------------------|
| 27 Language & Speech | 33 Protest |
| 28 Food | 34 Rituals |
| 29 Fashion & Textiles | 35 Archaeology |
| 30 Art Processes | 36 Libraries & Archives |
| 31 Transport | 37 Museums & Exhibitions |
| 32 Commerce & Labour | |

Who Recorded The Sounds?

Dr John Kannenberg,

MOPS Director & Chief Curator, has recorded everyday sounds for more than two decades. About 90% of the sounds on display in MOPS are from his archive.

Other contributors include **Khaled Kaddal, Dr Leah Barclay, João Caldas, Bethany Lacktorin, Mike Hallenbeck, Harry Whalley, David George Haskell** and several public domain historical sources.



MOPS By The Numbers ...

2,100+ Visitors
Met So Far By
Our Chief Curator

400+ Sounds
Currently Displayed
in the Galleries

12+ Hours it Takes
to Listen to Every
Sound on Display

1 Staff Member

Want To Learn More Or Book A Visit?

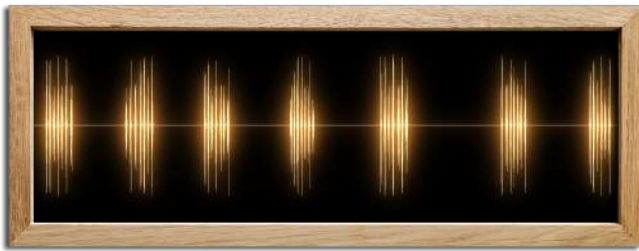


Selections From the Museum of Portable Sound Permanent Collection of Sounds

The Museum of Portable Sound currently displays over four hundred sounds. On the pages that follow are twenty four highlights of the collection, six from each floor. Our sounds can be heard only by visiting the museum, they are not online.

All sounds are original recordings made by Chief Curator **John Kannenberg** unless otherwise noted.

Highlights from Floor One: **NATURAL HISTORY**



The First Organism To Make Sound: *Permostridulus*

LODÈVE BASIN, SALAGOU FORMATION, FRANCE • 270 MILLION YEARS AGO (00:03)

This cricket-like creature lived in the Permian period on the supercontinent Pangaea. A fossil's wings discovered in the 1990s and published in 2003 exhibits similar bumps of veins to those on modern crickets used for **stridulation**, or rubbing their wings together to produce sound. Speculative Audio Reconstruction made & donated by biologist & Guggenheim Fellow **David George Haskell**



The First Birdsong Recording Ever Sold On Record

BREMEN, GERMANY / LONDON, UK • 1910 (03:33)

This 10-inch, 78rpm shellac phonograph disc, *Actual Bird Record Made by a Captive Nightingale*, was released by His Master's Voice (HMV) in 1910. The recording was made by hardware store owner Karl Reich, who had trained the bird to perch patiently in front of a phonograph horn. Donated by **Cheryl Tipp**, Curator of Wildlife Sounds, British Library Sound Archive



Psithurism: The Sound of Wind in Tree Leaves

ALBUFEIRA, ALGARVE, PORTUGAL • 8 SEPTEMBER 2016 (02:34)

A 19th Century word in English derived from the Greek word for 'whispering', **psithurism** is an example of *onomatopoeia*: a word that sounds like the thing it describes – in this case, the sound of wind whispering through tree leaves. I recorded this example while inside a cross-ventilated private residence one breezy afternoon in Albufeira, Portugal.



Falling Off a Camel at the Great Pyramid of Giza

PYRAMID OF KHUFU, GIZA NECROPOLIS, MOHANDESSIN, EGYPT • 1 MAY 2010 (00:49)

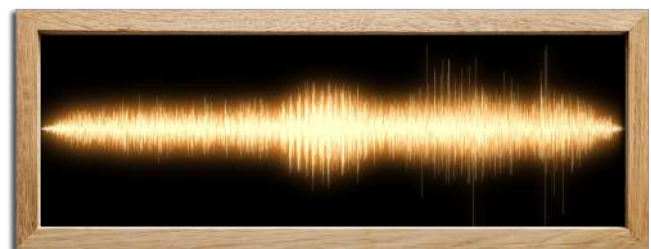
While visiting the Giza plateau, my tour guide led my camel and I down a steep dune next to the pyramid of the Old Kingdom pharaoh Khufu. Between the camel's nerves and my own inexperience, I proceeded to fall off the camel's back while holding my portable digital audio recorder.



Freshwater Snapping Shrimp

NOOSA RIVER, QUEENSLAND, AUSTRALIA • 11 MAY 2015 (01:32)

The snapping (or 'pistol') shrimp uses its one oversized front claw as a sonic weapon: by quickly snapping it shut, the claw generates a shockwave that stuns prey. It also creates a cavitation bubble whose burst briefly super-heats the water to the temperature of the sun – producing a sonoluminescent flash as the water literally catches fire. Recording made & donated by **Dr Leah Barclay**



A Wedge of Mute Swans Takes Flight

CANOE LAKE, SOUTHSEA, PORTSMOUTH, UK • 14 OCTOBER 2021 (00:22)

The mute swans inhabiting the local Canoe Lake in Southsea attract a lot of attention with their constant pleas for food from passers-by. However, when they fly, their powerful wings make an even more attention grabbing sound, a loud thrum' that can be heard for more than a mile, and is possibly used to communicate with other swans.

Selections From the Museum of Portable Sound Permanent Collection of Sounds

Highlights from Floor Two:

SCIENCE & TECHNOLOGY



The First Recording of a Human Voice

PARIS, FRANCE - 9 APRIL 1860 (00:22)

Typographer & editor **Édouard-Léon Scott de Martinville**, inspired by an article on the origins of photography, built a machine he called a **phonograph** that traced physical impressions of soundwaves on darkened paper that he was not able to play back. In 2008 US sound historian **Patrick Feaster** discovered a digital method to resurrect the original sound, captured 15 years before Thomas Edison invented his own phonograph. Recording courtesy firstsounds.org.



Flying Through The Rings of Saturn

JANUS-EPIMETHEUS RING, SATURN - 18 DECEMBER 2016 (01:18)

Near the end of its 20 years in space, NASA/ESA/ASI spacecraft Cassini-Huygens flew through the Janus-Epimetheus ring surrounding the planet, a space filled with tiny dust particles that exploded on contact with the craft, which was flying at about 120,000kph. The radiation of each tiny explosion was picked up by the ship's radio antenna, producing this eerie recording of analogue crackle.

Recording courtesy NASA.



Root Canal Procedure

SMILES FOR YOU BROCKLEY DENTAL SURGERY, LONDON, UK - 10 FEBRUARY 2018 (01:11)

The NHS claim that *'Root canal treatment is usually successful. In about 9 out of 10 cases a tooth can survive for up to ten years after root canal treatment.'* This has not, however, been the case for our museum's Director, who received two emergency root canals in a three year period. Neither of the procedures resulted in the survival of the tooth. So don't believe everything you read.



Public Telephone Audio Interface

ZAGREB, CROATIA - 25 SEPTEMBER 2015 (00:26)

In the days before mobile telephone ubiquity, public telephone booths didn't only provide spaces for conversational privacy (and a place for Superman to put on his costume). They also provided shelter from the elements, such as this old, yet still in use, Zagreb telephone booth did while I collected the sounds of the Croatian dial tone and telephone button beeps.



iPod Clickwheel

SOUTHSEA, HAMPSHIRE, UK - 2 OCTOBER 2020 (00:21)

If you ever owned an iPod digital audio player (starting with the iPod Mini in 2004) you either fondly remember this sound, or immediately turned it off in the Settings. Generated through a tiny internal piezoelectric speaker (which is how the speakerless iPod could click externally but only played music through headphones), the iPod Clickwheel sound immediately transports many listeners back to the 2000s.



The World's First Genderless Voice Assistant

GENDERLESSVOICE.COM - 8 MARCH 2019 (03:33)

A collab between **Copenhagen Pride** and the **EqualAI** organization, the Q voice – sourced from multiple nonbinary voice recordings and engineered to fall between 145-175Hz (claimed by researchers to be the optimal frequency range for perception as neither masculine nor feminine) – is still, four years later, the only AI assistant voice that does not reinforce the stereotype of women as servants.

Recording courtesy genderlessvoice.com

Selections From the Museum of Portable Sound Permanent Collection of Sounds

Highlights from Floor Three:

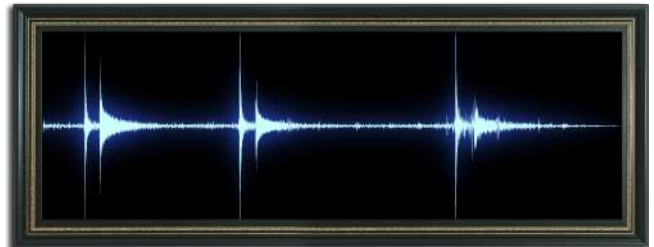
ARCHITECTURE & URBAN DESIGN



17th Century Door

RUBENSHUIS, GHENT, BELGIUM • 21 JULY 2017 (00:34)

Almost ridiculously creaky, this period door in the Italianate villa owned by renowned Flemish artist Peter Paul Rubens (1577-1640CE) was equipped with a spring-loaded self-closing mechanism that would have made it impossible to sneak out of the house.



1950s Electric Doorbell

MILWAUKEE, WISCONSIN, US • 1 MARCH 2008 (00:13)

The first electric doorbell was invented in 1831 by a museum director, the first secretary of the Smithsonian Institution in the US, scientist Joseph Henry. The electrical bell in this sound recording hardly sounds like the result of nearly a century of technical progress.



Sigmund Freud's Toilet

SIGMUND FREUD MUSEUM / VIENNA, AUSTRIA • 9 DECEMBER 2017 (00:43)

Admit it: ever since you first learned about Sigmund Freud, the so-called 'father of psychoanalysis,' you've wondered what his toilet sounded like. Unlike the commode in the Freud Museum London, his Vienna house's toilet sounds exactly like you think it should. And no, we didn't alter the shape of this waveform.



Solari Announcement Board

GARE DU NORD / PARIS, FRANCE • 17 MARCH 2005 (01:17)

Before video screens became affordable enough to replace basic public signage, Solari Boards – a 20th century mechanical invention whose physical numbers and letters flipped into place – were used in most airports, railway and bus stations around the world as they could display arrival and departure times dynamically. This example is a departures board from Gare du Nord in Paris.



Dublin Garden of Remembrance

DUBLIN, IRELAND • 16 AUGUST 2022 (01:43)

Like most memorial gardens, Dublin's Garden of Remembrance – a beautiful park opened in 1966 to commemorate the Irish freedom fighters who gave their lives opposing colonial rule in 1916 – is intended as a place for quiet contemplation. However, on the morning I recorded it, the tranquility was disrupted several times by angry drivers loudly sounding their horns.



A Walk Through Corfu Town, Greece

CORFU, GREECE • 6 OCTOBER 2011 (11:30)

Currently the longest sound in the museum's galleries, this meandering walk across the northeasternmost part of the Greek island of Corfu takes in the sounds from the Italian villa-style Hotel Bella Venezia all the way north onto Faliraki pier, passing cricketers, museums, water fountains and scooters along the way.

Selections From the Museum of Portable Sound Permanent Collection of Sounds

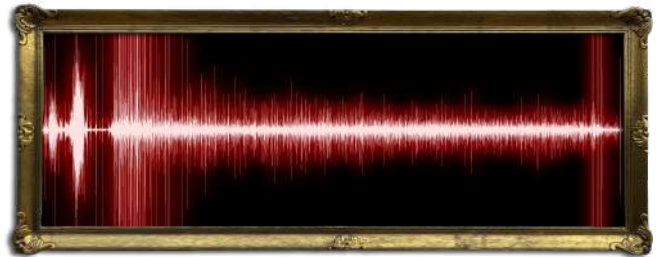
Highlights from Floor Four: **ART & CULTURE**



The Sistine Chapel

APOSTOLIC PALACE / VATICAN CITY / ROME, ITALY · 10 APRIL 2017 (01:31)

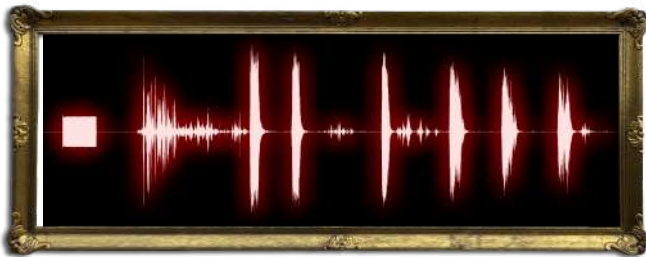
Anyone expecting to visit the Sistine Chapel in peace and quiet while pondering the ceiling painted by Michelangelo is bound to be disappointed. The guards want visitors to be silent, but the visitors can't shut their mouths so the guards vent their frustration by yelling "SILENCE! *SILENCIO!*" over a P.A. system. *Meravigliosa.*



Rice Krispies® Breakfast Cereal

MEDUSA ROAD / LADYWELL / LONDON, UK / FACEBOOK LIVE · 14 DECEMBER 2018 (03:26)

During this Facebook Live event, our Chief Curator broadcast a new acquisition: he prepared, ate, and recorded a bowl of Kellogg's™ Rice Krispies® breakfast cereal (world famous for the sound it makes in milk). Controversy arose in the Q&A when, upon learning that almond—not cow's—milk had been used, several audience members questioned the authenticity of the sound produced.



The Complete Wilhelm Scream Recording Session

HOLLYWOOD, CALIFORNIA, US · 1951 (00:39)

A scream recorded by US actor Sheb Wooley for the 1951 cowboy film *Distant Drums* became a Hollywood sound effects staple after it was resurrected by sound designer **Ben Burtt** and used in the original 1977 *Star Wars* film. In 2023, sound archivist Craig Smith rediscovered the original tape reel containing the entire recording session of the famous scream – 6 takes in all – of which the fifth became the now-iconic sound. Recording via Creative Commons CC0 1.0 Universal



Portuguese Amolador

LISBON, PORTUGAL · 22 AUGUST 2017 (00:14)

Amoladors travel around Lisbon on bicycle and provide services like knife sharpening or umbrella repair. To alert locals they are available for work, amoladors all play the same tune on a tiny plastic whistle. João Caldas, who donated this sound, says the amolador sound is what makes him know he is home. These location-specific sounds are known as a **soundmarks**. Recorded & donated by João Caldas.



Las Vegas Pinball Hall of Fame and Players Museum

LAS VEGAS, NEVADA, US · 28 FEBRUARY 2011 (01:00)

While most museums discourage visitors from handling the objects on display this viscerally stunning museum in a former warehouse encourages regular use of the pinball machines on display. During my visit, game play was watched over by a grumpy old man in the back of the space who repaired worn out mechanical parts and refunded coins claimed by kids to have been "eaten" by the machines.



San Francisco Pride Parade 2008

SAN FRANCISCO, CALIFORNIA, US · 6 JULY 2008 (01:39)

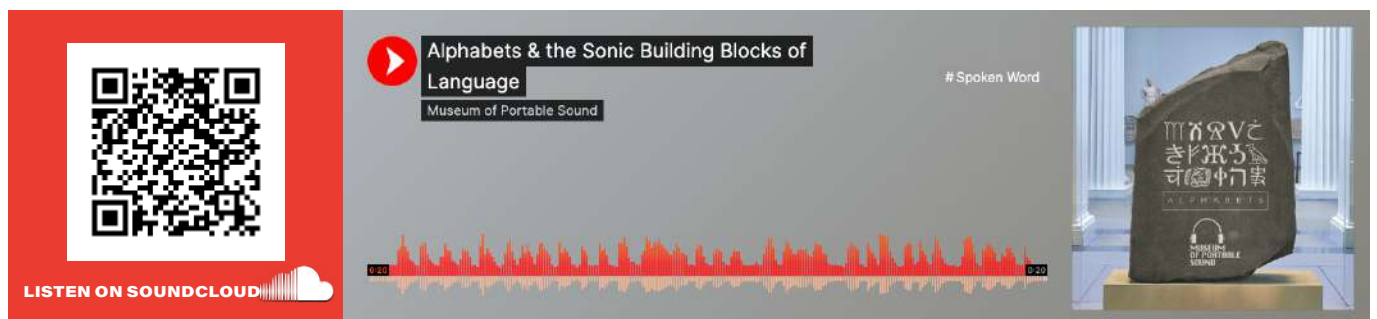
The year California voted to legalise same-sex marriage, I went to San Francisco on holiday the week of the annual Pride Parade. One of my favourite sounds I've ever recorded, a lesbian marching band's rendition of the song *Chapel of Love* (aka *Goin' to the Chapel*) inspired a visceral roar of pure joy from the newly-empowered crowd.

What Does Language Sound Like?



A L P H A B E T S
AND THE
SONIC BUILDING BLOCKS
OF LANGUAGE

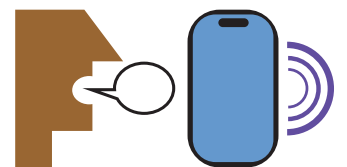
In 2020, the Museum of Portable Sound began crowdsourcing amateur voice recordings of adults reciting the alphabet (or other writing symbols) from their native language in the hopes of building a large public archive and online exhibition about the sounds of human speech. You can listen to our current archive of more than 30 languages online at our Soundcloud page.



soundcloud.com/museumofportablesound/sets/alphabets

Add Your Voice!

Although we have many recordings, our collection is still lacking dozens of languages, especially those indigenous to **Africa, Asia, Australia, and the Americas**. Help grow the archive by recording yourself reciting the alphabet (or other writing system) of your native language — a simple voice memo is fine!



UPLOAD YOUR ALPHABET
TO OUR GOOGLE FORM!



The Earliest Known Alphabetic Sentence appears on this ivory comb discovered at the site of Lachish, Canaan west of the Dead Sea. The 3,700 year-old sentence reads "May this tusk root out the lice of the hair and the beard".

Photo: Dafna Gazit/Israel Antiquities Authority



The Wakandan Alphabet used in the 2018 Marvel Studios film *Black Panther* was designed by Hannah Beachler based on Nsibidi, an ancient graphic symbol system indigenous to the Ejagham peoples from the Cross River region in Nigeria & Cameroon. Font: *Wakanda Forever Regular* by Adam Shady



A Universal Language proposed by John Wilkins of the British Royal Society in 1668CE to replace Latin as the language of world scholarship included this intriguing pronunciation chart. Photo: British Library

A FEW OF THE LANGUAGES WE ARE MISSING:



Zulu ▪ Xhosa ▪ Swahili ▪ Hausa ▪ Yoruba ▪ Oromo ▪ Igbo ▪ Shona ▪ Hindi ▪ Bengali ▪ Odia ▪ Assamese ▪ Punjabi ▪ Sindhi ▪ Kashmiri ▪ Marathi ▪ Gujarati ▪ Sinhala ▪ Pashto ▪ Balochi ▪ Tibetan ▪ Burmese ▪ Karen ▪ Boro ▪ Georgian ▪ Azerbaijani ▪ Filipino ▪ Khmer ▪ Korean ▪ Nepali ▪ Sindhi ▪ Tamil ▪ Thai ▪ Uyghur ▪ Uzbek ▪ Vietnamese ▪ Zhuang ▪ Guaraní ▪ Southern Quechua ▪ Nahuatl ▪ Zapotec ▪ Navajo ▪ Chinanteco ▪ Cree ▪ Ojibwe ▪ Sioux ▪ Cherokee ▪ Aymara ▪ Yucatec Maya ▪ Q'eqchi' ▪ Tasmanian ▪ Pakhana ▪ Pitjantjatjara ▪ Wororan ▪ Laragiya ▪ Garawa ▪ Yirram ▪ West Barkly ▪ Djeragan ▪ Hebrew ▪ Welsh

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