Sound on!

No recording studio? No worries! Plug your instrument into your iPhone and away you go!



Sound on!

Meg Flavell

Back when Steve Poltz started life in the music industry, cassette tapes were the weapon of choice, and if he wanted to record music, studio time would need to be booked and band members organised. Fast forward to 2018 and Poltz is still recording music, but now studio time is a maybe, not a necessity. As this troubadour trots across the globe, inspiration may strike at any time, whether in a suburban coffee shop or miles up in a jumbo jet. Now, rather than wait to lay tracks in a recording studio, he just needs to pull his iPhone from his back pocket and the studio is right there in his hands.

The recording industry began it's long and illustrious history back in 1857 when Frenchman Leon Scott de Martinville invented a device that could record sound. He patented this device on March 25, 1857 and called it the Phonautograph. The phonautograph worked by tracing sound waves as deviations in a line traced on paper or glass that had been blackened by smoke (EMI Archive Trust, 2016).

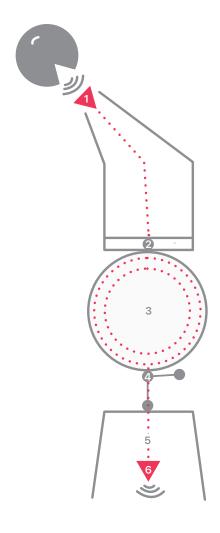
The Phonautograph couldn't actually play back sound though, and it wasn't until 1877 when Thomas Edison found a way to record and playback sound by using two needles on a tinfoil cylinders and thus, the phonograph was born. The first song ever recorded? Mary Had A Little Lamb.

Technology has advanced in leaps and bounds since 1877, and instead of needles and tinfoil cylinders, you can now record your next hit song in mere minutes from the palm of your hand using an app such as GarageBand.

GarageBand started life on your desktop Mac before becoming available as an app on iPad and iPhones from 2011.

GarageBand enables you to knock out impromptu jam sessions, all without having to lug around expensive recording equipment.

No longer does a musician need to hire a producer to record and mix their tracks, now it's as simple as plugging your instrument into your iPhone and off you go!



How Edison's phonograph worked:

Sound goes in (1), making a diaphragm vibrate and push a needle (2) back and forth, cutting a groove into foil wrapped around cylinder (3) that is going around whilst a second needle (4) presses into the groove, bouncing up and down in the pattern. Another diaphragm and horn (5) amplifies the sounds, turning them back into sounds you can hear (6).

A method put to good use by Steve Poltz when he's on the road. He can record song lyrics into Voice Memos when inspiration strikes or lay down the guitar track for his next song in GarageBand. "GarageBand is so easy to use! Sometimes, it helps me try different time signatures, and things I never would have thought of." A method also used to great effect by teenage music prodigy Steve Lacy.

Grammy Award nominated, teenage music producer Lacy has been using his smartphone as a personal studio since he first received an iPod Touch as a a Christmas gift after coveting the MacBook Pro used by creatives.

By 2015, Lacy joined the band The Internet for their album Ego Death. It was from here that he began collaborating with Kendrick Lamar. Lacy and Anna Wise were in the studio recording Lamar's track PRIDE when the studio equipment malfunctioned. Lacy told Wise "Let me make a lick on my laptop, bounce it to my phone, and we'll play this acoustic". Lacy then recorded her vocals

and his guitar track using GarageBand on his iPhone. (Genius, 2017)

This track would go on to be nominated for a Grammy award. A track that was demoed on an iPhone whilst Lacy was still in high school.

Even now that he has access to all the best equipment and studios, Lacy still prefers his guitar connected to GarageBand on his iPhone 6.

In a time when most people prefer to stream their music rather than purchase it physically on CD, the future of this recording method looks bright.

Now the next Steve Lacy could be sitting at home in his bedroom, strumming a few chords on his guitar whilst laying down a drum track and some vocals and he's recorded his very first song. Something that garage bands in the 80s could only dream about!



References:

Arndt, H. K., & Ewe, C. (2017). Analysis of Product Lifecycle Data to Determine the Bonnington, C. (2011 November 1). *Garageband for iPhone: First Hands-On Impressions*. Retrieved from https://www.wired.com/2011/11/garageband-iphone-hands-on/.

Fu, E. (2017 December 28). Steve Lacy explains how he produces Grammy-nominated songs on his iPhone. Retrieved from https://genius.com/a/steve-lacy-explains-how-he-produces-grammy-nominated-songs-on-his-iphone.

History of Recorded Music. (n.d.). Retrieved from https://www.emiarchivetrust.org/about/history-of-recording/.

The History of Recorded Music. (n.d.). Retrieved from https://www.timetoast.com/timelines/51727.

Pierce, D. (2017 April 14). *The hot new hip-hop producer who does everything on his iPhone*. Retrieved from https://www.wired.com/2017/04/steve-lacy-iphone-producer/.

History of sound recording

1878

Thomas Edison perfects the phonograph. Expanding on the principles of Scott de Martinville, Edison can now record and playback sound. His first recording? Mary Had A Little Lamb.

1877

Thomas Edison invents first machine that could record and playback sound. the **Phonograph**.

1857

Édouard-Léon Scott de Martinville invents the Phonautograph in Paris.

Valdemar Poulsen records the voice of Emperor Franz Josef of Austria at widely believed to be the oldest surviving magnetic audio recording.

1898

Valdemar Poulsen develops a magnetic recorder that can record on steel wire, tape or discs.

1900 -

the World Fair in Paris. This is

First jazz recordinas are made.

1917

1902

of recorded

music beains

for successful

mouldings of

are developed.

Enrico Caruso

becomes the first

superstar of the

recording industry.

1904

when processes

cvlinder recordinas

Mass production

1925

Microphones used by all maior record labels in studio sessions after success of electrical recordings. Acoustic recordings could not compare to the clear tones of electrical recording.

1948

major labels

introduce

records.

All the

vinvl

Г1928

Fritz Pfleumer develops magnetic tape in Germany for sound recording. The magnetic tapes would become widely used over the next decade. Almost all studios adopt this new

technology.

1963

Philips develop the compact audio cassette. The first to combine convenience of a tape recording that didn't require manual threading.

1964

• Vinyl records become the worldwide industry standard.

· First portable cassette player made available to the public in the US, made by the Norelco Company.

1965

James Russell begins development of the **compact disc.** Sony and Philips get credit for this in 1981 when Philips started manufacture of discs for commercial use.

2004

GarageBand announced at the Macworld Conference & Expo. Featuring digital audio recording and virtual instruments. Garage Band offered a taste of professional music software in a friendly style for beginners.

2005

GarageBand introduces multi-track recording.

GarageBand introduces mid-track tempo changes.

[2007

iPhone is released and GarageBand introduces 24 bit recording and multiple takes on one track.

2015

Steve Lacy records and produces an entire track for release on his iPhone 6.

1886

Charles Sumner Tainter and Chichester Bell improve the phonograph cylinder under the quidance of Alexander Graham Bell at his Volta Labaratory. They develop wax cylinders and create a new form of recording sound, the Graphophone. -

1887

Emile Berliner invents the **Gramophone**. Using discs imprinted with grooves on the flat side of a disc, rather than the outside of a cylinder as it had been done previously.

1920

First electrical recordings

made by scientists at the Bell Laboratories. The first recording made public was of the funeral service for the Unknown Soldier at Westminster Abbev. The microphones that were used were like those used in contemporary telephones.

1888

Columbia Records is borne out of Volta Labaratory and the recording industry begins!

1931

Alan Blumlein develops binaural sound (what we know as stereo sound) at EMI.

1940

Multi track recording developed. Les Paul. guitarist, composer and technician experiments with multi track recording, leading to the development of 4 and 8 track recording. By the 1960s all the major studios had adopted this technique. The Beatles and Rolling Stones were the first to have 4 track records. Walt Disnev's Fantasia was the first commercial appearance of a four track record on film, producing sound that we now know as surround sound.

1934

Lacquer coated discs are introduced, making recording audio possible for broadcasting and home use. These discs would be used well into the 70s when it would be replaced by magnetic tape recording.

Apple purchase Emagic, Gerhard Lengeling becomes senior director of software engineering (music applications) at Apple.

2001

First Apple iPod was released.

1999

First portable MP3 players appear in the market.

1989

MP3 created. Fraunhofer receives a German patent for the creation of MP3s.

1988

Moving Pictures Experts Group (MPEG) was made.

2050

What is the future of sound recording?

Acoustic Era Electrical Era Magnetic Era Digital Era 1975 to present day

1877 to 1925 1925 to 1945

1945 to 1975