

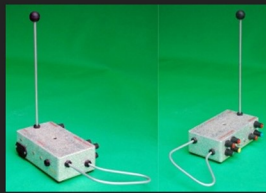


Tracing the Theremin

Post-Thatcherism's sonic obsessions

/ by Barbara Eder

The early nineties were the years of Fordism's last moan, reflected in a bunch of records evoking the atmosphere of lost futures in reaction to neoliberalism's restructuring of society. Techno had not yet arrived in the charts, while the triumphant self-empowering pose of hip hop started to lose credibility. A genre called TripHop appeared on cultural industries' horizon, represented by Bristol-centred bands like Tricky, Portishead, and Massive Attack. Their sounds consist of atmospherically dense arrangements, floating melodies, and trembling, often a-rhythmic chanting. The soundscapes of TripHop were completely different from everything else hitting the airwaves at that time, distinguished from mainstream by reduction and slowness. Sluggish, monotonous beats and lo-fi loops meet up with noises from the historical media archive, like the crackling of the vinyl after lowering the record pin and voices whispering into a telephone receiver.



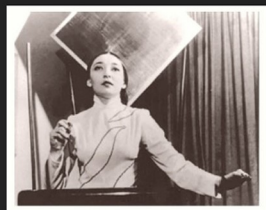
Adrian Utley's theremin.

TripHop is not just the music of lost origins under diaspora conditions; TripHop is also a reservoir for almost forgotten instruments, reanimated by samplers and synthesizers. Indigenous flutes, ethereal xylophone sounds and filtered-in percussion accessories from other parts of the world characterize the remarkable sound of Tricky's debut album, *Maxinquaye*. The sound-collage of Portishead's debut album *Dummy* is even more advanced: In the first seconds of Beth Gibbons' song 'Mysterons', an eerie glissando is mixed between the scratches. Being asked about the modes of production behind the ghostly sounds at the beginning of the album's first track, Portishead-percussionist

Adrian Utley mentioned a musical instrument with a long historical tradition. Beyond intention, he called it 'thereman'. While reclaiming its contemporaneous relevance, the musician also referred to the difficulties in playing the theremin. After a considerable number of unsuccessful tries, he decided to choose a synthesizer-patch to imitate the original.

In reaction to Utley's statement, the online portal *Theremin World* set out in search of the analogue sound behind the copy. In addition to a short text highlighting Portishead's contribution to the first electronic instrument in music history, the authors do not hesitate to see this as a first sign for an upcoming 'World Thereminization'. The article is also linked to a special offer, guiding the reader to the virtual auction house *spheremusic.com*. Utley's instrument was released there, promoted as an obscure miracle. In lack of a description, it remains unclear what is to be done with its buttons. The future owner should confidently find out everything about unused jacks and hidden functions.

to be a bit archaic. However, a professional thereminist could elicit more than a handful of oscillating tones from this sparkling metal box. Every



Clara Rockmore.

theremin has two differently shaped rod antennas, and the entire bandwidth of three octaves. Theremins are usually played without being touched. With the right hand, the player changes the pitch along the vertical antenna, with the left the volume. That sounds easy but counts to be the hardest task. It often takes years until training results in full sound; until now, only a few have made it to virtuosity, including the native Russian Clara Rockmore, who developed the theremin after her emigration to the United States in close collaboration with its inventor. Trained on the violin since early childhood, she managed to keep all notes free from too much variation, even in fast-played transitions. *Portishead's* glossy-sounding sample would have been scary for her as well –

not so much because of the gloomy mood of the song, but rather because she would have recognized a faux pas in the strongly audible ups and downs.



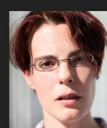
Urtheremin.

Since its invention at the end of the 1910s, the theremin remains an ambiguous instrument. During state-financed stages of developing a motion detector for the Soviet war- and defense industry, physicist Lev Sergeyevich Termen coincidentally discovered a new possibility for electronic sound production. While researching on alarm systems, he found out that the measuring device he constructed emitted varying degrees of sound, depending on its distance from the human body. Actually, it should only register the change in the density of gases in relation to pressure and temperature; however, when Termen used a pair of headphones instead of the connected gauge, he found out that the nearer he approached, the higher the tone's frequency got.

The musical instrument named after Termen, who later on changed his name to Leon Theremin, is based on this effect. The inner life of the prototype consists of not much more than two differently charged electron tubes in the middle of two oscillator circuits. As a result of the difference in charge quantities, tones can be generated by the detour of two amplifiers. As soon as the player's hand approaches the vertical antenna, the audio frequency increases; when the hand moves away, the opposite happens.

In the early Soviet Union, Termen's invention gained much attention. Lenin, who promoted the industrialization of a former agricultural state by one of his most popular statements – 'Communism is Soviet power plus electrification' – was enthusiastic about the electronic sound generator from the Petrograd's Physics Department. Not without reason: initiated by the caesura of New Economic Politics, a political obsession captured the whole country. Lenin's goal was to bring an everlasting light bulb to every household, seen as a symbol of eternal progress through science and technology. The story of 'Comrade Electron', moving out to serve even in farthest regions of Russia, became a popular myth. In one of the first Soviet sound films from 1932 called *Komsomol – šef elektrifikacii*, one can hear a theremin sound, while young Komsomolts lay red cables across the whole country.

By the 1930's the military rather than the artistic significance of Termen's invention was stressed out. As a result of the totalitarian turn in Soviet Politics, Kremlin's political authorities epitomized the war-relating dimension of Termen's innovation. At the Moscow All-Russian Electrical Congress in 1921, his instrument was proudly presented as a revolutionary tone generator, providing its inventor with traveling permission to abroad and new research contracts. Ten years later, the Theremin was no longer seen as unique; it only kept its relevance as a byproduct of the newly patented motion detector, commonly used for surveillance purposes of large areas. Today, the prototype of the Theremin is exhibited in the Moscow Theremin Centre for Electroacoustic Music, which is a part of Moscow State Conservatory. From a distance, it looks like an oversized letter with a metal top. Its protruding antennas must not be touched – this time for safety reasons – but it still keeps the promise of all the technical inventions of its time, providing disenchanted humankind with something beyond the borders of instrumental thinking. Once it's done, it'll make our lives easier, the engineers say. But secretly, rationalization is the hidden telos of all machinery, automation only its ultimate consequence. Over the centuries, various avant-gardes have thought through the idea of making music without people – Bruno Munari in the futuristic machinery manifesto of 1938 as well as John Akomfrah in his afro-futuristic essay film, *The Last Angel of History* (1995). For a composer like Edgar Varèse, the Theremin was the vivid incarnation of his ideal of music without the impositions of subjective interpretation. In 1947 he started to dream of concerts without musicians. Today, nobody would question that digital audio samples can be used to simulate the presence of entire orchestras; turntables and computers have contributed to that. Music without people might be perfect but deserted. What is missing, initiates a search. The last attempt to locate the original behind the sample ended on the orphaned pages of an auction house. Virtually, Portishead's theremin is still available.



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