

Broadcast Territories

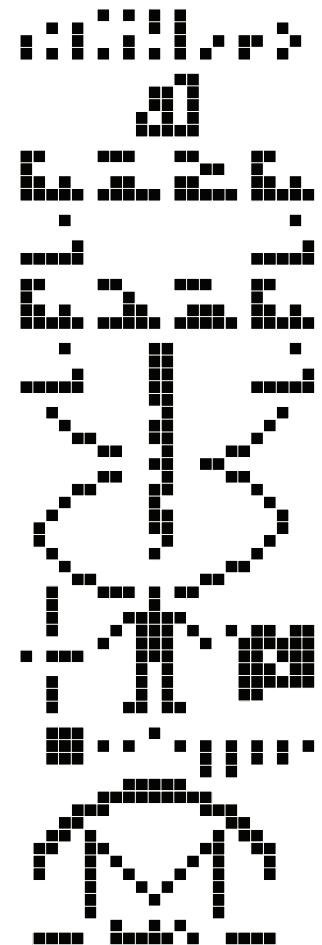
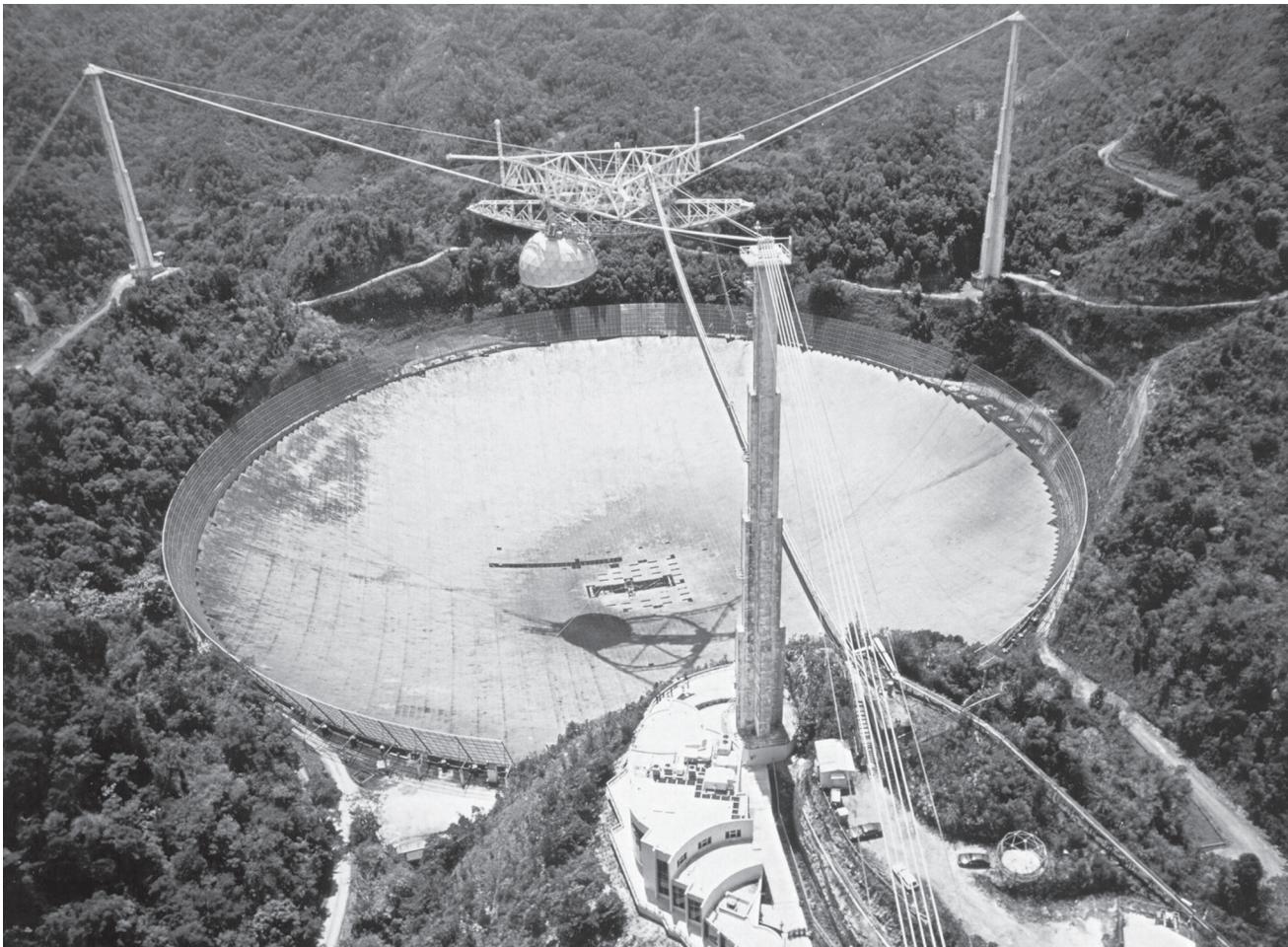
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On November 16, 1974, a radio message was broadcast from the Arecibo radio telescope in Puerto Rico towards the globular star cluster M13 some 25,000 light years away, a patch of the cosmos considered the most likely to be home to alien civilizations. The message consisted of 1,679 binary digits transmitted at a frequency of 2,380 MHz with a power of 1,000 kW. The total broadcast lasted less than three minutes and will take 25,000 years to reach its destination. The message contains information designed to describe humanity. Its contents include the numbers one to ten, a graphic figure of a human, a map of our solar system, and a graphic of the Arecibo radio telescope itself. It was launched into space in the hope that a sufficiently advanced extra-terrestrial civilization would tune in and an interstellar relationship might begin.

However, like any kind of broadcast (and like any kind of information), there are subtexts behind this apparently simple intention. Wrapped up in the hope of communicating with alien worlds was another project, one in which the idea of broadcasting was set at an intergalactic scale. To put it another way, it was not about them but about us.

Marshal McLuhan suggested that broadcasting was a means of extending our own central nervous system. TV, he told us, through its camera, wires, signals, and screens was a technological extension of our optical nerve, and radio, from microphone to speaker to ear, was an extension of our auditory capabilities. He wrote: "Today, after more than a century of electric technology, we have extended



our central nervous system itself in a global embrace, abolishing both space and time as far as our planet is concerned.”

The Arecibo broadcast, sent beyond the atmosphere of our planet was, in this McLuhanesque sense, an attempt to extend the perception of an alien’s sensory capabilities, to set us within its realm of perception. But it also reveals that broadcast is a means of projection, a way to be seen and heard as well as to see and hear. It is a way for us to send ourselves far beyond our own physical realm, way beyond our planetary dimensions into a zone of deep space that we as a species will never likely inhabit. Those tiny vibrations in the electromagnetic spectrum at 2,380 MHz make humanity present in intergalactic space, make unknown worlds part of our own and absorb them into the static white noise of electromagnetic humanity.

Broadcasting creates wormholes between one location and another, constructing ephemeral tunnels between the source of the signal and the point of its reception. For a moment at least, these spaces partially bleed into one another. These wormholes redraw maps and rearrange time. Points that exist at certain locations in space and time are suddenly brought into other proximities—often multiple simultaneously—layered over one another, fading in and out of intensity, and drift like an invisible mist above the physical landscape. These immaterial zones flicker and fluctuate as we tune in, log on, or register. Their scales range from

home networks to national broadcast systems and beyond: thousands of pools of waveforms overlapping, each containing their own specific worlds. Open, encrypted, scrambled, and cloaked, these bands of excited waveforms can create public worlds inhabited by millions of private zones of intimate communication.

The vibrating clouds of communication are more than excited electrons. They are highly specific spaces, each containing particular forms of information. Just as the Arecibo broadcast contained an abbreviated description of humanity, other forms of broadcast contain their own abstracted versions of physical life. In this, radio becomes a form of architecture: a construction of territories, thresholds, publics, and privates.

While communication technologies may offer a form of liberation from the ties that bind us to geography and time, it often operates in the opposite manner, as a means of remaking and reinscribing those conditions into the ether. If McLuhan suggested that broadcast projects our nervous system, we can also understand that it is also a means of projecting models of the Earth, not as geography but as concepts: the world as we have made it, as a cultural and political entity.

That is to say the ethereal spaces of broadcast mirror the organizations and institutions that construct them. We see this, for example, in the development of the British Broadcasting Corporation (the BBC). To come

into existence, the BBC had to be constructed as a technical, organizational, and legal entity setting out its ownership and its remit, as well as its ability to broadcast. It had, in other words, to be conceived as a techno-conceptual idea first. In its conception, the BBC was more than a commercial entity, it was a model of Britishness, specifically the Imperial Britishness of that era. Its motto, written onto its heraldic suit of arms read “Nation shall speak unto nation.” In this we see both a recalling of the past in the use of the medieval heraldic device and a projection into the future in the tense and the aspiration of the phrase. That an institution concerned with an immaterial, contemporary form of communication should recall the historical device of marking territory is revealing. The origins of the heraldic shield are derived from the battlefield, where it literally marked territories of opposing sides. Heraldry evolved into a highly symbolic language that identified ownership, power, and familial provenance. It became a means of both marking and communicating the structures of medieval power. Thus, the BBC’s heraldic revival, which depicts, to use the formal language of heraldry, “a Lion passant or, grasping in the dexter fore-paw a Thunderbolt proper,” reasserts a feudal conception of territory just at the moment that broadcast made other forms of space and territory possible.

We can also clearly see how the notion of the BBC is conceived as a national representation. It shall speak with the voice of a nation, “unto”— as it states



BBC Coat of Arms: “Nation Shall Speak Peace Unto Nation”

in biblical language—other nations. The BBC, conceived at the time of Empire, was also constructed within the *territory* of empire as radio masts were planted across the red shades of the map in a manner recalling the planting of flagpoles that visually communicate ownership or presence. Here then, we see both the politicization of the electromagnetic spectrum. Broadcast acts as a projection of state into the stateless condition of atmosphere. Indeed the Imperial nature of the BBC’s project was hardly concealed, rather it was explicit: to manufacture the British Empire within the ether.

If this traditional idea of state could exist in broadcast form—through institutions such as the BBC—as an apparently transparent representation of interests, values, culture and ideology (as much as it was a colonization of the electromagnetic spectrum), then soon the non-physical, un-geographic nature of broadcast became apparent. The unconstrained bleed of radio waves

over the boundaries of border and over the traditional demarcations of territory and power offered a means to undermine those very same qualities. Here, radio takes on the form of direct propaganda: first in the Second World War and later during the Cold War. Radio's ability to occupy physical territory that would otherwise be impossible to occupy reverses McLuhan's techno-biological image of other places becoming part of our sensory environment. Instead, places—in the form of information, aspiration, and ideology—can be projected onto other sites. Here, the physiology of radio waves allows broadcast to form arrangements other than those of geography and history. Disputed territory was no longer—as it had been within the context of a medieval battlefield—marked by heraldic forms separated in space. Instead, it could exist in multiple and overlapping narratives of state as delivered (or jammed) in the radio spectrum.

A number of black propaganda radio stations were operated by the British Political Warfare Executive during World War II. Gustav Siegfried Eins was one of the first, purporting to be a clandestine German station. "Der Chef," its main speaker, claimed to be a Nazi extremist, accused Hitler of going soft, and focused on alleged corruption and sexual improprieties of Nazi Party members. These stations were designed to undermine German morale and disrupt the German war effort. Likewise, Nazi radio stations such as Germany Calling (set up by

the Reich Ministry of Public Enlightenment and Propaganda) broadcast to the British population and Allied troops. It featured characters such as Lord Haw Haw reporting on the downing of Allied aircraft, the sinking of ships, and high losses and casualties among Allied forces. In later conflicts "Hanoi Hannah" was used by the North Vietnamese against U.S. troops in the Vietnam War, broadcasting lists of recently killed or imprisoned Americans interspersed with popular songs of the day.

Even in an age when radio seems to have less significance than other forms of communication, we see evidence of these forms of broadcast propaganda in recent conflicts. During the Rwandan genocide of 1994, for example, a station called "Radio Mille Collines" (Thousand Hills Radio) seemed to be directing the massacres, providing propaganda, and inciting killing.

These forms of radio information, disinformation, and propaganda rely upon the distribution that radio waves allow. Radio's opportunity comes from its ability to exist in sites that would otherwise be impossible to physically occupy, in radio's ability to overwrite the physical spaces of territory and state. It's here that we begin to see a geo-politics of broadcast emerge. The de-lamination of state in its spectral and physical states is, if not complete, then elastic in nature. This quality of the broadcast spectrum transforms it into a separate territory in which conflicts of state, politics, and ideology are contested.



"Hanoi Hannah," the voice of the North Vietnamese propoganda network, broadcast lists of recently killed or imprisoned Americans between popular songs

It is within this invisible, yet deeply scoured landscape, that increasingly strange and mysterious forms of broadcasts emerge. If those discussed so far have been open, uncoded, and available, we now see operations from the military field beginning to occupy the bandwidth. During the Cold War, entities known as “Numbers Stations” began broadcasting on shortwave bands. These broadcasts, openly available in the “public space” of shortwave bandwidth, are accessible through the simplest of radio sets. They feature artificially generated voices reading streams of numbers, words, letters, tunes, or Morse code and are assumed to contain covert espionage-related messages, though their existence has not been publicly acknowledged by any government. They provide a one-way voice link that can be picked up by an agent on unmodified shortwave radio. The agent’s one-time pad would allow them to decode the message while making the number groups indistinguishable from randomly generated numbers or digits to others. Here we see traditional architectural ideas of public and private inverted. The publicly accessible space of the radio frequency contains, through encryption, the private space of covert communication.

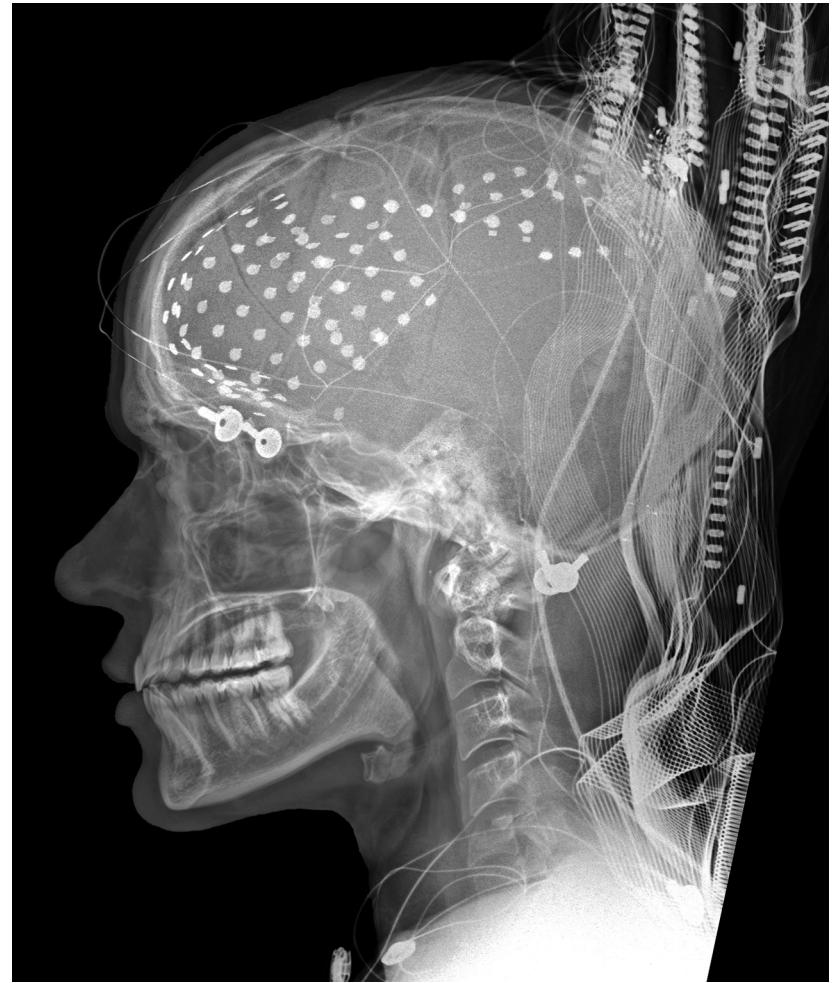
This inversion of public and private space reaches its most surreal formation in reports of experiments in artificial telepathy apparently carried out by the CIA at the height of the Cold War. Conspiracy theories list experiments in electromagnetic mind control projects such as “Project Moonstruck,” in which transceiver implants were set into the

brain and teeth that were intended to allow forms of communication. Other programs, such as “MK-ULTRA,” were purported to use VHF HF UHF modulated signals to program behavior in test subjects.

These forms of psycho-electronics, remote hypnosis, and other modulations of electromagnetic energy into the subconscious brain, suggest, at least in fantastic and paranoid form, a conjoining of the state with the interior landscape of the individual. The ultimate private space of the subconscious becomes a space accessible by the state. Even solely in fictional form, it suggests a completion of broadcast’s cultural project.

The radio spectrum in its found state—as predicted by Maxwell’s 1865 theory of electromagnetism, and as first made visible by Heinrich Hertz through experiments in 1886—was simply a physical phenomenon. Through various means, from the BBC to MK Ultra and the Arecibo broadcast, our use and occupation of the electromagnetic spectrum both liberates us from the boundaries that biology, geography, and chronology prescribe and at the same time reinforces their presence by rewriting them into a different dimension.

Broadcast has created a conceptual model of the world: a model so powerful that it has, in fact, become as real as the world it described. Just as the message describing humanity contains a description of the Arecibo radio telescope itself, the medium is not only the message, but the message is also the medium.



Conspiracy theorists cite Cold War era experiments “Project Moonstruck” and “MK-Ultra” as using transceiver brain implants to modulate behavior (similar to the electrodes used to monitor brain waves)

Image Credits

1. Arecibo Message. Wikipedia.org
2. Arecibo Observatory. U.S. National Oceanic and Atmospheric Administration
3. The British Broadcasting Corporation Coat of Arms. TVARK (tv-ark.org.uk)
4. Hanoi Hannah. Ho Chi Minh Museum, Hanoi, Vietnam
5. French Transcript, 14-15 May, 1994. Genocide Archive Rwanda (http://www.genocidearchiverwanda.org.rw/index.php/Radio_T%C3%A9l%C3%A9vision_Libre_des_Mille_Collines)
6. Frequency Allocation in the United States. The National Telecommunications and Information Administration
7. X-Ray. Ned T. Sahin, PhD (nedsahin.com)