Chapter 1 - The Body Antenna

Excerpt 6 from [The Sage Age – Blending Science with Intuitive Wisdom]

Near-field and Far-field Radiation Patterns

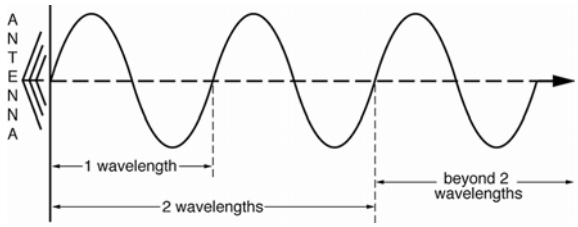

Fig. 5

The near-field falls within one wavelength of the antenna's signal. The far-field begins where the first wavelength ends and runs to the end of the second wavelength. After two wavelengths, only the broadcast signal remains.

There are many aspects that contribute to the effectiveness of an antenna. Currently, one of the most promising areas of study is related to the near-field area found immediately in the vicinity of a transmitting antenna. The radiation properties in the near-field are dramatically different than in the far-field pattern. Most of what is of interest in the far-field pattern is the broadcast signal itself and any Earthly elements that can interfere with it. In the near-field however, the physical properties of the antenna, the condition of the ground that surrounds it and the strong electric and magnetic fields surrounding the antenna, which are created by the act of broadcasting, come into play. The far-field radiation pattern usually only contains waves of one type of polarization and are usually only vertical or only horizontal. The near-field radiation pattern can contain all four polarization types including vertical, horizontal, circular and elliptical. A better understanding of the near-field phenomenon is leading to improved medical imagining devices as well. Next, we'll explore components in the near-field including reflection and reactance.

The quality and characteristic of the ground surrounding an antenna plays a significant part in its effectiveness. This is an important theory in understanding the concept of sacred ground as well. The ground acts as either a conductive, reflective surface for the antenna or as an insulator.

For electrical purposes, the Earth is usually considered an insulator. It would be more accurate to say that the Earth is a poor conductor over long ranges. But the Earth does conduct. Ground with rich soil is a relatively good conductor and aids in the effectiveness of an antenna through reflection.

One end of a vertical dipole radio antenna is pointed toward the ground and the other end is pointed toward the sky. Since the transmission signal is radiated from the center of the antenna out toward each end, the node pointed toward the ground relies on what is known as ground reflection to aid in its ability to radiate the signal. The return ground currents are actually part of the antenna system design.

Ground currents are caused by the capacitance between the vertical antenna and the ground. Capacitance is defined as a stored charge of electrostatic potential. The point where the charge is stored and the point where it would like to discharge are separated by an insulator. In the case of the antenna, that insulator is the Earth. Remember that the antenna is transmitting in a spherical pattern, which means that some of that signal is being transmitted toward the ground. Since the Earth conducts a bit, it reflects part of the signal back toward the antenna. If the soil is good, the conducting current is good and this helps the antenna transmit. If the soil is not rich, the Earth acts more like an insulator than a conductor and this creates signal loss because the ground dissipates the signal.

To eliminate this ground loss issue, dipole antennas are usually elevated off the ground and radial wires are run from the center point of the antenna to the ground in a tee-pee fashion. If you happen to see a radio antenna tower, take note that these wires are not there just to help hold up or steady the antenna. They are actually part of the broadcast system. Once the radials touch the ground, they are then laid parallel to the Earth plane and face outward in every direction from the antenna in a starburst type pattern. This, in effect, makes the ground surrounding the antenna more conductive. This technique aids in the effectiveness of the antenna. Some of the smaller ancient sacred sites have a central altar area which has a pattern of stones or other such material radiating from it in a starburst pattern. Medicine Wheels used by Native Americans are constructed this way as well.

It's interesting to note that in the U.S. one of the best broadcast areas in the country lies up and down the plain states. This is because there are few high obstacles to block the signals and the soil is very rich, which makes it a good conductor. It's also one part of the country with an abundance of lightning strikes and severe electrical storms. This increased electrical activity helps set up a highly charged environment in the resonant cavity between Earth and sky. It's called the Schumann Resonance and aids in global broadcast communication of all types. More on this, including newly discovered forms of lightning, are discussed in Chapter 8.

Tests conducted on location at several sacred sites show that the ground in the area is highly conductive compared to other land nearby. Therefore, the sacred ground becomes part of the total antenna system of the site. Add to this any construction or building that is intended to focus energy as well as the addition of ritual participants who manifest an accentuated intent and you can see that the accumulated effect can be quite powerful indeed.

This is a rather dramatic example of an antenna system. For the more mundane practice of daily health, exercising in a park environment opposed to a manmade structure has added benefit. Parks usually include lush surroundings. This is often an indicator that the soil in that area is especially rich hence, it is a good conductor.

The dipole antenna of the upright body transmits from the center point, or the gut area, out toward the nodes of the head, the feet and the hands. Positioning the body in ritualistic postures

aligns the body's antenna where it can both transmit and receive in the reflected signal environment provided by the Earth. Good ground makes for better transceiving.

Two other properties that affect an antenna's capability to operate at full capacity are bandwidth and impedance. Bandwidth describes the range of frequencies over which the antenna can transceive. Bandwidth and frequency are directly proportional, i.e., when the available bandwidth doubles, the frequencies the antenna can use also doubles. The bottom line is, if you want to receive higher frequencies, you have to increase your bandwidth. The bandwidth of a device is determined by its "tuned circuits," which have a resonant frequency. Positioning the body in ritualistic postures and quieting the brain and the body can effectively tune the human body circuit to different resonant frequencies thus increasing the bandwidth.

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You now have a good overview of how antennas work. The next section explores what keeps an antenna from working at its highest potential. These same concepts can be applied to the body antenna.