



1914

*Echoes in the Mud*

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Trench warfare birthed industrial-scale entomological horror. By 1916, a single dugout housed up to 500,000 *Pediculus humanus corporis* (body lice). These weren't mere nuisances—they transmitted trench fever via *Bartonella quintana* bacteria, which colonized louse feces rubbed into skin abrasions. Symptoms included 40°C fevers recurring every five days (hence "quintana"). Medical officers noted the lice thrived in wool uniforms, reproducing 50% faster than in cotton.

When Britain switched to cotton tunics in 1917, infection rates dropped 65%, but the change came too late for half a million fever-stricken soldiers. Chemical warfare created unforeseen ecological chains. After mustard gas attacks, sulfur mustard runoff killed earthworms, causing soil compaction that flooded trenches within hours of rain. Engineers responded with "bio-pumping"—introducing French earthworms (*Lumbricus terrestris*) resistant to sulfur compounds. These worms digested contaminated soil, creating drainage tunnels that reduced flooding by 70%. The war's signature sound—the "whizz-bang" of incoming shells—masked a psychological weapon: irregular bombardment intervals induced chronic stress.

A 1918 study of shell-shock victims found their cortisol levels 300% above normal, with adrenal glands physically enlarged. Treatment involved "acoustic normalization": exposing patients to calibrated artillery recordings starting at 30dB, gradually increasing to 110dB. This desensitization