OPEN ARMS

WHAT PROSTHETIC-ARM ENGINEERING IS LEARNING FROM OPEN SOURCE, CROWDSOURCING, AND THE VIDEO-GAME INDUSTRY BY JONATHAN KUNIHOLM

O N THE FIRST DAY of 2005, I was living inside the Haditha hydroelectric dam on the Euphrates River in Iraq, four and a half months into a deployment as the engineer officer for 1st Battalion, 23rd Marines, in northern Anbar province. The night before, I had rustily fingerpicked my way through a bluegrass song on the guitar in the New Year's Eve talent show. I went to bed looking forward to an easy day, a welcome change. I'd been on a long patrol over Christmas—sleeping little, getting shot at. In the morning, I made some of the Starbucks coffee my wife had been sending in her care packages, wrote an e-mail to a friend back home, and headed out to a planning meeting with another officer.

Our meeting was cut short around 9 a.m. when a report came in that one of his riverine boat patrols had been attacked from the shore. I joined the group that went out to respond. We got off the boat and started patrolling the shore on foot, but all we found was evidence of the previous firefight. The Marines began to secure the area.

I was on the ground before I was even aware of the sound of an explosion. The blast from the improvised explosive device— explosives and scrap metal hidden in an olive oil can—broke my M4 carbine in two and nearly severed my right arm. Before the Blackhawk helicopter took me away, I remember telling the executive officer, "I guess my guitar-playing days are over."