

What's in your smartphone?

The Primitive Sources of Your Modern Device

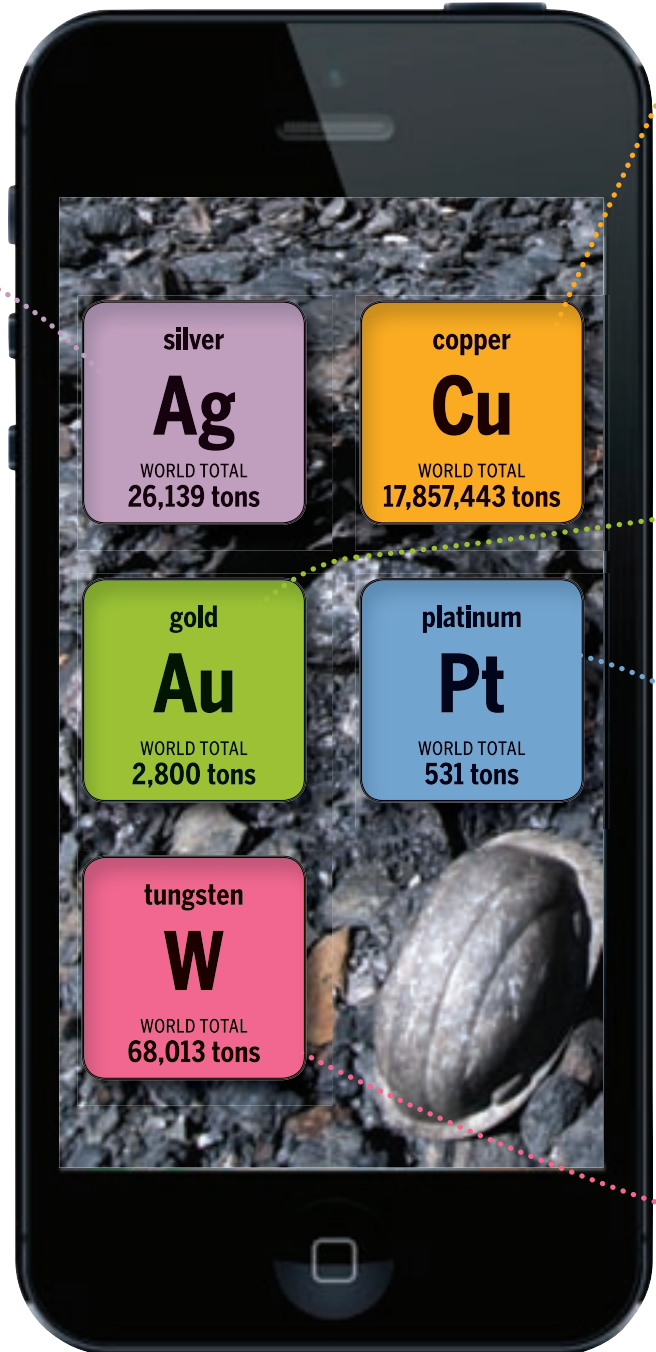
By Wilda Escarfuller and Leani García

Think that your mobile phone is a modern device? Hardly. While the components and circuitry may be highly technical, the materials that go into it are as old as the earth. And the conditions under which they are extracted—often in remote areas high in the mountains or the desert—are the roots of an industry that has driven the global economy for millennia, and will continue to do so. When you're standing at the edge of an open-pit copper mine, you couldn't feel more removed from the digital world, yet you're just at the beginning of it. What you're holding in your hand is simply the most modern creation from some of the oldest materials in the world, and a lot of history in getting them there. Here are some of the more basic elements that go into our mobile phones, and where they are found in our hemisphere. Data is from 2010 and measured in short tons.

Silver

Country	% World Total
Mexico	18.60%
Peru	15.34%
Chile	5.43%
U.S.	5.40%
Bolivia	5.31%
Argentina	2.92%
Canada	2.51%
Guatemala	0.81%
Honduras	0.25%
Dominican Republic	0.09%
Brazil	0.06%
Colombia	0.06%
Nicaragua	0.03%

The hemisphere's largest source of silver is in the middle of Mexico, in Fresnillo in the state of Zacatecas. The silver pulled from the ground comes from a mine opened in 1554 when Mexico was a Spanish colony.



In the hemisphere, the **U.S.** is actually the biggest producer of gold, with the Newmont Company-owned Carlin-Nevada complex the greatest source of the precious metal. The mine first started in 1965—when computers still filled entire rooms and phones were not only landlines; they were attached to walls.

The **U.S.** is the hemisphere's top producer of platinum as well, with its most productive mine close to Billings, Montana. In 2011, the mine produced 518,000 ounces of platinum.

Platinum

Country	% World Total
U.S. (Platinum + Palladium)	3.12%
Canada (Platinum + Palladium)	2.03%
Colombia (Platinum)	0.21%

Chile is the world's largest producer of copper, with Peru in second place. The most productive mine is the Chuquicamata y Radomiro Tomic mine in Calama—in the north near the border with Bolivia. It started producing copper in 1911.

Gold

Country	% World Total
U.S.	8.98%
Peru	5.86%
Canada	3.87%
Mexico	3.13%
Argentina	2.29%
Brazil	2.28%
Colombia	2.11%
Chile	1.55%
Guatemala	0.36%
Venezuela	0.28%
Bolivia	0.25%
Nicaragua	0.19%
Honduras	0.09%
Uruguay	0.07%
Panama	0.05%
Dominican Republic	0.02%
Costa Rica	0.01%
Ecuador	0.01%

Copper

Country	% World Total
Chile	33.45%
Peru	7.70%
U.S.	6.97%
Canada	3.24%
Mexico	1.67%
Brazil	1.31%
Argentina	0.87%
Bolivia	0.01%

Tungsten

Country	% World Total
Bolivia	2.11%
Peru	1.16%
Brazil	0.49%

Peru is the region's second-largest tungsten producer, after Bolivia, and occupies the number-two spot in copper, gold and silver. **Pasto Bueno**, owned by Malaga Inc. and located in the region of Ancash north of Lima, produced most of the metal prior to suspending operation in October 2012.