

The Rush to Gold

The modern world's quest for gold brought panicked rushes and get-rich-quick schemes, and eventually extended mining efforts to a scale unprecedented in earlier times.

Gold is found in many widespread areas, but South Africa is the world's greatest gold-producing region, with major "gold reef" deposits in the Transvaal and the Orange Free State. North America's most extensive gold area is the Canadian Precambrian shield, which contains the Kirkland Lake and the Porcupine gold fields. Canada has also seen important gold strikes in the Yukon River area below Dawson and in the Northwest Territories around Yellowknife. An extensive gold belt reaches from California to Alaska along the Pacific coast in the United States, though the Black Hills in South Dakota has been one of the country's largest gold producers since 1879. Other important gold-producing areas include Russia, Brazil, and Australia.

Approximately 60% of the world's gold reserves are held by governments in their central banks as a significant way to make international payments and to back paper currencies.

Gold has a very high electrical conductivity (71% that of copper and 71% that of silver), which, in addition to its resistance to corrosion, makes it a valuable material for plating contacts, semiconductor systems, printed circuits, and terminals. Gold is often used to coat the grids in electron tubes. Gold-silver or gold-nickel alloys are frequently used in the manufacture of electrical contacts, and platinum may be added to provide additional hardness. Since many gold-nickel or gold-iron alloys are magnetic, they are used in computer memory systems, such as ferrite memory cores or thin permalloy films.

Gold is used as a coating for special infrared mirrors on satellites and spectrometers, and on spacesuit helmets, reflecting up to 98% of incident irradiation.

With the discovery of the New World,

a huge influx of gold—frequently obtained by looting native temples, palaces, and graves—unbalanced the economic structure of Europe in the 16th century. The American gold boom used slave labor drawn from captive Native Americans and workers brought over from Africa. Between 1492 and 1600, 35% of the world's gold production (8 million ounces or 250 million grams) came from South America. In the 17th and 18th centuries, South American mines, especially in Colombia, accounted for 61–80% of the world's gold production.

The greatest gold boom occurred from 1850 to 1875. That quarter century alone produced more gold than in the previous 350 years. A smaller gold rush had occurred in Georgia (United States) in 1828–1830, but it was the discovery of gold at Sutter's Mill in California in 1848 that sparked a swarm of treasure seekers from across the United States and the world (including China!) to abandon their families and businesses to chase after the hint of gold in a far-off land.

During the winter of 1847–1848, John Augustus Sutter contracted to have a sawmill built on the Sacramento River in California. During the construction, the contractor discovered gold, and Sutter and the contractor became partners. When word of the strike leaked out, Sutter's Mill was soon besieged by thousands of miners, farmers, trappers, lawyers, soldiers, preachers, sailors, and anyone else with gold fever.

The widespread and frantic nature of the 1849 rush of "Forty-Niners" can be blamed on improved communications and large-circulation newspapers as well as more efficient means of travel. Gold camps set up by the Forty-Niners were hostile, lawless places, ruled by hysteria and lynch-mob justice.

One of the Forty-Niners who had come from Australia, Edward Hargraves, decided to return to his homeland in 1851—and made a discovery on his own land that sparked the great gold rush to Australia. During the following decade, half a million people sailed from the British Isles alone, seeking their fortunes in Australia.

Then in 1858 gold was discovered in Canada on the Fraser River in British Columbia, enticing another 25,000 people into the northern wilderness. Smaller gold rushes occurred in Colorado, South Dakota, and other places. All these great rushes occurring so closely together forced many improvements in long-distance shipping and manufacturing to produce provisions, mining supplies, and excavating equipment and to haul the huge numbers of people and supplies.

Another marked increase in gold production took place between 1890 and 1915 due to large discoveries in Alaska, the Yukon, and the Transvaal in South Africa. The bitter cold of the Yukon, made famous by the writings of Jack London (*White Fang, Call of the Wild*), made the Yukon gold rush one of the most dramatic and difficult. Still, prospectors extracted millions of dollars of gold from what had been a barren, uninhabited land.

The great strikes in South Africa's Transvaal had a more ironic twist. In 1886 George Harrison, a diamond digger down on his luck, discovered gold while working on a widow's farm. Desperate for money, he sold his claim for a mere £10 within the month and was never heard from again. By the end of the year, the place had been declared a vast gold field, and the town of Johannesburg was established at its center.

By this time, the telegraph, fast steamships, cables, and new machinery had changed the nature of gold mining. Newly developed chemical processing techniques, such as the cyanide process, allowed extraction of gold from pyritic (sulfur bearing) ore. These gold rushes left a great many empty ghost towns in their wakes, but cities like San Francisco, Denver, Johannesburg, Melbourne, and Vancouver partly owe their existence to the floods of people seeking transportation to the gold fields.

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FOR FURTHER READING: Geoffrey Blainey, *The Rush That Never Ended: A History of Australian Mining* (Melbourne, 1963).