

REVISITING THE LARGEST DIAMOND FOUND IN THE AMERICAS

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Only very few people in the world are aware of two facts regarding a very special and charming gift - diamonds: 1. Brazil was the leading world producer from 1730 until 1870, when South Africa took the lead; 2. The largest diamond ever found in the Americas was named Presidente Vargas, in honor of a statesman who ruled this nation twice (1930-1945 and 1951-1954). Found in 1938 in west Minas Gerais, it weighed 726.6 carats. At that time, it ranked the fourth largest diamond in the world, declining later to the sixth position. It was sold to an American buyer at a price of ca. US\$ 141,000, then equivalent to 120 kg of gold. Using the current gold price (US\$ 300/troy ounce - Sep. 30, 1999), this rough stone would be worth US\$ 1,157,520. How was it like? In order to reconstruct its geometry, size, and appearance computer graphics concepts and tools were employed. Different sections of the original diamond were scanned from true size, greyscale photos depicted in the literature. An irregular grid of points was created for each scanned picture aiming to represent all of the available crystal faces as polygons. These polygons were further merged through an interactive tool based on a simple wireframe model. Shadowing and transparency effects were added to the solid attempting to match as close as possible the original photos. Several solids were yielded in the process of reconstruction. Some resemble quite acceptably the original crystal before it was cut into several pieces.