THE LARGEST CRYSTAL

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How large can crystals grow? What teacher of mineralogy but has been asked this question many times. He would probably reply that there is no limit but if he tried to tell of the biggest that had been found he would find it difficult to give an exact answer.

This is not an idle question. Large crystals of any substance imply not only abundance of their constituents but extraordinary concentration at one place and unusual constancy of conditions during long periods. The minerals that are often found in large crystals are at least in part composed of the less common elements so that the problem of concentration in time and place is doubly interesting and difficult. How do they support their own weight during growth and how maintain form and outline? Why is there such a varying maximum of size in different mineral species?

Whatever their interest and significance, large crystals would be more intelligible if we had more exact data as to their actual limits of size. I have myself made a very few observations of actual dimensions of crystal giants and would like to collect others. Will not every reader of this magazine supply such data as he possesses? I will make it a welcome duty to collate and publish the information. The more various the range of minerals included may prove to be the more valuable will be the information. Each case should carry with it such data as are available as to the place and kind of deposit where it was found. The information given below is in part derived from various publications. Where no author is quoted the data are from specimens in the Harvard Mineralogical Collection.

Stibnite	Japan	Crystals up to 60×5 cm.	Wada
Galena	Isle of Man	Cubes of 25 cm.	Greg and Lettsom
	Miss. Valley	Cube of 16 cm.	
Pyrite	Alaska	Cube of 13 cm.	
	Colorado	Cube 12½×10×14 cm.	
	Elba	Octahedron 15×15×23 cm.	
Fluorite	Cornwall	Cleavage octahedron 14 cm. on edge	
	Cumberland	Cube 13 cm. on edge	
	Jefferson Co., N.Y.	Cubes more than 30 cm.	Beck

Calcite	Iceland	Rhombohedron 6×2 meters	Des Cloizeaux
	Sterling Bush, N.Y.	Rhombohedron 109×95×46 cm. Weight about 1000 pounds	Whitlock
	Missouri	Scalenohedron 76 cm. long	Farrington
Quartz	Switzerland	Weight about 1400 pounds	Hintze
Corundum	Transvaal	61×30 cm. Weight 335 pounds	Hall
Gahnite	Sterling Hill, N.J.	Octahedron 12.5 cm. on edge	Canfield
Franklinite	Sterling Hill, N.J.	Octahedron 17.5 cm. on edge	Canfield
Microcline		No definite data	
	Maine	"up to 20 feet across" (6 meters)	Bastin
Pyroxene	Hybla-Ontario	Cleavage 16×16×40 cm.	
Hornblende	Sterling Hill, N.J.	15×15×46 cm.	
Spodumene	Etta Mine	42 feet by 5 feet 4 in. (12.7×1.7 meters) Weight 90 tons	Ziegler
Beryl	Albany, Maine	18×4 feet (5.5×1.2 meters) Weight 18 tons	Gedney and Berman
Garnet	Rogers Mine, North Creek, N.Y.	Dodecahedrons up to 2 ft. (61 cm.) diameter	Miller
Scapolite	Templeton Tp., Quebec	23×25.5×35 cm. Weight 75 pounds	Parsons
Zircon	Brudenell Tp., Ontario	10×10×30 cm. Weight of 15 pounds	Parsons, Kunz
Titanite	Renfrew Co., Ont.	10×12×5 cm. twin	
Mica Phlogopite	Lacy Mine, Ontario	14 feet diam. 33 ft. long (4.2×9 meters) yielded 60 tons trimmed mica. (Estimated total weight not less than 90 tons)	Ellsworth
Barite	Dufton, England	Weight 100 pounds	Greg and Lettsom
Gypsum	Chile, Braden Mine	10 ft.×3 in. (3 meters×8 cm.)	Lindgren
	Utah, Wayne Co.	4 feet by 6 inches (1.2×.15 meters)	Talmage
	Mexico, Naica	5.5 feet by 5 inches (1.67×.13 meters)	Foshag