



\*199. SINHALITE: Sri Lanka (4.58, 7.07 // 4.18, 9.18)



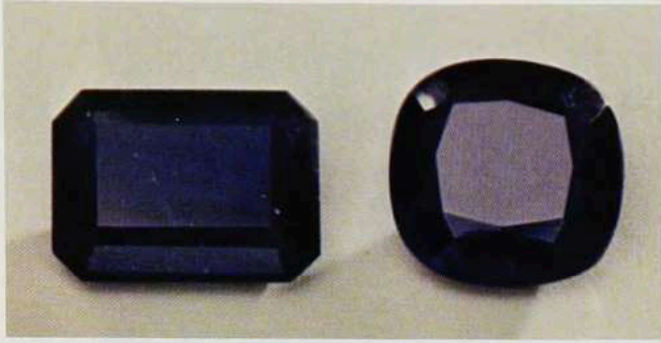
200A. SMITHSONITE: Tsumeb, Namibia (cabochon ~ 50, faceted gems ~ 18, 12)



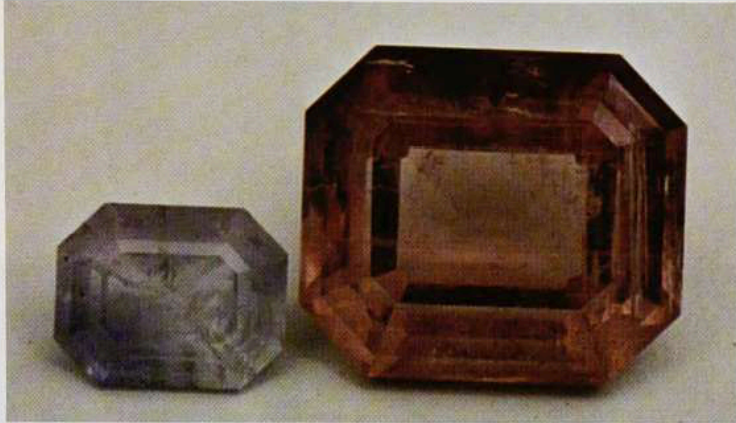
\*200B. SMITHSONITE: Tsumeb, Namibia (8.00, 10.40)



201. SMITHSONITE: Kelly Mine, New Mexico (blue 5 inches), Mexico (other colors)



202. SODALITE: Namibia (~ 2 each)



203. HACKMANITE: Ontario, Canada (0.8, 4.7)



204. SPHALERITE: Spain (~ 6)



\*205. SPHALERITE: Colorado (1.93), Spain (3.30), Mexico (4.65) // Spain (14.48, 5.57)



206. SPHENE: Baja California, Mexico (6.0, 6.4, 6.75)



207. SPINEL, *Gahnite*, Brazil (1.56)



\*208. SPHENE: Madagascar (6.22), Baja California, Mexico (1.55, 1.76), India (7.01) // Baja California, Mexico (1.01, 1.44, 4.22), India (2.65)



209. SPINEL: Burma (~ 2 to 15)



\*210. SPINEL: Sri Lanka (8.21, 7.65), Burma (5.23) // 9.02, 7.07, 5.89  
 // USSR (6.56, 8.87), Burma (11.40)



\*211. SPINEL: Sri Lanka (8.35, 9.20, 9.30, 15.22 // 4.78, 11.23, 7.27, 5.46, 3.96 // 11.98, 8.53, 7.98, 14.96)



\*212. SPINEL: Burma (5.30, 2.98  
3.07 // 2.34, 10.98, 3.95  
// 8.89, 2.68, 3.21)



\*213. SPODUMENE: Brazil (29.85), Afghanistan (16.06, 32.71) // California (17.76), Afghanistan (17.01), Brazil (47.33)



214. SPODUMENE: *Triphane*, Pakistan, (~ 170)



215. SPODUMENE: *Kunzite*, Brazil (720)



216. STICHTITE: Argent Hill, Tasmania, Australia (specimen ~ 2 inches across)



217. STRONTIANITE: Austria (2.1)



218. SUGILITE: Kuruman, South Africa (gem 3.66)



219. TEKTITE: *Moldavite*, Czechoslovakia (6.4)



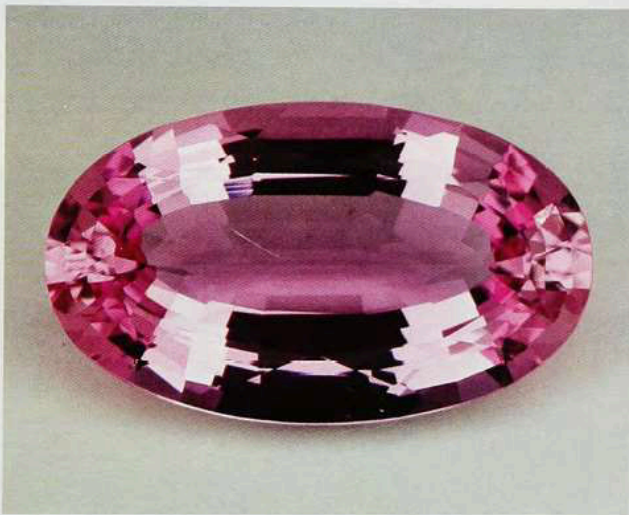
220. TAAFFEITE: Sri Lanka (1.17, 1.52)



221. THOMSONITE: New Mexico (cabochon 23 ~ 47 mm), Isle Royale, Lake Superior, Michigan (~ 1/2 inch each, rough stones)



\*222. TOPAZ: USSR (6.72), Brazil (12.59), Mexico (5.29), Brazil (4.65) // Brazil (25.25, 8.76, 7.20, 8.45), USSR (17.84)



\*223. TOPAZ: USSR, "imperial topaz" (17.84)



224. TOPAZ: Blue topaz, irradiated and heated (~ 115)



225. TOPAZ: Blue topaz, "London Blue," irradiated and heated (~ 8 each)





\*226. TOURMALINE: Mozambique (color suite, 1.81-3.08)



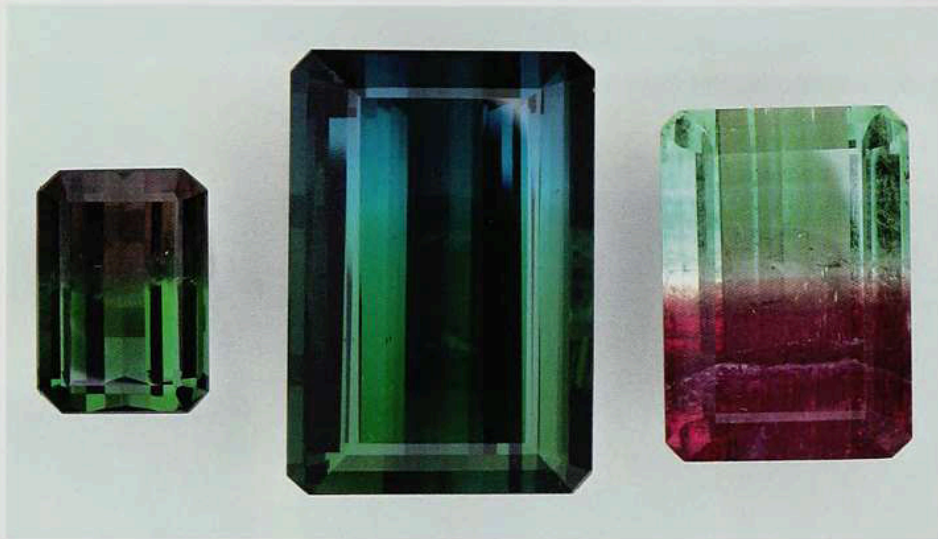
\*227. TOURMALINE: *Rubellite*, Madagascar (36.85), Brazil (13.16, 17.13 // 16.73, 10.26, 23.56)



\*228. TOURMALINE: Brazil (9.84, 15.96), Africa (10.05, chrome), Brazil (9.68, 14.75)



\*229. TOURMALINE: Mozambique (10.90), Tanzania (5.74, 5.84 // 10.39, 46.84)



\*230. TOURMALINE, *Bicolor*; Brazil (4.92, 23.90, 14.32)



\*231. TOURMALINE: Afghanistan (23.32), Brazil (10.95), Mozambique (11.13), Pala, California (21.32)



232. TOURMALINE: *Catseye* tourmaline, Brazil (20.85)



233. TOURMALINE, *Watermelon tourmaline*, Brazil (large slice ~ 1 inch across)



234. TREMOLITE: *Hexagonite*, Balmat, New York  
(~ 1, crystal ~ 1 inch long)



235. TUGTUPITE: Illimassauk, Greenland  
(specimen ~ 1 inch across)



236. TURQUOISE: Arizona and New Mexico (right-rear nugget ~ 2 inches long)



237. TURQUOISE: Iran, matched beads (~ 15 mm)



238. VARISCITE: Fairfield, Utah (slab ~ 6 inches across)



239. WILLEMITE: Franklin, New Jersey (0.5, 6.94, 0.6)



\*240. WELOGANITE: Francon Quarry, Quebec, Canada (0.37)



241. WITHERITE: England (1.89)



242. WULFENITE: Tsumeb, Namibia (21+)



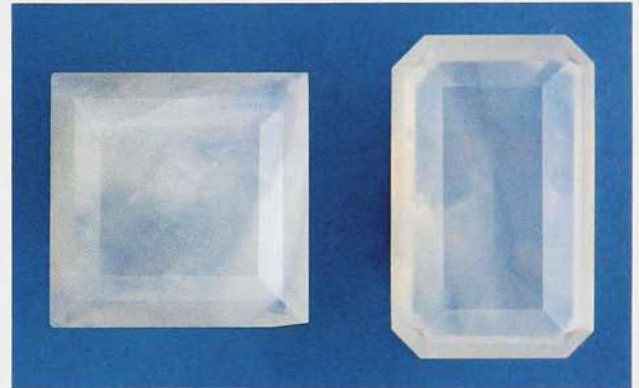
243. WULFENITE: Arizona (gem ~ 1.5, crystal 1 inch long, Red Cloud Mine)



244. ZINCITE: Franklin, New Jersey (gem ~ 1, rough 2 inches long)



245. ZIRCON: Cambodia (~ 25, 40 carats)



246. XONOTLITE: Laghi di Posina, Vicenza, Italy (gems ~ 2 carats each)



\*247. ZIRCON: Sri Lanka (19.03, 17.43, 14.20, 9.26 // 4.36, 11.26, 15.70), Cambodia (5.56) // Sri Lanka (8.92, 16.63, 7.77, 5.34)



248. ZIRCON: Sri Lanka (blue = Cambodia) (~ 5-30 carats)

## SYNTHETICS

[Note: The photographs of synthetic gemstones are purposely numbered beginning with 301 to distinguish them from the natural gemstones.]



301. VERNEUIL PROCESS: Boules grown by A. Verneuil and associates ~ 1900; upright boule ½ inch.



302. VERNEUIL RUBY: largest boule ~ 2 inches long



303. CORUNDUM GEMS: all  $8 \times 10$  mm



304. CHATHAM RUBY: largest crystal  $\sim \frac{1}{2}$  inch



305. RAMAURA RUBY: gem  $\sim 5$  carats, crystals  $\sim 2$  inches across



306. CHATHAM SAPPHIRE: hexagonal crystal  $\sim 3$  inches across



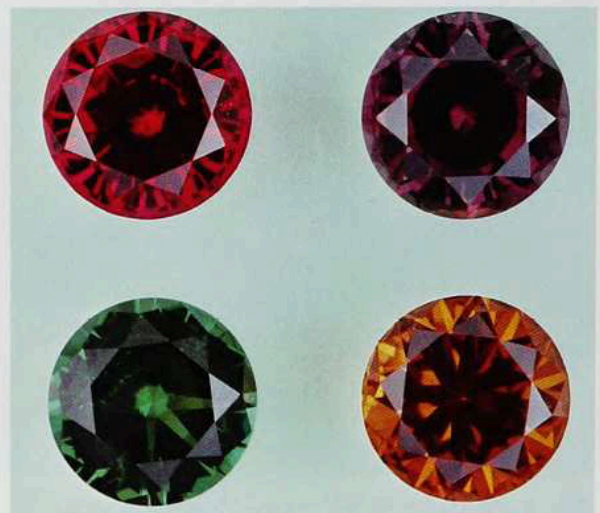
307. STAR CORUNDUM: cabochons  $8 \times 10$  mm, "Heller Hope" stars.



308. CHATHAM SYNTHETICS: corundum, various colors, ~ 3-5 carat size (green heart is synthetic emerald)



309. CHATHAM EMERALD: largest crystal ~ 2 inches long



310. INAMORI SYNTHETICS: all ~ 2 carats, ruby, alexandrite // emerald, sapphire



311. GILSON OPAL: cabochons ~ 3-6 carats



312. GILSON EMERALD: very large crystal, 437 carats, ~ 60 x 40 x 10 mm

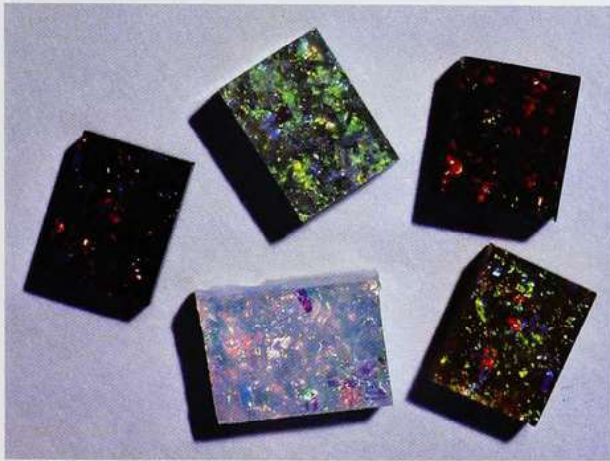




313. GILSON LAPIS, TURQUOISE: blocks, lapis 94.4 carats, turquoise 96.5 carats



314. REGENCY EMERALD:  
gem 2.88 carats,  
crystal 20.25 carats



315. SLOCUM STONE: blocks ~ 1/2 inch square



316. GENERAL ELECTRIC SYNTHETIC  
DIAMOND: crystals grown by G.E. process



317. CUBIC ZIRCONIA:  
various colors,  
~ 1-15 carats



318. YAG: various colors, 3.3 to 13.3 carats



319. STRONTIUM TITANATE:  
marquise ~ 25 carats



320. SYNTHETIC SPINEL: all 8 × 10 mm



321. RUTILE: emerald-cut, 7.84 carats



322. RUTILE: color suite,  
1.45 to 7.25 carats



323. SYNTHETIC QUARTZ: amethyst (6.15, 10.45),  
citrine (22.80)



324. SYNTHETIC BLUE QUARTZ:  
14.80 carats (USSR)



325. SYNTHETIC GARNETS: yellow = dysprosium- aluminum; orange = samarium-  
gallium; red = neodymium-gallium; all 1-5 carats.



326. SYNTHETIC GARNETS:  
yttrium-aluminum-gallium-  
garnet, doped with  
chromium (dark green),  
gem = 1.94 carats



327. GGG: rounds, ~ 2-15 carats



328. SAMARIUM GALLIUM  
GARNET: 6.19 carats



329. LITHIUM NIOBATE: rounds, ~ 10, 15 carats



330. BARIUM TUNGSTATE:  
~ 3 carats



331. LITHIUM TANTALATE: rounds, ~ 6, 15 carats



332. BISMUTH GERMANIUM  
OXIDE: 10.80 carats



333. CADMIUM SULFIDE  
(GREENOCKITE): ~ 5 carats



334. BARIUM SODIUM NIOBATE ("bananas"):  
~ 4-5 carats



335. CADMIUM SELENIDE (50-50)/  
CADMIUM SULFIDE (25-75):  
~ 5 carats



336. TELLURIUM OXIDE  
(TELLURITE): 8.10 carats



337. LEAD MOLYBDATE  
(WULFENITE): ~ 8 carats



338. LEAD MOLYBDATE (WULFENITE): 84.9 carats



339. MAGNESIUM OXIDE  
(PERICLASE): doped  
with nickel, ~ 5 carats



340. ZINC TUNGSTATE  
(SANMARTINITE):  
~ 3 carats



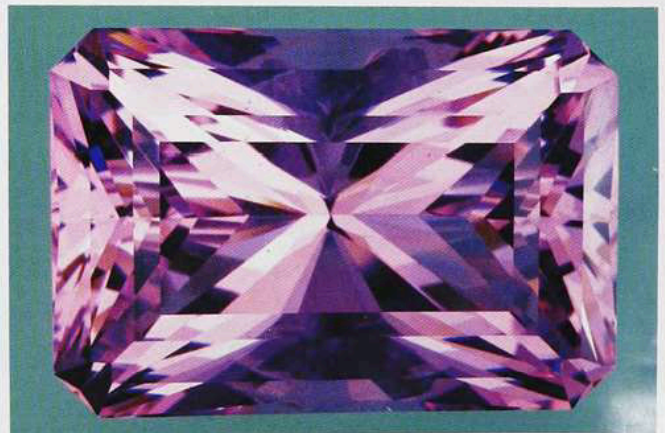
341. SILVER ARSENIC  
SULFIDE (PROUSTITE):  
6.98 carats



342. CALCIUM TUNGSTATE (SCHEELITE): gems ~ 3-15 carats



343. "LASERBLUE": 16.04, 11.30



344. "ALEXANDRIUM": 50.40 carats