

Supplementary Material

R.J. Stern et al.

Table DR1: Plate Tectonic Gemstones: Locations, host rocks, ages, and references.

Locality name	Continent	Country	Rock/Mineral	Host rock	Age (Ma)
Cyclades	West Europe	Greece	jadeitite	serpentinite, blueschist, eclogite	Eocene or ~80
Monviso	West Europe	Italy	jadeitite	meta-ophiolite	Eocene?
Polar Urals	East Europe	Russia	jadeitite	serpentinite	404
Sorkhan	Southwest Asia	Iran	jadeitite	serpentinite	Cretaceous
West Sayan	Central Asia	Russia	jadeitite	serpentinite	Early Paleozoic
Kenterlau–Itmurunda–Arkharsu	Central Asia	Kazakhstan	jadeitite	serpentinite	450
Itoigawa–Omi	East Asia	Japan	jadeitite	serpentinite	520
Oya–Wakasa	East Asia	Japan	jadeitite	serpentinite	Early Paleozoic
Osayama	East Asia	Japan	jadeitite	serpentinite	530–450
Nishisonogi	East Asia	Japan	jadeitite	serpentinite	82
Jade Mines	Southeast Asia	Myanmar	jadeitite	serpentinite	158, 147, 122, 77
Cyclops Mountain	Oceania	New Guinea	jadeitite	?	Paleogene?
Motagua fault (North)	Central America	Guatemala	jadeitite	serpentinite	100–95
Motagua fault (South)	Central America	Guatemala	jadeitite	serpentinite, blueschist, eclogite	~155, 130
Sierra del Convento	Central America	Cuba	jadeitite	serpentinite	110
Rio San Juan	Central America	Dominican Republic	jadeitite	serpentinite, blueschist	115, 95
New Idria	North America	U.S.A.	jadeitite	serpentinite, blueschist	130
Word Creek	North America	U.S.A.	jadeitite	blueschist	Cretaceous
Colorado Plateau	North America	U.S.A.	jadeitite	kimberlitic lava	81–33
Fiskenaesset	North America	Norway	corundum (ruby)	meta-anorthosite	2810
Froland	North Europe	Norway	corundum (ruby)	aluminous gneiss	1000
Vendée	West Europe	France	corundum (sapphire)	amphibolite	436
John Saul Mine	Eastern Africa	Kenya	corundum (ruby)	pegmatite, gneiss, serpentinite	580–550
Garba Tula	Eastern Africa	Kenya	corundum (ruby)	pegmatite, gneiss	579
Mangari	Eastern Africa	Kenya	corundum (ruby and sapphire)	pegmatite, gneiss, serpentinite	580–550
Mahenge	Eastern Africa	Tanzania	corundum (ruby and sapphire)	marble, pegmatite, gneiss	550
Morogoro	Eastern Africa	Tanzania	corundum (sapphire)	marble, pegmatite, gneiss	550
Umba	Eastern Africa	Tanzania	corundum (ruby and sapphire)	pegmatite in serpentinite	550
Longido	Eastern Africa	Tanzania	corundum (ruby)	pegmatite in serpentinite	550
Nosy Be-Anivorano	Eastern Africa	Madagascar	corundum (sapphire)	skarn in marble	550
Andilamena	Eastern Africa	Madagascar	corundum (ruby)	pegmatite, gneiss, serpentinite	550
Zazafotsy	Eastern Africa	Madagascar	corundum (sapphire)	pegmatite, gneiss, serpentinite	550
Ejeda-Gogogogo	Eastern Africa	Madagascar	corundum (ruby)	pegmatite, gneiss, serpentinite	550
Andranondambo	Eastern Africa	Madagascar	corundum (sapphire)	pegmatite, gneiss, serpentinite	550
Yen Bai	Southwest Asia	Vietnam	corundum (ruby and sapphire)	pegmatite in gneiss	40
Ba Be	Southwest Asia	Vietnam	corundum (sapphire)	pegmatite in gneiss	Late Triassic?

Luc Yen	Southwest Asia	Vietnam	corundum (ruby and sapphire)	marble, gneiss	38
Quy Chay	Southwest Asia	Vietnam	corundum (ruby and sapphire)	marble	54
Mogok	Southwest Asia	Myanmar	corundum (ruby and sapphire)	pegmatite in marble	32–31
Mong Hsu	Southwest Asia	Myanmar	corundum (ruby and sapphire)	marble	Cenozoic
Jegdalek	Southwest Asia	Afghanistan	corundum (ruby)	marble	>25
Nangimali	Southwest Asia	Azad-Kashmir (Pakistan)	corundum (ruby)	marble	>17–15
Ruyil	Southwest Asia	Nepal	corundum (ruby)	marble	>5
Chumar	Southern Asia	Nepal	corundum (ruby)	marble	>6
Kashmir	Southeast Asia	India	corundum (sapphire)	amphibolite, pegmatite	Cenozoic
Mysore	Southeast Asia	India	corundum (ruby)	gneiss	Cenozoic
Karur	Southeast Asia	India	corundum (ruby and sapphire)	gneiss, pegmatite	535
Bakamuna	Southern Asia	Sri Lanka	corundum (ruby)	skarn in marble	560
Ratnapura	Southern Asia	Sri Lanka	corundum (ruby and sapphire)	gneiss, pegmatite, granulite	560
Hunza	Southeast Asia	Pakistan	corundum (ruby)	marble	>10–5
Batakundi	Southeast Asia	Pakistan	corundum (ruby)	marble	Cenozoic
Turakuloma	Southeast Asia	Tajikistan	corundum (ruby)	marble	Cenozoic
Harts Ranges	Oceania	Australia	corundum (ruby)	metasomatized serpentinite	480–460
Mount Painter	Oceania	Australia	corundum (ruby)	metasomatized serpentinite	455
Kangaroo Island	Oceania	Australia	corundum (ruby)	gneiss, pegmatite	514
Hokitika	Oceania	New Zealand	corundum (ruby)	metasomatized serpentinite	100
Bahia State	Southern America	Brazil	corundum (ruby and sapphire)	gneiss, pegmatite	2100

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Plate Tectonic Gemstone—Ruby and sapphire (metamorphic gem corundum)

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