ON SOME PARALLEL CRYSTAL GROUPS

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Specimen and photo:
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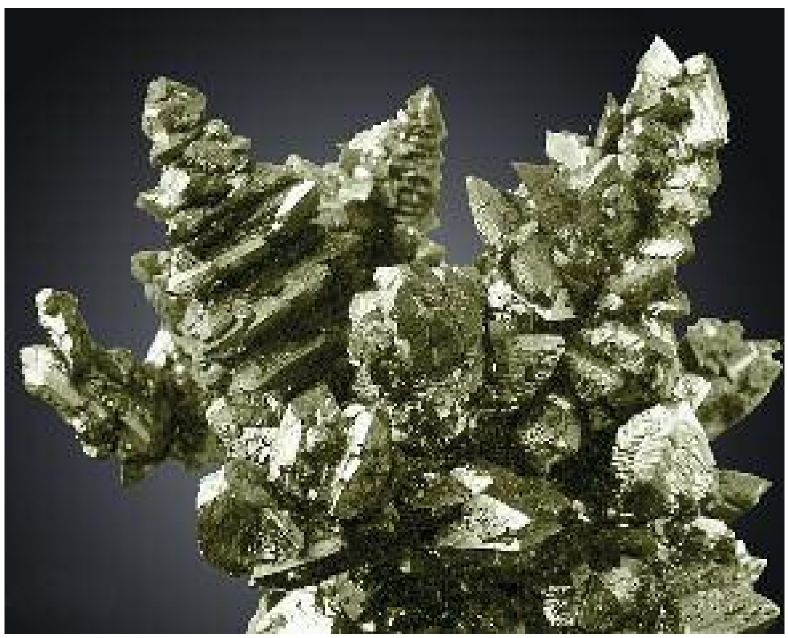
Unusual crystal shapes enrich our aesthetic vision of the mineral kingdom. We have always enjoyed them but rarely mused about their origin. However, it is well known that a mineral's beauty is a sign of natures elaborate work and the result itself of this work. Whatever intriguing enigma of mineral genesis is always hidden behind its shape peculiarity.

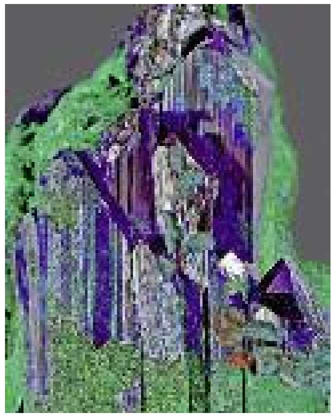
One special feature is common for the minerals shown in Figures 1 to 11: A stepped structure of some crystal faces that sometimes merges into a kind of dendrite or parallel group.

There are a lot of such examples everywhere, and we have become used to seeing them all over the mineral kingdom. But how do they originate, such crystals? The way they are generated is not at all apparent. As to the parallel groups like those shown in Figures 6, 7, 10 and 11, there is no evident cause for their parallelism. It is sometimes related to split growth phenomena. However, split growth is always accompanied with the subindividuals' in a fan-like deviation from one another at narrow angles (shown e.g. in Figure 12), whereas the crystallographic orientations of the various subindividuals coincide by all axes in all the cases mentioned above. Of course, you have it both ways: the signs of split growth may combine with other peculiarities in the same specimen. For instance, a parallel-stepped structure of some "petals" can be seen in the rose-like split muscovite crystal (Figure 3).

1. **Hematite**, pseudomorph after magnetite. 7 x 4 cm. Payun Matru Volcano, Argentina.

2. **Marcasite**, 7.5 cm wide. Vntirov, Okres Sokolov, Czech Republic.





3. **Muscovite**, 6.3 cm wide.
Doce Valley, Minas Gerais, Brazil.

4. **Azurite**, partly replaced by **malachite**.
3 cm wide. Tsumeb, Namibia.

5. **Cuprite**, 3 x 5 cm.
Rubtsovskoe deposit, Altai, Russia.
Specimen: O.S. Bartenev.
Photo: B.Z. Kantor.

6. **Schorl**, 4 x 3 cm.
Skardu Valley, Northern Areas, Pakistan.

7. **Microcline**, 3.5 cm high.
Papachacra Mts., Catamarca, Argentina.

8. **Topaz** with **cassiterite**, 7 cm long.
Zabytoe deposit, Primorskii krai, Russia.
Specimen: V. Kalachev.
Photo: B.Z. Kantor.