

PLATE 2.



FIG. 1. MUSCOVITE. $\frac{1}{3}$ SIZE.



FIG. 2. OLIGOCLASE. $\frac{1}{2}$ SIZE.

NEW YORK CITY MINERALS.

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CRYSTALLOGRAPHY OF SOME CANADIAN MINERALS. ALBITE, TITANITE, SCAPOLITE AND POLYCRASE¹

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1. ALBITE, TEMPLETON, QUEBEC

The specimens which form the subject of this note were collected by Dr. M. E. Wilson of the Geological Survey at the Murphy Apatite mine, S $\frac{1}{2}$ 10-X, Templeton, Ottawa county, Quebec. They consist of highly cavernous masses composed of an association of augite, phlogopite and feldspar, the cavities in which are lined or filled with crystallized fluorite, albite and calcite.

The augite is generally greenish-black in color and takes the form of small rod-like individuals averaging 2 mm. in length. The phlogopite is in small brownish scales, sometimes partially altered to a chloritic mineral. Fluorite individuals are very small, not exceeding 0.5 cm. in diameter. They are pale blue in color and transparent and exhibit the cube face in combination with the octahedron, the latter being the dominating form. The augitic portions of the mass are plentifully dotted with small yellowish spheres of palygorskite, which appear, in part at least, to be the result of alteration of the augite itself.

The albite crystals are found resting both on massive feldspar, from which they have no doubt been derived by recrystallization, and on fluorite. They are relatively small and do not exceed 4 mm. in length. They are transparent and colorless and are doubly terminated. They assume a rather broad tabular habit due to the relatively high development of the side pinacoid $b(010)$, parallel with which the twinning of the crystals takes place. The remaining forms are about equally developed.

A number of crystals were measured on the two-circle goniometer and afforded the following forms:

$b(010)$, $c(001)$, $z(130)$, $m(110)$, $p(\bar{1}11)$, $o(\bar{1}\bar{1}1)$, $f(130)$, and $n(0\bar{2}1)$.

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2. TITANITE, ONTARIO AND QUEBEC

Fine crystals of titanite are frequently met with in the Archaean rocks of eastern Ontario and western Quebec, and in recent years good examples have been received by the Museum of the Geological Survey from 21-XI, Litchfield, Pontiac County, Quebec and 23-XV, Lyndoch, Renfrew County, Ontario.

A contact twin collected from the former locality by Mr. A. T. McKinnon measured 5 cm. in diameter. It was found associated with orthoclase, scapolite, pyroxene and calcite and exhibited fine lustrous faces. The twinning plane was found to be $a(100)$.

The crystals from the Lyndoch locality measured up to 3 cm. in length and exhibited bright and well developed faces.

The crystals were measured with the contact goniometer and yielded the forms indicated below:

Litchfield, Pontiac County

$c(001)$, $m(110)$, $n(111)$, $t(\bar{1}11)$, $l(\bar{1}12)$, $a(100)$

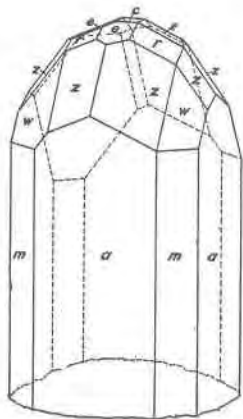
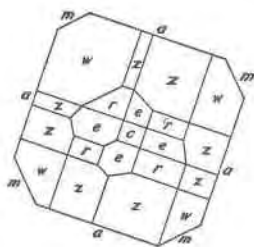


FIG. 1. Scapolite, Templeton.

Lyndoch, Renfrew County

$c(001)$, $m(110)$, $n(111)$, $t(\bar{1}11)$

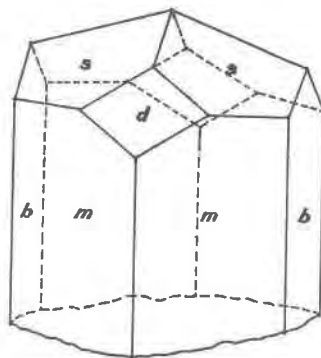
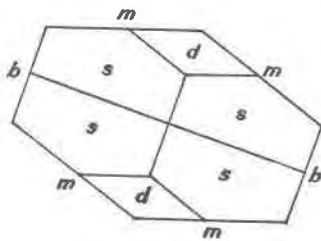


FIG. 2. Polycrase, Cameron.

3. SCAPOLITE, TEMPLETON, QUEBEC

Scapolite has long been known as an associate of mica and apatite in many of the mines of Ottawa County, Quebec. It occurs both in massive forms as well as crystal aggregates, and not infrequently crystals of large dimensions are met with.

An individual collected by Dr. M. E. Wilson of the Geological Survey at the No. 2 Shaft of the Wallingford mine, Battle Lake, 5-XIII, Templeton, Quebec, measures 15 cm. in length and 10 cm. in thickness. Measured with a Penfield contact goniometer the following forms were observed:

$$a(010), m(110), c(001), e(101), r(111), z(311), w(331).$$

The faces are generally rough and the pyramids are not infrequently incrustated with minute crystals of pyroxene. Small mica crystals are scattered thru the mass of the specimen. Figure 1 shows the habit of the crystal, in orthographic and clinographic projections.

4. POLYCRASE, CAMERON, ONTARIO

A number of the crystals of this mineral from 7-A Cameron, Nipissing district, Ontario, belonging to the collection of the Geological Survey, yielded on measurement the following forms:

DANA		GOLDSCHMIDT
<i>c</i>	(001)	<i>c</i>
<i>b</i>	(010)	<i>a</i>
<i>s</i>	(111)	<i>s</i>
<i>d</i>	(201)	<i>x</i>

The finest crystal measured is represented in orthographic and clinographic projections in Figure 2. Some of the crystals are twinned parallel with $b(010)$.

NEWSPAPER MINERALOGY

How can the public gain accurate information about scientific matters when the press persists in getting things twisted? During the course of the war some means for rendering the gas used to inflate balloons non-inflammable was greatly desired, and admixture with the usual hydrogen of a small amount of the inert gas helium, or argon, as it was called for camouflage, was found to be of great value in this connection. The helium has been obtained from natural gas from the wells at Petrolia, Texas. In an account of this discovery which has recently been published in the daily papers two remarkable statements are made. One is that the gas used for balloons is nitrogen. The other is in connection with the inert gas; in order to explain what helium is, the writer of the notice says: "Helium is indicated to be a plentiful part of the sun's *minerals* by spectrum analysis" We are indeed glad to learn that there may be famous mineral localities in the sun.