prising the base, a vertical prism, two front polars or macrodomes, and a side polar or brachydome.

$V : V = 103° 38'$.
$B : \breve{P} = 127° 45'$.
$B : \frac{1}{4}\bar{P} = 157° 33'$.
$B : \frac{1}{2}\bar{P} = 140° 27'$.

To determine axis $\breve{x}$ ($\bar{x}$ being unity,) we have $\frac{V : V}{2} = 51° 49'$. Then— (See Fig. 8.)

(Log cot 51° 49′) − 10 = $\bar{1}.8956719$ = log 0.78645 = log $\breve{x}$.

To determine axis x, we assume the side polar $\breve{P}$ to be a protaxial form: this side polar being of almost constant occurrence, and often predominating in the crystals. $B : \breve{p} = 127° 45'$. This, less 90° = the angle A in the diagram, fig. 10. Consequently (axis $\bar{x}$ being unity):

R : cot 37° 45′ :: 1 : x : whence:

50
Log x = (log cot 37° 45′) − 10 = 0.11[illegible]22 = log 1.29[illegible].

Turning now to the two front polars, we find the inclination of the base on the one adjacent to it = 157° 33′. Deducting 90° from this, we get the angle A' in fig. 11. Then, to obtain the vertical axis x, we have the formula:

R : cot A' :: $\breve{x}$: x.

Log $\breve{x}$ (as already found,) = $\bar{1}.8956719$
Log cot 67° 33′ - - = 9.6161514
9.5118233
Log R - - - - - - = 10
$\bar{1}.5118233$ = log 0.3250.

This value being just one fourth that of x in the protaxial form, the symbol of this front polar, or macrodome, becomes $\frac{1}{4}\bar{P}$.

The inclination of the base on the lower form = 140° 27′. Deducting 90° from this, and proceeding as before, we obtain:

Log $\breve{x}$ - - - = $\bar{1}.8956719$
Log cot. 50° 27′ = 9.9168765
9.8125484
Log R - - - = 10
$\bar{1}.8125484$ = log 0.6418