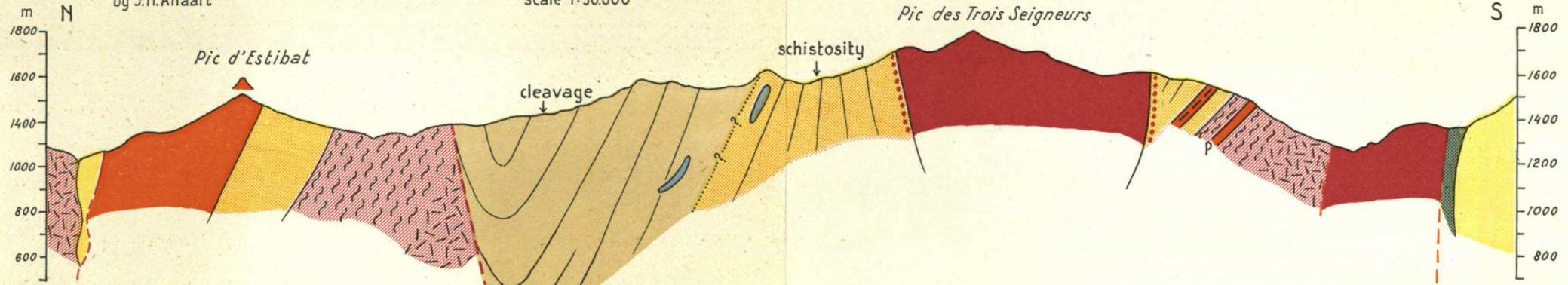


GEOLOGICAL SECTION THROUGH THE TROIS SEIGNEURS MASSIF

by J.H.Allaart

scale 1:50.000



Limestones etc. undifferentiated
JURASSIC, LOWER CRETACEOUS

Lherzolite

Fault

Sericite phyllites

Micaschists

Marble (cipolin)

Muscovite-biotite granite

Muscovite-biotite granitic gneiss

Pegmatite

Sillimanite gneiss

Quartzdiorite and nebulitic gneiss

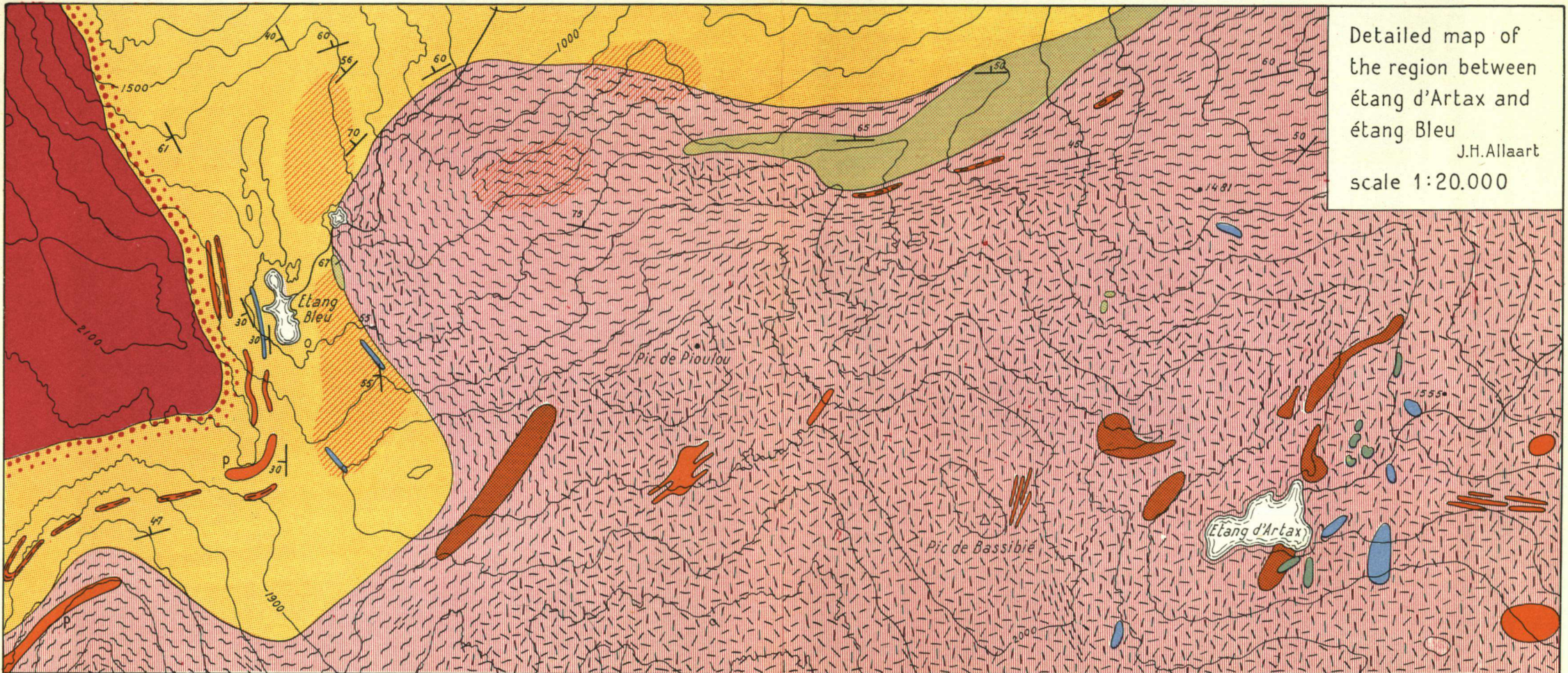
Biotite-granodiorite to quartzdiorite

Contact aureole

Detailed map of
the region between
étang d'Artax and
étang Bleu

J.H.Allaart

scale 1:20.000


















- | | | | |
|---|---|--|--|
|  Micaschists |  Quartzdioritic gneiss |  Pegmatite |  Concentration of pegmatite |
|  Biotite-granodiorite |  Sillimanite gneiss |  Muscovite-biotite granite or leucocratic quartzdiorite |  Metamorphic marble (cipolin) |
|  Contact aureole |  Homogeneous biotite gneiss |  Muscovite-biotite granitic gneiss |  Amphibolite, Hornblende gneiss |
| |  Quartzdiorite and nebulitic quartzdiorite |  Linear muscovite-biotite augengneiss |  Chlorite-albite rocks |

TABLE V. THE RESISTERS OF THE TROIS SEIGNEURS MASSIF (ALLAART, 1958)

	Synkinematic	Post-kinematic rheomorphism	Retrograde metamorphism (Late pegmatites)
Non-magnesian marbles			
<u>lime-silicate bands</u>			
Diopside-grossularite-wollastonite rock	diopside grossularite wollastonite	no perceivable	
Diopside-grossularite-plagioclase rock	diopside grossularite basic plagioclase	alterations	{ clinozoisite prehnite
Diopside-bytownite-gneiss	diopside bytownite	of the primary	tremolite { clinozoisite, sericite albite
Diopside-hornblende-clinozoisite rock	diopside basic plagioclase?	paragenesis	actinolite clinozoisite
<u>Marble series of Lapège</u>			
Biotite-marble	biotite	local slight	{ epidote negative pennine
Hornblende-bearing marble	microcline	recrystallization?	oligoclase, clinozoisite, sericite
Fine-grained biotite-gneiss	quartz		{ epidote actinocline + quartz
Hornblende-gneiss	(basic plagiocl.?) andesine clinopyroxene blue green hornblende calcite		
Magnesian marbles, lime-silicates			
Humite-clinochlore marble	forsterite calcite	{ humite?	clinochlore serpentine
Phlogopite-forsterite marble	phlogopite	clinohumite	phlogopite?
Forsterite Spinel Clinopyroxene Anorthite } marble	forsterite spinel clinopyroxene anorthite phlogopite?		{ pargasite phlogopite?
Forsterite-spinel rock	forsterite spinel		{ pargasite phlogopite
clinochlore serpentine phlogopite phlogopite			
Marls			
Biotite-bytownite-gneiss	biotite	local slight	pennine, prehnite
Hornblende-bytownite-gneiss	bytownite quartz	recrystallization?	sericite, cl. zoisite, prehnite adularia actinolite + quartz
Clinopyroxene-bearing bands	green hornblende clinopyroxene		
Striped amphibolite	green hornblende andesine-labrador		biotite actinolite sericite microcline
Quartzitic rocks			
Hornblende-quartzite	green hornblende?		actinolite, clinozoisite
Garnet-bearing quartzitic biotite-gneiss	quartz basic plagioclase		potash-felspar sericite, clinozoisite
Biotite-quartzite with garnet porphyroblasts	biotite garnet		{ negative pennine
Igneous rocks			
Fine-grained linear hornblende-biotite-gneiss	green hornblende biotite bytownite quartz	{ light green amphibole cummingtonite biotite bytownite quartz	
Fine-grained amphibolite	green hornblende biotite? bytownite (quartz)		actinolite sericite, clinozoisite, albite
Clinopyroxene-bearing amphibolite	clinopyroxene green hornblende labradorite		prehnite, actinolite actinolite { clinozoisite, prehnite sericite, albite
Ilmenite-bearing amphibolite	green hornblende bytownite ilmenite (quartz I)		{ cummingtonite biotite bytownite quartz II
Garnet-bearing amphibolite	green hornblende labrador-bytownite garnet quartz		cummingtonite clinozoisite, sericite
Hornblende-diorite	green hornblende andesine-labrador (quartz)	{ biotite? cummingtonite	sericite, albite actinolite
Quartz-bearing hornblende-gabbro	green hornblende labrador-bytownite quartz	biotite?	prehnite
Peculiar rock types			
Quartz-gabbro	?	{ light green amphibole cummingtonite biotite bytownite quartz	
Cordierite-anthophyllite rock		cordierite? anthophyllite? biotite	clinochlore