

GEOLOGICAL MAP OF THE AREA SOUTH-EAST OF VIGO

(SPAIN)

by P. Floor

scale 1:25000

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LEGEND

recent sediments (mainly river terraces and kaolin deposits)

coarse-grained biotite granite (Porriño granite)

granite-porphry

pegmatite

stockwork of cordierite-quartzdiorite (closely spaced crosses) and related granodiorite and granite (widely spaced crosses)

two-mica granite:

coarse-grained inequigranular

" " equigranular

medium-to coarse-grained equigranular

medium-grained inequigranular

" " equigranular

fine-grained equigranular

muscovite granite

megacrystal granite

amphibole-biotite rock and gneiss, igneous origin

radioactive gneiss

biotite-variety of riebeckite gneiss

riebeckite gneiss, partly assimilated by two-mica granite

" " magnetite-rich

" " Zorro-type

" " Galíñeiro-type

amphibolite

northeastern orthogneiss-complex

amphibole-biotite rock and gneiss, metasedimentary origin

paragneiss

strike and dip of schistosity or foliation, representative individual measurements

strike and plunge of lineation

Geological boundaries:

— accurate

- - approximate

- - inferred

— faults inferred from field data

— faults observed on aerial photographs

Topography:

— main road

— other tared road

— untarred, metallized road

— path or unmetalled road

— railway

— narrow gauge tramway

△ triangulation point

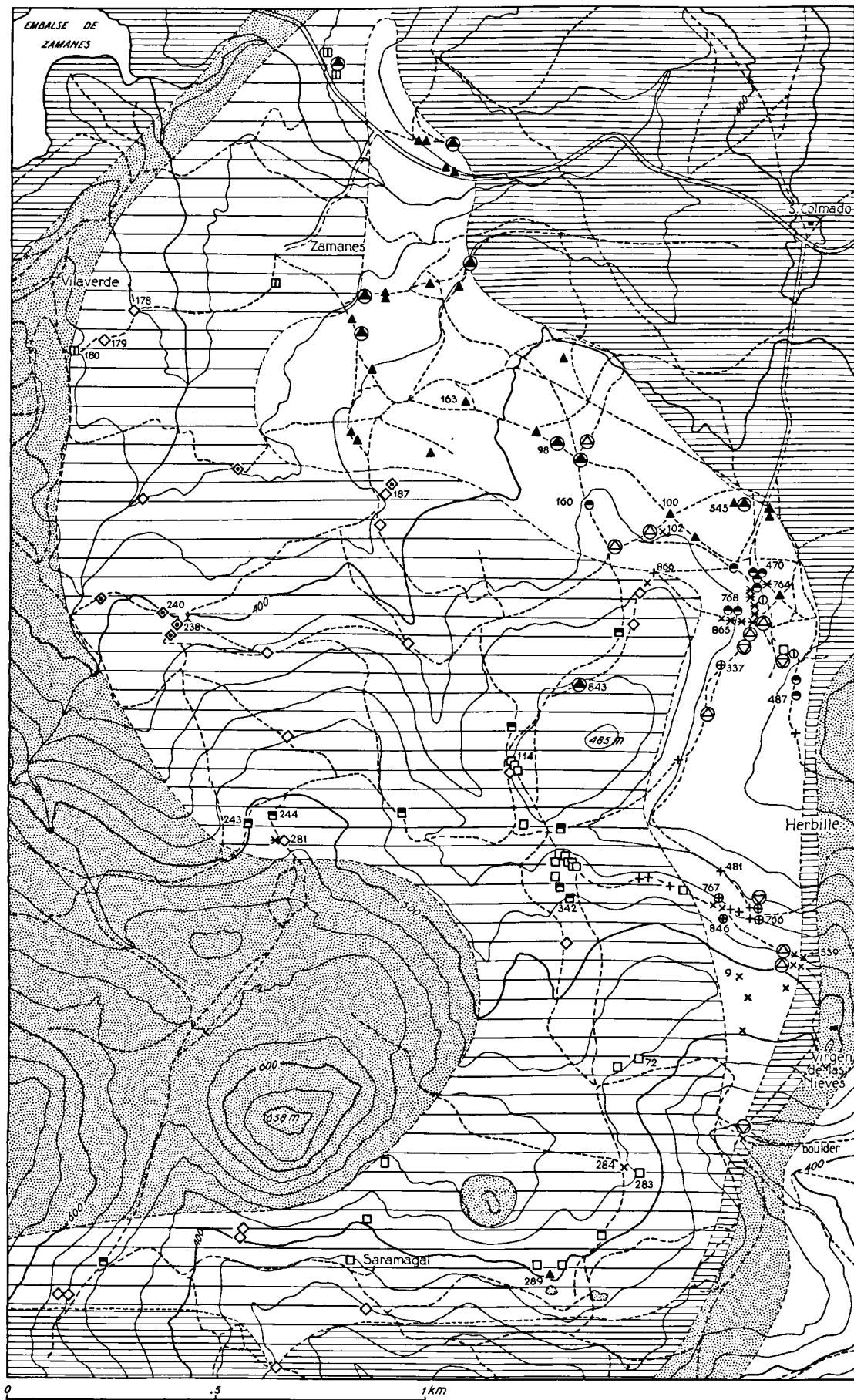
— contour lines, interval 50 m

— river, brook

— marsh

compositional symbols, where drawn, are parallel to average regional strike of schistosity or foliation

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Amphibole-biotite rocks and associated gneisses

detailed map and chemical analyses

LEGEND:

- Riebeckite gneiss Paragneiss
- + Dark-coloured biotite-amphibole rock with basic plagioclase
- x Fine-grained amphibole-rich melanocratic rock
- * Meso-to leucocratic biotite-amphibole rocks:
- ⊕ Quartz- and albite-poor type
- ⊖ Albite-rich, quartz- and microcline-poor type
- Ⓐ Microcline-poor quartz-albite rock
- Ⓐ Fine-grained variety
- Ⓑ Oligoclase-bearing variety
- Biotite-amphibole rock with albite embedded in relatively fine-grained mass of microcline, plagioclase and quartz
- ▲ Leucocratic planar gneiss
- Amphibole-biotite gneiss of the western part of the complex:
- Amphibole-biotite gneiss with relatively coarse quartz and albite in a fine mass of feldspar and quartz
- ◊ Amphibole-biotite rock with plagioclase enclosing quartz droplets
- ◇ " " " " large plagioclase crystals
- Biotite-amphibole rock with albite embedded in a relatively fine-grained mass of microcline, plagioclase and quartz
- Albite-rich, quartz- and microcline-poor biotite-amphibole rock

	481	866	9	102	284	865	337	767	98	843	160	470B	487	865B	100	163	545	728	114	283	178	179	187	238	240	244	342	180	
SiO ₂	46.58	47.04	49.26	47.66	43.34	49.22	60.14	58.86	75.42	77.78	65.02	65.82	66.82	63.64	72.08	71.64	70.50	64.64	63.84	64.80	65.16	64.30	65.64	55.76	61.84	63.24	63.82	64.62	SiO ₂
Al ₂ O ₃	20.55	20.86	14.51	14.81	14.49	15.76	16.97	17.34	9.85	10.94	16.40	15.02	15.50	17.12	14.46	14.12	13.96	14.59	15.94	13.71	12.75	14.70	14.55	17.21	15.49	16.46	15.01	14.84	Al ₂ O ₃
Fe ₂ O ₃	.71	.54	2.19	2.16	3.16	2.23	1.24	1.47	-	.09	.30	1.82	.22	1.27	1.69	1.88	.26	1.31	1.18	1.23	.08	2.00	.10	2.09	1.90	1.19	0.00	2.90	Fe ₂ O ₃
FeO	8.31	8.83	10.70	10.98	14.60	9.90	5.68	4.73	6.00	2.48	4.61	3.87	4.19	3.73	1.43	2.02	3.25	4.49	5.86	5.82	6.30	4.74	5.91	5.73	5.07	4.63	5.35	3.49	FeO
MnO	.17	.28	.25	.34	.39	.29	.17	.25	.07	.05	.14	.11	.10	.10	.02	.06	.05	.09	.11	.11	.11	.12	.10	.14	.37	.14	.09	.12	MnO
MgO	4.64	3.18	4.14	3.84	4.28	4.38	1.75	1.76	.05	.23	.46	.71	.60	.52	.22	.39	.16	.96	1.30	1.26	2.61	1.08	1.05	1.82	1.67	.83	1.20	.71	MgO
CaO	11.20	10.40	7.90	8.05	10.64	7.08	3.97	3.40	1.36	1.25	2.32	1.66	1.31	1.50	1.09	.33	.75	2.53	2.24	3.37	2.22	2.12	2.07	2.58	2.00	1.24	2.84	2.22	CaO
Na ₂ O	3.12	3.17	4.40	4.30	2.86	4.50	6.10	5.70	5.40	5.80	6.64	5.55	5.50	7.90	6.50	3.77	5.00	5.30	3.76	4.00	4.90	4.84	4.20	2.00	2.76	5.80	5.30	8.30	Na ₂ O
K ₂ O	1.21	2.05	1.40	1.90	1.00	2.35	1.25	3.05	.20	.30	2.78	4.80	5.12	2.00	1.66	5.60	4.98	3.58	4.05	4.00	3.10	3.70	4.40	8.00	4.00	3.75	3.25	.87	K ₂ O
H ₂ O	1.26	1.18	1.46	1.24	1.11	1.00	1.46	1.58	.75	.51	.69	.43	.63	1.26	.83	.78	.72	.88	1.42	.54	.85	1.29	.66	2.61	3.31	.83	.86	.79	H ₂ O
TiO ₂	1.95	2.07	3.66	2.92	3.42	2.73	1.18	1.37	.27	.18	.94	.51	.56	.62	.32	.30	.25	.91	.89	1.02	.91	.90	.98	1.23	.99	.85	.88	.56	TiO ₂
P ₂ O ₅	.30	.25	.58	1.31	.71	1.16	.43	.33	.05	-	.13	.15	.09	.09	.06	.07	.01	.31	.27	.28	.36	.26	.32	.34	.32	.28	.43	.27	P ₂ O ₅
	100.00	99.85	100.45	99.51	100.00	100.60	100.34	99.84	99.42	99.61	100.43	100.45	100.64	99.75	100.36	100.96	99.89	99.59	100.86	100.14	99.35	100.05	99.98	99.51	99.72	99.24	99.03	99.69	
Q	28.3	28.6	26.8	25.5	22.4	25.8	39.3	36.9	59.0	60.6	41.8	42.0	43.3	39.7	51.8	52.1	49.0	43.3	45.2	44.6	43.7	43.9	45.3	36.3	47.2	41.5	43.1	40.1	Q
I	44.8	47.3	39.0	40.3	34.7	42.6	46.7	49.6	32.0	34.5	49.3	47.9	48.8	52.4	44.1	41.3	45.5	45.1	41.0	41.0	40.4	44.5	43.7	47.8	36.5	47.7	45.3	47.8	L
M	26.9	24.1	34.2	34.2	42.9	31.6	14.0	13.5	9.0	4.9	8.9	10.1	7.9	7.9	4.1	6.6	5.5	11.6	13.8	14.4	15.9	11.6	11.0	15.9	16.3	10.8	11.6	12.1	M
	+		x		⊕		Ⓐ		⊖						▲		□		◊			◊		■		■			

analyst: mrs. h.m.i. bult-bik

SYNOPTIC TABLE
representing
the course of events in the area SE of Vigo
(Spain)

P. FLOOR - plate 3 - Leidse Geologische Mededelingen, deel 36