

INFORMAÇÕES (FOR YOUR INFORMATION)

1. NOVOS ÓRGÃOS ASSOCIATIVOS DA ASSOCIAÇÃO PORTUGUESA PARA O ESTUDO DO QUATERNÁRIO — APEQ (1999-2000) (NEW ASSOCIATIVE ORGANS OF THE PORTUGUESE ASSOCIATION FOR THE QUATERNARY STUDY— APEQ (1999-2000))

ASSEMBLEIA GERAL (GENERAL ASSEMBLY)

Presidente (president)	G. Soares de Carvalho , professor catedrático jubilado da Universidade do Minho (<i>emeritus professor of the University of Minho</i>)
Vogais (members of the board)	Delminda Moura , professora auxiliar da Universidade do Algarve (<i>auxiliary professor of the Algarve University</i>) Maria Luiza Estêvão Rodrigues , professora auxiliar da Universidade de Lisboa (<i>auxiliary professor of the Lisbon University</i>)

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Vogais (members of the board)	Diamantino Insua , professor auxiliar da Universidade do Minho (<i>auxiliary professor of the Minho University</i>) Gonçalo Brito Teles Vieira , assistente da Universidade de Lisboa (<i>assistant of the Lisbon University</i>)

CONSELHO FISCAL (WATCH COMMITTEE)

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Vogais (members of the board)	Maria Isabel Caetano Alves , professora auxiliar da Universidade do Minho (<i>auxiliary professor of the Minho University</i>) João Pedro Cunha Ribeiro , professor auxiliar da Universidade de Lisboa (<i>auxiliary professor of the Lisbon University</i>)

SECRETARIADO DA APEQ (SSECRETARIAT)

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2. TESES APRESENTADAS NAS UNIVERSIDADES DE PORTUGAL (1995-1999)
(TESES PRESENTED IN PORTUGUESE UNIVERSITIES (1995-1999))

1995 — MARIA ISABEL DOS SANTOS ROSA CAETANO ALVES

(tese de doutoramento = Ph thesis), Universidade do Minho

Materiais plio-quaternários do Alto Minho. Produtos de meteorização e depósitos fluviais na bacia do rio Lima e região de Alvarães (plio-quaternary materials of the «Alto Minho»- Weathering products and fluvial deposits of the Lima river and Alvarães area).

Abstract

The subject of this dissertation is the study of the fluvial deposits of the Lima River basin, downstream Ponte da Barca, and also the Alvarães deposits, to the south on the right border of the Neiva River.

The information on the fluvial deposits includes their description and their analytical results. These interpreted the texture, grain size and lithological class analysis, heavy and 211m mineral associations, and quartz sand surface textures. The held work and geomorphological study allowed an accurate mapping of the drainage changes in general, and a description of the Alvarães fácies model in particular.

A chronological proposal is included concerning the fluvial deposits and the slope surface formations. This chronology required a rock weathering study, providing a general view of the processes and materials produced. This weathering study was developed on the main regional lithologies, granitic rocks and micaschists as part of the Silurian metasediments, and based on the secondary minerals found, textural, density and primary mineral changes in the different weathering stages. This allowed a better understanding of the general lithological changes under the regional climatic and geomorphological conditions. The geochemical changes were studied only on weathered granitic material. The results of the oxide relative changes obtained by isolaluminium and isovolumetric computations were compared. The weathering diagrams and indexes applied were weathering potential index (NVPI), potential index (PI), Parker index, Chesworth diagrams and Kronberg-Nesbitt diagram.

Four fluvial terraces were formed during the Late Pliocene to Late Pleistocene. The composition of the fluvial deposits and the quartz sand surface textures indicate that those were accumulated in two distinct climatic environments.

The Alvarães fluvial deposits are the oldest ones and are synchronous with the S. Felix (Póvoa de Varzim) marine terrace deposits, accumulated during the Plio- Pleistocene Atlantic transgression. These fluvial deposits were a product of the surface cover exhumation, developed under climatic conditions propitious to chemical weathering, similar to the subhumid tropical climate regions. This idea is supported by the abundance of quartz clasts, resistant heavy minerals and of the clay size composition (a kaolinite, illite and goethite association). The Alvarães deposits are the Homem-Neiva paleoriver sediments. The paleocurrents direction show a drainage course following through the NW-SE, NE-SW and N-S relief fractures, with the outlet basin at Anha area. The alluvial system changed from: mixed lacustrine-fluvial to a sandy braided fluvial system, locally covering the allochthonous saprolites whose composition is similar to that of the fluvial deposits. The kaolinization of these saprolites may have been developed in the Middle Pliocene and/or during Late Pliocene.

The Middle Pleistocene fluvial terrace deposits composition is similar to the oldest ones. They were formed by the exhumed materials either from the oldest terraces or from the weathered basement crystalline rocks; besides, they have pedogenic features which support the idea of an equally propitious climate to chemical weathering. In this group are included most of the Lima basin deposits in the area studied.

The conditions of a temperate climate evolved during the Late Pleistocene and allowed the typical progressive hydrolysis of recent weathering processes. The Late Pleistocene fluvial deposits are rich in larger size and weatherable Ethology clasts and show a distinct 2pm composition (vermiculite, 10-14v inters/ratified structures, gibbsite and low crystallinity 1:1 phyllosilicates). These deposits were accumulated before the maximum glaciation of the Serras da Peneda and do Gerês, although they contain vestigial periglacial morphogenesis sediments.

1997 — DIAMANTINO MANUEL ÍNSUA PEREIRA

(tese de doutoramento, Universidade do Minho = Ph. D thesis, University of Minho)

Sedimentologia e Estratigrafia do Cenozóico de Trás-os-Montes Oriental (NE Portugal) (Sedimentology and Stratigraphy of the Cenozoic in Eastern Trás-os-Montes (NE Portugal))

Abstract

The objective of this thesis is the analysis of the Cenozoic sedimentary cover of eastern Trás-os-Montes in north-east Portugal. This has involved sedimentological characterization and the study of the geomorphological positioning of the deposits as well as their correlation with known units in basins or depressions closest to the area of study. The sedimentological characterization was based both on the description of lithofacies and other surface data and also on laboratory data such as granulometric analysis, quartz sand surfaces textures (SEM), heavy minerals and <2µm mineral associations. Objectives, geological and geomorphological setting, methodologies and previous studies are described in Ch. 1.

The sediments occur in small outcrops; mostly in depressions resulting from tectonic accidents in Mirandela and Bragança-Vilarica-Manteigas, depressions currently geomorphologically evident, or in depressions filled and levelled by the surface of the Miranda do Douro Upland. The description and characterization of the sediments (Ch. 2), the more detailed study of certain sedimentological features (Ch. 3) and the knowledge of recorded units in surrounding regions (Ch. 4), has enabled the definition of a range of lithostratigraphic units as well as the morfosedimentogenic conditions and stratigraphic correlations outlined in Ch. 5 with the following conclusions:

- The Vale **Alvaro Formation**, with a maximum recorded thickness of 23 meters, is formed of coarse conglomerates, with barely altered and rounded clasts of mafic and ultramafic rocks from the Massifs of Bragança and Morais over which they crop out. The conglomerates are intercalated with red sand layers and immature marl. The <2µm mineral association

is composed of smectite and smectite+palygorskite. This formation is originated in alluvial fans confined to narrow depressions. In Bragança, its deposition is evident in a subsident block associated with the leftward NNE-SSW strike fault caused by the Bragança-Vilarica-Manteigas accident in conjunction with tectonic movements which could be related to the Pyrenean phase. These formations occurred under semi-arid climatic conditions, possibly during the Oligocene.

- The **Bragança Formation**, with a maximum thickness of 80 meters, fills incised-valleys and developed as an erosive response to tectonic impulses and the subsequent rise relative to the mountainous areas dating from the middle Tortonian. A series of intramountainous depressions were formed as a result of these movements, with drainage occurring in the direction of these depressions which were filled with immature sediments. Within the Bragança Formation, two members can be distinguished. The lower Castro Member, fining-upward, is formed by conglomerates at the base which correspond to the channel lags, below gravel-sandy sediments which suggest a fluvial braided model with low sinuosity and incised-valleys. Towards the top, fine sediment predominates, with dominant smectites. The upper Atalaia Member has a gravelsand composition and corresponds to a succession of episodes in a fluvial braided model with low sinuosity and with momentary transitions to a more sinuous style. The Bragança Formation suggests temperate to warm conditions with one particularly rainy season. Characterization and correlation with other units support the hypothesis of an upper Tortonian to lower Messinian age for the Castro Member and upper Messinian to Zanclean for the Atalaia Member.

- The **Mirandela Formation** is formed of a succession of conglomerates with a sandy matrix, intercalated with sand layers and rare lutites, indicators of a high energy regime. It has a predominantly quartzose and kaolinitic character. With a maximum recorded thickness of 30 meters, it is limited to the Mirandela depression, fills narrow, deep paleovalleys and should be related to a tectonic impulse which opened up that depression to an exorheic regime, precursor of the current Atlantic drainage pattern. It could be argued that the Mirandela Formation is related to the Ibero-Manchega I phase (3.5 Ma) and the relatively hot and humid conditions of the Late Pliocene.

- The **Aveleda Formation** is formed of superficial reddish deposits. They occur essentially over a level surface which marks a discontinuity with the older formations. They develop to a greater extent at the base of relieves. Conglomeratic lithofacies predominate, with sub-angular quartzose clasts, supported by a predominant mud, kaolinitic-illitic matrix. They originate in *debris flow*, intercalated with occasional *mud flow*. Characteristics and correlation with neighbouring units suggest that the sediments were deposited in response to the Ibero-Manchega II (2.6 Ma) tectonic phase, in an alluvial fan environment, in hot arid or semi-arid conditions.

- The **Sampaio Formation**, limited to the Vilarica depression, is formed of predominantly reddish or brown conglomeratic sediments. These deposits, which are of varied composition throughout the valley, reveal a model of alluvial fans perpendicular to the depression. These are connected to the main incisions which can currently be observed and are set out over the surface that supports the pliocenic Douro river terraces. The terraces lie between 50 and 30 meters above the thalweg. The characterization of the <2 ϕ mineral association also shows evidence of similarities between this unit and the Douro terraces. The data suggests the Pleistocene period for the Sampaio Formation.

1995 — GONÇALO T. VIEIRA

Processos morfogenéticos recentes e actuais na Serra do Gerês (Recent and present morphogenetic process in the «Serra do Gerês»). Tese de mestrado, Faculdade de Letras da Universidade de Lisboa = Master thesis, Faculty of Letters, University of Lisbon)

1996 — MARIA VIRGÍNIA FARIA JOÃO RODRIGUES HENRIQUES

A Faixa Litoral entre a Nazaré e Peniche. Unidades Geomorfológicas e Dinâmica actual nos Sistemas Litorais (The Coastal Zone between Nazaré and Peniche. Geomorphological unities and present dynamics of coastal systems). Tese de doutoramento. Universidade de Évora = Ph. D. thesis, University of Évora).

3. A UNIÃO INTERNACIONAL PARA O ESTUDO DO QUATERNÁRIO (INQUA) E O SEU ÚLTIMO CONGRESSO (THE UNION FOR THE QUATERNARY RESEARCH (INQUA) AND THE LAST CONGRESS)

— O último congresso da INQUA — o XV Congresso — foi realizado em Durban (África do Sul), de 8 a 11 de Agosto de 1999, com 751 participantes de 81 países.
Tema central: O impacte do ambiente sobre a evolução do Homem.

— The last Congress of the INQUA — The XV Congress — was held in Durban (South Africa) between 8 and 11 August 1999, with 751 Delegates coming from 81 countries.

Main theme: The impacte of the Environment on the human Evolution.

— Comunicações (posters) sobre temas do Quaternário de Portugal ou apresentados por quaternaristas portugueses.

— Papers (posters) on themes of the Quaternary of Portugal or presented by Portuguese quaternarists.

PUBLICAÇÕES DA INQUA (*INQUA PUBLICATIONS*)

— *Quaternary International*

Revista internacional que publica as actas das conferências da INQUA, assim como simpósios, workshops, em geral, sobre tópicos temáticos.

International Journal that publish the Proceedings of INQUA conferences, symposiums and workshops, in general, about thematic topics

— *Quaternary Perspectives*

Notícias sobre as actividades da INQUA, comunicações das comissões da União ou de quaternaristas e anúncios sobre reuniões.

News of INQUA activities, communications from Union commissions or quaternarists and announcements about forthcoming meetings.

— *Informacões*

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4. **A GLACIAÇÃO PLISTOCÉNICA EM PORTUGAL**
(*THE PLISTOCENE GLACIATION IN PORTUGAL*)

FERREIRA, A. B.; ROMANI, J. R. V.; ZÉZERE, J. L. e RODRIGUES, M. L. 1999

A Glaciação Plistocénica da Serra do Gerês. Vestígios geomorfológicos e sedimentológicos (*The plistocene glaciation of the «Serra do Gerês». Geomorphological and Sedimentological rests*).

Relatório do Centro de Estudos Geográficos da Universidade de Lisboa que reúne os resultados recentes sobre a glaciação plistocénica na Serra do Gerês.

Report of the «Centro de Estudos Geográficos» of the Lisbon University assembles most of the recent results about the «Serra do Gerês» glaciation.

Inclui uma carta geomorfológica dos vestígios da glaciação, um resumo em português e um abstract em inglês.

Included a geomorphological map of the glaciation remains, an abstract in Portuguese and english.

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5. **ARTIGOS SOBRE O HOLOCÉNIO DA ZONA COSTEIRA DE PORTUGAL**
Podem ser consultados nas publicações da Associação EUROCOAST-PORTUGAL

(*PAPERS ABOUT THE HOLOCENE OF THE COASTAL ZONE OF PORTUGAL*)
Can be found in the publications of the EUROCOAST-PORTUGAL ASSOCIATION:

— Colectânea de Ideias sobre a Zona Costeira de Portugal, 1997, Lisboa (*Collection of Ideas on the Coastal Zone of Portugal*, Lisbon).

— Actas do Seminário «Dunas da Zona Costeira de Portugal, 1998, Leiria (*Proceedings of the Seminary The Dunes of Coastal Zone of Portugal*, Leiria)

— Actas do Seminário «A Zona Costeira do Alentejo», 1999, Sines (*Proceedings of the Seminary «The Coast Zone of the Alentejo»*, Sines).

INFORMAÇÕES (INFORMATIONS)

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6. II JORNADAS DO QUATERNÁRIO

II JOURNEYS OF THE QUATERNARY

Associação Portuguesa para o Estudo do Quaternário
(APEQ)

(Portuguese Association for the Study of the Quaternary
(APEQ)

12 e 13 de Outubro de 2000
Faculdade de Letras da Universidade do Porto
(Faculty of the Letters, Oporto University)

Tema (theme)

O Quaternário, Património Natural e Património Cultural
(The Quaternary, Natural Heritage and Cultural Patrimony)

Durante as Jornadas serão proferidas conferências por investigadores convidados

During the Journeys lectures by the invited researches.

Todos os quaternaristas são convidados a apresentar posters sobre o tema das Jornadas.

All quaternarists are invited to submit posters about the Journeys theme.

INFORMAÇÕES (INFORMATIONS)

II Jornadas do Quaternário
Centro Leonardo Coimbra
Faculdade de Letras da Universidade do Porto
Via Panorâmica s/n 4150-564, Porto, Portugal
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INTERNACIONAL COUNCIL SCIENTIFIC UNIONS (ICSU) GLOBAL CHANGE
COMITÉ PORTUGUÊS DO IGBP (INTERNATIONAL GEOSPHERE-BIOSPHERE PROGRAMME)

O comité português do IGBP deverá organizar um Seminário intitulado «Global Change-Biophysical and Social-Economic Impact», na Universidade de Aveiro de 30 de Outubro a 1 de Novembro de 2000.

The Portuguese committee of the IGBP will organizing a Seminary named «Global change, Biophysical and Social-Economic impact», in the Aveiro University, between 30 October and 1 November of 2000.

INFORMAÇÕES (INFORMATIONS)

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8. 31.st CONGRESSO INTERNATIONAL DE GEOLOGIA
(31st INTERNATIONAL GEOLOGICAL CONGRESS)

Rio de Janeiro 6-17 de Agosto de 2000

Tema geral:

Geologia e Desenvolvimento Sustentável: Desafios para o Terceiro Milénio
(*Geology and Sustainable Development: Challenges for the Third Millenium*)

— Com um Simpósio Geral sobre *Geologia do Quaternário* (*General Symposium Quaternary Geology*)

INFORMAÇÕES (INFORMATIONS)

31st International Geological Congress
Secretariat Bureau — Casa Brazil 2000
Av. Pasteur, 404 — Urea
Rio de Janeiro. — RJ — Brazil 22290-240
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9. V CONFERÊNCIA INTERNACIONAL SOBRE GEOMORFOLOGIA
(FIFTH INTERNATIONAL CONFERENCE ON GEOMORPHOLOGY)

Tóquio — 23-28 de Agosto de 2001

Tema geral:

Geomorfologia em zonas tectónica, climática e antropológicamente sensíveis
(*Geomorphology in tectonic, climatic and anthropologically sensitive zones*)

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