



## **PACEA - De la préhistoire à l'actuel : culture, environnement et anthropologie**

Rapport Hcéres

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agence d'évaluation de la recherche  
et de l'enseignement supérieur

Section des Unités de recherche

Rapport de l'AERES sur l'unité :

UMR 5199 - PACEA

<< De La Préhistoire à l'Actuel Culture, Environnement  
et Anthropologie >>

sous tutelle des

établissements et organismes :

Université de Bordeaux 1

CNRS

Ministère de la Culture et de la Communication

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Le Président  
de l'AERES

Jean-François Dhainaut

Section des unités  
de recherche

Le Directeur

Pierre Glorieux

Mai 2010



# Unité

**Nom de l'unité :** De La Préhistoire à l'Actuel : Culture, Environnement et Anthropologie (PACEA)

**Label demandé :** Unité mixte de recherche

**N° si renouvellement :** UMR 5199

**Nom du directeur :** M. Jacques JAUBERT (2007-10) ; M. Bruno MAUREILLE (2011-14)

## Membres du comité d'experts

### **Président :**

Erik TRINKAUS, Washington University, Saint Louis, USA

### **Experts :**

Francesco D'ANDRIA, Université de Lecce, Italie

Jean ANDREAU, EHESS

David BOURGARIT, C2RMF

Dominique GRIMAUD-HERVE, Muséum d'Histoire Naturelle, UMR 7194, CoNRS section 31

Paola MOSCATI, CNR, ISCIMA (Rome) - excusée lors de la visite

Arturo RUIZ, Université de Jaen, Espagne

### **Expert(s) proposés par des comités d'évaluation des personnels (CNU, CoNRS) :**

Dominique GRIMAUD-HERVE, Muséum d'Histoire Naturelle, UMR 7194, CoNRS section 31

Sophie BOUFFIER, Université de Lyon 2, CoNRS section 32

Bruno FAJAL, CRAHAM, Caen, CoNRS, section 32

Alain TUFFREAU, Université de Lille 1, commission 20 du CNU

Jean-Luc LAMBOLEY, Université de Lyon 2, commission 21 du CNU



# Représentants présents lors de la visite

Délégué scientifique représentant de l'AERES :

Stéphane VERGER

Représentant(s) des établissements et organismes tutelles de l'unité :

M. Robert CHENORKIAN, DSA, INEE (CNRS),

Mme Sophie DE BEAUNE, DSA, INSHS (CNRS),

M. Jean-Rodolphe PUIGGALI, vice-pdt de l'université de Bordeaux I

M. Jean-Pierre GIRAUD, Inspecteur général de l'Architecture et du Patrimoine, Ministère de la Culture et de la Communication



# Rapport

## 1 Introduction

- Date et déroulement de la visite :

3 November 2009 ; 9H00-10 H30 : presentation of past and future research. 10H30-11H00 : discussion of the presentation by the committee. 11H00-11H30 : discussion with the technical («ingénieurs») and administrative staff. 11H30-12H00 : discussion with the doctoral students. 12H00-12H30 : discussion with B. Maureille and C. Ferrier in the presence of the institutional partners. 12H30-13H00 : discussion among the committee members of issues raised by the staff and students. 13H30-14H00 : tours of the team buildings of PACEA.

- Historique et localisation géographique de l'unité et description synthétique de son domaine et de ses activités :

The Université de Bordeaux has long had a tradition of two laboratories concerned with long-term human biological and cultural origins and evolution in their paleoecological context, the Institut du Quaternaire (UMR 5808 ; Milieux, Techniques et Cultures Préhistoriques ; IPGQ) and the Laboratoire d'Anthropologie (UMR 5809 ; Laboratoire d'Anthropologie des Populations du Passé ; LAPP). Until 2004, they were separate academic and research entities. The former was concerned principally with Quaternary geology, paleoenvironments, chronology, vertebrate paleontology and, especially, Paleolithic archeology. The latter was concerned with the analysis of human remains from both the Pleistocene (human paleontology) and with the excavation, taphonomy and skeletal biology of Holocene human remains (both historic and prehistoric).

In 2004, given their areas of overlap in terms of interest, especially with respect to Quaternary remains, the separate laboratories and Unités mixtes de recherche (UMRs) were joined together into PACEA (UMR 5199), with a shared director, shared administrative staff and the sharing of some of the technical staff. However, they retained separate assistant directors and have office/laboratory space in separate buildings (Bâtiments 8 & 18) on the campus of the Université de Bordeaux 1, Talence. The two former laboratories retained their designations (IPGQ and LAPP) and became the two teams (équipes) within PACEA. As part of the renewal of PACEA, a minor change in the names of the teams is proposed, such that they become: "Préhistoire, Paléoenvironnement, Patrimoine" (PPP) and "Anthropologie des Populations Passées et Présentes" (A3P), respectively.



Given this history and the ongoing projects of senior members of PACEA, their research program can be described as being concerned with : “the long term emergence and ongoing evolution of human cultural and biological uniqueness and diversity in its cultural and ecological context.” This general topic is approached through several different areas of research, building out of the previous laboratories, that concern :

- 1) site formation processes and the associated geological and taphonomic issues ;
- 2) paleoenvironmental research (geological and paleontology) ;
- 3) human long-term biological evolution (human paleontology) ;
- 4) the nature and context of the emergence of distinctly human behavioral human characteristics (Paleolithic archeology, including technology, art and subsistence) ;
- 5) human mortuary behavior as a reflection of social diversity (in both the Pleistocene and the Holocene) ;
- 6) human paleobiology (including the populational dynamics, the skeletal biology and the genetics of past human populations).

These areas of research have led to the various members of this laboratory to be engaged in

- 1) paleontological/archeological fieldwork across western Eurasia, Africa and the Pacific (similar work in eastern Eurasia is carried out by UMR 7194), including extensive work in Aquitaine ;
- 2) geological analysis of both archeological and non-anthropogenic sediments from the same regions ;
- 3) laboratory paleobiological analysis of human and faunal skeletal remains ; and
- 4) the context and nature of the human symbolic behaviors.

These areas of research are organized into a series of themes within each team (IPGQ and LAPP) as well as ones that are joined across the two teams. However, on close inspection it is apparent that few, if any, of the “themes” involve only one of the teams, and that the themes are aligned with one or the other team based mainly on the predominance of members directly involved. The research contained within these stated “thèmes” is evaluated here, but not always along the same divisions as those proposed by PACEA. This is done, since it was the perception of the committee for AERES that the level of intellectual and research integration between the two teams (PPP and A3P) is in fact much greater than the separate “thèmes” would indicate. Moreover, although only partially addressed here, there is also abundant evidence for collaborative research with members of Ausonius and IRAMAT of the Université de Bordeaux 3.

- **Equipe de Direction :**

The administration of PACEA has consisted (2007-2010) of a Director (J. Jaubert) and two Assistant Directors, one from each of the teams (B. Maureille for LAPP and A. Delagnes for IPGQ). With the proposed renewal, there will be one Director (B. Maureille) and one Assistant Director (A. Delagnes), each representing a team (A3P and PPP respectively). During the present system, this system appears to have worked reasonably well in terms of both the administration of PACEA overall and the integration of the two teams, but it does give greater weight to IPGQ. The new system, for 2010-2014, with one primary administrator from each «équipe» will be more balanced.



- Effectifs de l'unité : (sur la base du dossier déposé à l'AERES) :

	Dans le bilan	Dans le projet
N1 : Nombre d'enseignants-chercheurs (cf. Formulaire 2.1 du dossier de l'unité)	8	9
N2 : Nombre de chercheurs des EPST ou EPIC (cf. Formulaire 2.3 du dossier de l'unité)	18	20
N3 : Nombre d'autres enseignants-chercheurs et chercheurs (cf. Formulaire 2.2 et 2.4 du dossier de l'unité)	7	7
N4 : Nombre d'ingénieurs, techniciens et de personnels administratifs titulaires (cf. Formulaire 2.5 du dossier de l'unité)	15,7	12,7
N5 : Nombre d'ingénieurs, techniciens et de personnels administratifs non titulaires (cf. Formulaire 2.6 du dossier de l'unité)	5,1	5,4
N6 : Nombre de doctorants (cf. Formulaire 2.7 du dossier de l'unité)	31	12
N7 : Nombre de personnes habilitées à diriger des recherches ou assimilées	20	19

NB. Tous ces chiffres sont tirés des fichiers xls des "bilan" et "projet". Ils sont exprimés en ETPT (équivalent temps plein travaillé).

## 2 Appréciation sur l'unité

- Avis global :

Overall, the committee of AERES was extremely impressed by the quality, quantity, and visibility of the research undertaken by members of PACEA and by the reputation of PACEA in all of its established areas of research. It is clear that it represents one of the best research teams in France, across Europe and globally in three primary areas of research : Quaternary science (with particular emphasis on site formation processes, vertebrate paleontology and taphonomy), Paleoanthropology (sensu lato, including Paleolithic archeological and human paleontology) ; and the taphonomy and skeletal biology of human mortuary practices. These areas are joined by the developing ancient DNA laboratory and other less prominent areas of research.

The committee was also impressed by the degree of integration that has been achieved despite their ongoing physical separation. This integration is especially reflected in joint fieldwork, the cohesiveness of the doctoral program and the "esprit de corps" evident in the administrative and technical staff and among the doctoral students.

It is readily apparent that this is a group of researchers and a doctoral program that has a wealth of talent, experience, and the potential to continue to make major contributions to these areas of research, in France and internationally.





- Points forts et opportunités :

PACEA is notable for its substantial national and international reputation, its extensive involvement at an international (global) level, the quantity and especially the quality of its publications, and its integration with and support from the Région de l'Aquitaine.

At the same time, it has the already developed extensive collaborations locally, regionally and internationally. The first involves ongoing collaborations with members of Ausonius and IRAMAT, all of which could be developed further should the Fédération des Sciences Archéologiques de Bordeaux become a reality. The second consists of extensive work with researchers across the Aquitaine and neighboring areas of France, in terms of fieldwork and the laboratory analysis of the excavated remains, from the Paleolithic to the 20th century. The last involves a truly impressive list of international collaborators, from Europe, Africa, North America and elsewhere, which demonstrates the ability of these researchers (senior, junior and doctoral) to participate in the global sciences related to human origins and diversity.

At the same time, it is readily apparent that the members of PACEA are actively incorporating new areas of research that relate to their issues of concern, both in terms of technical advances and with respect to the spectrum of research questions concerning the human past and biocultural diversity. This is clearly not a program that is standing still, but it is continuing to move forward.

- Points à améliorer et risques :

The major concern of the committee of AERES involves the continued physical separation of the two teams (LAPP and IPGQ, or PPP and A3P). Given that they have been combined into PACEA for only 4 years, we were impressed by the extent to which they have integrated, including their Masters program and various collaborative research projects. Yet, the continued perspective of two separate teams, as reflected in the organization of their reports (Dossiers de Bilan and Projet) and their presentation during the visit, and the paucity of explicitly joint (transversal) themes of research means that the integration is not yet complete. The committee therefore strongly feels that this separation needs to be further reduced to the extent possible, bearing in mind that these things take time.

The other area of concern (see discussion of the Projet below) is the substantial number of senior researchers who will be retiring in the near future. It is hoped that they can be replaced with younger, active, and innovative researchers to maintain the quality and momentum of PACEA.

- Recommandations au directeur de l'unité :

Following on the previous concern, our primary recommendation involves finding a solution to the continued physical separation of the two teams and, once it is possible to have them physically together, to be sure that the various individuals from the different current teams (at all levels ; researchers, staff and students) are in fact mixed together in terms of office and laboratory space.

It is possible that this will be achieved in the near (but not immediate) future through the formation of the Fédération des Sciences Archéologiques de Bordeaux and the construction of a new building to house PACEA, IRAMAT and Ausonius. In fact, we strongly recommend the creation of the Fédération des Sciences Archéologiques de Bordeaux, since it will facilitate both the further integration of the two teams of PACEA and the active collaboration that is taking place between members of PACEA and the other archeological concerns at the Université de Bordeaux. If the Fédération does not take place, however, another solution should be found to achieve the goal of closer proximity of the research units within PACEA in the immediate future.

- Données de production pour le bilan :

(cf. [http://www.aeres-evaluation.fr/IMG/pdf/Criteres\\_Identification\\_Ensgts-Chercheurs.pdf](http://www.aeres-evaluation.fr/IMG/pdf/Criteres_Identification_Ensgts-Chercheurs.pdf))

A1 : Nombre de producteurs parmi les chercheurs et enseignants chercheurs référencés en N1 et N2	28
A2 : Nombre de producteurs parmi les autres personnels référencés en N3, N4 et N5	27
A3 : Taux de producteurs de l'unité $[A1/(N1+N2)]$	1
Nombre d'HDR soutenues	4
Nombre de thèses soutenues	24
Autre donnée pertinente pour le domaine (à préciser...)	

Nous comprenons que les producteurs sont les personnes, à compter parmi les listes indiquées. Ensuite A3 correspond au pourcentage des chercheurs [et enseignants-chercheurs] qui publient sur le total des chercheurs des listes N1+N2. NB : à PACEA, tous les EC et Chercheurs sont publiants.

### 3 Appréciations détaillées :

- Appréciation sur la qualité scientifique et la production :
  - Pertinence et originalité des recherches, qualité et impact des résultats :

Overall, the research programs within PACEA are very much within the mainstream of current, state-of-the-art research in their respective specialities. Almost all of them are of very high quality, and some of them are highly original with respect to their spheres of analysis. Among the last in particular are the taphonomic studies of human burials and the analysis of symbolic behavior from artifacts in the Paleolithic.

Many of the individual projects have extensive impact, which is a product of, and is reflected in, the locations of their publications (see below). The members of PACEA who work especially in the Aquitaine and neighboring areas of France are involved in the communication of their discoveries and analytical results through museums (e.g. Musée National de la Préhistoire, Les Eyzies) and popular publications (e.g., of La Grotte Chauvet).



— **Quantité et qualité des publications, communications, thèses et autres productions :**

The scientific output of the members of PACEA, from doctoral students to senior researchers and including some of the technical staff, is truly impressive. Depending upon the individual and speciality involved, these productions consist of everything from technical reports, to presentations at national and international scientific congresses, to published doctoral dissertations, to articles in the most prestigious international journals. For example, of the 293 peer-reviewed publications (ACL plus ACLN) for PACEA since 2004, 8 are in the pre-eminent international scientific journals (Nature, Science, PNAS, PLoS) and 130 (44%) are in truly international journals within the areas of specialization of the articles. The remainder are in national or regional peer-reviewed journals.

The only limitation that was perceived was the relative inability of most of the doctoral students to publish in international journals, since they are predominately in English. Yet, we feel that this is a broader issue for many non-Anglophone scholars and not just doctoral students. At the same time, those same students noted that they are actively encouraged to publish their research results and participate in the greater profession.

It should be emphasized that 20 of the individuals classified in the A2 category are scientifically producing technical staff (ingénieurs et techniciens titulaires ou non titulaires). The individuals, the majority of whom are IR or IE in INRAP, represent more than a third of the productive individuals of PACEA. The collaborative nature of the relationships between these individuals and various institutions (university or regional unit ITRF, ITA CNRS, IT MCC or INRAP) are evident in many of the publications.

— **Qualité et pérennité des relations contractuelles :**

The members of PACEA have been notably successful at obtaining funding for their programs and research at multiple levels. These involve, of course, funding from the usual research sponsors within France (Ministère de la Culture et Communication, CNRS, Université de Bordeaux 1). It also involves funding support from the Ministère des Affaires Etrangères for the fieldwork overseas. Most impressively, PACEA has been able to acquire 52% of its 1.4 m€ budget from the Région de l'Aquitaine.

• **Appréciation sur le rayonnement, l'attractivité, et l'intégration de l'unité de recherche dans son environnement :**

— **Nombre et renommée des prix et distinctions octroyés aux membres de l'unité, y compris les invitations à des manifestations internationales :**

The prizes acquired by members of PACEA include the Prix GMPCA to A. Lenoble and the «Médaille d'argent du CNRS» for H. Duday. Also various more senior members of the UMR received a number of invitations for either individual lectures or to participate in special symposia at scientific meetings. For a total of 42 such invitations, 12 (29%) were international.

— **Capacité à recruter des chercheurs, post-doctorants ou étudiants de haut niveau, en particulier étrangers :**

PACEA has little trouble attracting some of the best young scholars in the field. However, the majority of these are French or from Francophone countries, since the primary impediment to recruiting foreigners is the necessity to be fluent in French (it is possible to exist productively at other European universities only knowing English and little of the local language). At the same time, the committee for AERES was impressed by the diversity of universities across France from which the current doctoral students come.



- Capacité à obtenir des financements externes, à répondre ou susciter des appels d'offres, et à participer à l'activité des pôles de compétitivité :

PACEA, as mentioned above, has obtained extensive support from the Région de l'Aquitaine, beyond its usual institutional sponsors. Equally important has been the ability of individual researchers to obtain funds from the North American private foundations, the Leakey Foundation and the Wenner-Gren Foundation for Anthropological Research, whose success rates (<15%) make competition for their support extremely tough. There has even been some support from private industry for individual projects.

- Participation à des programmes internationaux ou nationaux, existence de collaborations lourdes avec des laboratoires étrangers :

The members of PACEA routinely participate in national and especially international meetings, congresses, etc., across Europe, North America and occasionally elsewhere. Senior researchers, recent doctorates, and the occasional doctoral student are very obviously active at international congresses to the participants, presenting posters and podium presentations.

At the same time, the number of international collaborations is truly impressive. It is true that many aspects of the field are multidisciplinary and that one chooses colleagues from a global pool of expertise. Yet, most of the individuals in PACEA are involved to some extent in international projects involving colleagues from the place of research. At the same time, many of them are invited by scholars from other countries to either work collaboratively at a given field site, or more commonly, to provide expertise on an aspect that has emerged from a project by a foreign scholar. To these collaborations can be added those of foreign researchers who come to Bordeaux to work with members of PACEA on projects in Bordeaux or at a site in the Aquitaine.

- Valorisation des recherches, et relations socio-économiques ou culturelles :

Members of PACEA have been involved in a variety of projects that have considerable public interest, ranging from the antiquity of human art (including La Grotte Chauvet, but also earlier manifestations), the Neandertals and the emergence of modern humans, the excavation of classic Roman sites (Pompeii), and the excavation of historic remains within France. Many of these projects are of public interest, result in popular publications (books and articles), and are picked up by the media in general, within France and globally.

- Appréciation sur la stratégie, la gouvernance et la vie de l'unité:
  - Pertinence de l'organisation de l'unité, qualité de la gouvernance et de la communication interne et externe :

Given the history of PACEA, and its relatively recent formation out of the merging of two previously separate research entities, it appears to be reasonably well organized and directed. Both of the teams are appropriately represented in the current Assistant Directors and in the proposed Director / Assistant Director arrangements. None of the individuals involved (researchers, staff or students) noted any difficulties with communication through the academic or administrative hierarchies of the UMR. In addition, PACEA has a laboratory committee (conseil de laboratoire) with 18 representative, which meets 4 to 5 times a year to discuss relevant issues.

The administration appears to be actively aware of and concerned with the positions and performances of the administrative and technical staff (ITA et ITRF), which was apparent from the discussion with the staff. There do not appear to be any individuals who are obviously under-classified, even though a number of them have acquired skills beyond the level at which they were hired. Yet, at PACEA as elsewhere, there are some staff members who have remained at the same level of classification for too long a period of time.



PACEA is also concerned with the health and safety of its members, especially since it contains a series of laboratories using potentially toxic chemicals. They have in place the necessary training and procedures to carry out these protocols and a responsible person with the proper training (ACMO). Nonetheless, members of the committee did notice a distinct odor of styrene, a known carcinogenic substance, due to inadequate ventilation of one of the casting laboratories. The ACMO identified the source of the smell, the director was notified, and he undertook to rectify the problem with the technician involved as soon as possible.

— Pertinence des initiatives visant à l'animation scientifique, à l'émergence, et à la prise de risques :

The UMR of PACEA, by its internal diversity and active research programs, is involved either through groups (organized around themes) or individuals (in local, national and international collaborations) in a variety of projects that are novel or are pushing the previous limits of the field. Among the former is the development of the ancient DNA (aDNA) laboratory and the utilization of advanced medical imaging for analysis. Among the latter are the various paleoenvironmental and geochronological initiatives that are providing contexts for the human (and non-human) Quaternary processes of primary interest.

— Implication des membres de l'unité dans les activités d'enseignement et dans la structuration de la recherche en région :

The Masters and doctoral programs within PACEA benefit from a combination of a large number of qualified researchers (21 HDR) for a modest number of students (3 - 8 per year) and abundant opportunities for the students to get involved directly in research. Almost all of the doctoral students have financing for their doctoral research. This academic and financial support combines to result in a high percentage of the students obtaining post-doctoral fellowships or regular academic positions, a minority being employed by INRAP, and only a few of those who finish leaving academia. Indeed, aside from needing more assistance in publishing in English (see above), it was difficult for the committee to hear complaints from the doctoral students.

These regular programs are joined by an annual workshop in human skeletal biology and mortuary taphonomy run each summer in Talence, as well as the international field school in Paleolithic excavation at the site of Les Pradelles (Charente) (a collaboration between the Université de Bordeaux 1 and Princeton University).

With respect to the region, as has been mentioned repeatedly above, a variety of members of PACEA are directly involved with research, publicity and outreach programs within the Aquitaine and neighboring portions of France. Some of this involvement results from their fieldwork on important, and publically interesting, sites in the region. But it also comes from a concerted effort, from painted Paleolithic caves to the salvage excavation of church crypts, to be involved in the documentation, preservation, and communication of the antiquities of the area.



- Appréciation sur le projet :
  - Existence, pertinence et faisabilité d'un projet scientifique à moyen ou long terme :

The proposed project for 2011-2014 involves a continuation and slight readjustment of ongoing projects and themes within PACEA and between PACEA and its multitude of collaborating institutions and individuals, regionally, nationally and internationally. It also involves expanding several areas of technical application to the ongoing issues. These shifts in focus are reflected in the change of the team names to : "Préhistoire, Paléoenvironnement, Patrimoine" (PPP) and "Anthropologie des Populations Passées et Présentes" (A3P).

In this, it needs to be kept in mind that the majority of the research projects in the areas of specialization of PACEA involve small projects, determined by field sites, collections for analysis, technical development, fortuitous discoveries or conservation requirements. The critical factor is that these small projects are tied together into a set of coherent themes, and that these themes evolve as the field evolves globally. The various projects, or themes, proposed for the "Projet de renouvellement de UMR PACEA 2011-2014", are therefore logically both a continuation and a modest shift from the 2007-2010 set of themes and goals (for example, extending the analysis of human biology to include more consideration of extant populations and extending the chronological range of hunter-gatherer archeology into the early Holocene). There is no doubt that they will be able to continue these projects in both the short and the long term.

The primary concern within PACEA in the short term is that a significant number of the senior researchers will retire by 2014 (10, or 20% of those in CNRS, 23% of those in MCC, 40% of the HDR). In order for the UMR to continue in its current level of prominence and productivity, it is readily apparent that a major proportion, if not all, of these individuals should be replaced. This, however, is both a problem and an opportunity, since it should permit the UMR to bring in younger scholars involved in newly developing areas of research and (hopefully) draw on a broader pool of individuals than just those educated within French higher education (and especially within the Université de Bordeaux).

- Existence et pertinence d'une politique d'affectation des moyens :

The availability of the field to obtain sufficient financial resources is always affected but broader economic conditions. However, the committee for AERES heard all of the institutional sponsors positively express support for PACEA, and it appears that the Région de l'Aquitaine is maintaining its support of the research and public outreach of PACEA. More encouraging is the gradually growing ability of individuals within PACEA, both pre- and post-doctoral, to obtain research funding from international foundations, within Europe and elsewhere. It does not appear that there should be any major concerns regarding their ability to fund their projects.

- Originalité et prise de risques :

One has the impression that the proposed new projects, despite some reorganization, are primary in terms of continuing, expanding modestly, and improving upon existing research goals and protocols. However, since the current work has been so successful, in terms of quality and quantity, at all levels, there is little reason to expect otherwise. Principally, what emerges from the "Projet" is an increased awareness and utilization of a variety of techniques, in the field and in the laboratory, that promise to provide additional resolution and insight into the human biocultural processes of concern.



#### 4 -a- Analyse équipe par équipe et/ou par projet

**Intitulé de l'équipe :** Institut de Préhistoire et de Géologie du Quaternaire (IPGQ);

**Nom du responsable :** Mme Catherine FERRIER (2007-10)

**Intitulé de l'équipe :** Préhistoire, Paléoenvironnement, Patrimoine" (PPP)(PPP);

**Nom du responsable :** M. Francesco D'ERRICO (2010-14)

- Effectifs de l'équipe ou affectés au projet (sur la base du dossier déposé à l'AERES) :

	Dans le bilan	Dans le projet
N1 : Nombre d'enseignants-chercheurs (cf. Formulaire 2.1 du dossier de l'unité)	4	4
N2 : Nombre de chercheurs des EPST ou EPIC (cf. Formulaire 2.3 du dossier de l'unité)	10	11
N3 : Nombre d'autres enseignants-chercheurs et chercheurs (cf. Formulaire 2.2 et 2.4 du dossier de l'unité)	7	7
N4 : Nombre d'ingénieurs, techniciens et de personnels administratifs titulaires (cf. Formulaire 2.5 du dossier de l'unité)	11	11
N5 : Nombre d'ingénieurs, techniciens et de personnels administratifs non titulaires (cf. Formulaire 2.6 du dossier de l'unité)	8	9
N6 : Nombre de doctorants (cf. Formulaire 2.8 du dossier de l'unité)	20	6
N7 : Nombre de personnes habilitées à diriger des recherches ou assimilées		

- Appréciation sur la qualité scientifique et la production :
  - Pertinence et originalité des recherches, qualité et impact des résultats :

The research of the IPGQ has been concerned principally with the Quaternary evolution of human technological, subsistence and cultural patterns in their paleoenvironmental context. The research has involved substantial field projects, particularly in Europe (especially in France and among those especially in the Aquitaine), northwest Africa, southwest Asia, East Africa and southern Africa, plus additional smaller projects in the Americas and the Pacific. Through the individual projects, a multitude of international collaborations, and teams both within IPGQ and across PACEA more broadly, the members of IPGQ have made a substantial impact on the field. They are generally at the cutting-edge in terms of techniques, and their approaches have continued to evolve substantially from the paradigms that were prevalent even a decade ago in Quaternary studies. This is reflected in their publications (see below), participation in international symposia (many by invitation), and especially in the frequency with which either they are invited to be members of research teams elsewhere or senior and junior researchers come to Bordeaux to work with them on projects related to regional sites.



- Quantité et qualité des publications, communications, thèses et autres productions :

The members of IPGQ have accumulated an impressive publication and conference record. What is more important is the distribution of their peer-reviewed publications. Of a total of 146 such publications, five of them are in the pre-eminent scientific publications (*Science*, *Nature*, *PNAS*, *PlosOne*), and 76 (52%) of them are in major international specialty journals. The remainder are in national or regional but still peer-reviewed journals.

- Qualité et pérennité des relations contractuelles :

As noted for PACEA overall, IPGQ has been successful in obtaining and maintaining support from the usual sponsors (Université de Bordeaux 1, CNRS, Ministère de la Culture et Communication), but they have also been particularly impressive in the degree to which they have obtained support from the Région de l'Aquitaine. This involves both support for individual field projects (only a trivial number of which involve salvage archeology (INRAP)), as well as institutional support for their facilities in the Dordogne.

- Appréciation sur le rayonnement, l'attractivité, et l'intégration de l'équipe ou du projet dans son environnement :

- Nombre et renommée des prix et distinctions octroyés aux membres de l'équipe ou à ceux qui participent au projet, y compris les invitations à des manifestations internationales :

The members of IPGQ have only received one «prize» (the Prix GMPCA to A. Lenoble), but various more senior members of IPGQ received a number of invitations for either individual lectures or to participate in special symposia at scientific meetings. For a total of 14 such invitations, 10 (71%) were international.

- Capacité à recruter des chercheurs, post-doctorants ou étudiants de haut niveau, en particulier étrangers :

The IPGQ has a long history (dating from the days of F. Bordes) of being focused primarily on the Aquitaine and only secondarily on the rest of the world. This has enabled them to attract some of the best people from the region in the past. But now, with the truly international focus of the team, with its multitude of collaborative projects, the team is starting to branch out further in terms of recruitment at the research, post-doctoral and graduate student levels. However, the fact that one must be fluent in French to participate actively in the programs in Bordeaux (alas, French is no longer «the» international language of science) limits the recruitment largely to the Francophone world. Yet, given this, there are nonetheless prominent non-French scholars (e.g., F. d'Errico) in IPGQ and the AERES committee was impressed by the diversity of universities within France from which the doctoral students have come.

- Capacité à obtenir des financements externes, à répondre ou susciter des appels d'offres, et à participer à l'activité des pôles de compétitivité :

Even though most of the research funding comes from sponsors within France, members of team (including students) are notable in having obtained funding from international private foundations (e.g., Leakey Foundation, Wenner-Gren Foundation) and especially being active participants in international teams that have obtained funding from national research funding agencies (e.g., NSF in the US). All of these grants are highly competitive (success rates <15%), and the successes here substantiate the quality of the IPGQ research.





- Participation à des programmes internationaux ou nationaux, existence de collaborations lourdes avec des équipes étrangères

Not only do members of IPGQ participate in field projects across most of the world, with an emphasis on the western Old World (Europe, Africa, western Asia), but many of those projects are in fact generated within those other countries and essentially all of them are truly international collaborative projects. The IPGQ members are also involved with colleagues across France in a variety of projects. The committee has no concerns regarding their participation in the greater scientific world.

- Valorisation des recherches, et relations socio-économiques ou culturelles :

Members of IPGQ are among the most prominent nationally and internationally of archeological/anthropological researchers in France. They are directly involved in one of the most important sites, from a public interest point of view, La Grotte Chauvet. Their work on the earliest forms of «art» and human symbolic behavior, and its implications for modern human origins, are of global scientific and public interest. A variety of other projects on sites and collections, as well as museums, in the Aquitaine are of continual public and administrative interest, tying into the whole issue of the preservation and public presentation of the «patrimoine».

- Appréciation sur la stratégie, la gouvernance et la vie de l'équipe ou du projet :

- Pertinence de l'organisation, qualité de la gouvernance et de la communication interne et externe :

The IPGQ team, in the context of PACEA, is continuing to evolve, which is reflected in its change of name (to "Préhistoire, Paléoenvironnement, Patrimoine" (PPP)) and in a change of the primary responsible person (to F. d'Errico). In discussions with the administrators of PACEA, with the technical and administrative staff, and with the doctoral students, there were no indications of administrative or communication difficulties. This is enhanced by frequent seminars and e-mail announcements. Moreover, even among those personnel who are normally based at the facilities in the Dordogne (at or near Les Eyzies-de-Tayac) there was no sense of isolation.

- Pertinence des initiatives visant à l'animation scientifique, à l'émergence, et à la prise de risques :

The field of Quaternary science, including Paleolithic archeology and related aspects, continues to be one of the more dynamic areas of natural science, on a global scale. This has been fostered in part by concerns relative to global warming and the eternal interest in human origins and evolution. The members of IPGQ have been active in these various areas, in part pursuing their existing programs, but increasingly integrating those programs into the broader issues of human existence on our fragile planet.

- Implication des membres dans les activités d'enseignement et dans la structuration de la recherche en région :

Many of the members of IPGQ/PPP are active in public outreach, particularly through the various museums. In addition to their roles within the Université de Bordeaux, there is every expectation that this will continue.



- Appréciation sur le projet :
  - Existence, pertinence et faisabilité d'un projet scientifique à moyen ou long terme :

The stated "Projet" is concerned with both continuing the very successful areas of research of IPGQ, broadening its interest towards more recent time periods (the early Holocene) and earlier ones (the Early Pleistocene), and becoming even more involved in extensively multidisciplinary analyses (e.g., karstic systems and human use of them). All of this is both a natural outgrowth of their ongoing research projects and a refinement of aspects of it. It is feasible in terms of both their expertise and their ability to obtain financial support for the projects.

Existence et pertinence d'une politique d'affectation des moyens :

The members of IPGQ have been very successful at obtaining financial and institutional support for their fieldwork, in France and abroad. There is every expectation that they will be able to continue to do so.

The programs («thèmes») that have been laid out for the «Projet» are both a continuation and a modest reorientation of those programs already in place and actively producing scientific results. Given the long-term investment that is necessary for field projects in particular, this is natural. However, there are indications of gradual shifts in the questions being asked and the approaches being taken, in part due to advances in the available technology but largely from an evolution of the field in its international context.

- Conclusion :
  - Avis :

As much as the members of the committee for AERES were impressed by the overall performance of PACEA, they were very satisfied with the performance and future prospects for the IPGQ/PPP team within it.

- Points forts et opportunités :

The strong points in particular involve (not in any specific order of importance) :

- 1) their strong relationship with the Région de l'Aquitaine and long term research and public outreach in southwestern France ;
- 2) the extensive and highly productive international collaborations and fieldwork of a large number of the members of the team ;
- 3) the continuing application of new and refined technologies to the decipherment of Quaternary paleoenvironments and human behavioral residues from past hunter-gatherer societies.

- Points à améliorer et risques :

The primary area of concern, which is more with respect to PACEA overall, is fostering more integration with the other half of PACEA (LAPP/A3P), and being able to do so in a common, integrated, research and teaching space. Of additional concern is the upcoming retirement of a number of members of the team, who hopefully can be replaced with equally active and broadly oriented younger individuals, hopefully from a broader base across Europe.

- Recommandations :

The primary recommendation of the committee for AERES concerns the full integration of PACEA (see above), an issue which is beyond the individual teams at this point in time. Of lesser concern, but within IPGQ/PPP is the maintenance of both their regional involvement and their international outreach, something for which we have little concern.



#### 4 -b- Analyse équipe par équipe et/ou par projet

**Intitulé de l'équipe :** Laboratoire d'Anthropologie des Populations du Passé (LAPP);

**Nom du responsable :** B. Maureille (2007-10);

**Intitulé de l'équipe :** Anthropologie des Populations Passées et Présentes (A3P)

**Nom du responsable :** D. Castex (2011-14)

- Effectifs de l'équipe ou affectés au projet (sur la base du dossier déposé à l'AERES) :

	Dans le bilan	Dans le projet
N1 : Nombre d'enseignants-chercheurs (cf. Formulaire 2.1 du dossier de l'unité)	4	5
N2 : Nombre de chercheurs des EPST ou EPIC (cf. Formulaire 2.3 du dossier de l'unité)	8	9
N3 : Nombre d'autres enseignants-chercheurs et chercheurs (cf. Formulaire 2.2 et 2.4 du dossier de l'unité)	0	0
N4 : Nombre d'ingénieurs, techniciens et de personnels administratifs titulaires (cf. Formulaire 2.5 du dossier de l'unité)	5	5
N5 : Nombre d'ingénieurs, techniciens et de personnels administratifs non titulaires (cf. Formulaire 2.6 du dossier de l'unité)	9	9
N6 : Nombre de doctorants (cf. Formulaire 2.7 du dossier de l'unité)	11	6
N7 : Nombre de personnes habilitées à diriger des recherches ou assimilées		

- Appréciation sur la qualité scientifique et la production :
  - Pertinence et originalité des recherches, qualité et impact des résultats :

The research undertaken within LAPP is involved in several areas that share a common overall framework of concern with human variation, biology, behavior and evolution (particularly with respect to the past), but it divides up into several areas which are partly reflected in the "thèmes" of the team. The first is human paleontology or human evolution in the Quaternary ; this aspect has close ties with IPGQ. The second involves the study of human mortuary behavior and paleobiology in the field and in the laboratory ; this aspect overlaps with the first to some degree, but since it is focused principally on Holocene remains, it has close ties with Ausonius in the Université de Bordeaux 3, with individuals in INRAP, and with other universities across France (and Europe). The third area, which is relatively new at Bordeaux, is paleogenetics or the analysis of human DNA from past human remains (aDNA), although extant human variation is also considered. The last area is more methodological in orientation, since it is concerned with the bases of interpretations of past human populations, and the increasing utilization of advanced medical technologies for that purpose.



The researchers in the first two of these areas are major contributors to the field, through senior researchers and a number of recent doctoral candidates. The second in particular has become one of the, if not the, European center for the detailed taphonomic analysis of human mortuary remains and hence of mortuary behavior in the past. The third is a technologically highly intensive area which is starting to produce important results and will become one of a small number of laboratories in France involved in this work, with a particular emphasis on human aDNA. It is particularly relevant that they are located with other anthropologists concerned with the dynamics of human populations, and are not «isolated» among molecular biologists with little appreciation of real populations. The last unit has been variably productive, although some aspects (e.g., with respect to sex assessment in skeletal remains) are central to the field. This is a result of its small size, and in particular to the substantial teaching load of one of its members.

Overall, however, members of LAPP have been highly productive, continue to produce quality research of international interest, and hence represent one of the key laboratories for the analysis of human biological variation and evolution in France and internationally.

— **Quantité et qualité des publications, communications, thèses et autres productions :**

The overall production rate of all forms of communications (published and otherwise) for LAPP is substantial, particularly in bioarcheology, mortuary analysis and human paleontology. Of particular interest is that, of 131 peer-reviewed publications, three are in pre-eminent international journals, and 44 (34%) in truly international journals within the field (the lower percentage of the second than in IPGQ results from the greater proportion of the LAPP members being involved in research that tends to be published in national or regional journals, a phenomenon of working on post-Pleistocene time periods).

In addition, members of LAPP are evident participants and contributors to international congresses, both in Europe and North America.

— **Qualité et pérennité des relations contractuelles :**

As with IPGQ, LAPP has both maintained its institutional support and has been active in obtaining support from the Région de l'Aquitaine. Similarly, many of its members are implicated in INRAP, even though a very small portion of the overall budget comes from that source.

• **Appréciation sur le rayonnement, l'attractivité, et l'intégration de l'équipe ou du projet dans son environnement :**

— **Nombre et renommée des prix et distinctions octroyés aux membres de l'équipe ou à ceux qui participent au projet, y compris les invitations à des manifestations internationales :**

H. Duday received the «Médaille d'argent du CNRS». Members of LAPP are frequently invited as participants in symposia or lecturers at special events. As with the peer-reviewed papers and their more regional focus of Holocene research, they are more nationally oriented (77% of 26).

— **Capacité à recruter des chercheurs, post-doctorants ou étudiants de haut niveau, en particulier étrangers :**

There has been little problem with the recruitment of personnel at all levels, including doctoral students, and it is becoming increasingly competitive for students to get into the doctoral program. The primary issue, as with IPGQ (and PACEA overall) is the necessity to be fully Francophone, which limits the pool of applicants at all levels relative to some other European universities.



- Capacité à obtenir des financements externes, à répondre ou susciter des appels d'offres, et à participer à l'activité des pôles de compétitivité :

Funding, in particular for field research, has been reasonably successful through regional and local agencies, as well as national sponsors, and funding for laboratory research has been quite successful, especially for expensive facilities such as the paleogenetic laboratory.

- Participation à des programmes internationaux ou nationaux, existence de collaborations lourdes avec des équipes étrangères

Members of LAPP are in active collaboration with research teams across France in particular, but increasingly across Europe and elsewhere. In particular, the taphonomic and paleobiological analysis of human skeletal remains, in situ and ex situ, has involved a number of the team members in extensive projects across Europe from the early Holocene to the 19th century. At the same time, since human paleontology is a truly international endeavor, several members of the LAPP and their doctoral students are collaborating with individuals across Europe and in North America. This also involves scholars from other countries coming to Bordeaux to work on human remains there or jointly analyze materials with members of LAPP.

- Valorisation des recherches, et relations socio-économiques ou culturelles :

The members of LAPP are involved in a variety of projects, across the Aquitaine, Europe and internationally, which have high levels of public interest, and clearly there is substantial support from the Région de l'Aquitaine for them (along with IPGQ).

- Appréciation sur la stratégie, la gouvernance et la vie de l'équipe ou du projet :
  - Pertinence de l'organisation, qualité de la gouvernance et de la communication interne et externe :

The direction of the team by the future PACEA director appears to have worked smoothly, in terms of integrating the various researchers at all levels without difficulties, providing support for the new programs (e.g., aDNA) and assisting with the continued productivity of the others. No areas of problems became evident to the committee for AERES.

- Pertinence des initiatives visant à l'animation scientifique, à l'émergence, et à la prise de risques :

The field of biological anthropology and particularly the analysis of the remains of past human populations is currently undergoing important changes internationally, involving the increasing refinement of field techniques (taphonomy), the steady increase in the utilization of sophisticated medical imaging technologies, the explosion of molecular biological techniques for analyzing DNA and DNA-products, and more sophisticated models for the decipherment of the paleobiological and phylogenetic implications of prehistoric (and historic) human skeletal remains. In most of these areas, LAPP is actively participating. The most obvious areas are with respect to field skeletal taphonomy, medical imaging applications and, especially, paleogenetics. There is less emphasis on paleobiological aspects (paleopathology, functional anatomy), but those areas are developing as well, with the members of the team participating in the overall trends.

- Implication des membres dans les activités d'enseignement et dans la structuration de la recherche en région :

A substantial number of the members of LAPP are very active in regional programs, from salvage archeology, to museum exhibits, to public presentations. At the same time, there is active participation in the teaching of university students at all levels.



In addition, there is a special summer course in human skeletal biology and taphonomy at Talence and an internationally collaborative Paleolithic and paleontological field school in the Charente.

- **Appréciation sur le projet :**
  - Existence, pertinence et faisabilité d'un projet scientifique à moyen ou long terme :

The projects laid out for the coming 4 years (the "Projet"), for what is being renamed «Anthropologie des Populations Passées et Présentes" (A3P), represent a continuum and a further refinement of the research tracks already in existence in LAPP. This is especially appropriate for a couple of areas of research, including the applications of imaging technologies and paleogenetics, since those are areas that are in the process of being developed through the current period. For the other areas of research, the project involves the continuation in large part of large scale, ongoing field projects, ones that are expected to continue for substantial periods of time.

- Existence et pertinence d'une politique d'affectation des moyens :

Given the current productivity and success of the current projects, and their promises of further development, no difficulties in future funding are anticipated.

- Originalité et prise de risques :

Even though the proposed projects are in largely part a continuation of existing research directions, they are steadily evolving in terms of approach and analytical techniques. The primary area of risk involves the paleogenetic laboratory, since contamination issues are a persistent issue with human paleogenetics, and this is all the more important when dealing with relatively recent periods of human prehistory-history. There is also concern whether they will be able to recover and analyze adequate aDNA from southwest Asia, given the poor molecular preservation in warmer climates. However, the persons involved seem to be well-aware of these issues and may well succeed to resolve or circumvent them.

- **Conclusion :**
  - Avis :

Overall the committee for AERES was favorably impressed by the ongoing research and future prospects for LAPP/A3P. They are continuously productive. They have a number of high quality projects that are continuing successfully, and they are developing new areas of research.

- Points forts et opportunités :

The areas of promise involve the integration of new technologies into the laboratory analyses of past (and present) human biology, and the continued efforts to be involved internationally in the various areas of research.

- Points à améliorer et risques :

The problems, as noted with respect to the PACEA overall, is the degree of integration with IPGQ/PPP, as well as with Ausonius and IRAMAT on the Talence campus, despite the ongoing efforts for them to be intellectually tied together, particularly through the Masters and doctoral programs. There is also the issue of the replacement of individuals scheduled to retire, and hopefully this can be done with active younger individuals with international orientations.



— Recommandations :

The primary recommendation of the committee for AERES, as with IPGQ and PACEA overall, concerns the full integration of PACEA (see above), an issue which is beyond the individual teams at this point in time. Of lesser concern, but within IPGQ/A3P is the maintenance of both their regional involvement and their international outreach, something for which we have little concern.

Note de l'unité	Qualité scientifique et production	Rayonnement et attractivité, intégration dans l'environnement	Stratégie, gouvernance et vie du laboratoire	Appréciation du projet
<b>A+</b>	<b>A+</b>	<b>A+</b>	<b>A+</b>	<b>A+</b>



L'équipe directoriale, tant actuelle que future, prend acte du rapport émis sur le bilan et le projet émanant du laboratoire et de ces deux équipes. Ce rapport, très majoritairement positif propose un compte-rendu fidèle à la réalité de notre bilan et du projet présenté par la future direction qui s'avère, in fine, extrêmement proche de notre propre auto-évaluation. Cet avis est globalement jugé juste et pertinent, dégagant bien les points forts du laboratoire et de ses équipes, lesquels sont replacés dans le contexte de l'histoire de la construction, somme toute encore récente, de PACEA. Les éléments considérés comme des forces, ou au contraire des points interprétés structurellement comme plus fragiles, sont naturellement améliorables. Ainsi, nous retenons comme fondamentaux un certain nombre de conseils émis par le comité :

- **le regroupement des deux équipes** au sein d'un même bâtiment de l'Université Bordeaux 1 ou, à terme, dans un bâtiment de la Fédération des Sciences archéologiques est une de nos priorités.

- **l'intégration encore imparfaite des recherches des deux équipes** dans des thématiques communes. Durant le prochain quadriennal, les responsables des deux équipes et la direction de l'UMR seront très vigilants sur ce point. Nous pensons avoir mis en place un projet favorisant une meilleure communication au sein de l'UMR avec davantage de possibilités (des ateliers expérimentaux) pour croiser les problématiques et augmenter les collaborations (le nouveau thème transversal). Plusieurs membres de chaque équipe sont directeurs d'opérations de terrain en France et à l'étranger et ce sont parmi les projets les plus récents en cours (par exemple la Grotte Cadet en Guadeloupe, Le Piage, Les Pradelles) que les collaborations inter-équipes ont été favorisées. Pour la fin de ce quadriennal, et plus encore le prochain, l'opération Cussac est d'ores et déjà la plus à même de consolider cette intégration, bien que nous ayons également d'autres projets d'opérations de terrain (sondage à la Ferrassie, reprise des fouilles au Regourdou).

- **La consolidation de l'ouverture à l'international** avec une politique encore plus soutenue et renforcée de publication notamment dans des revues anglophones. Au sein de chaque équipe une politique engageant les doctorants à publier durant leur thèse dans des revues de rang A (AERES - ERHI - CoNRS) a été mise en place. Avec le développement des appels d'offre, un membre de l'IPGQ a obtenu à la fin de l'année 2009 une ERC *Advanced Grant* ce qui contribuera au cours des cinq prochaines années à la réalisation de contrats post-doctoraux et à l'achat d'équipements mi-lourds. Nous devons aussi augmenter la formation des membres permanents à l'anglais scientifique écrit et parlé et renforcer l'accueil de chercheurs invités anglophones (seniors, post-doc) ou de doctorants.

- En ce qui concerne (*p. 11 du rapport*) **le nombre réduit de doctorants** (l'estimatif des années à venir étant bien sûr sous-estimé) il nous semble important de souligner que la politique de l'établissement relayé par l'école doctorale nous impose un financement systématique (salaire) des thèses. La recherche de subventions autres que ceux des allocations ou bourses des tutelles (UB1, CNRS, Région Aquitaine) est une préoccupation de tous les instants.

- Comme hélas dans nombre d'unités, le personnel **ITA/IATOS** assume des responsabilités supérieures à celles de leur fiche de poste correspondant à des compétences mal reconnues par leur actuel grade ou corps (*p. 10 et 11 du rapport*). Nous poursuivrons **le plan de soutien à leur promotion** et l'incitation à se présenter aux concours internes ou externes. De plus, avec le document unique que nous avons mis en place à la demande de l'Université Bordeaux 1, nous avons aussi établi une réelle programmation des réponses aux risques identifiés en ce qui concerne l'hygiène et la sécurité.



- Enfin, pendant le prochain quadriennal, l'UMR va être confrontée à une situation difficile avec de **nombreux départs à la retraite de personnels**, qui plus est parmi les plus expérimentés (DR-CNRS, conservateurs en chef... tous HDR). Afin de gérer au mieux ce tournant très complexe, ceux d'entre nous qui sont engagés dans diverses instances d'évaluation nationales (CNU, CoNRS, CS Inrap, etc) n'ont cessé d'alerter nos tutelles ou les responsables d'autres laboratoires afin de mettre en place une politique concertée. Heureusement, ces dernières années, l'UMR PACEA est à nouveau devenue une unité attractive.

Le Directeur de PACEA (07-10)  
Docteur Jacques JAUBERT

17-11

Le Porteur du projet de PACEA (11-14)  
Docteur Bruno MAUREILLE



Le Président de l'Université Bordeaux 1  
Professeur Alain BOUDOU

