



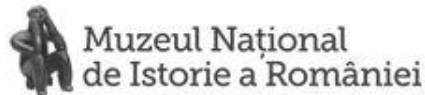
Discovering the Archaeologists of Portugal 2012-14

Cláudia Costa, Cidália Duarte, João Tereso, Catarina Viegas, Miguel Lago, Carolina Grilo, Jorge Raposo, Mariana Diniz, Alexandra Lima

Published by Associação Profissional de Arqueólogos 2014



All contents copyright © 2014 by Cláudia Costa, Cidália Duarte, Miguel Lago da Silva, Catarina Viegas, João Pedro Tereso, Mariana Diniz, Jorge Raposo



This work is licensed under the Creative Commons Attribution 3.0 Unported License. To view a copy of this license, visit <http://creativecommons.org/licenses/by/3.0/> or send a letter to Creative Commons, 444 Castro Street, Suite 900, Mountain View, California, 94041, USA.

Under the terms of this licence, **you are free:**

- **to Share** - to copy, distribute and transmit the work
- **to Remix** – to adapt the work
- to make commercial use of the work

Under the following conditions:

- **Attribution** — You must attribute the work in the manner specified by the author or licensor (but not in any way that suggests that they endorse you or your use of the work).

With the understanding that:

- **Waiver** — Any of the above conditions can be **waived** if you get permission from the copyright holders.
- **Public Domain** — Where the work or any of its elements is in the **public domain** under applicable law, that status is in no way affected by the licence.
- **Other Rights** — In no way are any of the following rights affected by the licence:
 - Your fair dealing or **fair use** rights, or other applicable copyright exceptions and limitations;
 - The authors' **moral** rights;
 - Rights other persons may have either in the work itself or in how the work is used, such as **publicity** or privacy rights.

Notice — For any reuse or distribution, you must make clear to others the licence terms of this work.

The publisher has used its best efforts in preparing this book, and the information provided herein is provided "as is." Associação Profissional de Arqueólogos makes no representation or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaims any implied warranties of merchantability or fitness for any particular purpose and shall in no event be liable for any loss of profit or any other commercial damage, including but not limited to special, incidental, consequential, or other damages.

ISBN 978-972-97706-4-7

This project acted as the Portuguese component of the transnational *Discovering the Archaeologists of Europe 2012-14* project, which was administered by York Archaeological Trust with financial support from the Lifelong Learning Programme of the European Commission. This report reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

Acknowledgements

The success of the survey which supports the present report was only possible with the collaboration of some individuals and institutions.

We would like to thank António Luís Pereira for the insights on the management of Google Surveys. Professor José d'Encarnação was pivotal in the dissemination of the questionnaires through the Archport discussion groups (www.archport@ci.uc.pt).

Equally important in the dissemination effort among archaeologists was the cooperation of *Centro de Arqueologia de Almada* and the *Al-madan* journal.

We thank the institutions who responded our questionnaire and, in particular, those who had to gather the necessary data from several different databases in order to fulfil our requirements.

The response to our individual questionnaire was a success and we wish to thank all the archaeologists who took their time to answer our questions.

We would also like to thank the Direção Geral do Património Cultural, the Direções Regionais de Cultura do Norte, do Centro, do Alentejo e do Algarve for the data previously made available to APA.

APA wishes to thank Professor Francisco Sande Lemos and Jacinta Bugalhão for the suggestions in the construction of the present report.

Sociedade de Geographia, in Lisbon and Casa das Artes, in Oporto, kindly accepted to host our dissemination meetings for DISCO 2014.

Abstract

The present report was elaborated by *Associação Profissional de Arqueólogos (APA, Portugal)* in the context of the DISCO 2014 project, coordinated by *York Archaeological Trust*. The nature of APA – a professional association of archaeologists – is coherent with the goals of DISCO 2014, since it is our objective to survey the profession in Portugal, define its major difficulties and influence the decision makers for possibly necessary changes. The project DISCO 2014 is, therefore, the essence of what APA needed to achieve among Portuguese archaeologists – define how many professionals there are, where they work and in which conditions. Furthermore, it was necessary to define which changes might be pivotal to ensure the good path of the discipline in the country and internationally.

Upon knowledge of the nature of enquiries and methodology used by other countries (in December 2013), APA decided to launch two questionnaires – a first one individual, and a second one, designed for organisations. The questionnaires were defined with the approval of YAT and were then launched in a *Google Survey* platform. Archaeologists were individually invited to fill out the forms digitally, through the Internet. Then, a survey of potential employers in Archaeology was performed so that a considerable and diverse number of organisations could be also invited to answer the questionnaire. In this case, we selected institutions which employed archaeologists. For the individual questionnaires we obtained 572 answers to 827 invitations. For the organisations questionnaire we obtained 103 answers.

The specific goal of the present project is to identify the changes that have occurred in Archaeology since the 2008 crisis and how our profession has been affected in different countries.

Portuguese results demonstrate that the crisis became particularly severe after 2011, as it is visible in the results of both questionnaires – individual and organisational. This economic pressure was likely due to with the interruption of large public investments as a consequence of the World Monetary Fund and European Central Bank intervention in the country.

Analysis of the results obtained from the answers to the questionnaires demonstrates specific problems, such as the reduction of permanent jobs, a higher mobility of archaeologists and a severe reduction in income. Academic investment and achievement, however, continues to be significant, even though funding for research has been reduced in the past two years.

Socially, archaeologists in Portugal are almost all born in the country and have significant academic education, with a high percentage of professionals that hold post-graduate degrees, from universities in different locations and various countries. In the private sector archaeologists in Portugal have significantly lower salaries than equivalent university graduates in other academic areas. Labour contracts are volatile and work conditions very variable, depending on the private companies the professionals work for.

Recently, however, a *Union of the Archaeology Workers* (STARQ) has been created and the contractual problems are being discussed at that level.

APA (Associação Profissional de Arqueólogos) works for the better quality of archaeological work developed in our country. In that sense, we have prepared a series of recommendations that we are directing to an array of institutions which can influence the decision making sectors in diverse areas of public intervention.

Table of contents

Acknowledgements	4
Abstract	5
Table of contents	7
Tables	9
Figures	12
Chapter 1. Introduction and background	14
1.1. Previous work	15
1.2. Quantifying professionals over the past 40 years and estimating future figures	18
1.3. Degree of confidence in results obtained	22
1.4. Legislation and archaeological practise in Portugal	22
1.4.1. Archaeology private companies in Portugal: between the State and private enterprise	25
Chapter 2. Methodology	27
2.1. Introduction	27
2.2. Project team	27
2.3. Calculating workforce	28
2.3.1. Academic subsector	29
2.3.2. National government subsector (including national museums)	31
2.3.3. Local government subsector (including local museums)	32
2.3.4. Commercial subsector	33
2.4. Mailing list	34
2.4.1. Questionnaire directed towards archaeologists	34
2.4.2. Questionnaire directed towards organisations	35
2.5. Data collection	36
2.6. Data entry and analysis	36
Chapter 3. Sample analysis	38
3.1. Sample size (individuals)	38
3.2. Sample size (institutions)	39
3.3. Geographical distribution of individuals and institutions	40
3.4. Age distribution	43
3.5. Countries of origin	45
3.6. Staff qualifications	46

CHAPTER 4. Organisations	51
4.1. Archaeology private companies	53
4.1.1. Length of commercial activity	54
4.1.2. Labour contracts in private companies	54
4.1.3. Crisis' numbers in Archaeology private companies	58
4.1.4. Strategy of private companies and future expectations	60
4.2. Local government and Archaeologists	62
4.2.1. Length of activity in Archaeology	62
4.2.2. Type of work and expectations for the future	62
CHAPTER 5. Jobs	65
5.1. Post profiles	65
5.2. Range of jobs	66
5.3. Salaries and earnings	67
5.4. Employee rights and benefits/family issues	73
5.4.1. Number of children	74
5.4.2. Subsistence, subsidised accommodation and other benefits	76
5.5. Job security	78
5.5.1. Types and length of contracts	78
5.5.2. Mobility	81
6.1. Training demand	83
6.2. Training delivery	84
6.3. Employers commitment to qualification and training	85
6.4. Skills gaps and shortages	86
7. Conclusions and recommendations	88
References	91
Appendix I	94
Appendix II	99
Individual questionnaire	99
Questionnaire to organizations	107
Appendix III	126

Tables

Table 1.2.1 Estimate of number of archaeologists in the past 30 years (per year)	19
Table 1.2.2 Number of archaeologists indicated by individuals and organizations	21
Table 1.2.3 Estimate of evolution of number of archaeologists 2008-2015	21
Table 2.3.1.1 List of universities and research centres contacted	31
Table 2.3.3.1 Percentage of municipalities with archaeologists	32
Table 3.1.1 Sample definition: total number of answers to individual questionnaire	38
Table 3.1.2 Number of archaeologists working in the discipline as of December 31st 2013	38
Table 3.1.3 Length of time individuals have worked in Archaeology	39
Table 3.2.1 Categories of organizations contacted and answers obtained (questionnaire for organizations)	39
Table 3.3.1 Geographical provenience of responses, by gender	41
Table 3.3.2 Geographical distribution of archaeology private companies	43
Table 3.3.1 Geographical provenience of responses, by gender	41
Table 3.3.2 Geographical distribution of archaeology private companies	43
Table 3.4.1 Age distribution of archaeologists who answered the individual questionnaire	44
Table 3.4.2 Year of graduation in Archaeology (or equivalent degree)	45
Table 3.5.1 Countries of origin among individuals who answered the questionnaire	46
Table 3.6.1 Academic degrees detained by Portuguese archaeologists, according to data from individual questionnaires	47
Table 3.6.2 Distribution of academic degrees in different types of institutions	50
Table 4.1 Organisations contacted for DISCO 2014 questionnaire	52
Table 4.2 Distribution of archaeologists in the different type of organisations enquired	52
Table 4.1.1.1 Beginning of commercial activity of Archaeology private companies	54
Table 4.1.2.1 Type of contracts in private companies	54
Table 4.1.2.2 Length of contracts in private companies	55
Table 4.1.2.3 Evolution of permanent jobs in private companies over the last 5 years	56
Table 4.1.2.4 Evolution of temporary jobs in private companies over the last 5 years	57

Table 4.1.3.1 Companies turnover in Euros from 2008 to 2013 (from 15 selected companies)	58
Table 4.1.4.1 Percentage of turnover from archaeological activity	60
Table 4.1.4.2 Permanent staff predicted for 2014 (number of organizations)	61
Table 4.2.1.1 Beginning of Archaeological activity in municipal government	62
Table 5.1.1 Major activities performed by archaeologists	65
Table 5.2.1 Number of entities each archaeologist worked for in the year 2013.	66
Table 5.3.1 Gross annual income in Archaeology by gender, in 2008 (percentages refer to the total # of polled people, n= 572)	67
Table 5.3.2 Gross annual income in Archaeology by gender, in 2010 (percentages refer to the total # of polled people, n= 572)	68
Table 5.3.3 Gross annual income in Archaeology by gender, in 2013 (percentages refer to the total # of polled people, n= 572)	69
Table 5.3.4 Comparison of annual income of archaeologists with other categories (source: Pordata)	71
Table 5.3.5 Number of archaeologists who have a second activity as an income supplement	73
Table 5.3.6 Percentage of time dedicated to a second activity as an income supplement	73
Table 5.4.1.1 Number of children in male and female archaeologists	74
Table 5.4.1.2 Response to the question whether the type of work in Archaeology is determinant in the reduced number of children	75
Table 5.4.1.3 Response to the question whether income is determinant in the reduced number of children	75
Table 5.4.1.4 Response to the question whether a higher salary would increase the number of children.	76
Table 5.4.2.1 Additional Employees rights and benefits (accommodation)	77
Table 5.4.2.2 Additional Employees rights and benefits (transportation)	77
Table 5.4.2.3 Additional employees rights and benefits (camera provided by employer)	77
Table 5.4.2.4 Additional Employees rights and benefits (topographic equipment)	78
Table 5.5.1.1 Labour contracts and work situation	80
Table 5.5.1.2 Duration of present labour relationship	80
Table 5.5.2.1 Time working in the “distrito” of residence in 2013.	81
Table 5.5.2.2 Number of times archaeologists changed geographical area of work in 2013	82
Table 6.1.1 Professional and academic training after BA among archaeologists	83

Table 6.3.1 Frequent and regular professional training among archaeologists	85
Table 6.3.2 Number of professional upgrade courses archaeologists normally undertake per year	85
Table 6.4.1 Areas in which organisations identify gaps and shortages of training among archaeologists	87

Figures

Figure 3.3.1 Geographical provenience of responses to individual questionnaires (by distrito and abroad); n=572	.40
Figure 3.3.2 Geographical distribution of responses to individual questionnaire by gender	42
Figure 3.4.1 Age distribution of archaeologists who responded to the individual questionnaire	44
Figure 3.6.1 Distribution of academic degrees among Portuguese archaeologists (according to individual questionnaire)	47
Figure 3.6.2 Distribution of academic degrees among Portuguese archaeologists by gender (according to individual questionnaire)	48
Figure 3.6.3 Areas of academic degrees among Portuguese archaeologists, according to individual questionnaires	49
Figure 4.1.2.1 Types of contracts in private companies (percentages)	55
Figure 4.1.2.2 Permanent labour contracts in private companies from 2008 to 2013.	56
Figure 4.1.2.3 Temporary labour contracts in private companies from 2008 to 2013	57
Figure 4.1.3.1 Evolution of companies turnover in Euros from 2008 to 2013 (from 15 selected companies)	59
Figure 4.1.4.1 New areas of intervention in Archaeology companies since 2008	60
Figure 4.1.4.2 Permanent staff predicted for 2014 (number of organizations) .	61
Figure 4.2.2.1 Types of functions fulfilled by archaeologists working for local government organisations.	63
Figure 4.2.2.2 areas of work in which municipalities have reduced activity in the past 5 years	64
Figure 5.1.1 Major activities performed by archaeologists.	66
Figure 5.3.1 Gross annual income in Archaeology by gender, in 2008 (percentages refer to the total # of polled people, n= 572)	68
Figure 5.3.2 Gross annual income in Archaeology by gender, in 2010 (percentages refer to the total # of polled people, n= 572)	69
Figure 5.3.3 Gross annual income in Archaeology by gender, in 2013 (percentages refer to the total # of polled people, n= 572)	70
Figure 5.3.4 Evolution of gross annual income in Archaeology from 2008 to 2013 (percentages refer to the total # of polled people, n= 572).	71

Figure 6.1.1 Areas in which archaeologists have obtained formal training after their BA degree . 84

Figure 6.3.1 Does the level of income influence further professional training?. 86

Chapter 1. Introduction and background

In 2012 the Associação Profissional de Arqueólogos (APA) signed a contract with the European Commission, through York Archaeological Trust, to assess the main characteristics of the profession of archaeologist in Portugal and to characterize the major changes it went through since the financial crisis of 2008. A group of 21 countries signed similar contracts (Duarte, 2013).

DISCO 2014 is a second edition of a previous project with the same name but involving only 12 countries. Previously organised to define the characteristics of the profession in Europe (Aitchison, 2009), in this second edition DISCO's goal is to identify the changes operated after the financial crisis of 2008.

In Portugal, the 2008 crisis reflected itself in the unemployment rates and in the value of salaries, especially after 2012. Many companies had to close doors in many economic areas. Archaeology was not an exception. The major construction projects that had started in the decades of 1990 and 2000 began to fade away and investment in Impact Assessment Studies was substantially reduced. Consequently, archaeology companies began to have considerable problems and professionals started to work as individual entrepreneurs. In parallel, the price of archaeological work was significantly devalued, creating a group of underemployed people with reduced income.

Recently, however, a *Union of the Archaeology Workers* (STARQ) has been created and the contractual problems are being discussed at that level (Mesquita e Simões, 2014).

The changes diagnosed in Archaeology needed to be clarified, quantified and well understood in order to substantiate any actions that APA decides to take in the near future. As an Association created to defend the profession of Archaeologist, in the early 1990s, APA must take action against the work conditions that presently assault archaeologists and Archaeology.

These were the motivations for signing this contract and leading the project at the national level.

The present leading team in APA was elected on the 16th November 2013, 13 months after the contract with *York Archaeological Trust* was signed. Therefore, we had to undertake the work that should have been done in 18 months and complete it in only 3 months (from December 2013 to the beginning of March 2014). The remaining time was used for writing the report and disseminating the project and the results of DISCO 2014. We have, nonetheless, completed our task. Given the nature of archaeological activity in Portugal (cf. Section 1.4), we decided to launch two different questionnaires – one directed towards organizations which employ archaeologists, and another designed for individual archaeologists to answer. We obtained 572 individual responses and 103 from organizations, which is a remarkable result, given the size of the archaeological community in Portugal.

1.1. Previous work

In the past, there were a few attempts to diagnose archaeological professional activity in Portugal and they can be summarized in two types of approaches:

- Descriptive approaches based on personal experiences, essentially interpretive and very little demonstrative, or where data were more or less of undetermined origin.
- Systematized approaches, based on databases or questionnaires involving professionals individually, or institutions.

It has always been difficult to assess how many archaeologists there are in Portugal at any given moment. Around April, 25th, 1974, which marks the end of the fascist regime, Portuguese archaeology was developed mainly by university professors (Fabião, 2011) and there were only a few professionals working in the country (A. C. Silva, 1999).

In spite of the scarce references available, it seems evident that the number of Archaeology professionals only starts to increase in the 1980s, with the foundation of a *Culture Heritage Institute* and the first law regulating cultural heritage protection; simultaneously, a reform of the degrees in History was performed in Portuguese universities and Archaeology was introduced as a discipline (A. C. Silva, 1999; 2002; Fabião, 2011).

In 1993, when *Associação Profissional de Arqueólogos* was first created, its founders started a survey of people working in Archaeology and identified 300 individuals and organizations actually developing archaeological work at the time (A. M. Silva, 1993; A. M. Silva et al. 1994).

Vitor Oliveira Jorge and Susana Oliveira Jorge, in 1998, (Jorge & Jorge, 1998) in a clearly descriptive approach, estimated that there were approximately 200 or 250 professionals but they did not explain where the data were obtained. They did, however, identify most of those professionals as university professors and archaeologists working in local municipalities and central administration and a few scarce ones in private companies, still incipient at the time.

Several years later (Jorge 2003a) the same author remarked that the number of archaeologists working in the private sector, as employees or freelancers, had significantly increased, given legal impositions for archaeological intervention. Nonetheless, the author still did not present any concrete numbers but he divided the professionals into two different sectors: on one hand students, archaeology technicians, and technicians in other specialties such as illustration, topography, restoration, etc., and on the other hand, the scientists and specialists in other areas, thus describing his view of the increased complexity of archaeological activity and its agents. But in 2005, António Silva stated that the number of archaeologists working in the discipline must have been around 500 individuals at the time (A.M.Silva, 2005).

Other authors also mention the evermore complex nature of archaeological work over the years (Correia 2003, Lago 2003), and identify the 1990 decade as the turning point for the profession in Portugal, in which concerns the number of archaeologists and the birth of a real market for our professional activity. Before that, the precarious nature of the profession, translated itself into an abundance of work but a lack of job security, as emphasized by Correia (2003).

The growth of archaeological professional activity in the 1990s, due to the new legislation on culture heritage and the foundation of public institutes dedicated to the protection of archaeological structures and remains, together with the development of large public investment in road construction and major hydroelectric projects created a real “market for archaeology” (Correia, 2003; Lago, 2003). Consequently, the number of archaeologists increased significantly; in 2006 Oosterbeek estimated a total of 700 professionals working in the discipline at the time.

In the decade of 2000 commercial archaeology was already a reality. But, after nearly a decade of the existence of a public institute regulating archaeological activity – *Instituto Português de Arqueologia* – government changes led to its disappearance. Archaeology became no longer an autonomous discipline, merging with other areas of Cultural Resource Management, losing its institutional strength. Archaeology private companies suffered with that change.

Some authors have focused on the issue of precariousness of archaeological activity in terms of labour rights and tenure positions, denouncing the drastic reduction of qualified workers in Archaeology companies after 2000 and the increasing use of temporary work (Almeida & Neves 2006). The same authors identified the reduced existence of training programmes and little qualification of entrepreneurs (Almeida & Neves 2006).

All the previously developed studies of the archaeologist profession, even if limited in terms of range of enquiry, seem to be coherent in the way they characterise archaeology professionals and the labour market in Portugal over the years. They also agree in the main chronological periods and their major landmarks. They are, nonetheless, not supported by any statistical evidence and are majorly descriptive. Therefore, they should be analysed with caution.

Some of the most systematic attempts to characterize the profession in Portugal were the result of actions taken by our own *Associação Profissional de Arqueólogos* in the past. While APA was still being created, contacts were made with archaeologists between 1992 and 1993. In the process, 300 professionals were identified and that number was accepted as the total number of archaeologists in the country at the time (Silva, 1993; Silva et al., 1994).

The first real survey performed by APA was held in 2002 and was based on an enquiry about archaeological activity but directed towards municipalities. The second attempt was developed on 2006 – *“Inquérito Nacional à Actividade Arqueológica”* – and it followed the closest methodology to that defined by DISCO 2014. It was a questionnaire sent to 424 entities, by postal services. Response was, however, limited

to municipalities. Only a few private companies (6% of total responses) and research centres (12% of total responses) replied, seriously limiting the correct picture of archaeological activity in Portugal. From the 308 municipalities existent in Portugal, only 109 answers were received by APA at the time (Almeida 2007).

Even with the limitations identified above, the 2006 survey allowed APA to identify a decrease in archaeological activity by municipalities during the years immediately before the survey took place. That decrease was accompanied by the obvious precariousness in labour relationships, with reduction of tenure positions and the increase of temporary work.

Prior to the 2006 national enquiry there had been a survey of the different entities involved in archaeological activity in Portugal. The initiative was called "*Directory of Companies and Archaeology and Cultural Heritage Professionals in Portugal*" (Raposo, 2005). In this survey, 95 companies and individual professionals were identified. The study, however, was not conducive to a more detailed portrait of the profession.

In parallel, António Silva, an archaeologist working for the city of Oporto and first leader of APA, in an article about the lack of dissemination of archaeological knowledge by private companies in Portugal, mentioned the total number of professionals as being around 330 individuals (Silva, 2005) but the source of such estimate was not identified.

More recently, Jacinta Bugalhão (2011) has published a few articles characterizing the archaeological activity and its professionals in Portugal. These studies have been based on a national database of archaeological activity (the *Endovelico* Information System), described below (section 1.4). It is a database about past and ongoing archaeological activity, controled by the successive agencies responsible for Cultural Heritage Management, since 1999.

Based on the *Endovelico Information System*, the author identified an increase in the number of archaeological interventions starting in mid-1990s, with the onset of the *Instituto Português de Arqueologia* (IPA). Consequently, the number of known and registered archaeological sites increased dramatically (see section 1.4 for History of IPA).

On the second half of the 2000 decade private companies were dominant in the number of archaeological interventions in the country and, naturally, most archaeologists (around 44%) were employed in those institutions (Bugalhão 2011). Individual freelance workers made up 24% of the total specialized workforce, followed by the local municipality workers (12%). These figures only confirmed the precarious nature of most labour contracts in Archaeology in Portugal.

The number of archaeologists entitled to conduct archaeological interventions increased substantially in the second half of the 1990 decade but the most significant increase in those numbers was visible in the following decade – 2000 – rising from 136 archaeologists in 1996 to 608 in 2010. These figures should be analysed cautiously because they refer to archaeologists who have permission to conduct archaeological

excavations (see section 1.4 for information on legislation in Portugal), thus excluding many professionals who, even though they possess the academic training to do Archaeology, they are not certified by the government agencies to do so. These numbers are, nonetheless, the only possible information one can obtain from the *Endovelico Information System*, established in 1999.

The scarcity of data obtained from the different approaches described above did not allow us to have a correct picture of the reality of archaeology professionals in Portugal. Furthermore, the nature of the data mentioned above is not conducive to a correct comparison with the data presently available through DISCO 2014. Only the most recent work by Bugalhão (2011) is an exception. Nevertheless, these exclude a vast number of professionals who are working as archaeologists but do not direct archaeological interventions. On the other hand none of the previous approaches was concerned with the socioeconomic characterization of Portuguese archaeologists. In that sense, the DISCO Project is unique, innovative and very useful.

More recently a student working on Archaeology Labour safety conditions used an estimate from the *Endovelico Information System* and suggests a total number of 1212 registered archaeologists and 85 archaeology companies. However, this number must correspond to the cumulative nature of that information system, which does not exclude those archaeologists who are no longer working in the discipline (Lopes, 2012:15).

1.2. Quantifying professionals over the past 40 years and estimating future figures

From the surveys mentioned in the previous section, we know that the number of archaeologists increased in the 1990 and 2000 decades, reaching its peak by the second half of the latter.

Before the 1990 decade no attempt was made to survey the number of archaeologists in the country, nor their labour situation. There is, however, a possible way to know how many archaeologists were active between 1979 and 1994, before the emergence of the *Endovelico Information System* (see below). In fact, since 1979, the *Institute for Cultural Heritage* published an annual review of the archaeological interventions that took place in the country – *Informação Arqueológica*. In that publication small articles were written by nearly all archaeologists responsible for archaeological interventions, with a brief summary of the results obtained and a brief characterization of the sites excavated. Based on the number of articles written and the number of archaeologists who reported fieldwork every year, we were able to establish the minimum number of archaeologists active in the country (cf. Table 1.2.1). There were, however, some inconsistencies in some years, such as 1983, 1984 and 1986. The highest number of archaeologists, in those cases, refers to the number of research projects submitted to the *National Funding Plan for Archaeology* (PNTA), a funding mechanism presently inexistent.

Information from the annual publication *Informação Arqueológica* was combined with the sources mentioned in section 1.2, and an approximation to the total number of archaeologists in the country, from 1979 to 2010, was obtained (cf. Table 1.2.1).

Year	Source	Estimated # of archaeologists
1974	Silva, 1999	"...a little above half a dozen..."
1977-1978	<i>Informação Arqueológica</i> , 1 (Braga)	40
1979	<i>Informação Arqueológica</i> , 2 (Lisboa)	36
1982	<i>Informação Arqueológica</i> , 5 (Lisboa)	92
1983	<i>Informação Arqueológica</i> , 3 (Lisboa)	42
1983	<i>Informação Arqueológica</i> , 5 (Lisboa)	93
1984	<i>Informação Arqueológica</i> , 4 (Lisboa)	61
1984	<i>Informação Arqueológica</i> , 6 (Lisboa)	78
1985	<i>Informação Arqueológica</i> , 5 (Lisboa)	85
1986	<i>Informação Arqueológica</i> , 6 (Lisboa)	46
1986	<i>Informação Arqueológica</i> , 7 (Lisboa)	60
1986	<i>Informação Arqueológica</i> , 8 (Lisboa)	79
1987	<i>Informação Arqueológica</i> , 9 (Lisboa)	88
1993	Silva, 1993; Silva <i>et al.</i> 1994	300 individuals and institutions
1995	Raposo, 2005	95 private companies and independent workers
1996	Bugalhão, 2011	136
1996	Jorge & Jorge, 1996	200-250
2005	Silva, 2005	"...around 500..." p.17
2006	Almeida, 2007	Reduction of number of archaeologists in local government
2006	Oosterbeek, 2006	Estimate of 700
2010	Bugalhão, 2011	608
2011	Bugalhão, 2011	Archaeologists in private companies: 44%; <i>freelancers</i> : 24%; local government: 12%
2012	Lopes, 2012	1212 archaeologists; 85 archaeology companies

Table 1.2.1 Estimate of number of archaeologists in the past 30 years (per year)

The numbers obtained from the *Endovelico System*, indicated by Bugalhão for the years 1996 and 2010 refer to people who had already received an excavation permit. The total number of archaeologists has, hence, never been clearly defined.

From the 827 archaeologists contacted by APA for DISCO 2014, 142 were graduated in the past couple of years (2012 and 2013) and therefore, do not hold archaeology permits given the fact they will need an MA degree to do so.

Hence, the number of archaeologists licensed to work in the field and contacted by APA was 698. This is the number we can compare with previous estimations (e.g. 608 in 2011, estimate done by Bugalhão, 2011). There is, in fact, an increase in the number of archaeologists between 2010 and 2013.

There are, however, many archaeologists who do not do fieldwork and, consequently, are not registered in the National Cultural Heritage database - *Endovelico*.

The reference of a possible total number of 827 was obtained through the National Database (obtained from Cultural Heritage who grants the permits for doing Archaeology in Portugal) and through the databases that APA had, as a professional association. From these sources we estimate that the total number of archaeologists, presently, should be around 900 individuals, doing different types of work.

When we compare this figure with the total number of archaeologists obtained from the questionnaire directed towards the organizations, the numbers are not incoherent with these figures. A telephone enquiry was directed to all the Portuguese municipalities to know which ones had archaeologists on staff. The same was performed for ALL central government agencies, national and regional museums and the Atlantic Territories (Azores and Madeira), in order to define which had archaeologists on staff. Additionally all registered private companies in the Archaeology sector (contractors) and impact assessment companies and the public sector in Portugal were contacted.

The degree of confidence in our estimate is reasonable, because the telephone inquiry which was the base of the definition of the Portuguese mailing list was based on two distinct databases and two distinct methods:

- Based on the data base from APA, as a professional association of archaeologists, combined with the database from Cultural Heritage Portugal, we sent an email message to 827 registered archaeologists.
- Based on the questionnaire directed towards institutions, we contacted by email and phone call 207 organizations.

The answers provided by the institutions inquired indicate a total number of 734 professionals (cf. Table 1.2.2) but this total does not reflect the number of archaeologists working in the country. In fact, if out of the 128 municipalities who have archaeologists on their staff only 53 of them answered our questionnaire, we can extrapolate the total number of archaeologists working for local government. If those among them who answered the questionnaire have an average of 1.7 archaeologists (n=91), then the total number of professionals working in the total number of municipalities with Archaeology services must reach 218. That would raise the estimate of total number of professionals in Portugal to 862, a number very close to that of the list defined for addressing the invitation to answer our individual questionnaire (n=827).

Labour position	#
Archaeologists holding contracts in public and private sector	483
Independent workers	129
Scholarship holders	58
Trainees	5
Unemployed	53
Total # of archaeologists reported by the organizations	754
Total number of archaeologists extrapolated for local government	218
Total # of archaeologists extrapolated from the # of answers obtained	862
Archaeologists contacted directly by APA to answer the individual questionnaire	827

Table 1.2.2 Number of archaeologists indicated by individuals and organizations

These numbers are coherent with those pointed by different sources (Table 1.3.3). The tendency towards the increase of the number of archaeologists holding academic degrees is estimated through the number of degrees granted by Portuguese universities in Archaeology yearly (Table 1.2.3).

	2008	2010	2013	2015
Archaeologists contacted by APA	-	-	827	-
Estimate of archaeologists holding permits among those contacted by APA	-	-	698	-
Estimate presented by Bugalhão, 2011	569	608		
Estimate of archaeologists holding degrees	-	-	-	1111

Table 1.2.3 Estimate of evolution of number of archaeologists 2008-2015

The number of archaeologists graduating until 2015 will not, however, be accompanied by the necessary employment, as we will see in the next chapters. If the tendency towards discarding the presence of archaeologists will be the same as in the

past 3 years, we will have a reduction in employment in local government of around 4%, totalling 209 archaeologists employed in the next 3 years. In 2018 that number would be 201, a reduction of 4% every 3 years, in relation to the number employed today.

No organisation reported having archaeologists with disabilities, in the questionnaire directed towards organisations. In the individual questionnaire, the result was also negative.

1.3. Degree of confidence in results obtained

The results obtained are a reflection of the method used for disseminating and organizing the questionnaire. The end result is quite positive: in the individual questionnaire we obtained 572 answers. In the organization questionnaire, we have 102 responses. Overall, all sectors responded to our questionnaire.

Taking into account that local government agencies were those who replied with less efficiency (only 53 of the 128 units with archaeologists on their staff answered our questionnaire), we can estimate that archaeologists working for the total number of those organizations should be about twice the number of responses we obtained, i.e. around 220.

The number of the returned individual questionnaires, on the contrary, must be near the total number of archaeologists in Portugal. In fact, the most recent survey made by Bugalhão (2011) (cf. Section 1.2) pointed to a total of 602 individuals in 2010 (see above, page 21), at a time where 44% of the workforce was estimated to be working in the private sector, when these were going through the tail of a golden period for contract archaeology. Since then, there has been a drastic reduction in the number of salvage excavation interventions and of the large scale projects, such as dams, highways and large agricultural projects that nourished the private sector for one decade.

So, we estimate the total number of archaeologists actually working, must be around 700 or 800 but their location has changed and their labour conditions have been significantly altered.

1.4. Legislation and archaeological practise in Portugal

In Portugal, professional activity in Archaeology was (before the 1990 decade) performed by government agencies and universities, especially in major research projects and in large archaeological sites run by the State. A few smaller interventions were the result of dedicated people, most of them with academic training in History or Geology, who sacrificed their holiday periods and weekends to undertake some excavation activity, with volunteers and friends. But at the time, archaeological activity was not regulated. Permits to excavate were granted by the Education and Culture

services, upon request. There was no inspection of archaeological sites and excavations.

Most of this activity was neither published nor registered in any type of national database and knowledge of the past obtained from Archaeology was often described in local journals and magazines. Being an archaeologist was NOT considered a profession until the 1990's.

The first attempt to systematize all the information obtained from the multiple archaeological interventions that took place in the country was a typed yearly review – *Informação Arqueologica* – which compiled the different interventions and results on a yearly basis, between 1979 and 1994 (see section 1.2 above).

With the discovery of the Côa Valley Rock Art site, classified as a World Heritage Site since 1998, Portuguese Archaeology went through a radical transformation and really projected itself on an international level.

At the time, the *Côa Valley Prehistoric rock art complex* was identified in the context of an Environment Impact Assessment Study, performed in Northern Portugal prior to the construction of a hydroelectric project. Given the deficient minimisation measures imposed by the Portuguese central government, the rock art site was condemned to be submerged once all the rock art panels had been documented through photography and drawing. Archaeologists and citizens, in general, then launched an enormous campaign and protest in support of the rock art and against the construction of the river dam. The result was the projection of Archaeology as a scientific activity with the capacity for social intervention and with impact on general public opinion. Ever since the Côa Valley process, being an archaeologist is no longer an obscure profession in Portugal.

The Côa Valley files were even influential in the downfall of the social democratic Government, at the time. After the 1996 parliamentary elections, the newly elected Government, led by António Guterres (presently United Nations High Commissioner for Refugees), supported the preservation, study and dissemination of the Côa Valley Prehistoric Rock Art and created, in 1998, an Institute for Archaeology (Instituto Português de Arqueologia, IPA), rendering the discipline independent from Cultural Heritage Management as a whole.

In parallel, Portugal signed the *La Valetta Convention*, in conjunction with other countries who agreed in the preservation of archaeological sites, remains and information. It also agreed on legislating the preservation of archaeological knowledge in each of the countries who signed the convention. In Portugal, the *Regulamento dos Trabalhos Arqueológicos* was hence published in 1999; it established the principles ruling the practice of archaeology and imposed salvage excavations whenever potential destruction of evidence of past human activity was present in any kind of construction and agricultural development site.

This new legislation and the creation of the new *Archaeology Institute (IPA)* led to the spread of archaeological activity and the consequent emergence of private companies.

These became a market necessity, given the nature of the *Regulamento dos Trabalhos Arqueológicos*. In fact, the foreseen model was the imposition of salvage excavations in any site where evidence from past human presence might exist but the central Government Agency for Archaeology – IPA – only issued the necessary permits and inspected archaeology activity; it did not perform excavations, except in specific research issues and Underwater Archaeology. Therefore, private companies began to emerge and created a major change in the nature of the profession. From an almost exclusively State or volunteer profession, Archaeology became professionalized.

Together with the creation of IPA (*Instituto Português de Arqueologia*) and the publication of the 1999 *Regulamento dos Trabalhos Arqueológicos*, Portugal transformed the already existing *Endovelico Information System* into a database where ALL archaeological activity is registered and controlled. Through this national information system, archaeology central state agencies can view and control permits, reports, location of artefacts and ecofacts nationwide. The principle is simple: based on the legislation specifically created for Archaeology, the State became the national entity with the power to issue excavation permits to archaeologists and those permits were given to each individual, not to organizations. Each one of the individuals who performs an archaeological excavation legally authorized, then has to produce a report of the intervention, in a given time period. Only after that report is approved by the same government agency, can he or she ask for a subsequent permit.

Once this system was created, in 1999, the State was able to put order in a professional activity that, at the time, did not follow the principle of documenting the excavations and reporting results in a systematic way. After 1999, regardless the fact that the archaeologist is a freelancer, researcher or member or worker of a private company, he or she has to comply with the regulations – ask for a permit to excavate, do the excavation and write the report. The results of these reports and the log of each individual's permits are registered in the *Endovelico Information System*. Hence, the *Endovelico* is a powerful source of information in Portuguese archaeology that can only be altered by the national agency responsible for ruling archaeological activity but can be partially seen by everyone online (www.dgpc.pt). Registered archaeologists have access to more details but can never change the data contained in the information system. It contains the list of archaeologists who have already asked for excavation permits, their contacts, field reports and location of artefacts and other remains. It also contains the names of other researchers – anthropologists, zooarchaeologists, geologists, etc. – who have been involved in excavations and writing reports, and the names and addresses of owners of archaeological sites, etc. It is a powerful source of information that cannot be neglected.

1.4.1. Archaeology private companies in Portugal: between the State and private enterprise

Between 1980 and 1990, Archaeology grew in importance with the rise of Territorial Management issues. According to Portuguese legislation, it is up to the State to define the dimension of the mitigation and compensation measures in large construction interventions. In this context, archaeological interventions started being promoted in partnership with the economic agents who began to support Salvage Archaeology, at that time. This growth of specific archaeological interventions around Land Management operations led to the temporary and punctuated need for archaeologists, something absolutely new in the country. It was then that some development projects started being evaluated under the principles foreseen by the La Valetta Convention, i.e. the “polluter pays principle”.

By the time it reached the mid 1990 decade, Portuguese Archaeology faced two possible scenarios for its own future: on one hand, a model of State ruled and State developed Archaeology, with a massive structure, similar to the French model or, alternatively, a model of Archaeology performed by private companies or individuals but supervised by State agencies specifically created for that purpose. It was the latter model that ended up being created in 1997 with the creation of the IPA (Instituto Português de Arqueologia), the first State organization exclusively dedicated to Archaeology. At that moment, the conditions for the free development of the discipline were created, in a context of open market to diverse teams, competing with one another in the context of projects promoted by State or private economic agents.

At that point, the first archaeology companies started to appear; the need for fieldwork in Salvage Archaeology was growing and the discipline was seen as a socially important agent, given the visibility brought to it, with the results of the Côa Valley case.

In the past 18 years, the major part of the archaeological interventions were performed by private companies, with professionals specifically specialized in this area. In 2008 there were 39 private companies operating in the country, thus guaranteeing the possibility of choice for contracting developers but also the chance of professional enhancement by archaeologists themselves.

In the past years, however, the tendency in archaeology private companies is for the labour contracts to become temporary, as a consequence of the irregular nature of the construction and developmental projects, from which Salvage Archaeology is highly dependent. Private companies have difficulty to maintain their internal stability and, in many cases, the only archaeologists they have as permanent staff are their co-owners.

As we saw above, private archaeology in Portugal is a product of the democratic regime and of the La Valetta Convention and consequent legislation created in the country, together with the repercussions of the Côa Valley process. However, at the state institutional level, its affirmation has been permanently unstable, partly due to

the ideologies of different governments but also to budget constraints that lead to permanent changes in the government structures Archaeology depends on for certification and inspection.

Chapter 2. Methodology

2.1. Introduction

In Portugal, given the nature of archaeological activity and legislation, it is possible for archaeologists to have formal academic training in the discipline but never be able to conduct an excavation, unless they previously have a co-direction of an archaeological intervention. Furthermore, it is the State Agency with responsibility for archaeological permit emission that decides if an archaeologist may or may not be responsible for a given intervention, considering the nature of the site, its chronological period, etc.

Therefore we felt the need to enquire archaeologists at an individual level, in order to better understand the reality of work conditions and expectations of each individual and the class, as a whole.

Two different enquiries were designed and approved by YAT – *York Archaeological Trust* – after a few alterations in the questions submitted.

2.2. Project team

According to the terms of the contract signed between APA and the European Commission in 2012, through YAT, the team designed for the project was defined as follows:

157 working days distributed by:

- 94 days of manager
- 57 days of researcher/teacher
- 6 days of administrative work

The contract was signed by the previous President of APA – João Tiago Tavares – and no further details on the project negotiations, goals, cost estimates or any other details were passed on to the present administration of APA. Therefore, we decided to fulfil the requirements of the contract and hire a general administrator of the project, who would manage, research, communicate and disseminate DISCO 2014 within the archaeological community in the country, in a total investment of 12.800 Euros (copy of contract presented in Financial report).

In fact, by the end of the contract signed with the manager, researcher and administrative worker, 161 workdays will be fulfilled, namely disseminating the results of the project.

Apart from the manager/researcher, the team was composed of:

- General coordinator (Cidália Duarte)

- Co-directors and project coordinators – Miguel Lago da Silva and Dr. João Pedro Tereso (PhD Paleobotany)
- General administrator/manager/researcher of the project (by contract): Dr. Cláudia Costa, PhD Archaeozoology
- Liaison with Universities – Mariana Diniz ad Catarina Viegas (PhD Archaeology, Professors, University of Lisbon)
- Liaison with Archaeologists Union – Dr. Cláudia Costa (manager and researcher)
- Liaison with municipalities – Jorge Raposo and Dr. Cláudia Costa
- Liaison with APA members – Alexandra Cerveira Lima
- Survey of previous work – Dr. João Tereso, Carolina Grilo and Jorge Raposo

Project partner

- *Archport*, web discussion group in Archaeology, directed by Professor José d'Encarnação, University of Coimbra

2.3. Calculating workforce

When the project was finally launched, in mid-December 2013, we decided to define which sectors should be contacted as potential employers of archaeologists or where archaeologists might be working, even though they might not have a formal labour contract.

Given the specificity of Portuguese legislation, surveys were directed towards two different target publics – individuals and institutions. In fact, we needed to ensure that the maximum number of archaeologists (and not only those integrated in governmental institutions and private companies) would get the questionnaire and would feel the need to fill it up and send it back to APA.

In order to guarantee the necessary coverage of all archaeological community we decided to invite one very important partner in this process – the *Archport* web discussion group. *Archport* is a web discussion group followed by virtually all archaeologists in Portugal. It is a dissemination mailing list which advertises all the important messages regarding archaeological activity (news, events, exhibitions, “gossip”). The web tool was essential for the dissemination of the questionnaire, especially the one designed for individuals (archport@ci.uc.pt).

The scope of the questionnaires was twofold: to ensure that organizations employing archaeologists responded to the necessary questions about how the 2008 financial crisis impacted our professional activity and employment conditions, and guarantee that individually, archaeologists would let us know what changes this particular crisis created in their lifestyle and life conditions.

Both individual and institutional questionnaires were submitted to YAT revision and final approval before publication and dissemination.

The following groups of entities were selected: universities and academic institutions, private archaeology companies (contractors), local government institutions, central government institutions, museums and foundations and a couple of institutions leading the major impact assessment studies in the country - the National Electrical Company (EDP) and Odebrecht (construction company leading the Sabor river dam project) and EDIA (company funded by public budget, leading the Alqueva irrigation system project).

2.3.1. Academic subsector

As stated above, only in the second half of the 1990 decade did Archaeology become an activity professionally recognized in Portugal. Before, the discipline was restricted to a few researchers and some antiques lovers who excavated on their spare time. So, the discipline has a long university tradition in the country. Since the beginning of the 20th century, Portuguese universities have welcome some of the most important archaeologists (see for instance J. Leite de Vasconcellos – professor at Lisbon University between 1911 and 1929, and creator and first Director of the National Archaeology Museum.)

As elsewhere in Europe, university archaeologists were among the first professionals in the area, with long term careers divided between teaching and research, some of them with international projection. In Portugal, university archaeologists were always a small group; in the late nineties, when a peak of activity occurred, they were less than 100 professionals, scattered through 9 universities from all over the country but at the same time responsible for very solid research work.

This traditional picture where research in Archaeology was almost exclusively available for archaeologists teaching at the University was altered during in the past 15-20 years when the new Ministry of Science and the Foundation for Science and Technology started granting funding for MA dissertations and, since 2008, strictly for PhD and postdoctoral research.

The emerging young researchers are connected to Universities through the Universities Research Units where they are integrated at least during the duration of the grants for their degrees. These researchers have short-term relations with the University, given the duration of these grants. Although some of them have made research careers getting repeatedly grants that have allowed them to pursue a major research program, for most a PhD or a postdoctoral grant is sometimes a short opportunity to develop an archaeological project.

The relationship between the universities and these researchers is not of a truly employer/employee nature since these “students” have grants and don’t have labour

contracts with the universities. Nevertheless, sometimes the Ministry that finances the research awards allows these researchers (mainly post-docs) to teach – no more than a subject/course - a measure that has become crucial to the university ability to fulfil their teaching duties, in the past 5 years.

The crisis that runs throughout Europe since 2008 had reached Portuguese universities long before. In the past 10-15 years, they have not been able to employ new people and renew their staff. Professors with grants instead of salaries have, for these last years, minimized a University problem that doesn't affect only Archaeology, but most research areas.

Since 2012, the situation became more critical; the *Foundation for Science and Technology* has made severe cuts in the number of grants (Social Sciences were particularly affected) so a research career in the University is now more difficult to achieve and maintain than ever.

This was the universe we decided to enquire. All universities that teach Archaeology (even though the degrees they offer might not have that specific name), were contacted and invited to answer our questionnaire (Table 2.3.1.1.). The invitation was also extended to the specific research centres that are located within these universities (or not). Double invitation (to individuals and to the institutions) was decided for two reasons:

- Firstly, people who might fill out the questionnaires about staff and wages most often belong to departments that do not control the smaller research centres within the university. And given that researchers who do not have a labour relationship with the university are not paid by their payroll (grants and scholarships are normally granted by other institutions), they seem to be non-existent or anonymous within the university structure.
- Secondly, some researchers who might even teach in one university can be linked to a research unit in a different university. Hence the necessity to cover also this possibility

Direct contact was made to the specific departments in order to obtain more accurate answers.

Academic institutions (universities)	Universidade do Minho	-	Direct phone call to specific department
	Universidade de Trás os Montes e Alto Douro	-	Direct phone call to specific department
	Universidade de Coimbra	-	Direct phone call to specific departments
	Universidade de Lisboa – Faculdade de Letras	-	Direct phone call to specific department
	Universidade Nova de Lisboa – Faculdade de Ciências Sociais e Humanas	-	Direct phone call to specific department
	Universidade de Évora	-	Direct phone call to specific department
	Politécnico de Tomar	-	Direct phone call to specific department
	Universidade do Algarve	-	Direct phone call to specific department
Research centres	CITCEM (University of Oporto and Minho)	-	Direct phone call to research centre
	Geologia da UTAD and Tomar	-	Direct phone call to research centre
	Instituto de Arqueologia de Coimbra	-	Direct phone call to research centre
	CHAM (Universidade Nova de Lisboa)	-	Direct phone call to the director
	UNIARQ (University of Lisbon)	-	Direct phone call to the sub-director
	CIAAR (Independent Barquinha)	-	Direct phone call to research centre
	CHAIA (University of Évora)	-	Direct phone call to research centre
	Unidade de Arqueologia da (University of Minho)	-	Direct phone call to the director
	CEAM (Independent, Madeira)	-	Direct phone call to the director
	NAP (University of Algarve)	-	Direct phone call to the director
	ICArEBH (University of Algarve)	-	Direct phone call to the director

Table 2.3.1.1 List of universities and research centres contacted

2.3.2. National government subsector (including national museums)

There are a considerable number of archaeologists working for central administration. Whether issuing permits for archaeological interventions or inspecting sites and monitoring sensible areas. Most archaeologists in central administration do not do

fieldwork. In most cases, they perform tasks such as inspection, conservation and management of collections and archaeological sites, and even organization of exhibitions.

Most archaeologists in central administration have a *Contract of Public Service*. Up until November 2013 this type of contract was considered “permanent” but with the recent changes in labour legislation in Portugal, public servants tenure became dependent on the variation of restructuring of state agencies and their annual budgets.

In these institutions, staff turnover has been minimal and workforce has been recycled and used in many different functions. It was this multiplicity of tasks we expected to identify through our enquiry.

Central government archaeologists were also surveyed by both questionnaires – individually and through the organisation where they are employed.

2.3.3. Local government subsector (including local museums)

In local government structures archaeologists can work under many different types of contracts, permanent or temporary. They usually work in local museums but they can also be allocated in departments of urban construction licensing, advising in the issue of construction permits in archaeologically sensitive areas.

Some institutions have one or two archaeologists on payroll, while others prefer to hire them temporarily or for specific projects. Given that the expertise of an archaeologist is required in local government functions and duties, some organizations prefer to have a permanent consultant with that expertise, to whom they ask for advice whenever needed. It is this variety of labour relationships that we aimed to identify through our questionnaire.

From the 301 municipalities identified and contacted, 128 had archaeologists in their staff (Table 2.3.3.1). From these, 43% municipalities answered the questionnaire.

Municipalities with archaeologists		
No	Yes	
173	128	
55,20%	41,40%	
	Answered	Did not answer
	55	73
	42,97%	57,03%

Table 2.3.3.1 Percentage of municipalities with archaeologists

2.3.4. Commercial subsector

Private activity in Archaeology is still relatively recent in Portugal (cf. 1.4.1, page 24). For an extended period of time after the 19th century, protection, research and management of archaeological heritage was restricted to the State. But although the early Republican ideology (and later the fascist ideology) promoted public strategies of general intervention in Cultural Heritage and History, Archaeology was never a priority. In consequence, Archaeology in Portugal was for a long time incipient and not very visible. Public investment has been reduced and the archaeological sites adequately cared for and shown to the public are still scarce.

Over the years archaeological activity has been developed by researchers and people with great determination and diverse academic background, from Medicine to Engineering, from Law to Geology or History. Hence, the archaeologist profession did not exist before mid-1990 decade.

With the 1974 revolution, Archaeology became more widely known and socially integrated. Many associations for the protection of cultural heritage began to emerge throughout the whole country. In parallel, the State started to finance archaeological work on an annual basis, even though in a more or less unplanned way (from 1979 to 2006).

The integration of Portugal in the European Union led to the signature of treaties and the fulfilment of requirements common to the whole Europe. Land management mechanisms and impact assessment studies became more common. The National Agency for Cultural Heritage incorporated in 1989 an Archaeology Department, and regional and local Archaeology agencies were created to better control the territory.

In the mid-1990s national archaeology was in midst of a double choice: either accept that the State would guarantee all archaeological activity or, on the other hand, allow private entrepreneurs and research units to perform the archaeological work, under supervision and control of the state agencies. The winning model was the latter, closer to the British tradition, which started to be implemented in 1997 by the Instituto Português de Arqueologia (see section 1.4). That represented the opening of archaeological work to the private sector in Portugal. Private companies totally devoted to Archaeology began to emerge. At approximately the same time, the La Valetta Convention was subscribed by more than 20 countries (Portugal being one of them) and the large construction projects, from roads to river dams to railways led to the need for these Archaeology companies who ensured that impact assessment studies and salvage interventions were performed, under the supervision of the state agencies. Portugal even became market for foreign private companies, especially from Spain, for whom the language barrier was less pronounced.

Even though there are no exact figures about the percentage of work guaranteed by private companies in Portugal in the past 15 years (since the publication of the Law that regulates archaeological work in Portugal), the vast majority of the interventions was definitely fulfilled by the private sector during that time period. In the golden years of the second half of the 2000 decade, it is estimated that Portugal had around

50 private companies operating throughout the country, working almost exclusively in Archaeology.

Recently, this number has decreased. Whether motivated by the reforms in central administration agencies or by the crisis in Europe since 2008, the fact is that we were able to identify only 25 companies still active. Selection of private companies was done through Internet search and by asking Cultural Heritage Portugal to provide the list of operating private companies, as of December 2013.

The major part of the private sector is presently debilitated, with incipient infrastructures, leading to unsure labour relationships and very diverse benefits and rights for the workforce. It is this type of change in the work conditions that we aimed to identify in our questionnaire. Similarly, the crisis that affects Portuguese economy, forces private archaeology companies to contract small interventions, scattered all over the territory, leading to poorer production of information and knowledge, discredit of the contractors and frustration of workers. Many of the archaeology companies are made of two or three partners with no further staff, who only hire on a temporary basis or subcontract archaeologists working as individual contractors.

The number of companies identified and contacted was 51 but many had invalid phone numbers or did not answer the phone and the invitation email message was returned. Since we do not think it is advisable to expose the possible difficulties felt by specific companies, we do not reveal which contractors replied or not. The results of the questionnaire are sufficiently clear to demonstrate the significant reduction of private companies and their staff.

2.4. Mailing list

2.4.1. Questionnaire directed towards archaeologists

As stated above (see section 1.4., legislation and archaeological activity in Portugal), the National Agency responsible for management of archaeological activity and issuing work permits has an active Information system – the *Endovelico* – that contains all the information on every legal archaeological intervention and its results, since 1999. Data prior to 1999 have also been transferred into this Information System, based on published articles, newspaper articles and other sources.

The mailing list of this *Endovelico* information system is extensive and had been previously compiled by APA throughout the history of our association. That mailing list was used to send the individual questionnaire to archaeologists. The scope of DISCO 2014, however, is much wider and cannot be restricted only to the archaeologists who have permits for directing excavations, those who are listed in the *Endovelico* information system. Therefore, we needed to reach those people who are involuntarily out of their professional activity and those who cannot YET direct archaeological digs because of their lack of experience and their inability to afford their MA, necessary as a consequence of the *Bologna Treaty*.

The solution encountered was to contact all the university departments who grant Archaeology degrees and ask them to give us the contacts of all the university students who finished their BAs and MAs in Archaeology in the past four years, since the 2008 crisis.

Next, together with the *Endovelico* mailing list previously gathered by APA and the mailing lists APA already possessed, the individual enquiry was launched. Further help was asked from *Archport*, a nationally widespread webmail Archaeology discussion group, with the publication of several messages encouraging people to answer the questionnaire. Similar messages were published in the APA website Facebook page.

2.4.2. Questionnaire directed towards organisations

Institutions employing archaeologists in Portugal are (Appendix I):

- private companies working in Archaeology
- private companies working in Environmental Impact Assessment and construction
- local and central museums
- municipalities
- universities
- research centres
- foundations (e.g. Côa Valley Foundation)

An extensive survey of all the municipalities that have archaeologists in their staff (permanently or not) was performed by phone call. In some local government structures archaeologists can be incorporated in *Urban Planning Departments*, while in others they can be integrated in local heritage museums; still in other cases they can be located in municipal archaeology offices who actually practise rescue archaeology at a local level or even local researcher projects. Consequently it became necessary to identify where, in each municipality, archaeologists were working. That had to be established before addressing the questionnaire to the respective offices. Hence, local municipal services were individually asked if they had archaeologists working in their staff and in which departments they were located.

The same procedure was adopted for the national and local museums, as well as for Foundations.

Private companies working in Archaeology were identified from Internet addresses and publicity, as well as from previous surveys performed by APA. They were contacted by phone call, individually, and encouraged to answer our questionnaire, emphasizing that confidentiality would be guaranteed.

Given that the total number of private companies replying to our questionnaire was considerably low (n=23), we contacted *Direção Geral do Património Cultural* (DGPC), the entity presently running and managing the *Endovelico* Information System requesting an update of the archaeology companies who are actually working and

asking for permits in 2014. The information gathered by DGPC confirmed that the number of private companies working in Portugal is presently 25.

2.5. Data collection

Two questionnaires were designed through the *Google Forms freeware*, to be answered online and completely anonymous. One of the questionnaires was designed for individual answers and the second, for organizations (public and private, Appendix II).

All organisations which develop work in Archaeology were invited to answer online. Most of were contacted by phone in order to encourage them to answer the questionnaire. In the case of local government institutions, the 308 *municípios* were contacted by telephone in order to define which ones had archaeologists in their staff. Only after that the results of that survey was the online invitation sent and further phone calls were made to confirm whether the questionnaire had been answered. Some institutions were contacted directly by phone and others through email.

Individual questionnaires were answered by people contacted to do so by phone and/or by email and through the *Archport* web discussion group.

Questionnaires were designed and managed on Google Forms, software that ensures confidentiality to people replying to the enquiry and compiles the results in a logical and workable manner.

2.6. Data entry and analysis

Data entry was automatically performed by Google Forms software. *Google Forms* tool does enter the data automatically into a *Microsoft Excel* spreadsheet. After the deadline for answering the questionnaire, its access was shut down from the Internet, the link was closed and data were transferred for *Excel* spreadsheets. Basic descriptive statistics were used for analysis. Unreadable data, repeated entries, empty lines and other inconsistencies were manually deleted.

Data analysis was guaranteed by the manager/researcher. The goal of data analysis was to produce synthetic tables that can be compared as much as possible to the YAT data. Comments were added as analysis was being performed; finally, the whole team was given the report ad added comments and insights.

The essential stages of data analysis were:

- Cleaning of invalid entries (repeated entries, invalid information, incoherent information)
- Selection questions that people chose not to answer.
- Selection of total universe of answers for each question.

- Estimation of frequency of categories for each variable.

For the individual questionnaire the total universe of valid answers is 572, even though some people did not answer some of the questions, which was expectable.

For the organization questionnaire, the total number of valid answers is 102.

Chapter 3. Sample analysis

3.1. Sample size (individuals)

Between January 27th and march 4th 2014, 572 archaeologists answered DISCO's individual questionnaire: 303 females and 269 males, between the ages of 20 and 71 years (on the 31st December 2013, Table 3.1.1).

Total sample individual questionnaire	
572	
Females	Males
303(53%)	269 (47%)

.Table 3.1.1 Sample definition: total number of answers to individual questionnaire

The majority of the professionals who answered the questionnaire stated that they were working on December 31st, 2013 (Table 3.1.2).

	Females		Males		Total	
	#	%	#	%	#	%
Yes	218	71,95	213	79,18	421	73.60
No	82	27,06	56	20,82	136	23.78
Did not answer the question	3	0,99	0	0	3	0.52
Total	303	100	269	100	572	100.00

Source: individual questionnaire

Table 3.1.2 Number of archaeologists working in the discipline on December 31st 2013

The data demonstrate that the majority of those who answered the questionnaire obtained their academic degrees between 1990 and 2009 and are working in this professional area for longer than 5 years (Table 3.1.3).

	Females		Males		Total	
	#	%	#	%	#	%
Never worked in archaeology	6	1,98	4	1,49	10	1,75
Worked in archaeology for less than 1 year	9	2,97	9	3,35	18	3,15
1-2 years	18	5,94	9	3,35	27	4,72
3-5	47	15,51	42	15,6	89	15,56
07-10	54	17,82	57	21,2	111	19,41
11-15	74	24,42	54	20,1	128	22,38
16-22	46	15,18	35	13	81	14,16
23-30	25	8,25	21	7,81	46	8,04
> 31	7	2,31	17	6,32	24	4,20
Did not respond	17	5,61	21	7,81	38	6,64
Total	303	100	269	100	572	100

Source: individual questionnaire

Table 3.1.3 Length of time individuals have worked in Archaeology

3.2. Sample size (institutions)

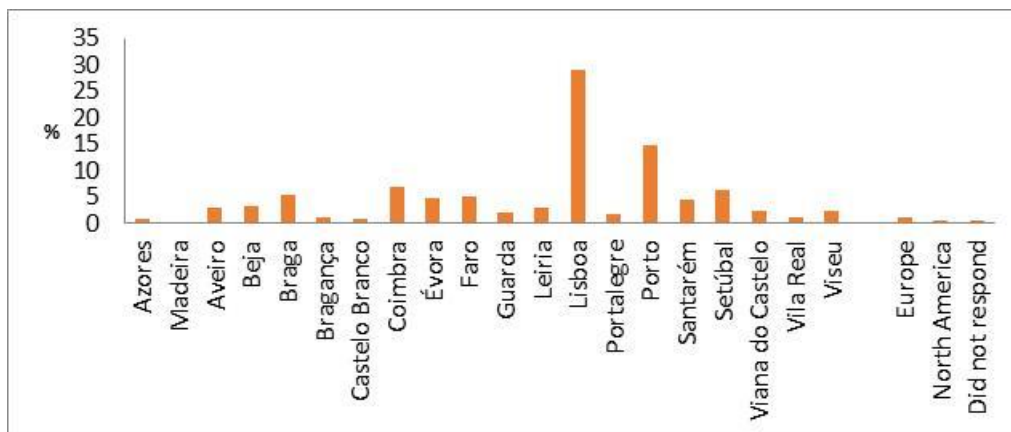
The questionnaire directed towards organizations was open between February 4th and March 19th 2014, after phone contacts with the institutions. The answers came from central government organizations, local government, private companies, museums and state owned companies (Table 3.2.1).

Type of institution	# contacts	# answers to questionnaire	% answers (%)
Municipalities and municipal museums	128	53	41,4
Central government	6	6	100
Atlantic territories	2	1	50
National museums	3	2	66
Regional museums	6	2	33
State owned companies	4	2	50
Foundations	2	2	100
Universities	9	3	37
Research centres	16	8	50
Archaeology private companies	25	23	92
Other	6	0	0
Total	207	102	

Table 3.2.1 Categories of organizations contacted and answers obtained (questionnaire for organizations)

3.3. Geographical distribution of individuals and institutions

The geographical distribution of the responses is coherent with the size of the major cities in Portugal - Lisbon, Porto and Coimbra - and also the places where there is significant activity in major impact assessment projects - such as Évora, Beja – adding to the areas around cities where Archaeology is offered as an academic degree in the university - Braga, Évora, Coimbra, Lisbon, Porto, Santarém (Figure 3.3.1). These figures might be indicative that archaeologists tend to stay where they get their academic training but further enquiry is needed to substantiate such a statement.



Source: individual questionnaire

Figure 3.3.1 Geographical provenience of responses to individual questionnaires (by distrito and abroad); n=572

Azores and Madeira (the Atlantic territories) are among the regions with the least number of responses; however, it must be emphasized that these are autonomous regions where local agencies responsible for issuing permits for archaeological interventions do not have any direct or indirect relationship with mainland government organizations. This separation creates administrative differences between territories that can justify this lack of response and/or absence of archaeologists.

Some individuals residing abroad decided to respond, namely from Spain, United Kingdom, the Nederland, Sweden and the United States. All of these responses are from Portuguese postgraduate students in those countries.

Gender distribution of the responses to the individual questionnaires is, as a whole, quite even. There is, however, a tendency for women to be dominant in answering which accompanies the trend of the profession itself (see Table 3.3.1 and Figure 3.3.2).

Distritos	Female		Male		Total	
	#	%	#	%	#	%
Azores	1	0,33	4	1,49	5	0,87
Madeira	0	0,00	1	0,37	1	0,17
Aveiro	10	3,30	6	2,23	16	2,80
Beja	9	2,97	10	3,72	19	3,32
Braga	14	4,62	16	5,95	30	5,24
Bragança	5	1,65	1	0,37	6	1,05
Castelo Branco	4	1,32	1	0,37	5	0,87
Coimbra	15	4,95	24	8,92	39	6,82
Évora	14	4,62	14	5,20	28	4,90
Faro	18	5,94	11	4,09	29	5,07
Guarda	2	0,66	10	3,72	12	2,10
Leiria	4	1,32	12	4,46	16	2,80
Lisboa	91	30,03	75	27,88	166	29,02
Portalegre	8	2,64	2	0,74	10	1,75
Porto	43	14,19	41	15,24	84	14,69
Santarém	17	5,61	8	2,97	25	4,37
Setúbal	23	7,59	12	4,46	35	6,12
Viana do Castelo	8	2,64	6	2,23	14	2,45
Vila Real	5	1,65	2	0,74	7	1,22
Viseu	6	1,98	7	2,60	13	2,27
Europe	3	0,99	4	1,49	7	1,22
North America	1	0,33	1	0,37	2	0,35
Did not respond	2	0,66	1	0,37	3	0,52
Total	303	100	269	100	572	100

Source: individual questionnaire

Table 3.3.1 Geographical provenience of responses, by gender.

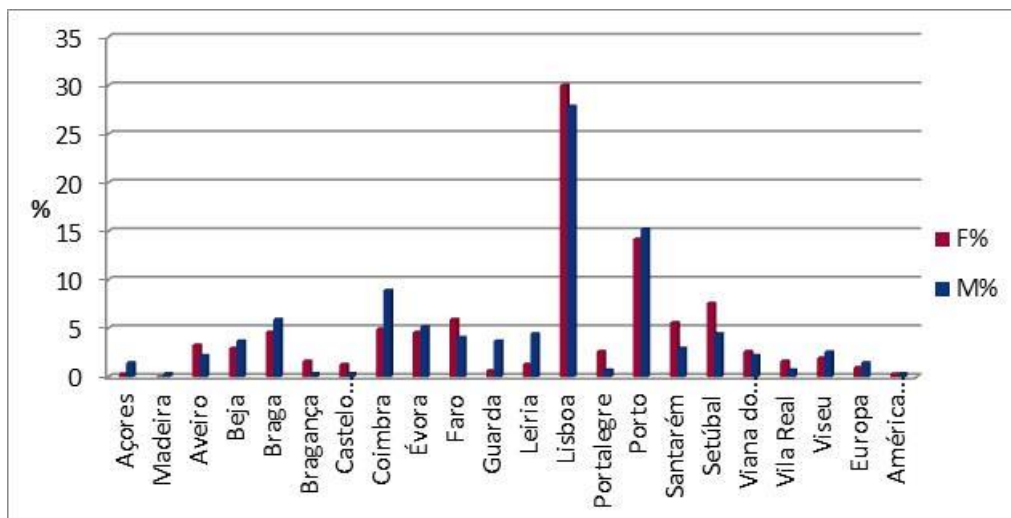


Figure 3.3.2 Geographical distribution of responses to individual questionnaire by gender.

Among the total of 25 archaeology private companies contacted by APA, 23 answered our questionnaire; the latter are located primarily in Lisbon and Oporto (cf. Table 3.3.2).

Distritos	# Private companies
Azores	0
Madeira	0
Aveiro	2
Beja	0
Braga	0
Bragança	0
Castelo Branco	0
Coimbra	2
Évora	1
Faro	0
Leiria	0
Lisboa	5
Portalegre	1
Porto	5
Santarém	3
Setúbal	2
Viana do Castelo	0
Vila Real	1
Viseu	1
Total	23

Table 3.3.2 Geographical distribution of archaeology private companies

3.4. Age distribution

The vast majority of individuals who answered the individual questionnaire indicated their age; only two male archaeologists did not supply that information.

The average age of Portuguese archaeologists who answered the questionnaire is 36 and it is very similar both for males and females (see Table 3.4.1). The vast majority of responses indicate an age range between 26 and 45, with some archaeologists within the 20 to 25 age range. In all age groups, women lead in frequency, except in the older segments (> 51).

Age ranges	Female		Male		Total	
	#	%	#	%	#	%
20-25	33	10,75	19	7,06	52	9,09
26-30	48	15,64	48	17,84	96	16,78
31-35	75	24,43	67	24,91	142	24,83
36-40	60	19,54	58	21,56	118	20,63
41-45	43	14,01	19	7,06	62	10,84
46-50	25	8,14	17	6,32	42	7,34
51-55	11	3,58	16	5,95	27	4,72
56-60	7	2,28	13	4,83	20	3,50
61-65	1	0,33	8	2,97	9	1,57
>65	0	0,00	2	0,74	2	0,35
Did not respond	0	0	2	0,74	2	0,35
Total	303	100	269	100	572	100

Source: individual questionnaire

Table 3.4.1 Age distribution of archaeologists who answered the individual questionnaire

The age groups with the highest concentration of archaeologists are those ranging from 31 and 40 years of age (cf. Figure 3.4.1), exactly the age range of people who studied Archaeology throughout the 2000-2010 period. This was precisely the time where archaeological activity was at its prime (see above, section 1.4.). And this is the age sector that has been more profoundly affected by the 2008 crisis aftermath, as we will see further ahead.

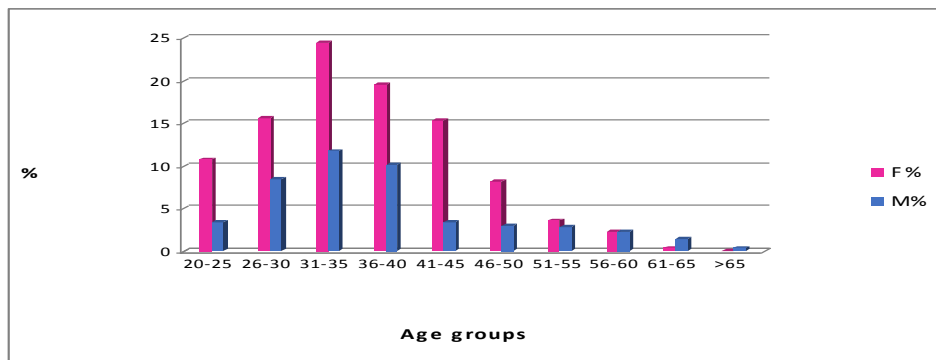


Figure 3.4.1 Age distribution of archaeologists who responded to the individual questionnaire

The analysis of the years in which they have obtained their academic degrees demonstrates that a significant number of archaeologists completed their education between 2000 and 2009 (cf. Table 3.4.2).

year of graduation	#
before 1980	2
1980-1989	17
1990-1999	99
2000-2009	256
2010-2014	195
Did not respond	3
Total	572

Table 3.4.2 Year of graduation in Archaeology (or equivalent degree)

3.5. Countries of origin

According to the information obtained from the individual questionnaire, Archaeology in Portugal is an activity predominantly of Portuguese citizens of Portuguese ancestry. There are only a few foreign archaeologists working in national territory. Among these, Europeans are dominant, with the Spanish professionals leading the numbers among the foreign community, followed by the French. In third place we have a few African archaeologists, born in the Portuguese ex-colonies, such as Angola and Mozambique and in South Africa and the Democratic Republic of Congo. Only two archaeologists come from Brazil.

The majority of foreign archaeologists living and working in Portugal come from countries with a past connection to our history, whether they are ex-colonies, such as Brazil, Angola and Mozambique, or countries where Portuguese people have historically emigrated to – Canada, France and other European countries (cf. Table 3.5.1).

Country of origin	# Female	# Male	Total
South Africa	0	1	1
Angola	1	1	2
Dem. Republic of Congo	0	1	1
Mozambique	0	1	1
Canada	1	1	2
Brazil	1	1	2
Spain	6	3	9
France	3	0	4
Nederland	0	1	1
Ireland	0	1	1
Italy	1	0	1
Portugal	287	258	545
Sweden	1	0	1
Switzerland	1	0	1
Total	303	269	572

Table 3.5.1 Countries of origin among individuals who answered the questionnaire

These are the results obtained from individual questionnaires. If, however, we compare those with the numbers obtained from institutional responses, we verify that research centres tend to have foreign students incorporated among their scholars and student communities (see sections below).

Additionally it should be remarked that there are, in fact, some foreign archaeologists working in major construction sites in Portugal, such as the Sabor river dam hydroelectric project (Bragança) and the large irrigation system of Alqueva hydro agricultural project (Beja), as we could verify in the dissemination phase, during the meetings we held with archaeologists in the field. These individuals are not reflected in the results of the DISCO questionnaires because they are temporarily present in the territory and have no real labour contracts; they are self-employed in specific projects. Furthermore, given the fact that the DISCO questionnaire was sent to archaeologists by the *Associação Profissional de Arqueólogos*, a Portuguese professional organisation, they probably thought of themselves erroneously excluded from the target public of the questionnaire.

The questionnaire addressed to the organizations also revealed the presence of foreign archaeologists working for central government institutions dedicated to scientific research, such as LARQ (*Laboratório de Arqueociências*) where there are archaeologists from Norway and United Kingdom. The list of countries is more extensive once we analyse the research centres in academic environment (see below).

3.6. Staff qualifications

Most part of the professionals answering the questionnaire have a *Licenciatura* (equivalent to a BA degree), whether being a pre-Bologna academic degree corresponding to 4 years of university training or a post-Bologna 3 year degree (cf. Table 3.6.1).

Highest academic degree	Female		Male		Total	
	#	%	#	%	#	%
Pre-Bologna BA	100	33	95	35,32	195	34,09
Pre-Bologna MA	74	24,42	56	20,82	130	22,73
Pre-Bologna PhD	32	10,56	30	11,15	62	10,84
Post Bologna BA	35	11,55	39	14,50	74	12,94
Post Bologna MA	56	18,48	46	17,10	102	17,83
Post Bologna PhD	6	1,98	2	0,74	8	1,40
Did not respond	0	0	1	0,37	1	0,17
Total	303	100	269	100	572	100

Table 3.6.1 Academic degrees detained by Portuguese archaeologists, according to data from individual questionnaires

These data only reveal a demographic tendency, since only 8 years have passed after the adoption of the Bologna academic programmes in Portugal (2006). Hence, fewer PhD degrees after Bologna might be due to the fact that this is a recent transformation of academic *curricula* (cf. Figure 3.6.1).

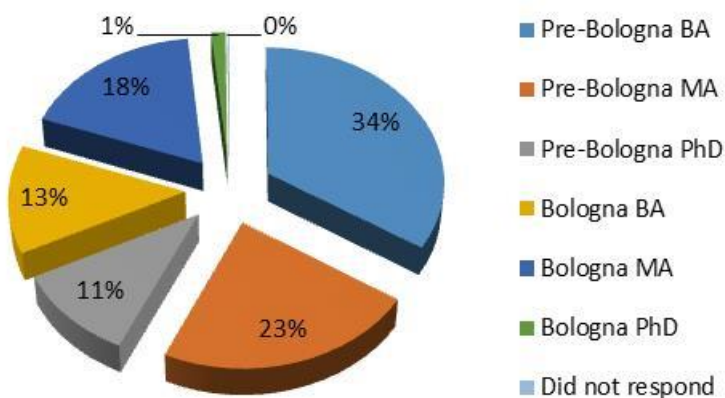


Figure 3.6.1 Distribution of academic degrees among Portuguese archaeologists (according to individual questionnaire)

Distribution of academic degrees by gender is interesting in Portuguese archaeological community and reveals the pattern of social changes in other sectors of economic activity involving academic undergraduate and graduate degrees. Among the older age groups (of those who got their training prior to the Bologna Treaty) more men had a BA while more women had MA degrees (cf. Fig 3.6.2.). But the reverse happens in post-Bologna academic degrees, with PhDs being more common in males than in females. Master degrees and BAs after Bologna are predominantly obtained by females. Differences, however, are not substantial between the two genders.

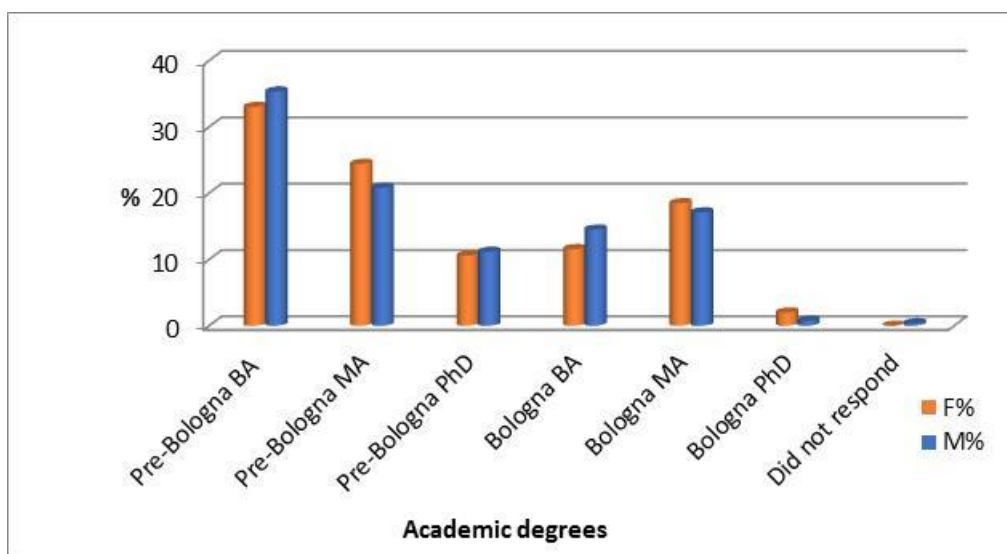


Figure 3.6.2 Distribution of academic degrees among Portuguese archaeologists by gender (according to individual questionnaire)

Since the requirements for obtaining permits for excavating are mainly based on field experience and expertise in a given type of archaeological intervention or a specific chronological period of the past, some archaeologists have degrees in areas other than Archaeology; i.e., it has not been required, in the past, to hold an academic degree in Archaeology to be a professional in the discipline.

More than half of the polled people, however, DO have a degree in History/Archaeology (cf. Figure 3.6.3). Other people also have specialized in disciplines which contribute to archaeological knowledge construction, such as Biological Anthropology, Zooarchaeology, Geoarchaeology and Paleobotany. The vast majority of archaeologists in Portugal have, however, obtained their degrees in just a few national universities (especially Lisbon and Oporto), thus narrowing the diversity of academic training (cf. Appendix III).

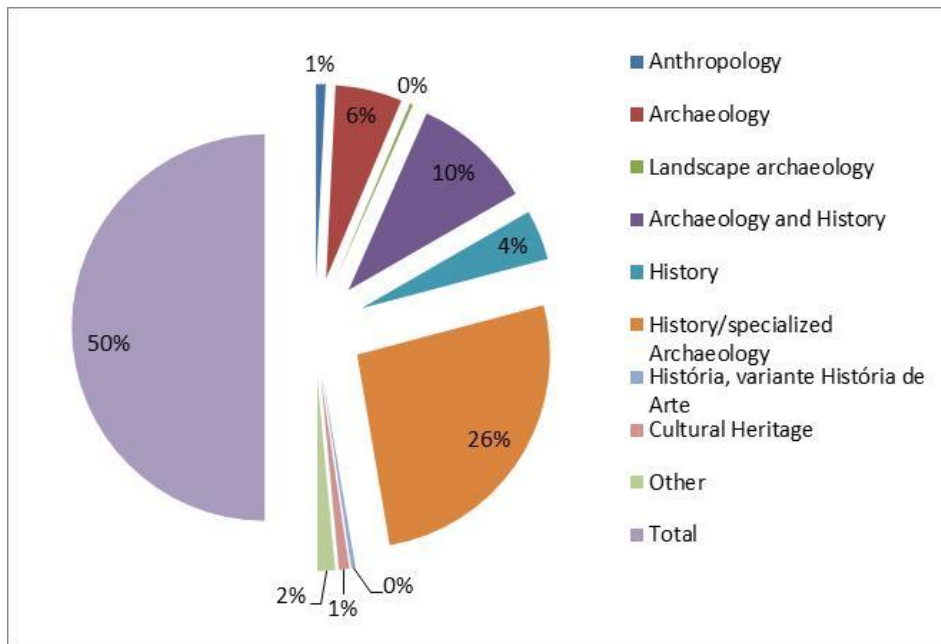


Figure 3.6.3 Areas of academic degrees among Portuguese archaeologists, according to individual questionnaires

According to the data obtained from organisations, it appears that archaeologists are concentrated mainly in research centres (cf. Table 3.6.2). However, the data only demonstrates the number of archaeologists associated with those research institutions. In fact, any professional working in a given institution can be associated with a specific research centre and the same happens with self-employed individuals. Therefore, these results are useful for academia to know how many archaeologists are listed in those research centres, as part of scientific teams. These numbers, however, do not reflect actual labour relationships.

As expected, the highest degrees – PhD – are concentrated in research units, while the remaining organisations report having BA mostly professionals with BA and MA degrees. In central administration, the dominant academic degree among archaeologists is the MA.

	Females			Males			Total	
	BA	MA	PhD	BA	MA	PhD	Fem	Male
Central Administration	14	18	4	10	13	6	36	29
Regional Administration	Did not respond							
Research centres	82	8	97	81	104	93	187	278
Universities	5	5	2	7	0	4	12	11
Regional museums	5	2	1	3	1	0	8	4
National museums	8	2	0	1	0	0	10	1
Foundations	8	2	0	11	3	2	10	16
Archaeology private companies	25	19	6	39	26	3	50	68
State owned companies	0	1	0	Did not respond			1	0

Table 3.6.2 Distribution of academic degrees in different types of institutions

CHAPTER 4. Organisations

As previously stated, it is possible for APA to have access to a national “address book” of nearly all archaeologists or, at least, from a large majority of them. Hence, we decided to organize two questionnaires (cf. section 2.3) – one designed for individuals and a second for organisations. The type of questions addressed to the organisations was literally different from that of the individual questionnaire (Appendix II). Nonetheless, there are questions that allow us to verify the validity of the survey DISCO 2014 performed in Portugal, as the results reveal.

Prior to addressing the questionnaire to the organisations, a survey of potential archaeologists’ employers was performed between December 2013 and January 2014. The major groups we decided to enquire were universities, central government, local government, museums, and foundations, private companies working both in Archaeology and impact assessment activities. A final list of 178 entities was gathered by mid-January and phone contact was initiated. The goal of these contacts was twofold; first, to obtain a final list of organisations which had archaeologists among their staff and secondly, to encourage those organizations to answer our questionnaire, explaining the nature of the DISCO 2014 survey. Finally, the organisations were invited to answer the questionnaire online, guaranteeing confidentiality.

The organisations questionnaire was technically similar to that of individual questionnaires. It was organized on *Google Online* (cf. Appendix II) and invitations were sent to the selected organizations (n= 178). It had 100 questions and focused on some issues that were not reported in the individual questionnaire such as total revenue turnover, evolution of revenue in the past five years, etc.

The information collected was then processed on an Excel spreadsheet, obtained automatically from the Google questionnaire. Invalid data, blank or repeated lines were discarded. The end result was 103 valid questionnaires from institutions (cf. Table 4.1) from academic, commercial and public sectors.

Type of organisation	# of contacts	# of responses	Response rate
Local government and museums	128	53	41,6
Central Administration	6	6	100
Regional administration (Atlantic territories)	2	1	50
National Museums		2	
Regional museums		2	
State owned companies	3	2	66,7
Foundations	2	2	100
Universities	8	3	50
Research centres	8	8	7,69
Archaeology companies	21	21	100
Other		3	
Total	178	103	100

Table 4.1 Organisations contacted for DISCO 2014 questionnaire

Results revealed that among the organisations we invited to answer our questionnaire, many of them have archaeologists on staff (cf. Table 4.2). Data on the number of archaeologists present in research centres was discarded because the numbers given by those centres report to “number of researchers and graduate students” and not to the number of archaeologists on staff. In fact, the total number of archaeologists indicated by research centres was 465, clearly a number that refers to the total of people associated with research activities, including foreign researchers and university professors. Therefore, that number was discarded.

Total # Archaeologists	Female	F%	Male	M%	Total	%
Local government	43	19,4	21	8,6	64	8.5
Central government	35	15,8	27	11,0	62	8.2
Atlantic territories	0	0,0	1	0,4	1	0.1
Universities	9	4,1	13	5,3	22	2.9
Research centres	187	40	278	60	465	61.6
Regional museums	3	1,4	3	1,2	6	0.8
National museums	1	0,5	0	0,0	1	0.1
Foundations	5	2,3	8	3,3	13	1.7
Archaeology private companies	55	24,8	62	25,3	117	15.5
State owned companies	1	0,5	3	1,2	4	0.5
TOTAL	339	40,1	416	59,9	755	100

Table 4.2 Distribution of archaeologists in the different type of organisations enquired

Furthermore, the results of our enquiry reveal that women constitute the majority of the archaeologists working in public service with an amazing higher number of females in local and central administration when compared to males. The opposite, however, is visible in the group of professionals located in research centres; here, the majority is clearly male. In fact, in the total universe of men archaeologists a surprising high number (60%) fits in this category. We should, nonetheless, emphasize that archaeologists located in research centres do not necessarily have a labour contract with the institution.

But some of our questions in the organisations questionnaire were not clearly understood by the enquired, especially among local government agencies. In fact, in most of those structures the questionnaire was directed to Human Resources departments who then provided the information. But clearly, in many questions relating to “age of workers”, those organizations supplied information relative to the total universe of their staff and not specifically to the total numbers of archaeologists. Therefore, those answers were discarded for public institutions and were only considered for private archaeology companies, who answered correctly to these questions (cf. questions 16 to 36).

4.1. Archaeology private companies

Given the difficult situation of private companies presently in Portugal, APA decided to address this section of our poll with special attention. The estimated total of 45 private companies (see sections 1.2, 2.3.4 and 2.4) is clearly a scenario of the past. Most part of these contractors is no longer active. Similarly, the number calculated by Lopes (2012), of a total of 85 private companies operating at the time is clearly unrealistic.

Given the nature of our association, APA has lists of private archaeology companies in address books compiled over the years, since its foundation in 1996. These lists were used to enquire whether these private companies were still operating. A preliminary search in the Internet allowed us to identify those entrepreneurs that had ceased their activity. In order to preserve confidentiality, no list of those contractors which are no longer operating was produced. Hence, the total number of responses from Archaeology companies is at 23, a number not very far from the total of companies that survived the crisis. In fact, we asked Cultural Heritage Portugal (Direção Geral do Património Cultural) which companies were still operating (in December 2013) and the number indicated was 25.

There were a few questions specially designed for this section of the poll and the results illustrate the conditions in which archaeologists are operating in the private sector.

4.1.1. Length of commercial activity

In order to assess whether if in the commercial section of Portuguese Archaeology surviving the crisis there are older companies, with more experience, which have adapted to recent conditions, or if, on the contrary, recent companies are emerging, we asked how long the organisation had started its activity in Archaeology.

The results suggest that most of the companies that are active began their activity during the “boom” in archaeological activity in Portugal (n=9). No company appeared after 2010.

Beginning of activity	
1995-1997	3
1998-2000	5
2001-2004	9
2005-2006	5
2007-2010	1
Total	2

Table 4.1.1.1 Beginning of commercial activity of Archaeology private companies

4.1.2. Labour contracts in private companies

All companies enquired have archaeologists on staff but not all contracts are permanent (cf. Table 4.1.2.1). Depending on the nature and length of specific projects, private companies define different types of contracts with archaeologists, from temporary to open-ended to self-employed contractors.

Type of contract	
Permanent job	16
Temporary short term contract	8
Open-ended contract	4
Individual contractors	14
Contract for specific project	1
Trainee	1
Total	44
# of companies who responded	23

Table 4.1.2.1 Type of contracts in private companies

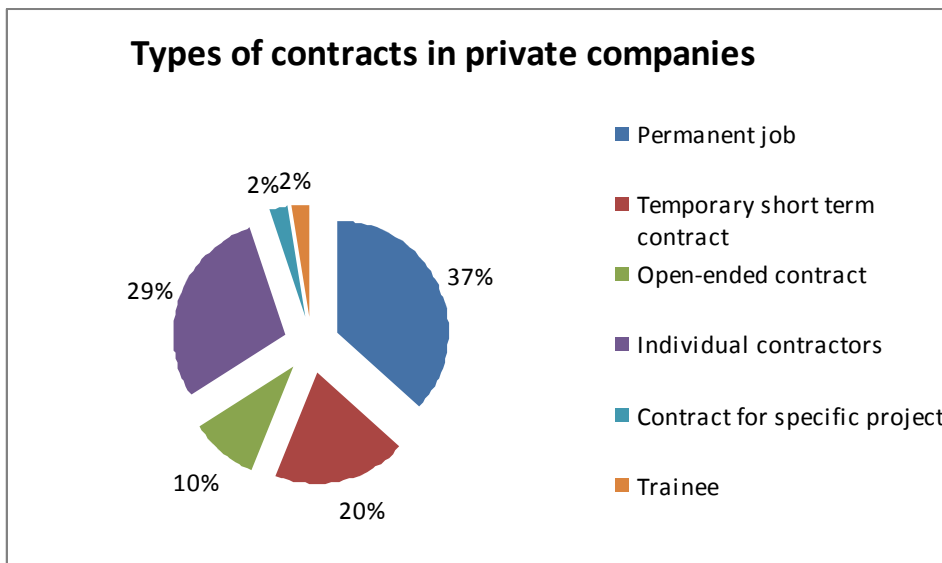


Figure 4.1.2.1 Types of contracts in private companies (percentages)

In order to identify the nature of labour contracts that archaeologists hold within the private companies of the sector and the different type of organisations hiring archaeologists, our questionnaire asked specific questions about the length of temporary contracts (cf. Table 4.1.2.2). Only 12 companies answered that particular question and the results are, therefore, not as conclusive as they could be but there is a trend towards signing temporary contracts for longer periods, of more than a year.

Duration of temporary labour contracts	Number of private companies
< than 6 months	0
> than 6 months	2
> than 1 year	6
Variable duration	5
Open-ended contracts	1
No response	12
Total number of companies who answered the question	11

Table 4.1.2.2 Length of contracts in private companies

Practically all archaeology companies have some permanent contracts with their staff (21 out of 23 companies who answered the questionnaire), a trend that was clearly documented in Table 3.1.2.1. Companies appear to have one or two members of staff on permanent payroll and then, depending on the number and dimension of the projects they are involved in, different types of contracts are established with a variable number of archaeologists.

The general pattern of one or two permanent staff members and a variable number of temporary workers with different types of contracts is demonstrated by the evolution of permanent workers in private companies from 2008 to 2013 (cf. Table 4.1.2.3 and Figure 4.1.2.2). The pattern in the past 2 years (2012 and 2013) is clearly for permanent staff to stay stale but an increasing number of companies stated that the number of permanent staff was diminishing.

Evolution of permanent jobs	2008	2009	2010	2011	2012	2013
Increased	11	8	9	5	3	5
Decreased	0	2	5	3	7	5
Maintained	9	11	8	14	12	12
Does not know	2	2	1	1	1	1
Total	23	23	23	23	23	23

Table 4.1.2.3 Evolution of permanent contracts in private companies over the last 5 years

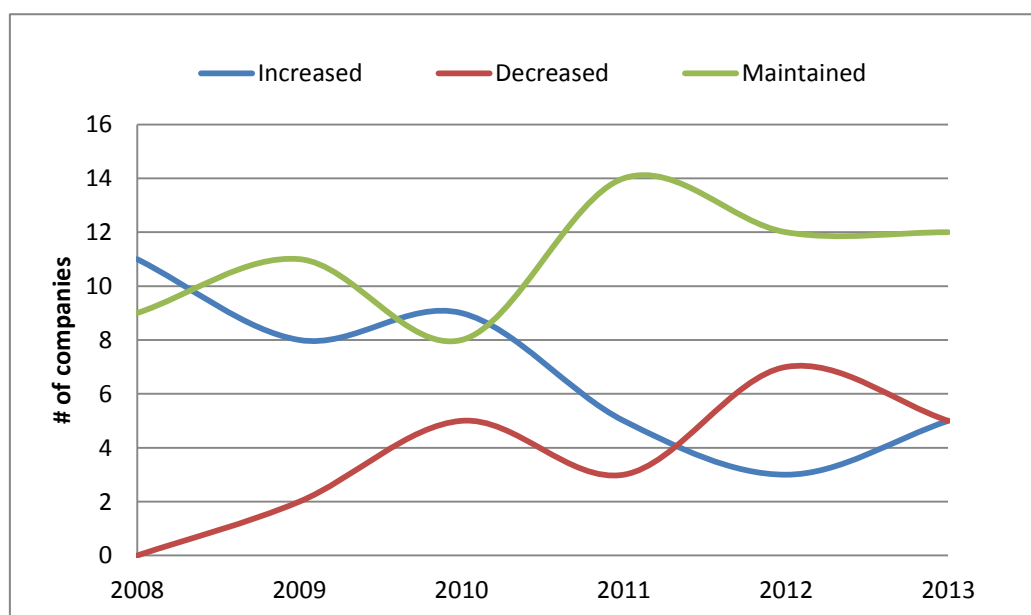


Figure 4.1.2.2 Permanent labour contracts in private companies from 2008 to 2013

In parallel, the number of temporary workers has been a constant in the past years, thus demonstrating the growing precarious nature of labour contracts in Archaeology and the onset of instability. From the 23 companies enquired, 22 answered the question of whether they have temporary workers; 13 companies do have temporary workers and 9 of them claim not having temporary labour contracts.

Analysis of the evolution of temporary work in private companies demonstrates that it is a form of contract currently used (Table 4.1.2.4 and Figure 4.1.2.3). Given the fact

that temporary contracts have time limit defined by law, this type of labour relationship enhances the precarious nature of work among archaeologists, forcing the professionals to change from one company to the other.

Evolution of temporary staff	2008	2009	2010	2011	2012	2013
Increased	3	7	5	5	5	2
Decreased	3	2	3	2	4	5
Maintained	5	2	5	5	4	7
Does not know	3	3	1	1	1	1
Did not respond	9	9	9	10	9	8
Total	23	23	23	23	23	23

Table 4.1.2.4 Evolution of temporary contracts in private companies over the last 5 years

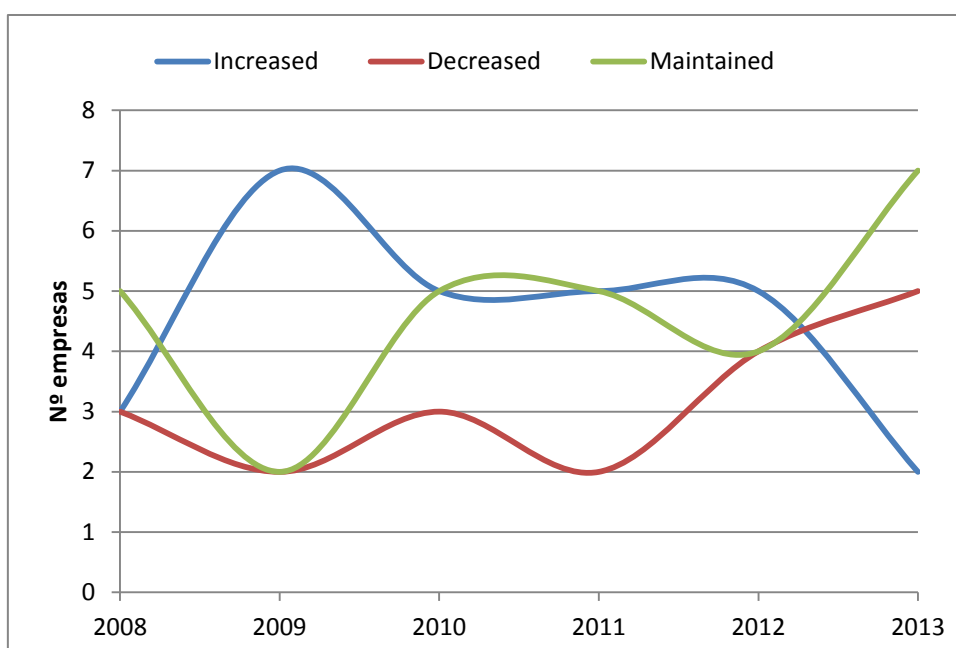


Figure 4.1.2.3 Temporary labour contracts in private companies from 2008 to 2013

When enquired whether they have archaeologists working part-time, only one company reported ONE professional working part-time; i.e., with reduced number of hours of work and reduced salary.

4.1.3. Crisis' numbers in Archaeology private companies

Among the small universe of private companies who answered our questionnaire, (n=23) but which appears to be very close to the number of contractors still operating as institutions (and not as individuals), only 15 indicated their turnover in the past 5 years (Table 4.1.3.1). A few companies indicated the numbers relative to some of the years but they are not included in the report given the inconsistency of information.

	2008	2009	2010	2011	2012	2013
Company A	50000	50000	50000	100000	300000	700000
Company B	495658	773520	882753	1453354	1201450	745355
Company C	1470000	1735000	1655000	1335000	1240000	1120000
Company D	480000	470000	620000	590000	675000	780000
Company E	75000	158000	171000	114000	83000	134000
Company F	172114	326285	243089	296519	544093	284111
Company G	50000	50000	80000	100000	250000	500000
Company H	150000	150000	150000	180000	70000	55000
Company I	200000	250000	300000	280000	320000	400000
Company J	300000	250000	150000	250000	250000	150000
Company K	150000	80000	30000	25000	20000	10000
Company L	450000	450000	550000	900000	760000	675000
Company M	1130334	1736055	1160314	1160314	793410	
Company N	50000	200000	50000	100000	60000	80000
Company O		81000	132000	59000	37000	51500

Table 4.1.3.1 Companies turnover in Euros from 2008 to 2013 (from 15 selected companies)

The data reveal that the companies that had a higher turnover in previous years (2008 and 2009) were those who suffered more severely the crisis in the past 2 years (2012, 2013, cf. Figure 4.1.3.1). This trend is likely due to the completion of major river dams and interruption of highway projects where impact assessment studies offered archaeologists a considerable amount of work.

From the data obtained, it is obvious that the year 2012 was, in fact, the turning point in archaeological activity. Only 4 companies reported having increased their turnover but none in a significant manner.

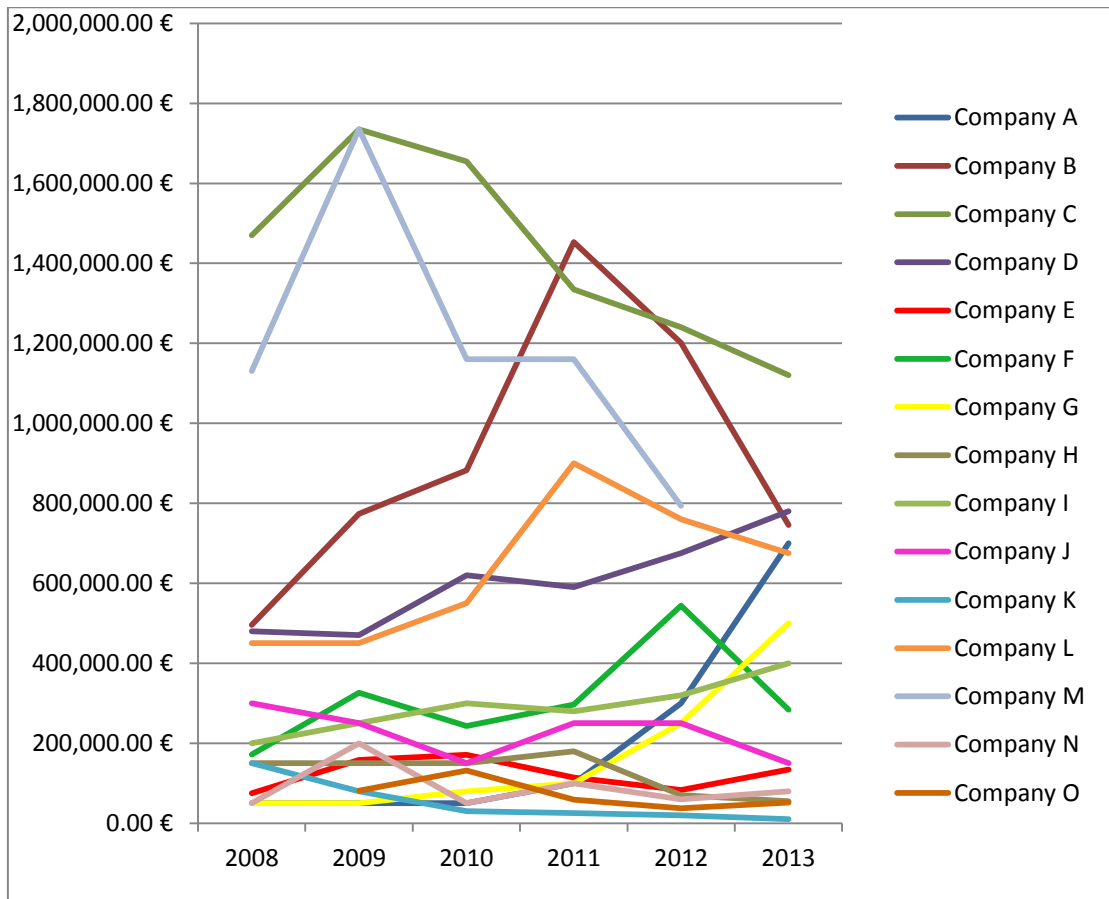


Figure 4.1.3.1 Evolution of companies' turnover in Euros from 2008 to 2013 (from 15 selected companies)

From the results obtained in our enquiry it is clear that the crisis was felt especially after 2012, the first year of serious economic constraints. Contract Archaeology, particularly in salvage interventions is very dependent on the economic circle of large development projects such as Highway construction, development of hydroelectric projects and new irrigation systems. Smaller contracts might be achieved within the historical cities, in areas of national or world heritage sites. Portuguese legislation, following the European guidelines, requires archaeological intervention whenever a construction project takes place in such areas. It is this market niche that is explored by some of the Archaeology companies which might have a smaller overall turnover but could be facing the crisis in a more or less efficient way.

4.1.4. Strategy of private companies and future expectations

As stated above, the large development projects have slowed down or even halted since 2011 and 2012 thus creating problems for Archaeology companies to survive. Some of them have sought alternatives in areas other than field and lab work. We enquired these 23 companies if they have diversified their areas of expertise and services and the results indicate that about 8 of the 23 private companies are attempting to work in areas such as museum work, conservation and restoration and Anthropology (Figure 4.1.4.1).

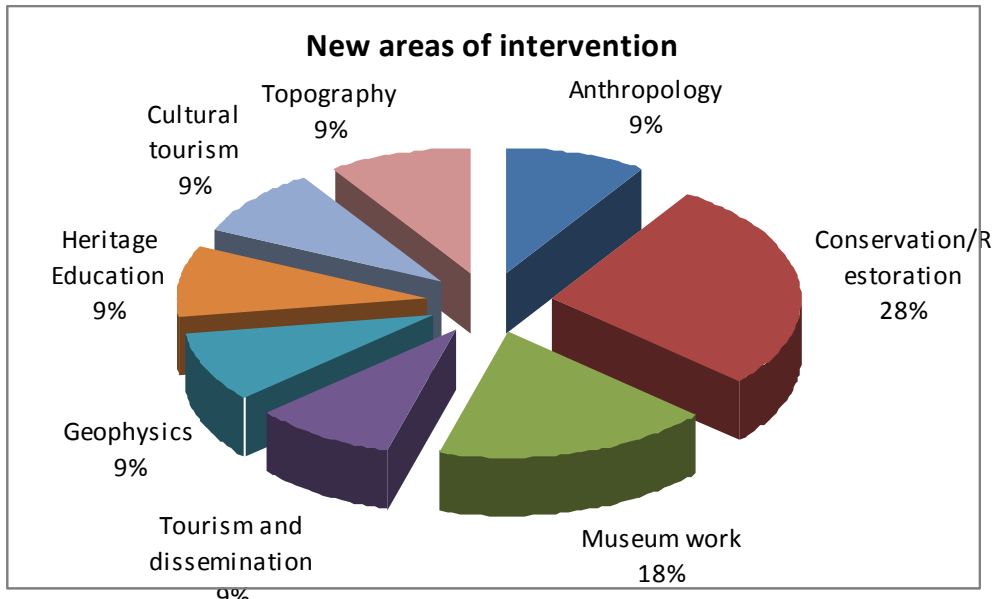


Figure 4.1.4.1 New areas of intervention in Archaeology companies since 2008

This trend is coherent with the amount of income companies state to obtain from Archaeology contracts (cf. Table 4.1.4.1); i.e., a significant number (n=10) obtain less than 20% of their income from Archaeology itself, which means that the demand is decreasing and therefore other alternatives are being explored by private companies in Portugal, in order to face the crisis.

% Income obtained from Archaeology contracts	
<20%	10
20-39 %	2
60-79 %	1
80-99 %	9
100%	1
Total	23

Table 4.1.4.1 Percentage of turnover from archaeological activity in private companies

When asked what their expectations are for 2014, in terms of stability, increase or reduction of permanent staff, organisations, in general, point towards maintenance of the same number of people on payroll (Table and Figure 4.1.4.2). Private companies in Archaeology predict to maintain their permanent staff during 2014, thus maintaining the pattern demonstrated by other variables analysed above; i.e., companies are surviving with only a few permanent staff members and an increasing number of temporary types of labour contracts, independently of their specific nature (short term, open-ended, etc.).

	Increases	Decreases	Maintains	Does not know	No response	Total
Local government		2	35	11	5	53
Central government		1	4		1	6
Atlantic Territories			1			1
Research Centers	2	1	4		1	8
Universities			3			3
Regional museums			2			2
National museums			1		1	2
Foundations		1	1			2
Archaeology private companies	1	4	15	1		21
State owned companies			2			2

Table 4.1.4.2 Permanent staff predicted for 2014 (number of organizations)

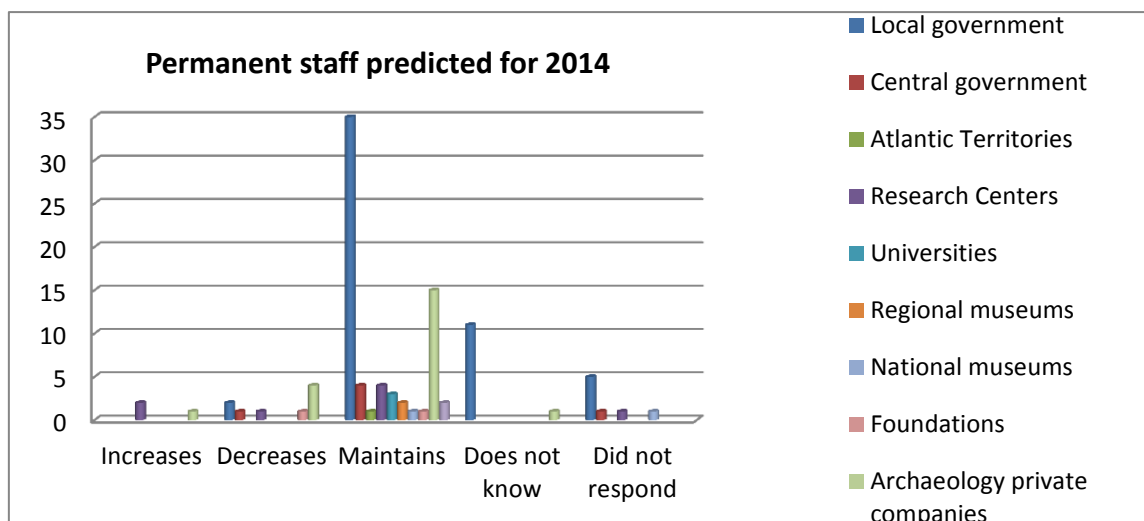


Figure 4.1.4.2 Permanent staff predicted for 2014 (number of organizations)

4.2. Local government and Archaeologists

4.2.1. Length of activity in Archaeology

Local government structures (municipalities) are one of the most important employers of archaeologists. We asked these institutions how long they have practised Archaeology. There are some exceptions (such as the case who states having begun archaeological activity in the 19th century) but most municipalities hired archaeologists after the 1980s. The expansion of the 1990 and 2000 decades (cf. Table 4.2.1.1) is probably due to the change in legislation in 1994 which created the need to have archaeologists among staff members.

Beginning of activity in local government	# of municipalities
19th century	1
1950s	2
1980s	10
1990s	15
2000s	18
2010s	3
Did not respond	4
Total	53

Table 4.2.1.1 Beginning of archaeological activity in municipal government

4.2.2. Type of work and expectations for the future

Local government organisations are those who employ the highest number of archaeologists (28%) and also the ones in which these professionals fulfil the most diversified areas of work (Figure 4.2.2.1).

Some activities are not ensured by archaeologists working in municipalities (such as management and commercial areas) but these professionals have an array of areas of action in these organisations that demonstrate a high level of versatility.

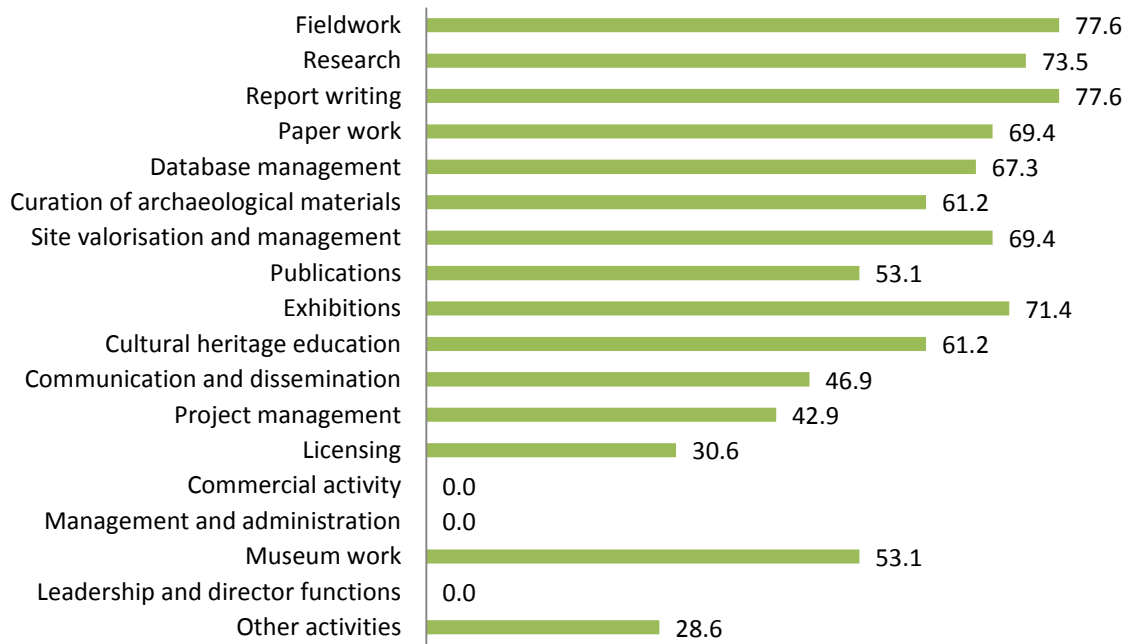


Figure 4.2.2.1 Types of functions fulfilled by archaeologists working for local government organisations

Local government structures, however, have reduced activity in areas that reflect the reduction of archaeological intervention (Figure 4.2.2.2) such as fieldwork and report writing. This reduction must be related to a decrease in local research projects but also with a reduction in construction projects.

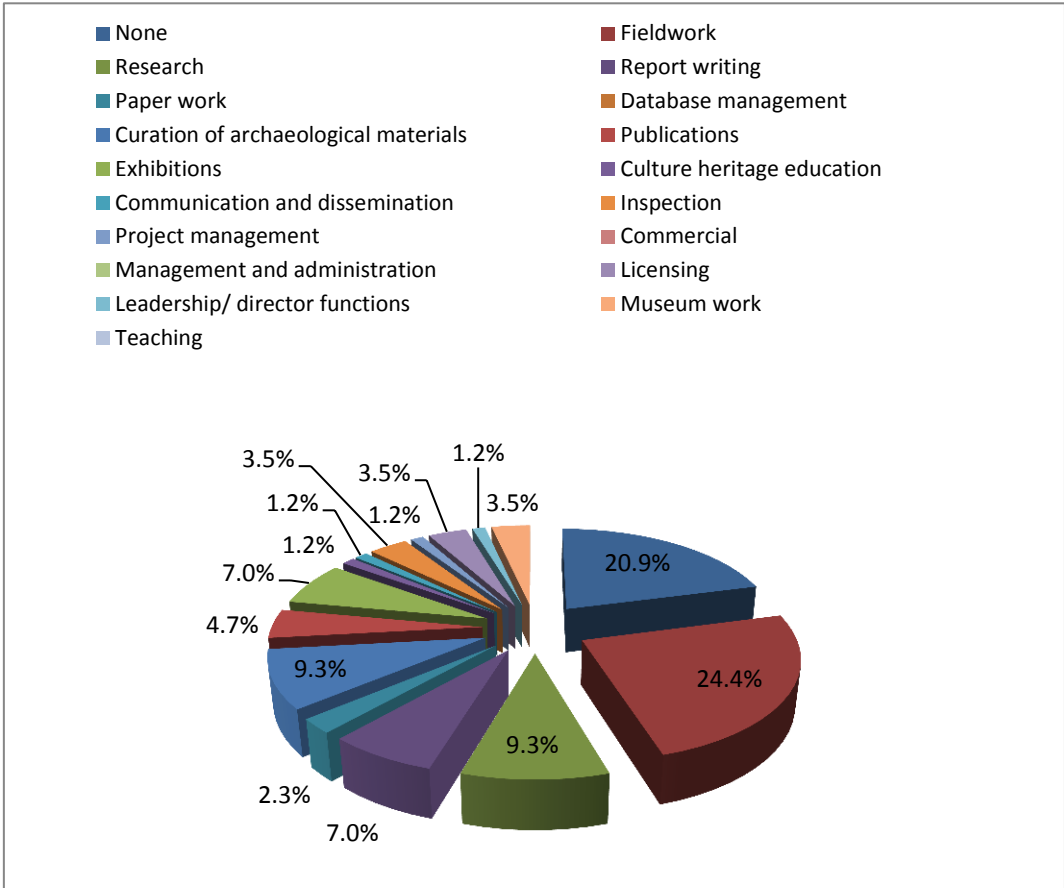


Figure 4.2.2.2 Areas of work in which municipalities have reduced activity in the past 5 years.

CHAPTER 5. Jobs

5.1. Post profiles

In order to define the type of work archaeologists perform in their daily life and the job descriptions they might have, we enquired people what type of work they do on a daily basis. To better quantify the data obtained, we asked archaeologists to identify the 3 most important occupations, in terms of time spent on each particular task.

From the 572 polled people, we obtained 547 answers to this question.

Most people occupy the largest portion of their time in 3 main functions – fieldwork, lab and office work, and report writing (cf. Table and Figure 5.1.1). When combined with research activity, these 3 main occupations constitute the vast majority of work performed by archaeologists.

Job functions	#	%
Fieldwork	411	20
Office/lab work	371	18
Report writing	283	14
Collection management and curation	84	4
Permits and inspection	55	3
Dissemination, publication, exhibits	161	8
Recording and document planning	118	6
Management of archaeological sites	91	4,5
Heritage awareness	83	4
Teaching	70	3,5
Research	280	14
Other activities	28	1

Table 5.1.1 Major activities performed by archaeologists

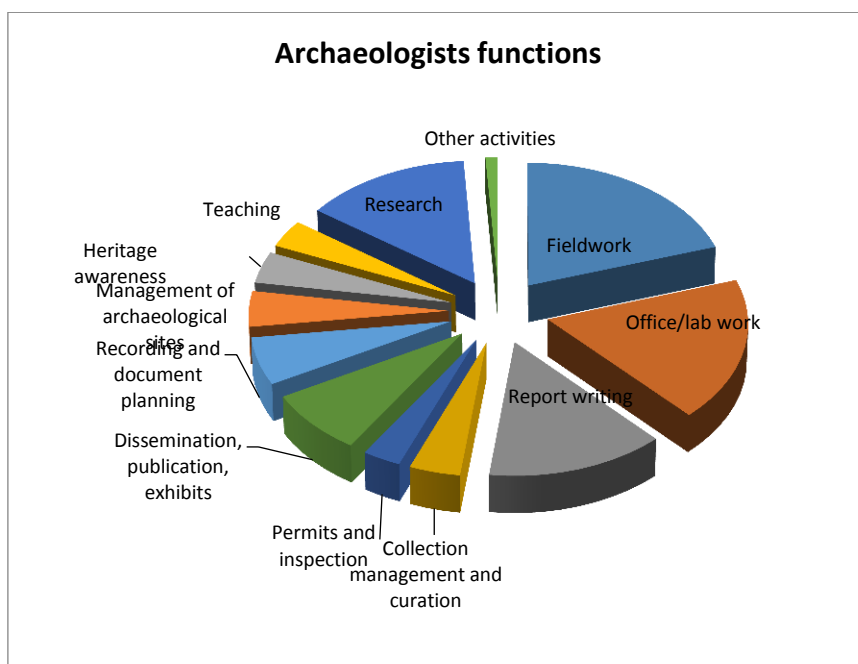


Figure 5.1.1 Major activities performed by archaeologists

5.2. Range of jobs

In order to establish stability of work relationships among archaeologists our questionnaire asked the polled people for how many entities had each one worked for in the year 2013. One quarter of people did not answer this specific question, especially female archaeologists, with 26, 4% of blank answers versus 24, and 5% in males (cf. Table 5.2.1).

Number of entities archaeologists worked for in 2013	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
0	18	8,1	17	8,4	35	8,2
1	122	54,7	110	54,2	232	54,5
2	52	23,3	40	19,7	92	21,6
3	22	9,9	29	14,3	51	12,0
4	5	2,2	5	2,5	10	2,3
>4	4	1,8	2	1,0	6	1,4
Total universe of polled people	303	100	269	100	572	100

Table 5.2.1 Number of entities each archaeologist worked for in the year 2013

From those who responded, 232 do seem to have work stability since they worked only for one single entity in 2013. If we consider the total number of answers to this question (n= 426), then the percentage of single employment entity is of 54, 5 %.

The stability of employment does not appear to be different between males and females (122 in females # 110 in males). There is, nonetheless, a considerable number of people who had to work for two or more entities (n=143, 33, 6 % of the universe of responses to this question).

5.3. Salaries and earnings

One of the main goals of the DISCO 2014 Project is to establish whether the financial crisis of 2008 had an impact on the archaeologists work conditions and the profession as a whole. In order to establish that, we decided to ask people precisely how their salary had evolved from 2008 to 2013. The results show that wages in Archaeology were already low in 2008 (following the general trend in Portugal) but the number of people in the lower wages sector has increased between 2011 and 2013 (cf. Tables and Figures 5.3.1, 5.3.2, 5.3.3, and Table 5.3.4).

	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
<3000 €	33	5,8	34	5,9	67	11,7
3000-4999 €	16	2,8	4	0,7	20	3,5
5000-9999 €	41	7,2	28	4,9	69	12,1
10000-14999 €	71	12,4	74	12,9	145	25,3
15000-19999 €	41	7,2	26	4,5	67	11,7
20000-24999 €	16	2,8	24	4,2	40	7,0
25000-30000 €	17	3,0	12	2,1	29	5,1
>30000 €	12	2,1	17	3,0	29	5,1
No response	56	9,8	50	8,7	106	18,5
Total	303	53,0	269	47,0	572	100,0

Table 5.3.1 Gross annual income in Archaeology by gender, **in 2008** (percentages refer to the total # of polled people, n= 572)

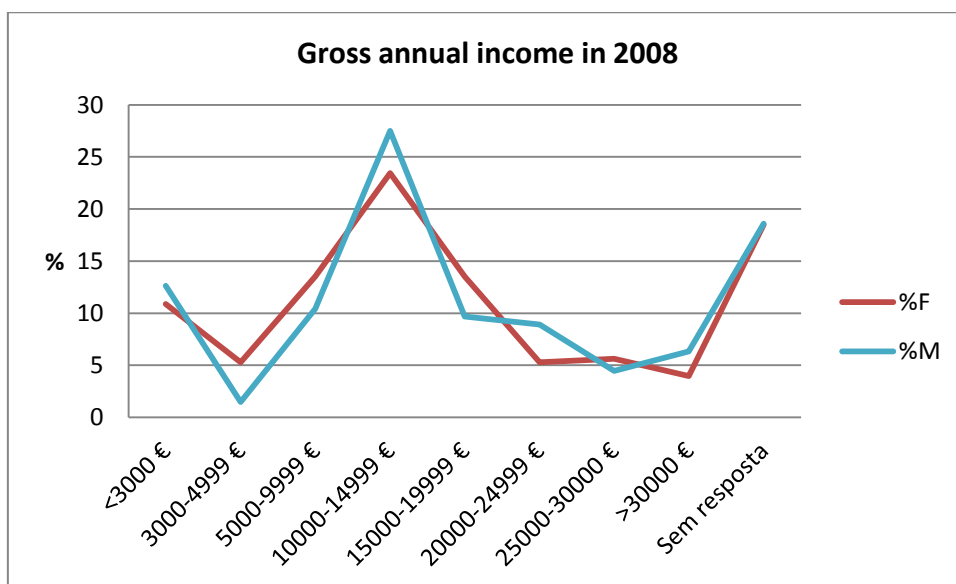


Figure 5.3.1 Gross annual income in Archaeology by gender, in 2008 (percentages refer to the total # of polled people, n= 572)

	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
<3000 €	36	6,3	15	2,6	51	8,9
3000-4999 €	13	2,3	14	2,4	27	4,7
5000-9999 €	39	6,8	37	6,5	76	13,3
10000-14999 €	76	13,3	71	12,4	147	25,7
15000-19999 €	37	6,5	29	5,1	66	11,5
20000-24999 €	27	4,7	19	3,3	46	8,0
25000-30000 €	8	1,4	15	2,6	23	4,0
>30000 €	17	3,0	19	3,3	36	6,3
No response	50	8,7	50	8,7	100	17,5
Total	303	53,0	269	47,0	572	100,0

Table 5.3.2 Gross annual income in Archaeology by gender, in 2010 (percentages refer to the total # of polled people, n= 572)

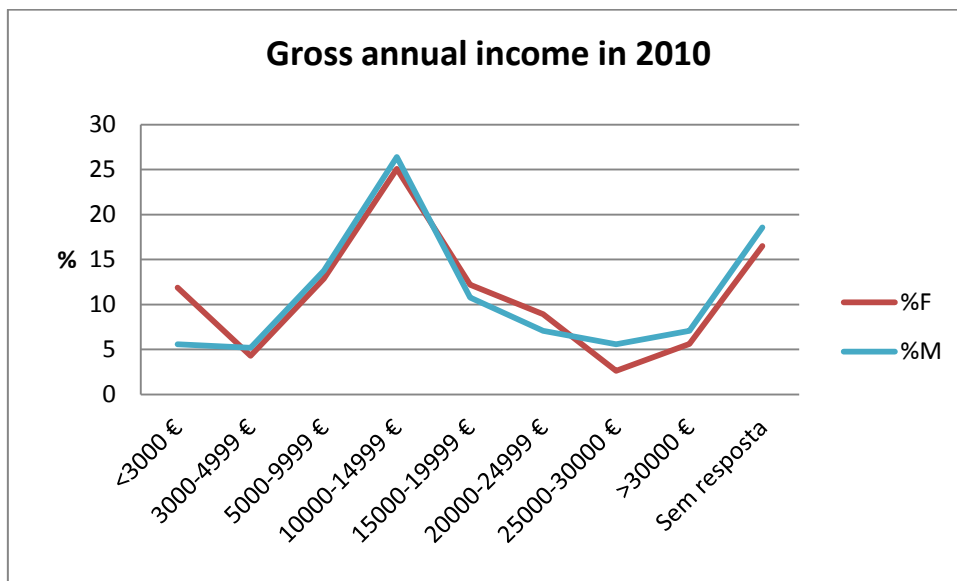


Figure 5.3.2 Gross annual income in Archaeology by gender, in 2010 (percentages refer to the total # of polled people, n= 572)

	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
<3000 €	41	7,2	27	4,7	68	11,9
3000-4999 €	20	3,5	12	2,1	32	5,6
5000-9999 €	43	7,5	45	7,9	88	15,4
10000-14999 €	68	11,9	64	11,2	132	23,1
15000-19999 €	44	7,7	28	4,9	72	12,6
20000-24999 €	21	3,7	23	4,0	44	7,7
25000-30000 €	10	1,7	8	1,4	18	3,1
>30000 €	13	2,3	20	3,5	33	5,8
No response	43	7,5	42	7,3	85	14,9
Total	303	53,0	269	47,0	572	100,0

Table 5.3.3 Gross annual income in Archaeology by gender, in 2013 (percentages refer to the total # of polled people, n= 572)

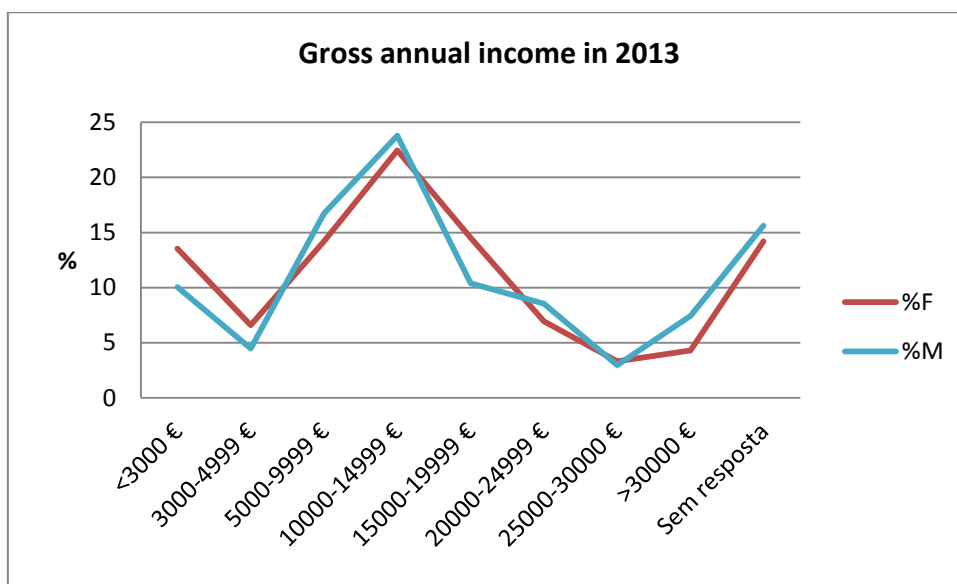


Figure 5.3.3 Gross annual income in Archaeology by gender, in 2013 (percentages refer to the total # of polled people, n= 572)

Archaeologists annual income is significantly low, when we consider that 56% of archaeologists report lower income than the national annual salary (according to the National Statistics Institute, cf. Table 5.3.4).

It is visible that there was general stability of income between 2008 and 2010, likely due to the climax of one major archaeological interventions in the project of the *Sabor River Dam*, northern Portugal, and the *Alqueva irrigation system*, in southern Portugal, which created a significant amount of work for archaeologists and private companies in the sector. The tendency, however, from 2010 to 2013 is for the number of archaeologists to obtain less than 3.000 €uros to be higher than in previous years and for the number of archaeologists reporting an income between 25.000 and 30.000 € to be lower (cf. Figure 5.3.4).

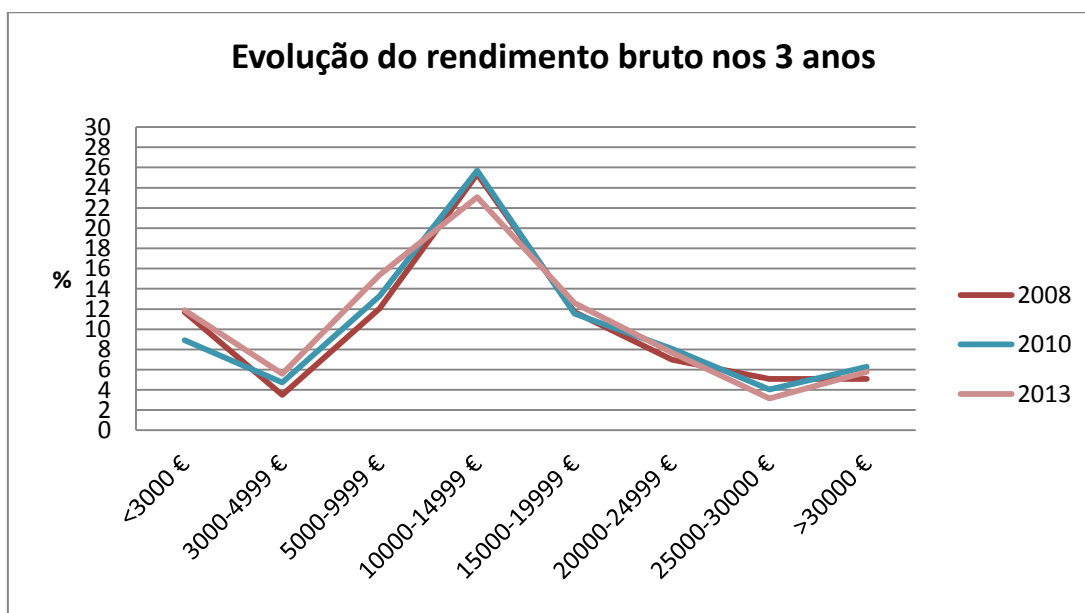


Figure 5.3.4 Evolution of gross annual income in Archaeology from 2008 to 2013 (percentages refer to the total # of polled people, n= 572)

At a general level, when we compare the average gross income of archaeologists in Portugal (12.500,00 €) with the national general average we obtain a significant low result (Table 5.3.4).

Annual income average reported by archaeologists *	Average annual income in Portugal**	% income of archaeologists in relation to the average Portuguese income	Annual average income in people graduated from University in Portugal**	% income of archaeologists in relation to the average worker with a university degree.
12.500 €	15.900 €	78%	29.040	43%

Table 5.3.4 Comparison of annual income of archaeologists with other categories (source: Pordata)

*archaeologists' income was obtained from our individual questionnaire and includes gross income (including salaries for those who have a job). Data refer to 2013.

**average annual income in Portugal refers to the average between salaries and self-employment, thus being comparable to the data obtained from archaeologists individually. Data refer to 2012, the most recent available.

We must, however, emphasize that the average income by home, in Portugal, has suffered a significant reduction (Fig 5.3.5). In every sector, the true crisis was felt after the Programa de Ajustamento Económico e Financeiro (April 2011) – *Economic and Financial Adjustment Programme*.

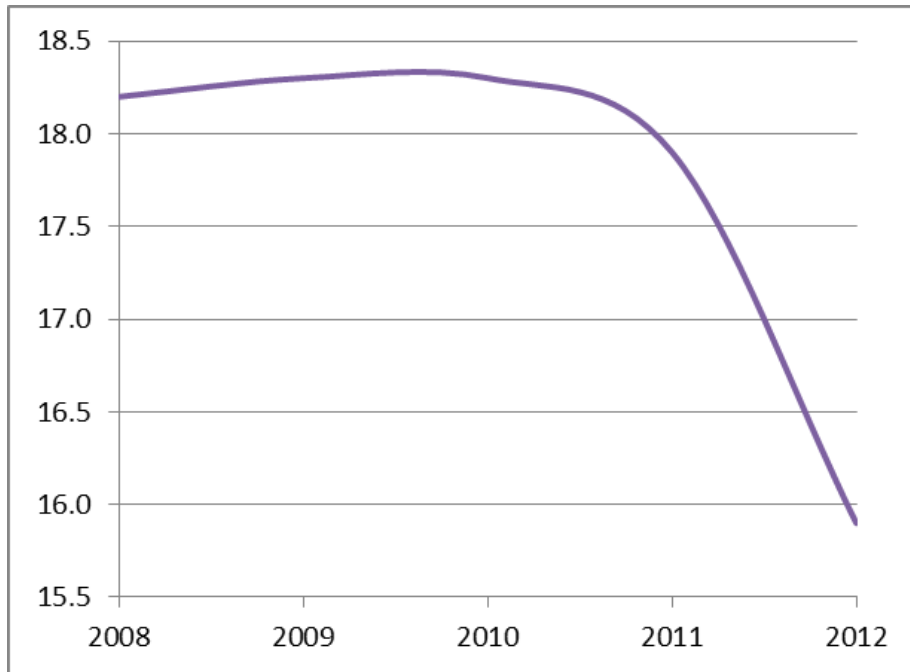


Figure 5.3.5 Evolution of average gross income in Portuguese families (thousands of Euros). Source= PORDATA

In order to establish whether archaeologists needed to have a second job or a second type of activity to complement their income, the individual questionnaire asked that question directly. From the total universe of 572 people enquired, only 3.7% (n= 22) did not answer the question (cf. Table 5.3.5). A large number of people (35% of the enquired) do have a salary complement from a second source of income (cf. Table 5.3.5).

Do you have other professional activity as an income complement?	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
Yes	98	32,34	104	38,66	202	35,31
No	194	64,03	155	57,62	349	61,01
Did not respond	11	3,63	10	3,72	21	3,67
Total	303	100	269	100	572	100

Table 5.3.5 Number of archaeologists who have a second activity as an income supplement

When enquired about the percentage of time they dedicated to the secondary type of activity (source of income), 60% of the enquired responded between 0-20% of the time (Table 5.3.6).

% of time dedicated to a second income source	Female archaeologists		Male archaeologists		Total	
	#	%	Nº	%	Nº	%
0% - 20%	41	41,84	55	52,88	96	47,52
21% - 40%	16	16,33	11	10,58	27	13,37
41% - 60%	10	10,20	10	9,62	20	9,90
61% - 80%	11	11,22	8	7,69	19	9,41
81% - 100%	12	12,24	7	6,73	19	9,41
Did not respond	8	8,16	13	12,50	21	10,40
Total	98	100	104	100	202	100

Table 5.3.6 Percentage of time dedicated to a second activity as an income supplement

5.4. Employee rights and benefits/family issues

In our individual questionnaire, we asked people a few questions about how profession might affect their personal life, especially in the past few years, after the onset of the financial crisis. Our goal was to identify difficulties that might be specific to archaeologists which could affect the normal decision making process regarding starting a family or deciding the place of residence.

People were invited to answer a few questions about the number of children they have and the number of children they would like to have had and how their professional activity and salary has been restrictive of those life options. They were also invited to answer questions about the place they are working and its distance from their residence, as well as the number of employers they presently have and if

they feel the need to have a second job in order to increase their income (cf. Questions number 39, 40, 41 and 42 of Individual Questionnaire in Appendix II).

5.4.1. Number of children

According to the data provided by the individual questionnaire, the number of children per woman archaeologist is 0,5. More than half of the female archaeologists **have no children** (cf. Table 5.4.1.1); **around 56%**, and 23% of female archaeologists only have one child. The maximum number of children is 3.

Data for male archaeologists in Portugal is not substantially different – 0,7 children per man – slightly higher than for females but still far from the national birth rate media, in 2012 (1,28) (data Instituto Nacional de Estatística, PORDATA, 2014).

In male archaeologists, the maximum number of children is 4 and around 18% of males have only one child. Average number of men with children is higher than women and more men have more than one child than women (cf. Table 5.4.1.1).

It is also significant that 15% of people who respond to our individual questionnaire did not find it important to answer this specific question (both women and men, 23 and 22 respectively), together encompassing around 8% of archaeologists.

Number of children	Female archaeologists		Male archaeologists		Total	
	Nº	%	Nº	%	Nº	%
0	172	56,77	139	51,67	311	54,37
1	71	23,43	48	17,84	119	20,80
2	30	9,90	44	16,36	74	12,94
3	7	2,31	15	5,58	22	3,85
4	0	0	1	0,37	1	0,17
Did not respond	23	7,59	22	8,18	45	7,87
Total	303	100	269	100	572	100

Table 5.4.1.1 Number of children in male and female archaeologists

When asked if the small number of children they have is due to the nature of work in Archaeology, 45% of women answered “Yes” (cf. Table 5.4.1.2) and 57% think that it is especially motivated by the low salaries in Archaeology (cf. Table 5.4.1.3) and not so much the nature of archaeological work. Hence, 47% of women replied that if their salary increased, they would have more children than they actually do and 21% of the women answered “maybe” to the same question. For women, as a whole, it is the difficulty of the profession, combined with low salaries that condition their capacity to have more children.

As for male archaeologists, they think that the nature of work in Archaeology is determinant for the reduced number of children (41%) (cf. Table 5.4.1.2) but 53% of males think that salary restrictions are more determinant and 40% of men admit they would have more children if their salary were better (cf. Table 5.4.1.3).

Type of work limits the # of children	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
Yes	137	45,21	111	41,26	248	43,36
No	123	40,59	126	46,84	249	43,53
Did not respond	43	14,19	32	11,90	75	13,11
Total	303	100	269	100	572	100

Table 5.4.1.2 Response to the question whether the type of work in Archaeology is determinant in the reduced number of children

Is the salary determinant in the number of children?	Female archaeologists		Male archaeologists		Total	
	Nº	%	Nº	%	Nº	%
Yes	175	57,76	145	53,90	320	55,94
No	83	27,39	88	32,71	171	29,90
Did not respond	45	14,85	36	13,38	81	14,16
Total	303	100	269	100	572	100

Table 5.4.1.3 Response to the question whether income is determinant in the reduced number of children

As a whole, it is evident that the same reasons determine the lack of children within the archaeologists' adult community, both in males and females. Both think that it is the nature of their work (around 41-45%, cf. Table 5.4.1.2) but mostly reduced wages (47- 53%, cf. Table 5.4.1.3) that limit their capacity to have more offspring.

One can only conclude that archaeologists do not contribute for a natural demographic turnover of Portuguese population! In the case of Portugal, where population is ageing rapidly and endangering the social security system and national economy, this is a serious problem.

It is, however, perfectly clear that if their salaries were higher, most archaeologists (both female and male) would have more children (cf. Table 5.4.1.4).

Would you have more children if your salary were higher?	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
Yes	129	42,57	108	40,15	237	41,43
NO	63	20,79	62	23,05	125	21,85
Maybe	66	21,78	62	23,05	128	22,38
Did not respond	45	14,85	37	13,75	82	14,34
Total	303	100	269	100	572	100

Table 5.4.1.4 Response to the question whether a higher salary would increase the number of children.

5.4.2. Subsistence, subsidised accommodation and other benefits

Employee rights and benefits cannot be evaluated only on the basis of income and legal rights. The type of contract practised in archaeology, except for Central and Local Administration is very variable and highly irregular, as we will discuss below.

Employee rights and benefits can also be estimated through the type of technical support the employer might provide – accommodation, technical equipment, transportation. These we called **Additional Rights and Benefits**.

It is interesting to observe that a considerable number of employers do not provide accommodation for archaeologists while they are in the field (cf. Table 5.4.2.1) and that when they do, it is not on a regular basis, i.e., around 12% of the enquired replied “sometimes”, denouncing that it is not a regular practise. Because of this inconsistency in providing accommodation on a regular basis, the number of people with no guarantee of accommodation reaches exactly 50% in the applicable cases and 52.2% if we exclude people who did not respond to this question. This is a fact to be considered and to be directed to the people involved in decision making on the practise of Archaeolog.

Accommodation provided by employer	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
Sometimes	38	6,64	29	5,07	67	11,7
Yes	89	15,56	90	15,73	179	31,3
No	66	11,54	63	11,01	129	22,6
Not applicable*	102	17,83	78	13,64	180	31,5
No response	8	1,4	9	1,57	17	3,0
Total	303	53,0	269	47,0	572	100,0

Table 5.4.2.1 Additional Employees rights and benefits (accommodation)

The same problem was identified in the case of **transportation**. By definition, archaeologists need to have transportation to their worksite. Given that the results of our enquiry showed that the vast majority of the work that archaeologists do in Portugal is, in fact, in the field, lack of transportation is a problem in the work conditions (cf. Table 5.4.2.2). In fact, 58% of people do not have the guarantee of transportation by the employer and have to use their own means of mobility.

Transportation provided by the worker	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
Sometimes	67	11,71	61	10,66	128	22,4
Yes	109	19,06	99	17,31	208	36,4
No	109	19,06	100	17,48	209	36,5
No response	18	3,15	9	1,57	27	4,7
Total	303	53,0	269	47,0	572	100,0

Table 5.4.2.2 Additional Employees rights and benefits (transportation)

When enquired whether the employer provides the photographic equipment for the field, archaeologists reveal that in 31% of the cases they have to provide their own equipment and in exactly 50% of the times they are not sure whether they will be provided photographic equipment or not (Table 5.4.2.3). These numbers are of major concern, given the fact that archaeologists cannot perform their professional duties without photographic equipment.

Camera provided by the worker	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
Sometimes	70	12,24	44	7,69	114	19,9
Yes	131	22,9	122	21,33	253	44,2
No	84	14,69	94	16,43	178	31,1
No response	18	3,15	9	1,57	27	4,7
Total	303	53,0	269	47,0	572	100,0

Table 5.4.2.3 Additional employees rights and benefits (camera provided by employer)

When enquired whether the archaeologist has to provide his/her own **topographic equipment** the vast majority of archaeologists (73%) answered “No” but around 20% still has to provide it sometimes or all the time (cf. Table 5.4.2.4).

Topographic equipment provided by worker	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
Sometimes	25	4,37	27	4,72	52	9,1
Yes	27	4,72	41	7,17	68	11,9
No	227	39,69	189	33,04	416	72,7
No response	24	4,2	12	2,1	36	6,3
Total	303	53,0	269	47,0	572	100,0

Table 5.4.2.4 Additional Employees rights and benefits (topographic equipment)

5.5. Job security

5.5.1. Types and length of contracts

Portuguese Labour legislation allows several types of contracts to be signed between employers and employees (cf. Table 5.5.1.1.). The more permanent positions are those in categories which can be classified as “*permanent*” (when comparing with YAT terminology, page 136 of YAT report) even though they are not exactly permanent, in the case of public employees. Recent legislation (Law #80/November 2013) ended the permanent nature of contracts in public functions, as a result of negotiations with the external Financial Assistance Agencies (European Central Bank, World Monetary Fund and European Union).

Some of the categories used in the individual questionnaire need some clarification:

Unemployed, working for public services are workers that are presently unemployed who receive Unemployment Insurance but who work for periods of one year in public services, earning a small additional payment for transportation and meals. This army of unemployed people gives public services the opportunity to fulfil the labour needs they presently have while, simultaneously, guaranteeing a certain level of staff turnover. It is a recent process of obtaining free labour, at little cost and sometimes with a high degree of specialization and expertise.

Temporary contracts can be signed under Portuguese Legislation but only for specific tasks, limited in a certain period of time. Employers are not allowed to have sequential temporary contracts with their workers.

Open-ended contracts (using YAT terminology) are possible under Portuguese law, in cases where a specific task/job/contract/project is developed but it might be

interrupted for certain periods of time, hence it is not permanent but it is not limited in time as the temporary, short period contract.

Contractors with staff are those workers who have their own Archaeology private companies and have people on their payroll.

Contractors with no staff are all the archaeologists who work as self-employers, i.e., mostly contracting small impact assessment archaeological interventions, and functioning as a private company with only one worker, no partners, paying high income tax and their own social security. Given the fact that Social Security deduction rates are high in Portugal, most self-employers chose to reduce that deduction, thus affecting their future income once they retire. It is probably the most volatile way of engaging in a work relationship.

Trainees are people who normally have just finished their university degree (in the case of archaeologists) and are working in public or private services for a limited time period. These trainee programs can be paid or not, in which case they are the same as volunteer work, except that the work experience can be used in the CV for future job or graduate studies applications.

Additionally, upon request of YAT, we enquired private companies how many people they had on part-time jobs. From the 23 companies we enquired, 12 of them stated having people on part-time but not archaeologists. To our knowledge from the phone survey we did in July 2014, only ONE archaeologist is working part-time in a private company. In central and local government that type of contract is not legally possible.

The results of our individual questionnaire about the type of labour contract people do hold, the results are surprising (Table 5.5.1.1.) Around 24% of the enquired are public employees. But the most surprising level of response is the number of ***self-employed workers*** (contractors with NO staff), which attains ***23% of the global community of archaeologists*** who responded our questionnaire. ***These results are serious diagnoses of the precariousness and underemployment Portuguese archaeologists presently face.***

Also surprisingly high is the number of people working as unemployed in public services (first category). In contrast, the number of people who declared themselves as unemployed demonstrates nothing more than the degradation of the labour system in Portugal and the underemployment of specialized workers, as is the case with archaeologists.

The total number of responses clearly illustrates that 52% of archaeologists work in temporary conditions and 11% are unemployed.

Type of labour condition in December 2013	#	%
Unemployed, working for public services	31	5,42
Temporary contract in private sector	14	2,45
Temporary contract in public sector	32	5,59
Open ended contract in private sector	29	5,07
Open ended contract in public sector	23	4,02
Public employee	74	12,94
Permanent contract in public sector	67	11,71
Permanent contract in private sector	41	7,17
Contractor with no staff	129	22,55
Contractor with staff	10	1,75
research fellow/graduate student	61	10,66
Permanent contract (general)	1	0,17
retired	3	0,52
Unemployed	34	5,94
Trainee	2	0,35
Volunteer	2	0,35
Did not respond	19	3,32
TOTAL	572	100

Table 5.5.1.1 Labour contracts and work situation

Labour stability is essential to any profession but Portuguese archaeologists are presently in a volatile situation. The results obtained for the type of contract people hold (cf. above) clearly illustrate the deficient labour situation people do have. But even more radical numbers were obtained on the duration of the present contract (cf. table 5.5.1.2). Twenty percent of the enquired stated that they are not working in Archaeology. Among these 20% (n= 111) must be those who are unemployed. The total number of people NOT working in Archaeology is surprising and it demonstrates the slow rhythm this professional activity is currently undergoing.

Length of present contract		
less than 6 months	38	6,6
between 6 and 12 months	62	10,8
1 to 2 years	79	13,8
3 to 6 years	58	10,1
7 to 10 years	70	12,2
11 to 20 years	27	4,7
21 to 30 years	12	2,1
more than 30 years	13	2,3
Since beginning of career	8	1,4
Did not respond	94	16,4
Not working in Archaeology	111	19,4
	572	100

Table 5.5.1.2 Duration of present labour relationship

5.5.2. Mobility

In order to establish the degree of long distance mobility archaeologists endure, we decided to ask what percentage of time individuals were located in their Distrito¹ of residence in the past year – 2013. Surprisingly enough, 47% of the archaeologists who responded to our questionnaire worked out of their residential territory 100% of the time (cf. Table 5.5.2.1). In fact, only 14% of archaeologists worked between 80 to 100% of the time in their “*distrito*” of residency (Table 5.5.2.1).

Male archaeologists are apparently those who work for longer periods far from their residential area (Table 5.5.2.1). Even though women work away from home, in the same distances, they seem to do it for shorter periods of time.

The most important fact is that only 16% of women and 12% of men worked close to their residential area between 80 and 100% of the time. More than 80% of men and women, together, work away from their residential “*distrito*”.

# of times work was done out of the "distrito" of residence in 2013	Females		Males		Total	
	#	%	#	%	#	%
0	140	46	107	40	247	43
1	21	7	21	8	42	7
2 to 4 times	63	21	52	19	115	20
5 to 6 times	25	8	23	9	48	8
8 to 10 times	7	2	17	6	24	4
12 to 15 times	6	2	2	1	8	1
More than 15 times	18	6	33	12	51	9
Did not respond	23	8	14	5	37	6
Total	303	100	269	100	572	100

Table 5.5.2.1 Time working in the “*distrito*” of residence in 2013.

One other goal of our questionnaire was to evaluate mobility of archaeologists within the territory, i.e., if distance from the residential area was permanent or variable; hence, people were invited to inform us how many times they had changed their geographical area of work in the last year. About half of the polled people stated that they did change their geographical area last year and 9% (n=51) of the enquired archaeologists even said they had changed geographical area more than 15 times in 2013 (cf. Table 5.5.2.2).

¹ *Distritos are the regional administrative divisions of Portuguese territories. There are 20 “distritos” in mainland Portugal and two Atlantic territories (Azores and Madeira).*

Number of times archaeologists changed their area of work	Female archaeologists		Male archaeologists		Total	
	#	%	#	%	#	%
0	140	46,20	107	39,78	247	43,18
1	21	6,93	21	7,81	42	7,34
2-4	63	20,79	52	19,33	115	20,10
5-7	25	8,25	23	8,55	48	8,39
8-11	7	2,31	17	6,32	24	4,20
12-15	6	1,98	2	0,74	8	1,40
>15	18	5,94	33	12,27	51	8,92
Did not respond	23	7,59	14	5,20	37	6,47
Total	303	100	269	100	572	100

Table 5.5.2.2 Number of times archaeologists changed geographical area of work in 2013.

CHAPTER 6. Training

6.1. Training demand

Portuguese archaeologists demonstrated in the present enquiry that they do look for opportunities to enhance their academic and professional training skills. When asked if further training was obtained after their BA, 75% of the enquired answered “yes”.

Training after BA degree	#	%
Yes	426	74,5
No	133	23,3
No response	13	2,3
Total	572	100

Table 6.1.1 Professional and academic training after BA among archaeologists

Post-university training can be obtained at the academic level with MA and PhD degrees (cf. section 3.6) and at the “professional”, more technical level. We asked archaeologists in which areas they obtained further education after obtaining their Archaeology degree (or equivalent). The results demonstrate that archaeologists have obtained further professional training in areas such as Geographical Information Systems, Drafting and Illustration Software, Computing Science and Photography. In fact these are areas that are not offered to students at the University (Figure 6.1.1).

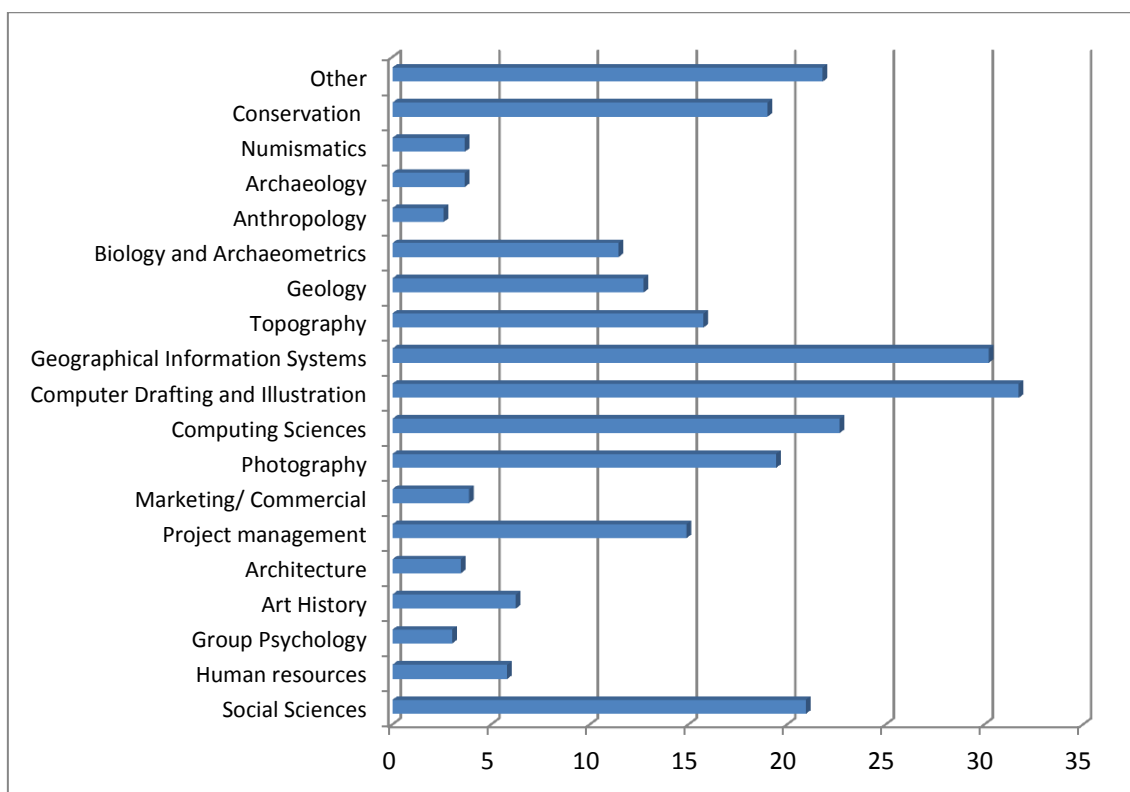


Figure 6.1.1 Areas in which archaeologists have obtained formal training after their BA degree

6.2. Training delivery

In Portugal, given the nature of archaeological activity and legislation, it is possible for archaeologists to have formal academic training in the discipline but never be able to conduct an excavation, unless they previously have a co-direction of an archaeological intervention. Furthermore, it is the State Agency with responsibility for archaeological permit emission that decides if an archaeologist may or may not be responsible for a given intervention, considering the nature of the site, its chronological period, etc.

Before the end of the 1990 decade, Portuguese archaeologists traditionally received academic training in History. In the past two decades, however, some universities created specific degrees in Archaeology (University of Porto and University of Minho) or a specialization in the discipline, within the degree in History (University of Lisbon and Universidade Nova de Lisboa), while others chose to extend their offer to Cultural Heritage Management degrees (University of Algarve and University of Évora). Academic *curricula*, however, suffered a substantial change in 2005 and 2006, when Portuguese universities changed their academic programmes and signed the Bologna Treaty.

Portuguese national agencies ruling archaeological activity adapted their regulations to the new academic reality. After 2006, people with a BA in Archaeology, obtained after the signature of the Bologna Treaty (and the adoption of its *curricula* by national universities), can no longer be responsible for archaeological interventions; they have to have a degree equivalent to an MA. This took professionals by surprise and created a significant crisis in employment, given the fact that Master degrees are significantly expensive in Portuguese universities, contradicting the principles of **Long-life Learning** supported by the Bologna Treaty.

6.3. Employers commitment to qualification and training

From the questionnaire addressed by DISCO 2014 to the employers, we concluded that employers' commitment to qualification and training is not sufficient. It became clear, however, that more than half of Portuguese archaeologists do pursue continuous professional training (cf. Table 6.3.1) on a regular basis.

Continuous professional training		
	#	%
yes	305	53,3
no	260	45,5
did not respond	7	1,2
Total	572	100,0

Table 6.3.1 Frequent and regular professional training among archaeologists

The frequency of professional training is, however, reduced, as the results from our questionnaires reveal (Table 6.3.2). Only 20% of the enquired enrol in professional training more than once a year. This might be due to the lack of commitment from the employers but our questionnaire did not ask that question directly.

Frequency of professional training		
	#	%
never	125	21,9
once a year	210	36,7
twice a year	47	8,2
more than twice a year	64	11,2
did not respond	126	22,0
Total	572	100

Table 6.3.2 Number of professional upgrade courses archaeologists normally undertake per year

The individual questionnaire did, however, ask archaeologists whether the lack of money was a main reason for the absence of further academic and professional training. The answer was a massive 75% “Yes” which allows us to infer that employers’ commitment to staff training and development is significantly insufficient (cf. Figure 6.3.1).

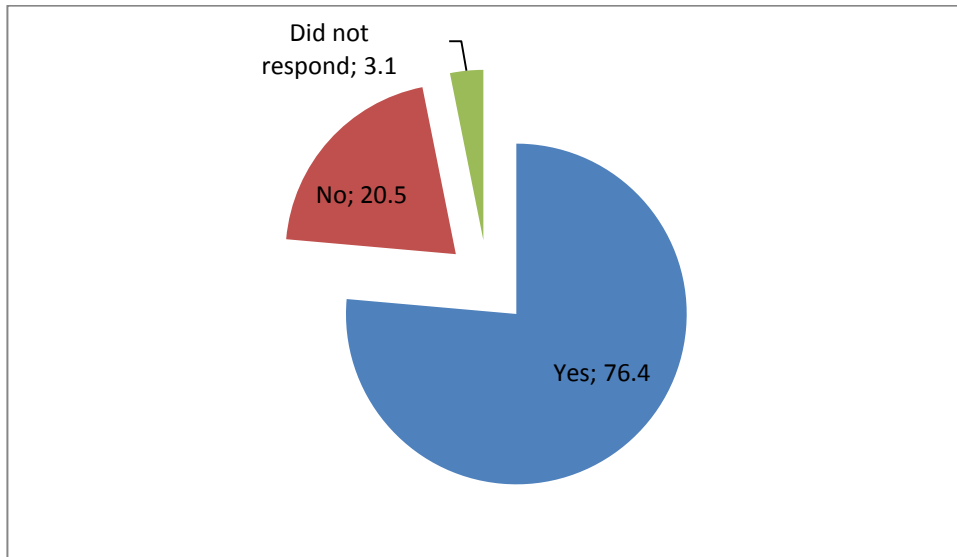


Figure 6.3.1 Does the level of income influence further professional training?

6.4. Skills gaps and shortages

At the academic level it is obvious that training is too formal and too theoretical, leading archaeologists to seek complementary (more technical) training elsewhere (cf. Figure 6.1.1. above). University training is somewhat distant from the practical field and lab skills archaeologists need to master.

These gaps and shortages are reflected in the areas that institutions identified as those that their archaeologists most need (Table 6.4.1). Analysis of the subjects mentioned by local government institutions (the most numerous) demonstrates that practical areas such as computer drafting and illustration, together with *Geographical Information Systems* are those more frequently identified. In fact, municipalities have to manage the archaeological sites present in their territories, not only for their valorisation, but also because it is the local government organisations who are responsible for issuing construction permits; therefore, they have a special need to know the territory to detail and manage it in a expedite manner.

Universities who offer the degrees that allow archaeologists to excavate in Portugal have to consider changing their academic curricula in order to accommodate these gaps and shortage.

Areas in which organisations identify shortages in learning	Private companies	Municipalities	Research centres	Central government	Atlantic territories	State owned companies	Foundations	National museum	Regional museums	Universities
Topography	4	3				1				
Archaeology drafting and illustration	5	9		1				1		
Photography	2	1		1		1				
Computing science	7	3								
Management	1						1			
Project management	2	1								
Cultural heritage management		3								
Archaeological materials		3								
Museum work	1	4								
Intangible cultural heritage		1								
Archaeology of architecture	1	1								
Geomorphology		1								
GIS	2	9	1							1
Communication	1	3					1			1
Databases		3		1						1
Autocad	2	3				1				
Team work		1								
Field methods	1	2	1							
Urban planning		1								
Conservation and restoration	1	6						1		
Preventive conservation		4	1							
Inventory		1								
Geology	2			1						
Ethnography	1									
Public archaeology		2								
Human resources	2									
Scientific publications		1								
Underwater archaeology		2								
Licensing		1								
Human paleobiology		1								
Site valorisation		3								
Cultural heritage legislation	1	2		1						
Tourism	1	1								
Safety measures	1						1			
Professional ethics							1			
Information technologies				1						
Administration				1						

Table 6.4.1 Areas in which organisations identify gaps and shortages of training among archaeologists

7. Conclusions and recommendations

The results of the Portuguese report identify some issues that justify an assertive intervention, especially directed towards decision makers. Perhaps the most important point, in terms of national priorities, is the fact that birth rate among archaeologists is dramatically low (0.5), well below the national average of 1.5. This is a matter of concern that needs to be addressed to the Parliament. A need for policies that will protect females, families and birth conditions and childhood protection was identified by the present study. In fact, archaeologists clearly identify the lack of money as responsible for the reduced number of children they have.

Furthermore, in the commercial sector of Archaeology, there is a considerable amount of cases in which the archaeologist has to provide his/her own accommodation, travel means, and even photographic equipment. Equally disturbing is the rising of mobility periods for archaeologists working in the field and the seasonality of employment (open ended contracts).

Unemployment, according to our questionnaire, reaches 10% of the population of archaeologists but this number must refer to those who still have not given up this professional activity. Six percent of the unemployed reported are working for the public sector without any further payment, on a special temporary programme for occupation of unemployed citizens (Programa Inserção +).

Academic training does not appear to be totally appropriate for the professional activity and academic curricula need to be transformed in order to fulfil the need for more practical issues and more up to date subjects.

Of great concern are the inadequate Lifelong Learning habits among archaeologists and employers. Even among the public sector there is not a routine and incentive for archaeologists to pursue professional training. When archaeologists do seek professional training they do it on own will and curiosity. This issue has to be addressed with the commercial and public sector of Archaeology.

Since APA is a professional organisation created to support and promote the good practises among professionals in the discipline, the results obtained lead to the definition of a few areas of intervention in the near future:

1. APA must promote regular updates of the profession in Portugal, preferentially in an international context, such as DISCO 2014.
2. APA should disseminate its professional ethics code, among archaeologists and institutions.
3. Given the growing globalisation process, APA and other similar institutions should invest in international experiences and projects which can promote mobility of the professionals and the assertion of the discipline in the European and world networks.

4. Given the potential of archaeological heritage in development, and in cultural, social and economic changes within the local communities, public entities responsible for management of archaeological sites must implement adequate strategies that can lead to their use in a sustainable way, thus promoting the conservation and valorisation of those sites and ensuring jobs for archaeologists.

5. APA recommends the urgent review of the Regulations (Regulamento dos Trabalhos Arqueológicos) so that the relationship of archaeologists with the central government authorities can be altered in a way that can diminish the bureaucratic procedures presently existent.

6. Around 60% of Portuguese archaeologists work in the private sector. The main occupation of these professionals is Salvage Archaeology (Preventive or Rescue); this type of intervention frequently implies temporary labour contracts and short term operations. Hence, we think that the Direção Geral do Património Cultural – DGPC – must increase its inspection activity so that professionals can be less dependent on the decision of the contractors. This recommendation is particularly emphasized in Urban Archaeology interventions.

7. Research Archaeology is concentrated in the research centres, universities and central administration, while Salvage Archaeology is performed almost exclusively by private companies. This separation of activities creates the danger of segregation of knowledge that might be damaging the construction of knowledge in Archaeology. Therefore, we recommend that the central government structures should create mechanisms for approaching central and local agents in the field with universities and private companies, as well as the universities and research centres.

8. Simultaneously, we verify that the archaeologists with more varied types of functions in their jobs are those working for local government structures. But not every municipality has an archaeologist among their staff. Hence, we recommend that the presence of these professionals in these structures must be evenly distributed throughout the territory, guaranteeing a proper protection of our heritage.

9. Some of the functions that are presently exclusive to the central government agencies (namely inspection of sites and archaeological work in the field) should be transferred and/or shared with the local government professionals so that a more intense surveillance of sites and illegal activity can be effective.

10. Our results indicate a fast reduction of the turnover of private companies in Archaeology. The professionals also report a degradation of the type of work developed in the past five years. So we recommend that central government – DGPC – should increase its inspection actions, namely through the mechanisms proposed in 9.

11. Given that the precarious nature of work is one of the problems reported in the answers to our questionnaire, we address the entities that employ archaeologists so that they reflect upon the subject and start offering better work conditions to professionals.

12. In what concerns gaps and shortages in the education offered by universities, we recommend that these institutions include more practical subjects in their academic *curricula* so that archaeologists can start their profession in a more confident manner and update knowledge, without having to obtain it from the beginning.

13. APA (cf. 12) will offer specific courses in subjects identified as necessary in the present enquiry, so that professionals can obtain adequate knowledge in the pursuit of their career.

14. APA will promote meetings with universities (cf.12) in order to pressure the decision makers to change curricula so that the appropriate subjects can be taught in the university degrees.

15. The National Agency for Science (FCT) will be addressed by APA in order to demonstrate that renewed funding is necessary for MA and PhD scholarships, in order to guarantee that the resent crisis does not affect the search for knowledge visible among the professionals in Archaeology in Archaeology.

16. DISCO 2014 allowed us to identify specific problems related to the dynamics of the discipline and its professionals versus society, in general, and state institutions, in particular. In that way, the project was of undeniable value and motivated us to address the authorities and state institutions for the need to clarify various aspects of the profession and of our communication with the public.

Some positive issues have been identified, such as the role that Archaeology has had in the construction of a Europe of Knowledge about our common past. In the case of Portugal, given that community of archaeologists is mostly young and prone to invest in long-life training and academic education, it constitutes a body of professionals able to intervene in diverse areas of Cultural Heritage Protection, Analysis, Dissemination and Valorisation.

References

- AAVV (1979) - *Informação Arqueológica 1 1977-1978*, Braga, and Universidade do Minho
- AAVV (1980) - *Informação Arqueológica 3*, 1980 Lisboa, 3, IPPC.
- AAVV (1982) - *Informação Arqueológica 1979*, Lisboa, 2, IPPC.
- AAVV (1984) - *Informação Arqueológica 4*, 1981 Lisboa, IPPC.
- AAVV (1985) - *Informação Arqueológica 5, 1982-83* Lisboa, IPPC.
- AAVV (1986) - *Informação Arqueológica 6*, 1984 Lisboa, IPPC.
- AAVV (1986) - *Informação Arqueológica 7*, 1985 Lisboa, IPPC.
- AAVV (1987) - *Informação Arqueológica 8*, 1986, Lisboa, IPPC.
- AAVV (1994) - *Informação Arqueológica 9*, 1994 Lisboa, IPPAR.
- AAVV (2014) – *Inquérito à Fecundidade 2013*, Lisboa, Instituto Nacional de Estatística, IP, Fundação Francisco Manuel dos Santos.
- AITCHISON, K. (2009) - *Discovering the Archaeologists of Europe: Transnational Report, Institute for Archaeologists*. [Em linha. Disponível em <http://www.discovering-archaeologists.eu/final-reports.html>].
- ALMEIDA, A. J. (2007) – “Empregabilidade, contextos de trabalho e funcionamento do mercado de trabalho em Portugal”, *Sísifo. Revista de Ciências da Educação*, 2: 51-58.
- ALMEIDA, M., NEVES, M. J. (2006) – “A Arqueologia Low-cost: fatalidade nacional ou opção de classe? O modelo empresarial”. *Al-Madan*. IIª Série, 14: 86-91.
- BUGALHÃO, J. (2011) - “A Arqueologia Portuguesa nas últimas décadas”, *Arqueologia & História*, 60-61: 19-43.
- BUGALHÃO, J., LUCENA, A., BRAGANÇA, F., NETO, F., SOUSA, M. J., GOMES, S., COSTA, J. P., CALDEIRA, N., VIRALHADAS, P., FRAGA, T. (2002) - Endovélico – Sistema de Gestão e Informação Arqueológica. *Revista Portuguesa de Arqueologia*, 5 (1): 277-283.
- CORREIA, V. H. (2003) – “Um depoimento pessoal(íssimo)”, In Carneiro, S. (Coord.), *Nos 10 anos da APA. Que futuro para a Arqueologia Profissional?* Porto, Associação Profissional de Arqueólogos: 77-83.
- DUARTE, C. (2013) – “Conhecer a Profissão de Arqueólogo em Portugal e na União Europeia”, *Al-Madan online*, 18, (2), 143. [Em linha. Disponível em http://issuu.com/almadan/docs/maqueta18_2_online_completa].
- FABIÃO, C. (2011) – *Uma História da Arqueologia Portuguesa das origens à descoberta da arte do Côa*, (s.n.), CTT Correios de Portugal.

JORGE, V. O. (2003a) - A «escavação» como microcosmo social: reflexões sobre a prática arqueológica. In Carneiro, S. (Coord.), *Nos 10 anos da APA. Que futuro para a Arqueologia Profissional?* Porto, Associação Profissional de Arqueólogos: 25-47.

JORGE, V. O., JORGE, S. O. (1998). Arqueologia portuguesa no séc XX: alguns tópicos para um balanço. In Jorge, S. O.; Jorge, V. O., *Arqueologia. Percursos e interrogações*. Porto, ADECAP: 13-29.

LAGO, M. (2003) – “Profissão: arqueólogo (na transição do milénio)”, In Carneiro, S. (Coord.), *Nos 10 anos da APA. Que futuro para a Arqueologia Profissional?* Porto, Associação Profissional de Arqueólogos: 95-108.

LOPES, A. (2012) – “Segurança e Saúde em Trabalhos Arqueológicos: resultados de uma análise preliminar”. *Al-Madan Online*. 17 (1), 14-18.

MATEUS, J. E., MORENO-GARCIA, M. (2003) – *Trabalhos de Arqueologia, nº 29, Paleoecologia Humana e Arqueociências. Um Programa Multidisciplinar para a Arqueologia sob a Tutela da Cultura*, Lisboa, Instituto Português de Arqueologia.

MESQUITA, A., SIMÕES, S. (2014) – “Os trabalhadores de Arqueologia Portugueses já têm um sindicato”, *Almadan online* [Em linha. Disponível em http://issuu.com/almadan/docs/al_madanonline19_1/0].

OOSTERBEEK, L. (2006) – “ Ensino Superior e Empresas de Arqueologia: uma relação imprescindível” *ERA-Arqueologia*, 7: 6-15.

RAPOSO, J. (1997a) - “Entrevista ao João Zilhão” *Al-Madan*, IIª série, 6: 78-98.

RAPOSO, J. (2005) – “Directório de Empresas e Profissionais de Arqueologia & Património”. *Al-Madan*, IIª Série, 13: 89-112.

SILVA, A. C. (1999) – “A Arqueologia Portuguesa no Século XX. Um testemunho muito pessoal”, *Al-Madan*, 2ª série, 8: 33-137.

SILVA, A. C. (2002) – “Das propostas de Estácio da Veiga (1880) à criação dos Instituto Português de Arqueologia (1996) – Cem anos de equívocos na gestão do património arqueológico”, *Arqueologia e História. Revista da Associação dos Arqueólogos Portugueses, Arqueologia 2000. Balanço de um século de Investigação Arqueológica em Portugal*, 54: 299-315.

SILVA, A. M. S. P. (1993) – “Da Dependência à Dignidade: a urgência de uma Associação Profissional de Arqueólogos”. *Al-Madan*, IIª Série, 2: 54-57.

SILVA, A. M. S. P. (2005) – “A Arqueologia-Modo-de-Vida é Ainda Investigação?”. *Al-Madan*. IIª Série, 13: 17-19

SILVA, A. M., OSÓRIO, I. P., GOMES, P. D., TEIXEIRA, R., CARVALHO, T. P. (1994) – “Bases para a constituição de uma Associação Profissional de Arqueólogos”, *V Jornadas Arqueológicas (20, 21 e 22 de Maio de 1993) Associação dos Arqueólogos Portugueses*, Vol. 1: 75-81.

www.ine.pt (consultado em abril de 2014)

www.pordata.pt (consultado em março, abril, maio de 2014)

www.ffms.pt (consultado em abril de 2014)

www.fct.pt (consultado em maio de 2014)

www.iefp.pt (consultado em maio de 2014)

www.dges.mctes.pt (consultado em maio de 2014)

www.caa.org (consultado em abril de 2014)

www.arqa.pt (consultado em abril de 2014)

www.arqueologos.pt (consultado em abril de 2014)

Appendix I

List of organizations contacted for survey.

TYPE OF INSTITUTION	Name/Location
Municipality	ABRANTES
	ÁGUEDA
	ALBUFEIRA
	ALCÁCER DO SAL
	ALCOBAÇA
	ALCOCHETE
	ALCOUTIM
	ALIJÓ
	ALMADA
	ALTER DO CHÃO
	AMADORA
	ANSIÃO
	ARCOS DE VALDEVEZ
	ARGANIL
	ARRUDA DOS VINHOS
	AVEIRO
	AVIS
	BAIÃO
	BARCELOS
	BARREIRO
	BATALHA
	BELMONTE
	BENAVENTE
	BOMBARRAL
	BRAGA
	BRAGANÇA
	CADAVAL
	CALDAS DA RAINHA
	CAMINHA
	CANTANHEDE
	CARRAZEDA DE ANSIÕES
	CARREGAL DO SAL
	CASCAIS
	CASTELO BRANCO
	CASTELO DE PAIVA
	CASTRO VERDE
	CELORICO DA BEIRA
	CHAVES

COIMBRA
CORUCHE
ELVAS
ESPINHO
ESPOSENDE
ÉVORA
FARO
FELGUEIRAS
FERREIRA DO ALENTEJO
FIGUEIRA DA FOZ
FUNDÃO
GÓIS
GUARDA
GUIMARÃES
IDANHA-A-NOVA
LAGOS
LAMEGO
LEIRIA
LOULÉ
LOURES
LOUSÃ
LOUSADA
MAÇÃO
MACHICO
MAFRA
MAIA
MANGUALDE
MATOSINHOS
MIRANDA DO CORVO
MIRANDELA
MOGADOURO
MONÇÃO
MONFORTE
MONTEMOR-O-NOVO
MONTEMOR-O-VELHO
MOURA
ÓBIDOS
ODIVELAS
OEIRAS
OLHÃO
OLIVEIRA DE AZEMÉIS
OLIVEIRA DO HOSPITAL
OURÉM

OURIQUE
OVAR
PAÇOS DE FERREIRA
PALMELA
PAREDES
PENAFIEL
PENELA
PENICHE
PONTE DA BARCA
PONTE DE LIMA
PORTIMÃO
PORTO
PÓVOA DE LANHOSO
PÓVOA DE VARZIM
REDONDO
REGUENGOS DE MONSARAZ
RIBEIRA DE PENA
RIO MAIOR
SABROSA
SABUGAL
SANTA MARIA DA FEIRA
SANTARÉM
SANTO TIRSO
SÃO BRÁS DE ALPORTEL
SÁTÃO
SERPA
SERTÃO
SESIMBRA
SETÚBAL
SEVER DO VOUGA
SILVES
SINTRA
TAVIRA
TORRES VEDRAS
TRANCOSO
VALE DE CAMBRA
VIANA DO CASTELO
VIDIGUEIRA
VILA DO BISPO
VILA DO CONDE
VILA DO PORTO
VILA FRANCA DE XIRA
VILA NOVA DE CERVEIRA
VILA NOVA DE FAMALICÃO

	VILA NOVA DE GAIA
	VILA REAL DE SANTO ANTÓNIO
	VINHAIS
National and regional museums	Museu Machado de Castro
	Museu Ibérico de Arqueologia e Arte
	Museu de Arqueologia e Etnografia do Distrito de Setúbal
	Museu de Tibães
	Museu de Lamego
	Museu Monográfico de Conímbriga
	Museu Nacional de Arqueologia
	Museu do Ferro de Torre de Moncorvo
Museu D. Diogo de Sousa	
Research centres	Centro de Arqueologia da Universidade de Lisboa
	Centro de História de Além Mar
	Centro de Pré-História do Instituto Politécnico de Tomar
	Centro de Arqueologia Caetano Melo Beirão
	Centro de Estudos de Arqueologia Moderna
	Centro de Investigação Transdisciplinar Cultura, Espaço e Memória
	ICArEHB, Universidade do Algarve
	Núcleo de Arqueologia e Paleoecologia da Universidade do Algarve
	Centro de Interpretação de Arqueologia do Alto Ribatejo
	Centro de História da Arte e Investigação Artística
	Centro de Geociências de Coimbra
	Instituto Arqueologia de Coimbra/CEAUPC
	Unidade de Arqueologia da Universidade do Minho
	Centro de Geociência da UTAD
Instituto de Arqueologia e Paeociências	
Centro de Arqueologia de Mértola	
Universities and colleges	Universidade do Minho
	Universidade de de Trás-os-Montes e Alto Douro
	Universidade do Porto
	Universidade de Coimbra
	Instituto Politécnico de Tomar
	Universidade de Lisboa
	Universidade Nova de Lisboa
	Universidade de Évora
Universidade do Algarve	
State owned companies	Metro do Porto
	EDP, EP
	Estradas de Portugal, EP
	EDIA
Central government	Direção Geral do Património Cultural
	Direção Regional de Cultura do Norte
	Direção Regional de Cultura do Centro

	Direção Regional de Cultura do Alentejo
	Direção Regional de Cultura do Algarve
Regional government	Direção Regional de Serviços do Património (Açores)
	Direção Regional dos Assuntos Culturais (Madeira)
Consulting companies	Consulgal, SA
Construction company Sabor river dam	ACE - Baixo Sabor
Construction company	Ediestreito, LDA
Association	Associação dos Arqueólogos Portugueses
Association	ÁRKESIS - Associação de Investigação Arqueológica e Disciplinas Afins
Tourism	TroiaResort
Foundations	Fundação Côa
	Núcleo Arqueológico da Rua dos Correeiros, Fundação Millennium BCP
Archaeology private companies	AESARQUEOLOGIA, Lda.
	AMPHORA, Arqueologia Lda.
	ARCHEO ESTUDOS, Investigação Arqueológica, Lda.
	ARCHEOCASCAIS, Estudos de Património e Formação, Lda
	ARKEOHABILIS - Arqueologia e Paisagem, Lda
	ARPA - Arqueologia e Património, Lda
	ARQUEOHOJE - Conservação e Restauro do Património Monumental, Lda.
	Arqueologia & Património - Ricardo Teixeira & Vitor Fonseca - arqueologia Lda
	CRIVARQUE - Estudos de Impacto Trabalhos Geo-Arqueológicos, Lda
	DRYAS Arqueologia, Lda ⁹
	EMERITA - Empresa Portuguesa de Arqueologia, Uni. Lda
	EMPATIA - Arqueologia, Lda
	ERA Arqueologia, S.A.
	ETNOS - Património e Turismo Cultural, Lda.
	IAS - Investigação Arqueológica Subaquática, Lda
	LOGIARK, Serviços Arqueológicos, Unipessoal Lda.
	MUNIS, Lda - Atelier de Arqueologia
	MYTHICA ARQUEOLOGIA, Lda.
	NEOÉPICA - Arqueologia e Património
	NOVARQUEOLOGIA, Arqueologia, Informática e Serviços, LDA.
	OMNIKNOS - Arqueologia, Valorização do Património e da Cultura
	OZECARUS, Serviços Arqueológicos, Lda.
	PALIMPSESTO - Estudo e Preservação do Património Cultural, Lda
PERENNIA MONUMENTA - Serviços Técnicos de Arqueologia, Lda.	
ZEPHYROS - Investigação, Conservação e Restauro em Arqueologia	

Appendix II

Individual questionnaire

Discovering the archaeologists of Europe

Questionário Individual

A Associação Profissional de Arqueólogos, em conjunto com a Comissão Europeia e o York Archaeological Trust, promove a caracterização da profissão de arqueólogo em 21 países europeus.

Pretende-se saber em que condições os arqueólogos exercem hoje a profissão e as alterações que se operaram nos últimos cinco anos, após o início da presente crise europeia, em 2008.

A base deste relatório são dois inquéritos, formulados respetivamente para indivíduos e instituições. O presente inquérito destina-se aos indivíduos que trabalham em Arqueologia. É importante conhecer em que condições se exerce a profissão para se poder influenciar os Órgãos de Decisão na tomada de decisões relevantes para os arqueólogos.

Pedimos-lhe, por isso, que preencha o presente inquérito que se mantém anónimo.

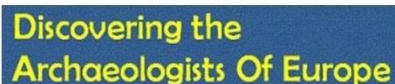
Se tiver mais informações a fornecer que não estejam contempladas neste formulário, por favor envie um email para presidente@aparqueologos.org. Garantimos que o sigilo será mantido!

Obrigada!

*Obrigatório



ASSOCIAÇÃO PROFISSIONAL DE ARQUEÓLOGOS



Lifelong Learning

1.

Género *

Marcar apenas uma oval.

Masculino

Feminino

2.

Qual a sua idade a 31 de dezembro de 2013?

3.

Qual o seu país de origem? *

4.

Qual a sua licenciatura? *

Marcar tudo o que for aplicável.

- História
- História, variante Arqueologia
- Arqueologia e História/História e Arqueologia
- Antropologia
- Património Cultural
- Outra:

5.

Qual o seu grau académico mais elevado?

Marcar apenas uma oval.

- Licenciatura pré-bolonha
- Mestrado pré-bolonha
- Doutoramento pré-bolonha
- Licenciatura bolonha
- Mestrado bolonha
- Doutoramento bolonha

6.

Em que instituição de ensino superior o obteve?

7.

Qual o ano em que o obteve?

8.

Obteve formação após a licenciatura?

Entende-se por "formação após a licenciatura" toda e qualquer formação destinada à especialização numa determinada área pertinente para o desempenho da actividade ou ao aprofundamento de técnicas de investigação, regulada ou não pelo Ministério da Educação e do Ensino Superior.

Marcar apenas uma oval.

- Sim
- Não

9.

Qual?

Marcar tudo o que for aplicável.

- Topografia
- Geologia
- Biologia
- Recursos humanos
- Informática
- Psicologia do trabalho de grupo
- SIG
- CAD
- Programas informáticos de ilustração
- Ciências sociais e humanas
- Fotografia
- Conservação e restauro
- Numismática
- Arquitetura
- História de arte
- Gestão de projetos
- Marketing/Comercial
- Outra:

10.

Mantém ações de formação contínua?

Marcar apenas uma oval.

- Sim
- Não

11.

Com que frequência?

Marcar apenas uma oval.

- Nunca
- Uma vez por ano
- Duas vezes por ano
- Mais vezes por ano

12.

O valor do seu rendimento condiciona a frequência com que efectua essas ações de formação?

Marcar apenas uma oval.

- Sim
- Não

13. **Está a trabalhar em Arqueologia neste momento?**

Marcar apenas uma oval.

- Sim
 Não

14. **Há quanto tempo exerce a profissão de arqueólogo?**

15. **Quantos dias trabalhou como arqueólogo no último ano?**

16. **Que tipo de vínculo laboral possui?**

* Vulgo "Quadro". ** Este tipo de contratos dura o tempo necessário à verificação do acontecimento que motivou a sua celebração. Incluem-se neste tipo de contratos os chamados "contrato de obra".

Marcar apenas uma oval.

- Desempregado, num programa de inserção
 Contrato a termo em instituição privada
 Contrato a termo numa instituição pública
 Contrato a termo incerto numa instituição privada**
 Contrato a termo incerto numa instituição pública**
 Contrato de trabalho em funções públicas
 Contrato sem termo em instituição pública*
 Contrato sem termo em instituição privada*
 Trabalhador por conta própria sem trabalhadores a seu cargo
 Trabalhador por conta própria com trabalhadores a seu cargo
 Financiamento de projeto de investigação
 Outra:

17. **Há quanto tempo se encontra com esse vínculo?**

18.

Indique as três principais funções que desempenha na sua actividade de arqueólogo.

Marcar tudo o que for aplicável.

- Trabalho de campo
- Trabalho de gabinete
- Relatórios
- Gestão de coleções
- Ensino
- Autorização e fiscalização de trabalhos arqueológicos
- Ações de divulgação, publicações, exposições, etc.
- Investigação
- Documentação e registo
- Gestão de sítios arqueológicos
- Educação patrimonial
- Outra: _____

19.

Na sua actividade de arqueólogo, como se considera?

Marcar apenas uma oval.

- Técnico
- Investigador
- Gestor
- Comercial
- Outra: _____

20.

Em que distrito reside?

21.

Qual a percentagem do tempo que trabalhou no seu distrito de residência no último ano?

22.

Quantas vezes mudou de emprego/ocupação profissional nos últimos cinco anos?

23. **Quantas vezes mudou a região geográfica da sua ocupação nos últimos cinco anos?**

24. **A sua entidade empregadora assegura-lhe alojamento quando se encontra em trabalho de campo?**

Marcar apenas uma oval.

- Sim
 Não
 Às vezes
 Não se aplica

25. **Usa a sua própria viatura quando se encontra em trabalho de campo?**

Marcar apenas uma oval.

- Sim
 Não
 Às vezes

26. **Usa a sua própria máquina fotográfica em trabalho?**

Marcar apenas uma oval.

- Sim
 Não
 Às vezes

27. **Usa o seu próprio material de topografia em trabalho de campo?**

Marcar apenas uma oval.

- Sim
 Não
 Às vezes

28. **Em média, quanto recebe por dia? (Valor bruto)**

29. **Em média, quanto recebe por dia? (Valor líquido)**

30.

Em termos brutos, quanto ganhou no ano de 2008?

Marcar apenas uma oval.

- < 3.000 €
- 3.000 € a 4.999 €
- 5.000 € a 9.999 €
- 10.000 € a 14.999 €
- 15.000 € a 19.999 €
- 20.000 € a 24.999 €
- 25.000 € a 30.000 €
- > 30.000 €

31.

Em termos brutos, quanto ganhou no ano de 2010?

Marcar apenas uma oval.

- < 3.000 €
- 3.000 € a 4.999 €
- 5.000 € a 9.999 €
- 10.000 € a 14.999 €
- 15.000 € a 19.999 €
- 20.000 € a 24.999 €
- 25.000 € a 30.000 €
- > 30.000 €

32.

Em termos brutos, quanto ganhou no ano de 2013?

Marcar apenas uma oval.

- < 3.000 €
- 3.000 € a 4.999 €
- 5.000 € a 9.999 €
- 10.000 € a 14.999 €
- 15.000 € a 19.999 €
- 20.000 € a 24.999 €
- 25.000 € a 30.000 €
- > 30.000 €

33.

Nos últimos anos, exerceu outras atividades para aumentar o seu rendimento?

Marcar apenas uma oval.

- Sim
- Não

34. **Que percentagem de tempo dedicou a essa segunda atividade?**

35. **Para quantas entidades trabalhou no último ano?**

36. **O volume de trabalho em acumulação aumentou nos últimos quatro anos?**

Marcar apenas uma oval.

- Sim
 Não
 Não se aplica

37. **Recebe pelo relatório escrito depois do trabalho de campo?**

Marcar apenas uma oval.

- Sim
 Não
 Às vezes

38. **Nos últimos cinco anos reduziu o seu rendimento anual?**

Marcar apenas uma oval.

- Sim
 Não

39. **Quantos filhos tem?**

40. **A natureza do seu trabalho interfere com o número de filhos?**

Marcar apenas uma oval.

- Sim
 Não

41. **O valor do seu rendimento interfere com o número de filhos?**

Marcar apenas uma oval.

- Sim
 Não

42.

Se o seu rendimento fosse mais elevado, teria mais filhos?

Marcar apenas uma oval.

- Sim
 Não
 Talvez

43.

Acha que os padrões de exigência da prática arqueológica diminuíram nos últimos cinco anos?

Marcar apenas uma oval.

	1	2	3	4	5	
nada	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	muito

44.

É associado da APA?

Marcar apenas uma oval.

- Sim
 Não

45.

É sindicalizado?

Marcar apenas uma oval.

- Sim
 Não

Questionnaire to organizations

Discovering the archaeologists of Europe

Inquérito às Organizações

A APA - Associação Profissional de Arqueólogos, em conjunto com a Comissão Europeia, o York Archaeological Trust e outros parceiros, tem em curso o projeto “Discovering the Archaeologists” que visa a caracterização da profissão de arqueólogo em 21 países europeus. Através dele, pretende-se contribuir para o conhecimento das condições em que os arqueólogos exercem hoje a profissão e as alterações que se operaram a partir de 2008, com o início da presente crise europeia. É importante conhecer em que condições os arqueólogos exercem a sua profissão para, de forma mais fundamentada, poder influenciar decisões relativas à sua evolução. A base deste projeto e do relatório final a elaborar assenta em dois inquéritos, formulados respetivamente para indivíduos e instituições empregadoras de arqueólogos. Neste âmbito, pedimos-lhe a sua colaboração através do preenchimento do inquérito anexo destinado a organizações que atuam na área da Arqueologia, cujo conteúdo é totalmente anónimo.

Se tiver mais informações a fornecer que não estejam contempladas neste formulário, por favor envie um email para presidente@aparqueologos.org. Garantimos que o sigilo será mantido!

Obrigada!

***Obrigatório**



ASSOCIAÇÃO PROFISSIONAL DE ARQUEÓLOGOS



Discovering the
Archaeologists Of Europe



Lifelong
Learning

1.

Qual a organização pela qual responde a este inquérito? *

Marcar apenas uma oval.

- Administração central
- Autarquia
- Museu nacional
- Museu regional
- Museu municipal
- Universidade
- Centro de investigação
- Empresa
- Fundação
- Outra:

2.

Em que distrito está sediada a sua organização? *

3. **A sua organização desenvolve a sua atividade na área geográfica onde está sediada?**

Marcar apenas uma oval.

- Sim
 Não

4. **Desde que ano a sua organização desenvolve trabalho em Arqueologia?**

5. **A partir de 2008, a sua organização diversificou a sua atividade para enfrentar a crise?**

Marcar apenas uma oval.

- Sim
 Não
 Não se aplica

6. **Em caso de resposta afirmativa, para que área além da Arqueologia?**

7. **Qual a percentagem de faturação que resulta da atividade em Arqueologia?**

Marcar apenas uma oval.

- < 20%
 20% - 39%
 40% - 59%
 60% - 79%
 80% - 99%
 100%

A responder apenas no caso de Organizações Privadas. Se se encontra a responder a este inquérito por uma Organização Pública, clique em continuar.

8. **Qual o volume global de faturação da actividade da sua organização em Arqueologia no ano de 2008?**

9.
E no ano de 2009?

10.
E no ano de 2010?

11.
E no ano de 2011?

12.
E no ano de 2012?

13.
E no ano de 2013?

14.
Quantos arqueólogos existem na sua organização?

15.
Quantos arqueólogos são do sexo feminino?

Indique a distribuição etária dos indivíduos do sexo feminino que trabalham na sua organização.

16.
< 25 anos

17.
entre 25 e 29 anos

18.
entre 30 e 39 anos

19.
entre 40 e 49 anos

20.
entre 50 e 59 anos
21.
maior de 60 anos
22.
Quantos indivíduos do sexo feminino trabalham a tempo parcial?
23.
Quantos indivíduos do sexo feminino contratou a sua organização em 2008?
24.
Quantos indivíduos do sexo feminino contratou a sua organização em 2010?
25.
Quantos indivíduos do sexo feminino contratou a sua organização em 2012?
26.
Quantos elementos do sexo masculino estão ao serviço da sua organização?

Indique a distribuição etária dos indivíduos do sexo masculino que trabalham na sua organização.

27.
idade inferior a 25 anos
28.
entre 25 e 29 anos
29.
entre 30 e 39 anos

30. **entre 40 e 49 anos**
31. **entre 50 e 59 anos**
32. **idade maior a 60 anos**
33. **Quantos elementos do sexo masculino trabalham a tempo parcial?**
34. **Quantos elementos do sexo masculino contratou a sua organização em 2008?**
35. **Quantos elementos do sexo masculino contratou a sua organização em 2010?**
36. **Quantos elementos do sexo masculino contratou a sua organização em 2012?**
37. **Que tipo de vínculo laboral têm os colaboradores da sua organização?**
Marcar tudo o que for aplicável.
- Quadro/contrato sem termo
 - Contrato a termo certo
 - Contrato a termo incerto
 - Prestação de serviços
 - Avença
 - Outra:

38.

Nos casos dos vínculos a prazo, durante quanto tempo?

Marcar tudo o que for aplicável.

- < 6 meses
- > 6 meses
- > 1 ano
- duração variável conforme as funções desempenhadas
- Outra:

39.

A sua organização tem um quadro permanente de colaboradores?

Marcar apenas uma oval.

- Sim
- Não

No caso de resposta negativa na questão anterior, clique em continuar.

40.

Como evoluiu o quadro permanente da sua organização em 2008?

Marcar apenas uma oval.

- Aumentou
- Diminuiu
- Permaneceu igual
- Não sabe

41.

Como evoluiu o quadro permanente da sua organização em 2009?

Marcar apenas uma oval.

- Aumentou
- Diminuiu
- Permaneceu igual
- Não sabe

42.

Como evoluiu o quadro permanente da sua organização em 2010?

Marcar apenas uma oval.

- Aumentou
- Diminuiu
- Permaneceu igual
-

43. **Como evoluiu o quadro permanente da sua organização em 2011?**

Marcar apenas uma oval.

- Aumentou
- Diminuiu
- Permaneceu igual
- Não sabe

44. **Como evoluiu o quadro permanente da sua organização em 2012?**

Marcar apenas uma oval.

- Aumentou
- Diminuiu
- Permaneceu igual
- Não sabe

45. **Como evoluiu o quadro permanente da sua organização em 2013?**

Marcar apenas uma oval.

- Aumentou
- Diminuiu
- Permaneceu igual
- Não sabe

Por quadro temporário entende-se o conjunto de trabalhadores que se encontram com contrato a termo, contrato a termo incerto, contrato de prestação de serviços, avença.

46. **A sua organização tem quadro temporário*?**

Em caso de resposta negativa, clique em continuar.

Marcar apenas uma oval.

- Sim
- Não

47. **Como evoluiu o quadro temporário da sua organização em 2008?**

48.

Como evoluiu o quadro temporário da sua organização em 2009?

Marcar apenas uma oval.

- Aumentou
- Diminuiu
- Permaneceu igual
- Não sabe

49.

Como evoluiu o quadro temporário da sua organização em 2010?

Marcar apenas uma oval.

- Aumentou
- Diminuiu
- Permaneceu igual
- Não sabe

50.

Como evoluiu o quadro temporário da sua organização em 2011?

Marcar apenas uma oval.

- Aumentou
- Diminuiu
- Permaneceu igual
- Não sabe

51.

Como evoluiu o quadro temporário da sua organização em 2012?

Marcar apenas uma oval.

- Aumentou
- Diminuiu
- Permaneceu igual
- Não sabe

52.

Como evoluiu o quadro temporário da sua organização em 2013?

Marcar apenas uma oval.

- Aumentou
- Diminuiu
- Permaneceu igual
- Não sabe

53. **Como prevê a evolução do quadro permanente em Arqueologia da sua organização em 2014?**

Marcar apenas uma oval.

- Aumentar
- Diminuir
- Permanecer igual
- Não sei

54. **Como prevê a evolução do quadro temporário em Arqueologia da sua organização em 2014?**

Marcar apenas uma oval.

- Aumentar
- Diminuir
- Permanecer igual
- Não sei

55. **Quantos colaboradores da sua organização têm necessidades especiais?**

56. **Quais os países de origem dos colaboradores da sua organização?**

57. **Quantos elementos do sexo feminino da sua organização têm o grau de licenciados?**

58. **Quantos elementos do sexo feminino da sua organização têm o grau de mestre?**

59. **Quantos elementos do sexo feminino da sua organização têm o grau de doutor?**

60. **Quantos elementos do sexo masculino da sua organização têm o grau de licenciado?**
61. **Quantos elementos do sexo masculino da sua organização têm o grau de mestre?**
62. **Quantos elementos do sexo masculino da sua organização têm o grau de doutor?**
63. **Em que países obtiveram os seus graus académicos?**
64. **Quantos dos trabalhadores de arqueologia da sua organização têm o grau académico em Arqueologia?**
65. **Em média, quantos filhos têm os trabalhadores do sexo feminino?**
66. **Em média, quantos filhos têm os trabalhadores do sexo masculino?**
67. **A sua organização reduziu nos últimos cinco anos o número de colaboradores do sexo feminino?**
Marcar apenas uma oval.
- Sim
- Não
68. **Em caso de resposta afirmativa, quantos reduziu?**

69.

A sua organização reduziu nos últimos cinco anos o número de colaboradores do sexo masculino?

Marcar apenas uma oval.

Sim

Não

70.

Em caso de resposta afirmativa, quantos reduziu?

71.

Qual o valor do salário médio mensal dos trabalhadores da equipa de Arqueologia da sua organização (salário bruto)?

Marcar apenas uma oval.

< 800 €

800 € - 999 €

1000 € - 1299 €

1300 € - 1500 €

> 1500 €

72.

Qual o valor do salário mínimo mensal entre os trabalhadores da equipa de Arqueologia da sua organização (salário bruto)?

Marcar apenas uma oval.

< 500 €

500 € - 599 €

600 € - 699 €

700 € - 799 €

800 - 899 €

900 € - 999 €

> 1000 €

73.

Qual o valor do salário máximo mensal entre os trabalhadores da equipa de Arqueologia da sua organização (salário bruto)?

Marcar apenas uma oval.

- < 600 €
- 600 € - 699 €
- 700 € - 799 €
- 800 € - 899 €
- 900 € - 999 €
- 1000 € - 1099 €
- 1100 € - 1199 €
- 1200 € - 1299 €
- 1300 € - 1399 €
- 1400 € - 1499 €
- 1500 € - 1599 €
- 1600 € - 1699 €
- 1700 € - 1799 €
- 1800 € - 1899 €
- 1900 € - 1999 €
- 2000 € - 2499 €
- 2500 € - 2999 €
- > 3000 €

A responder apenas no caso das Instituições Privadas. Se se encontra a responder a este inquérito por uma Organização Pública, clique em continuar.

74.

A sua organização reduziu os salários dos trabalhadores do sexo feminino nos últimos cinco anos?

Marcar apenas uma oval.

- Sim
- Não

75.

Em que percentagem?

Marcar apenas uma oval.

- 10 %
- 20 %
- 30 %
- 40 %
- 50 %

76.

A sua organização reduziu os salários dos trabalhadores do sexo masculino nos últimos cinco anos?

Marcar apenas uma oval.

Sim

Não

77.

Em que percentagem?

Marcar apenas uma oval.

10 %

20 %

30 %

40 %

50 %

78.

A sua instituição promove ações de formação profissional?

Marcar apenas uma oval.

Sim

Não

79.

A sua instituição permite que os seus trabalhadores participem em ações de formação por sua própria iniciativa?

Marcar apenas uma oval.

Sim

Não

80.

Em caso de resposta afirmativa, qual o máximo de dias por ano?

81.

Quantos colaboradores participaram em ações de formação em 2012?

82.

Quantos colaboradores participaram em ações de formação em 2013?

83. **A sua organização valoriza a participação dos seus colaboradores em congressos e outras reuniões científicas?**

Marcar apenas uma oval.

- Sim
 Não

84. **A sua organização dispõe de orçamento específico destinado às ações de formação profissional dos seus colaboradores?**

Marcar apenas uma oval.

- Sim
 Não
 Não se aplica

85. **A sua instituição tem uma certificação de qualidade na área da Arqueologia?**

Marcar apenas uma oval.

- Sim
 Não
 Não se aplica

86. **Em caso de resposta afirmativa, indique qual?**

A responder apenas no caso das Organizações Privadas. Se se encontra a responder a este inquérito por uma Instituição Pública, clique em continuar.

87. **Nos últimos cinco anos, a sua instituição perdeu receita/financiamento?**

Marcar apenas uma oval.

- Sim
 Não

88.

No caso de resposta afirmativa, indique a percentagem aproximada?

Marcar apenas uma oval.

- < 5%
- 5% - 9%
- 10% - 19%
- 20% - 29%
- 30% - 39%
- > 40%
- Não sei

89.

Globalmente, quais as principais ocupações dos arqueólogos que trabalham na sua organização?

Marcar tudo o que for aplicável.

- Trabalho de campo
- Investigação
- Elaboração de relatórios
- Documentação e registo
- Gestão de bases de dados
- Tratamento de materiais arqueológicos
- Valorização de sítios arqueológicos
- Publicações
- Exposições
- Educação patrimonial
- Outras ações de comunicação e divulgação
- Gestão de projetos
- Comercial
- Gestão e administração
- Gestão de processos de licenciamento
- Direção/Chefia em cargo de administração
- Museografia
- Ensino
- Outra:

90.

Em que área reduziu mais significativamente a sua atividade nos últimos cinco anos?

Marcar tudo o que for aplicável.

- Nenhuma
- Trabalho de campo
- Investigação
- Elaboração de relatórios
- Documentação e registo
- Gestão de bases de dados
- Tratamento de materiais arqueológicos
- Publicações
- Exposições
- Educação patrimonial
- Outras ações de comunicação e divulgação
- Ações de fiscalização
- Gestão de projetos
- Comercial
- Gestão de administração
- Gestão de processos de licenciamento
- Direção/Chefia em cargo de administração
- Museologia
- Ensino
- Outra:

91.

Em que área aumentou mais significativamente a sua atividade nos últimos cinco anos?

Marcar tudo o que for aplicável.

- Nenhuma
- Trabalho de campo
- Investigação
- Elaboração de relatórios
- Documentação e registo
- Gestão de bases de dados
- Tratamento de materiais arqueológicos
- Publicações
- Exposições
- Educação patrimonial
- Outras ações de comunicação e divulgação
- Ações de fiscalização
- Gestão de projetos
- Comercial
- Gestão e administração
- Gestão de processos de licenciamento
- Direção/Chefia em cargo de administração
- Museologia
- Ensino
- Outra:

92.

A sua organização faz investimento com capitais próprios em investigação fundamental na área da Arqueologia?

Marcar apenas uma oval.

- Sim
- Não

93.

Em caso de resposta afirmativa, qual a percentagem desse investimento?

Pretende-se saber qual a percentagem de investimento efetuado relativamente ao orçamento anual da organização. No caso das organizações empresariais, poderá indicar-se a percentagem relativamente ao volume de vendas.

94. **A sua organização tem uma estratégia de divulgação/publicação sistemática dos resultados dos projetos desenvolvidos?**
Marcar apenas uma oval.
- Sim
 Não
95. **Em caso de resposta afirmativa, qual o meio preferencial?**
Nomeie apenas duas
Marcar tudo o que for aplicável.
- Monografias
 Revistas da especialidade
 Congressos e outras reuniões científicas
 Exposições e outras ações de divulgação científica
 Ações de divulgação para o grande público
 Outra:
96. **Em que áreas acha que os colaboradores da sua equipa de Arqueologia precisam de mais formação? Nomeie cinco exemplos**
97. **A sua organização disponibiliza aos seus colaboradores com contrato um seguro de saúde?**
Marcar apenas uma oval.
- Sim
 Não
 Não se aplica
98. **Existem arqueólogos sindicalizados na sua organização?**
Marcar apenas uma oval.
- Sim
 Não
99. **Os arqueólogos da sua organização são associados da APA?**
Marcar apenas uma oval.
- Sim
 Não

100.

Em caso de resposta afirmativa, qual a percentagem?

Marcar apenas uma oval.

- <25 %
 - 25%
 - 50%
 - 75%
 - 100
-

Appendix III

List of institutions where Portuguese archaeologists obtained their degrees.

Countries/geographical regions	Universities	Females		Males		Total
		Nº	%	Nº	%	Nº
American continent	Binghamton University, USA	1	0,33	0	0	1
	University of Texas, Austin, USA	1	0,33	0	0	1
	Texas A & A University, USA	0	0	2	0,74	2
	Universidade Estácio SÁ, Brasil	0	0	1	0,37	1
Europe	Bournemouth University, UK	1	0,33	0	0	1
	St Andrews University, UK	1	0,33	0	0	1
	Université Paris 1 Sorbonne, France	2	0,66	0	0	2
	Durham University, UK	1	0,33	0	0	1
	University College of London	2	0,66	0	0	2
	University of Southampton	2	0,66	0	0	2
	University of Manchester	0	0	1	0,37	1
	Università degli studi di Ferrara	0	0	1	0,37	1
Spain	Universidad de Salamanca	2	0,66	2	0,74	4
	Universidad de Santiago de Compostela	0	0	1	0,37	1
	Universidad de Granada	1	0,33	1	0,37	2
	Unisersidad de Pais Vasco	1	0,33	0	0	1
	Universidad Autonoma Madrid	1	0,33	1	0,37	2
	Universidad Complutense Madrid	3	0,99	1	0,37	4
	Universidad de Huelva	1	0,33	3	1,12	4
	Universidad de Sevilla	1	0,33		0	1
	Universidad Autonoma Barcelona	2	0,66		0	2
	Universidad de Barcelona	1	0,33		0	1
Portugal: private universities	Universidade Aberta	1	0,33	1	0,37	2
	Universidade Autónoma de Lisboa	1	0,33	5	1,86	6
	Universidade Católica	2	0,66		0	1
	Universidade Fernando Pessoa	1	0,33	1	0,37	2
	Universidade Lusíada	1	0,33	1	0,37	2
	Universidade Portucalense		0	2	0,74	2
	Universidade Lusófona de Humanidades e Tecnologias	2	0,66		0	2
Portugal: public universities	Faculdade de Belas Artes de Lisboa	1	0,33		0	1
	Faculdade de Medicina de Lisboa	1	0,33		0	1
	Instituto Superior Técnico	1	0,33		0	1
	Instituto Politécnico de Tomar	4	1,32	2	0,74	6

	Faculdade de Ciências Sociais e Humana Universidade Nova de Lisboa	23	7,59	35	13,01	58
	Faculdade de Letras da Universidade de Lisboa	72	23,76	51	18,96	123
	Instituto de Geografia e Ordenamento do Território de Lisboa		0	1	0,37	1
	Faculdade de Ciências da Universidade de Lisboa	12	3,96	1	0,37	13
	Faculdade de Letras da Universidade do Porto	60	19,8	55	20,45	115
	Faculdade de Letras da Universidade de Coimbra	37	12,21	56	20,82	93
	Universidade de Évora	17	5,61	11	4,09	28
	Universidade do Minho	15	4,95	18	6,69	33
	Faculdade de Ciências Humanas e Sociais da Universidade do Algarve	14	4,62	3	1,12	17
	Universidade dos Açores	1	0,33	1	0,37	2
	ISCTE - Instituto Universitário de Lisboa	1	0,33	1	0,37	2
	Instituto Superior Estatística e Gestão da Informação	0	0	1	0,37	1
	Faculdade de Ciências e Tecnologias da Universidade de Coimbra	3	0,99	0	0	3
	Universidade de Trás-os-Montes e Alto Douro	4	1,32	3	1,12	7
Parcerias	IPT/UTAD	3	0,99	2	0,74	5
	IPT/UTAD/URV	0	0	1	0,37	1
	University College of London/Universidade do Porto	0	0	1	0,37	1
	Outros	1	0,33	1	0,37	2
	Não responde	1	0,33	1	0,37	2
	Total	303	100	269	100	572

