

Relatório 2011-2013

Objetivos 2011-12-13

CIUHCT promotes research in the History of Science and Technology according to international standards of scholarship and contributes to the development and consolidation of this discipline in Portugal and to its recognition abroad. The unit aims at articulating discussion at the conceptual and methodological levels with research on specific topics especially focused on, but not restricted to, Portuguese history. In any case this focus does not preclude the integration of Portuguese research in international groups and initiatives. On the very contrary we consider our main mission to present our local case studies in a format relevant to an international audience. This international dimension has been greatly encouraged through the dissemination of research carried out locally in international publications as well as in the participation and organization of national and international meetings, and in the participation in international networks, some of which were founded with the contribution of CIUHCT members.

The unit shares a conception of the field encompassing both more traditional and more recent approaches, including material culture, instrumentation and collection based history of science, material reconstructions, technoscience, all framed in the context of methodological pluralism. Especially important has been the input from the framework developed within the international group STEP (Science and Technology in the European Periphery) and ToE (Tensions of Europe). This input is behind the move from relying on the concept of transmission and the perspective of the centre to the concept of appropriation and the perspective of the periphery, as well as the articulation of local case studies in the writing of a global history of Europe, in which science and technology play a leading role. We also explore relations between the History of Science and Technology and material culture, some aspects of Philosophy of Science, and the role of scientific-technological structures in contemporary thinking.

The Unit's research groups work in synergy sharing members, projects, and methodological choices and fostering research crossing over traditional disciplinary boundaries. Besides on-going international and FCT projects main projects building a common identity for the Unit have been considered a priority. In this context we highlight the contribution of members of CIUHCT to the foundation and advisory board of the international journal HoST, its accompanying annual workshops and the launching of monthly HoST conferences by both well known foreign experts and national scholars.

CIUHCT has been steadily contributing to the consolidation of a strong scientific community by actively participating in the education of students (graduate and post-graduate level) as well as by enrolling in outreach activities (popularization, exhibits). CIUHCT is involved in one MSc program and two PhD programs in the field. Although we envisage the articulation of a joint PhD program, to be expanded in the coming

years to encompass several universities, so far it has been proved quite difficult due to constraints in institutional settings. However, a first step has been taken in opening our graduate courses to Erasmus students by signing protocols of collaboration with the Universities of Barcelona, Valencia, Athens, and Eindhoven. Outreach activities are also part of our agenda. We highlight: talks to high school students and teachers, talks to a more general public, and exhibitions also targeted to the lay public.

Descrição das Actividades

CIUHCT has continued to promote research in the History of Science and Technology according to international standards of scholarship, steadily contributing to the development and consolidation of this discipline in Portugal and to its recognition abroad.

Since 2007 and until 2014, CIUHCT has kept the same organization in two research groups associated with the two higher education institutions to which CIUHCT is associated: Group FCT/UNL - Science and Technology. Historical and Interdisciplinary Studies and Group FC/UL - Science and Technology. Historical Studies and Material Culture.

From the point of view of CIUHCT's specific research agenda we have participated in collective projects, both involving the two research lines of this Unit as well as other international groups or networks, dealing with the main topics: 1) circulation of scientific and technological knowledge; 2) local embedding of scientific and technological practices; 3) history of science and technology based on crossing cultures: printed, manuscript, oral, and material sources; 4) history of science and technology in an interdisciplinary context – art, architecture, literature, cinema, ethics, philosophy.

We highlight the unusual broadness of CIUHCT's areas of research, including history of science (physics, chemistry, mathematics, astronomy, geology, meteorology), technology and engineering, medicine, and instruments, collections and material culture, and ranging from the early modern period to the 20th century and covering Portugal and its empire. From the thematic point of view we address: (i) intersections of history of science and technology with the history of books and history of education; (ii) history of institutional spaces; (ii) Emergence and development of scientific disciplines, and professionalization and the circulation of knowledge; (iii) Popularization of science and technology using both traditional sources (books and periodicals on popularization) as well as novel sources such as generalist newspapers, of different political and journalistic orientations and geographical provenances; (iv) Historiographical considerations on science in the European Periphery; (v) Scientific heritage, material culture and collection based history of science. We should stress that the broadness of areas, periods, and methodological interests covered by CIUHCT members is not the result of lack of specialization and professionalization, but instead the belief that a young and continually growing community of historians of science and technology should be as

encompassing as possible.

Our strategy to inscribe the history of science and technology in Portugal in the international context has been anchored in: (i) authoring of books in major international publishers (1 in MIT Press and 1 in California/Berkeley Press), edited volumes, chapters in international volumes, and peer-reviewed journals; (ii) presentation of papers in international conferences; (iii) organization of sessions and conferences on topics related to the Portuguese case; (iv) active participation in international research projects and networks; (v) central involvement in the HoST project (on-line journal, annual workshops, monthly conferences); and (vi) participation in STEP, Tensions of Europe, Making Europe, INES, on-going involvement with the Max Planck Institute for the History of Science (MPIWG- Berlin) activities, including the selection of one of CIUHCT's members to the MPIWG scientific advisory board (2012-17) and the Institute of Contemporary History of Munich, officer of the executive committee of SHOT (up to 2012). During the 3 years under evaluation, CIUHCT's output is impressive and demonstrates that CIUHCT has become a national reference in what relates to internationalization. CIUHCT has also improved its relationship with the PALOP (Portuguese speaking countries) community, mainly Brazil (Fiocruz, MAST) and Mozambique (University Eduardo Mondlane)

We recall the results of the Bibliometric Study ordered by FCT/MEC to the University of Leiden which shows that CIUHCT is the better positioned FCT/MEC research centers in the field of History with an average of 1,02 WoS publications per member. We also highlight that CIUHCT was selected for the organization of 2 major international conferences in Lisbon in September 2014: 2014 Science and Technology in the European Periphery Meeting and 2014 European Society for the History of Science (ESHS) Meeting, activities that testify the recognition bestowed on CIUHCT and its members by their international peers.

In what relates to CIUHCT's activities nation-wise we stress: 1) publication of books, edited volumes, chapters and articles in journals (we should highlight the publication of the complete works of Pedro Nunes, the book of games of Afonso X, the history of the Faculty of Sciences of the University of Lisbon and the history, collections and conservation of the Chemical laboratory of the Lisbon Polytechnic School; 2) continuation of CIUHCT's book series, with 2 more books in the period under evaluation and preparation of 3 more due to appear in 2014; 3) CIUHCT increased involvement in the publication of the on-line international journal HoST, whose chief editor is now a CIUHCT's member (2 issues and 3 already under preparation, in order to achieve a regular publication of 2 issues a year and to prepare a submission to international indexes. <http://johost.eu/>); 4) the role of CIUHCT's web-site and e-mail weekly newsletter in conveying to peers and population at large news, varied information, digitization or transcription of sources, etc.; 5) steady role in the training of graduate students and supervision of post-docs, including an increasing number of foreign ones, in the context of the only 2 graduate programs in History and Philosophy of Science existing in Portugal (12 MSc and 11 PhD theses supervised by CIUHCT's members in the period under evaluation). Please note that 1 PhD

student had her degree jointly awarded by UNL and Nouvelle Sorbonne, and another has been a visiting student at the Department of History and Philosophy of Science, Cambridge, UK; 6) outreach activities, including regular organization of exhibits of various dimensions (the national exhibit 360º- Ciência Descoberta, held at the Fundação Calouste Gulbenkian must be singled out and which is planned to be displayed in Brazil) in which research work is presented to the public at large; 7) participation in the scientific committees for commemorations of the 100th anniversary of the University of Lisbon and the 100th anniversary of the Faculty of Sciences of the University of Lisbon (2011-2012); 8) growing dynamism of activities organized by CIUHCT's PhD students and post-docs (organization of journal club regular sessions, CIUHCT conferences); 9) organization of several meetings (European universities, ancient books, cartography, colonial empires, Garcia de Orta); 10) 1 CIUHCT member has become Investigador Principal FCT; 9) the PhD thesis of 1 CIUHCT member has been awarded the prize "Prémio Cultura 2012" by the Sociedade de Geografia de Lisboa; 12) CIUHCT's commitment to the history of scientific instruments, collections and material culture has materialized in the participation in the first inventory of Portuguese scientific heritage, the development of innovative collaborative projects with Brazil, and finally involvement in a project to launch a national survey of scientific collections; 13) 2 FCT Projects approved in the two last calls in which CIUHCT members participate.

In what relates to deviations from the original proposal we should refer to: 1) the slow process of database construction of biographies of Portuguese scientists and engineers (<http://www.ciuhct.com/index.php/pt/biografias.html>), which is under assessment by senior CIUHCT members, and may be continued by other means; 2) the slow process of digitization of sources made available to the public at large at CIUHCT's web-site (<http://www.ciuhct.com/index.php/pt/textos-online.html>), which has, nonetheless, in the period under evaluation, included the minutes of the Conselho Escolar of the Faculty of Sciences of the University of Lisbon (1911-1974), and a database of news on science, technology and medicine in the Portuguese press (1900-1926) (<http://www.ciuhct.com/index.php/pt/projectos-de-investigacao/206-folheando-jornais-uma-janela-aberta-para-as-representacoes-de-ciencia-e-tecnologia-na-imprensa-periodica-portuguesa-1900-1926.html>); 3) the pre-print series project, which CIUHCT discontinued; 4) impossibility to organize in 2012 an international summer school, which was dependent on the approval of a project submitted to FCT which was not approved for funding, and 5) the failure to get a FCT Doctoral Program funded that would allow CIUHCT to fulfill the aim of fusing the 2 PhD programs in History and Philosophy of Science in which CIUHCT members are involved. Finally, it should sadly be announced the end of the two series of books, Coleção Ciência e Iluminismo and Coleção História e Filosofia das Ciências, directed by CIUHCT members, and justified by the publisher Porto Editora with the crisis felt in the book sector. These were 2 series of books already re-known abroad, especially in Spain and Brazil, and prized for excellence in translation. However, the last volume on the Portuguese 18th century popularizer of science Teodoro de Almeida came out in 2013.

It should be born in mind, though, that these deviations from the original proposal have been largely counterbalanced by the impressive publication record in national and international publications, the impressive communications record in national and international forums, including a substantial amount by graduate students and post-docs, the impressive record in the organization of meetings, workshops, conferences and sessions in international conferences, and the steady and consistent contribution to the training of a young generation of historians of science and technology, who will be responsible for the development of this area of research in Portugal according to international standards of scholarship in the decades to come, if they find adequate employment. The ability to overcome the extensive budget cut which took place in 2013 (about 25% less than received in 2011 and 2012, while CIUHCT's membership has increased steadily – 2011: 50, 2012: 52, 2013: 55) should be highlighted and shows CIUHCT's commitment to continue its mission despite such adverse conditions. It has proved increasingly more difficult to allot to missions abroad the corresponding funding to cope with CIUHCT's steady and growing internationalization. In fact, the recognition of the work of CIUHCT's members in international forums depends on the ability of its members to attend meetings, be part of networks and participate in various activities abroad. Having in mind that the research unit will have the same budget in 2014, CIUHCT's scientific committee should stress its concern for the future of the history of science and technology in Portugal.

Objectivos atingidos

During the period under evaluation CIUHCT's research unfolded according to the agenda outlined in the proposals (2011-12, 2013) in what relates to thematic and methodological orientations. CIUHCT has been heading towards a new internal reorganization, which has been suggested explicitly in the application Pest 2015-20, and which optimizes scientific strengths, networking and internationalization. Research lines on early modern science, technology and medicine; material and visual cultures of science, technology and medicine; science, technology, medicine and political power; strategies of innovation and globalization; roles of experts and institutions, have been building up, bearing in mind CIUHCT's bid on an increasingly international publishing agenda, training of a consistent and growing community of young scholars, including PhD students, and attention to the communication of research findings to broad audiences, specifically through the preparation of exhibitions. Nevertheless, this re-orientation is not a result of any shortcomings of the 2 research lines presented in 2011-12 proposal, whose predicted outcomes were not only fulfilled but clearly surpassed, but of the need to adapt CIUHCT organizational structure to a different more mature phase of its development. The 2 research lines initially built around the 2 higher educational institutions associated with CIUHCT will give way to 2 lines joining members from both Groups (UL and UNL) and structured around specific themes. This integrative process was the result of the vitality of CIUHCT and the overcoming of initial institutional barriers, revealing CIUHCT's ability to cope with a new national dynamics, together with an enhanced international visibility.

Concerning CIUHCT's publication output, we highlight the results of the Bibliometric Study ordered by FCT/MEC to the University of Leiden which shows that CIUHCT is the better positioned FCT/MEC research centers in the field of History with an average of 1,02 WoS publications per member. Although this study has not yet been extended beyond 2011, the publication record shows without a shadow of a doubt that CIUHCT's leadership position is secured.

A simple analysis of the table CIUHCT's Indicators 2011-13 shows that output have been generally increasing along the years, and have always surpassed the expected ones. In the cases in which there has been no steady increase, it has to be taken into account that especially concerning international high quality journals (WoS, SCIMAGO and SCOPUS, Q1 and Q2) publication takes often more than 1 year reflecting the output of specific years. After 2012, the constraints on budget began to be clearly reflected on the number of talks presented at international conferences, and consequently impacting on the number of papers published in international journals. However, this constraint imposed by FCT narrow budgets has been compensated by an increase of chapters in national publications.

CIUHCT's extra visibility within the community of historians of science, technology and medicine, both nationally and internationally, has also been secured through the coordination of the HoST e-journal, aiming at the publication of 2 issues per year and its future indexing in a database such as SCIMAGO. Additionally, CIUHCT's collection was revitalized, associated with a different publisher and housing publications by junior scholars.

Together with the former publication pattern and activities, CIUHCT has invested in the organization of sessions in and workshops, conferences and meetings, both in Portugal and abroad, reflecting its international recognition, ability to bring to Portugal outstanding scholars and its bid on a consistent training of a new generation of historians of science, technology, and medicine. This has been secured in tandem with sustaining networking and partnerships with STEP, ToE, INES, and foreign institutions in Europe, but also giving special attention to straightening relations with Brazilian institutions and colleagues, and aiming at attracting PhD students and Post-Docs.

Concerning training, CIUHCT's bid has paid off blatantly reaching its top in 2013 with 12 dissertations (9 PhDs and 3 MScs) and reflecting a steady and ongoing process of consolidation of a community of high-quality graduate students, with a strong international networking ability, who are often CIUHCT members and will be participating in CIUHCT's projects and events. Their autonomy has been encouraged and it has materialized in activities such as the maintenance and upgrading of CIUHCT's web-site, intense journal club meetings, and organization of several workshops (some with very low budgets) and meetings (with some international invitees).

Additionally, outreach has continued to be a fundamental component of CIUHCT's activities, steadily increasing in the period under evaluation, reaching a total of 7

exhibits in 2013 and culminating in a major exhibit (all CIUHCT made) in the Calouste Gulbenkian Foundation (360ª Ciência Descoberta). (Total of 13 exhibits prepared during 2011-13 - last item listed in table 5).

Realização financeira e desvios

CIUHCT has been undergoing considerable difficulties owing to the financial strain felt in 2013 (around 50% reduction in total budget), accrued by an increase in membership number.

The budget has been adjusted to the natural fluctuations of a scientific project spanning 3 years and involving around 50 members. These adjustments have been reflected in minor changes in items such as equipment and acquisitions of goods and services.

The major budget changes requested and authorized have been in the items missions and consultants. These are items directly related to the bid on the consolidation of CIUHCT's internationalization, and involve both the attendance of CIUHCT's members of international conferences with the presentation of papers, and the invitation of reputed scholars to visit CIUHCT to deliver lectures and give advice on CIUHCT's scientific performance.

In some years, especially from 2012 to 2013, CIUHCT started with a negative budget, which created extra difficulties associated with the drastic budget reduction of 2013. Overall, CIUHCT's budget 2011-13 has been met, despite all difficulties and CIUHCT has been able, so far, to accomplish its scientific goals. Having in mind that the research unit will have the same budget in 2014, CIUHCT's scientific committee should stress its concern for the future of the history of science and technology in Portugal.

Descrição detalhada de actividades

Table CIUHCT Indicators 2011-13

INDICATORS 2011-2013. EXPECTED AND ACHIEVED

CIUHCT Indicators 2011-12	Expected Indicators 2011	Expected Indicators 2012	Expected Indicators 2013	Output 2011	Output 2012	Output 2013
Books	5	3	5	7	16	19
Chapters in International Publications	8	7	10	18	11	11
Chapters in National Publications	6	4	10	22	29	31
Papers in International Journals	7	8	10	21	43	23
Papers in National Journals	4	4	6	22	17	15
Talks in International Forums	35	35	80	108	105	75
Talks in National Forums	15	15	20	82	59	66
Organization of Meetings, Conferences and Sessions in Conferences	6	7	7	32	32	32
PhD and MSc Theses	1	3	4	4	8	12
Exhibits				2	4	7