

PROFESSIONAL TRAINING IN INDUSTRIAL HERITAGE IN FRANCE: AN ASSESSMENT OF SUPPLY AND DEMAND

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[introduction to the presentation

Our paper is somehow far from most of the topics which will be discussed in the present session. We won't deal with the application of renovation principles in case studies, but assess the supply of training programmes offered to students which join industrial heritage and renovation skills, being understood that such training hardly exists in the French schools of architecture. Through an a tentative assessment of supply and demand, i.e. professional training and the labour market, we'll try to know why, in France, but perhaps in other countries as well – this will show in the discussion – industrial heritage specialists are not called nor do they take a part in industrial heritage renovation planning and architectural projects, and how things may change in the future to foster accurate renovation and heritage interpretation and enhance the quality of architecture.]

Professional training in heritage, and namely in industrial heritage, is a recent addition to university training in France, at any level, from Bachelor to Master 2 degrees and “specialized Master”. Several questions are asked by the huge amount of new courses which are offered to students each academic year.

The evaluation for such specialized degrees comes very soon from the labour market: are all graduate working after a reasonable amount of months, what kind of job can they get? When are they assured to be permanently employed? How many of them end by turning down industrial heritage to take any acceptable, if not suitable job, forgetting – for how long? – their ambition to work in the field they chose initially?

We shall then present the variety of available programmes and the evolutionary trend, and assess the matching – or mismatching – of supply to demand; we finally ask the question of the possible new professions which are shaped by the current evolution in industrial heritage perception and management, and how training programmes are able to follow this trend.

1. **Twenty tears of academic training in heritage studies**

If we exclude courses given by specialised private or public institutes to professionals as continuing education and focus on academic training, more than 580 Master 2 « professional » courses in humanities and social sciences were registered in French universities for the academic year 2005-2006, from anthropology to foreign languages and from geography to history and sociology.¹ Ca. 190 deal with culture.² 23 advertised “heritage” in their title and among them some are dedicated to aspects of heritage, such as: heritage of a region (the Alps...), publishing and books

¹ List provided by the ‘service d'information et d'orientation’ of the Université de Bourgogne, May, 2005.

² After the Cortex Culture Emploi website published by prof. Claude Patriat at Université de Bourgogne, see: <http://www.cortex-cultureemploi.com/>, page: http://www.cortex-cultureemploi.com/france/formations_ind.html.

heritage, and last but not least, industrial heritage. Many others deal however with heritage knowledge, conservation, management, restoration and valorisation. They fall under 4 main headings. First come the “metiers de la culture” (cultural professions), which means in the French context specialised training to take the entrance exams to public service and become, if one passes them, a curator of public collections, a librarian of public libraries or an assistant curator or librarian. We shall come back to this issue later. Second, the documentation heritage and all the courses dedicated to records management, archives, information technology and electronic networks. Then come the courses intended to students in geography who may specialize in planning, local development, rural economy or tourism. In this group several courses are in fact dedicated to rural heritage management or the role of heritage in tourism economy. The preference of a professor may turn one or the other towards industrial heritage. Only three advertise as a major heritage buildings restoration and adaptation to new functions and deal mainly with heritage of the last two centuries.

In order to give an accurate overview of the present situation and to study jobs opportunities given to (industrial) heritage students we selected 10 academic programmes which were created from 1987 to 2005 (see Annex, Table 1). Half of them are specialized courses in industrial heritage, the other half deal with history of technology, culture, law or tourism but are known to deal with industrial heritage. All of them belong to the State university system, one being however run by an engineering school (‘grande école’). 8 are intended to 5th year students, one to professional in continuing education (a diploma of second year level) and one, the engineering school programme, delivers a 6th year diploma.

The fact the advertised topic of these programmes shifts in time from academic history of technology (1987) to ‘management of cultural property’ (1993), tourism (1993) and finally ‘heritage’ (2002-2004) is significant. It means that ‘heritage’, first understood as an ‘auxiliary’ field of studies, an incidental accessory of economic history or history of technology, as archaeology or epigraphy had in the former academic hierarchy – *sciences auxiliaires de l’histoire*, ancillary skills – was gradually coming up as a field of professional occupation to be taken seriously as is now tourism economy.

At the present stage of development, several questions are under discussion.

First, professional training is not easily acknowledged by the academic system. This difficulty shows in different ways and steps of the process. The path from heritage studies to heritage training is not an easy one, as academics face the following dilemma: should University educate historians of technology or economic historians in a classical way and then turn them into professional specialists of industrial heritage? Or should it train top-level managers, make them proficient in project management, administration, local economy and teach them also how to use historical work done by others? This is obvious in the shift from the diploma of advanced studies (considered as the first year of doctoral studies) chosen for the first programme in 1987 to the diploma of specialized (professional) studies, which became “professional master, level 2” from 2003-2004 onwards.

Another question is: how to turn 4th year Master students in humanities and social sciences into young self-sufficient professionals? This means using heritage professionals as teachers and asking members of various professions to take a part in the programme, as well as making the internship period equal in time and credits to the courses, both approaches which are not congenial to the university system.³ This asks in turn the question of finance, which is common to all humanities and social sciences studies. Professional training is more expensive than academic teaching, as professionals’ lectures are to be paid for and students are supposed to tour in industrial heritage sites, among other expenses. Students are fewer – and, then, investments seem the less justified – and require individual tutoring. The public university system forbears asking extra fees

³ An illustrative point is the way by which a public university can, or rather cannot aptly pay and/or defray a professional who is not a civil servant, from the point of view of the administrative process involved as well as the amount finally paid.

from students, a principle it cannot reasonably be blamed for, but the academic system makes difficult programmes' sponsoring by businesses or paid consulting made by the students.

Second, the numbers of new programmes surged with the European reform unifying university studies on the basis of a 3-levels system (licence, master, doctoral studies); they include professional training in heritage, especially industrial heritage courses, which date back mostly from 2004 onwards. One may think that heritage took this opportunity to come to the fore; conversely, if not a side and not too welcome effect of the reform, should this unparalleled increase in number and variety of courses be attributed to a mere fashion (the fashion of heritage) or to an actual demand from the labour market which would reflect the integration of heritage in local economy, and in the domains of culture and tourism industry? The review of job opportunities may give an answer to this question.

The third and most important question is the contents which should be those of industrial heritage courses. 'Heritage' is nowadays widely criticized for being too wide a notion, which includes any field of human activity of all ages, future included, as well as nature and is extended to intangible heritage. Working "in heritage" could involve as many skills, practical abilities and professions, and finally wide-ranging professional status and payrolls. One may rightly ask how students can choose today among the programmes which are offered to them. It would be then advisable, if not to normalize the programmes, to make clear to which domains and professions they are directed to. As hinted above, several fields of activity have to be set apart in industrial heritage: heritage restoration and conservation come first in time and number of programmes; then, as said above, the role of industrial heritage in planning, local development, rural economy or tourism;⁴ and finally (in the course of time and in number) architecture and urban renewal. A field of activity which is not specified yet is heritage interpretation, which split into heritage cultural interpretation and heritage scientific interpretation, although both are acknowledged, respectively, in arts and in sciences.

2. How heritage students do as heritage professionals

How depressed be the market in Western Europe, and whatever be the employment when it comes to culture and heritage, the question of matching supply to demand is prominent in to-day debate about defining what should and will be highly-trained professionals who will be able to foster industrial heritage preservation and valorisation in the future.

The counterpart of this manifold 'supply' in professional training in the field of industrial heritage is the 'demand' coming from the labour market. If and how are alumni employed and how soon tells about the value of the programmes but also let us understand in which extent industrial heritage is now included or not in the interests of potential employers.

If we turn to the consequences of industrial heritage students' initial choice of study, we may state several facts. We shall establish our conclusions on enquiries made by courses' heads or students associations which share the same concern for job opportunities and their programme's assessment by the labour market.⁵

⁴ The French say: "médiation", "mediation culturelle (see the website: <http://www.mediation-culturelle.info/>) and "mediation scientifique" (see for instance: "20 ans d'information et de médiation scientifique", *CNRS infos*, No. 394, June, 2001.

⁵ We rely on the following data: DEA in History of technology, Universities of Paris 1, Paris 4, Paris 7 and CNAM: a study was made in 1997, when the programme was celebrating its 10th anniversary; University of Paris 1: a study of employment after one year was made by the heads of the programme together with the association of alumni, 'mnemosis', which publishes an annual directory of former students; University of Clermont-Ferrand: an inquiry among students from the year 1998-99 to the year 2002-03 was published in the fall of 2004; Université d'Artois: a thorough

First of all students may be certain they didn't make a bad choice or not a worse one than many others as a degree in culture or heritage studies won't get them a permanent job sooner or later than any young people with an university degree being a newcomer in this sector: they need ca. 3 years for that, going from one temporary position to the other through months of unemployment till a permanent job is offered to them, or the job they entered as a trainee becomes a permanent one and they secure a position, sometimes a new one they proved necessary by their work and commitment.

But the perspective is not a bright one when it comes to the payroll, as their 5th year university degree is not taken into account and they are submitted to the common rules of the culture and heritage sector in which a beginner can hardly expect a salary above the legal minimum. This results from 3 concurring factors: beginners' salaries in the public sector are low, and a student who wouldn't have passed the entrance exams cannot expect to be better paid than a young civil servant; associations promoting industrial heritage, who as we shall see are a main employer in the field, are usually penniless; finally, the few businesses and foundations which may hire industrial heritage students usually follow this trend.

Third, the role played by the public sector is a prominent one. Students who are eager to get a permanent job turn towards the State of local administration entrance exams in the hope they get access to the much envied lifelong civil servant status. Quite few succeed and pass the exams, but many more work in the administration doing temporary ill-paid jobs, following the study led by the University of Paris 1 (Master "histoire et gestion du patrimoine culturel français et européen"): if half of the 230 graduate students between 1993 and 2005 are salaried by the State or local administration, they are not permanent civil servants. Students who got their degree for ten years may still have a temporary job (from some months to a 3-year term). By the way, the study concludes to a real discrepancy between the jobs offered by the civil service and the new professions which are coming up in the field of culture and heritage, especially the jobs dealing with heritage interpretation, communication and public relations, relationships with the public and local economy which hardly exist as such in the rigid frame of public service.

The alumni of the University d'Artois, which are fewer and younger (the programme was launched in 2002) don't have a permanent job to date, if not as civil servants or members of the staff of public museums or associations exclusively funded by local public communities (cities, *départements*, regions) where they may do research, organize exhibitions, lead cultural activities (*animation culturelle*).

The last fact too often stated by those studies is the disappearance of industrial heritage from the scope of the jobs the students take after their first experience during their internship or first short missions. Does this mean that jobs opportunities in the realm of industrial heritage knowledge, study, conservation, interpretation and restoration are so few in France that 30 students per year are too many? Or that industrial heritage is too specialized a field of knowledge for potential employers?

After our own experience at the University d'Artois, industrial heritage attracts employers because it sounds original and means that students who chose this field are keen on doing serious work and dedicated. A specialized field of studies is preferred to a diploma in 'culture'. Second, they appreciate the graduates' proficiency in several skills. A small city will shy of hiring a professional archivist, but appreciate a degree in industrial heritage which includes enough records management to deal with the business archive fund which came to them when the works next door closed as well as with the factory renovation project. It is then understood that employers look for skills – they hire a guide, a project manager, a records manager – but are however more and more interested in industrial heritage as a comprehensive field of specialized knowledge. The fact that

unemployment is less frequent for graduates in our panel than for young graduates in other fields proves this attractiveness.

3. Industrial heritage as a profession: new skills for the future

As said above, ca. 50% of the students who graduated in one of our panel of 10 programmes work for a public employer, in a temporary or a lifelong position. Such a position is still the target at which students aim at, although none of the programmes under review is explicitly a preparatory course to the administration entrance examinations, as industrial heritage and scientific heritage are only one possible specialisation in the examination programme and very few positions are offered. Is the civil servant status such an attractive one that every student dreams of becoming one? Such an illusion should soon give way when considering the present French State steadily diminishing involvement in culture and heritage.

Among those 'public' employers, local communities are the most prominent one. First, the French State entered a policy of '*décentralisation*', which means that since 2002 onwards a bunch of laws were passed which transferred to regions or *départements* most of the functions held till then by the State in culture and heritage, with the public money needed to implement them. Thus research – '*inventaire*' – is now done by the 26 regions; decisions about the works to be done in listed monuments may be taken by the region council or the city mayor; listed monuments formerly belonging to the State are now the property of regions or *départements*. They were already in charge of tourism policy. Thus organized visits of factories as tourism and 'cultural' tourism are boosted by this new patronage and new jobs are offered which involve industrial heritage sites in need of proper interpretation. The demand depends nevertheless on industrial geography. Some regions, which were over industrialized and were subsequently precipitated in an economic crisis, are now, after a phase of oblivion and *tabula rasa* policy, eager to keep the memory of their industrial past and consider industrial heritage as a possible asset for development as well as a matter of shared interest for their fellow citizens which may help them recover from the severe injuries left by the factories' closure. Some others, in the contrary, rely on former periods of the past or on rural tourism, at the expenses of their industrial heritage which, although least conspicuous, is present in their landscapes and cities.

If we look now at the new jobs opportunities coming up in the last 5years, we may state several new tendencies which follow the development of industrial heritage.

First, businesses which were interested from the last years of the 1970 decade onwards by business and corporate history may now turn to industrial heritage. Business records management is now an accepted fact in the industry⁶ and industrial heritage, the conservation of specialized industrial skills, crafts and know-how ('*savoir-faire*', '*métiers*') is a matter of growing interest. Nevertheless very few jobs are offered by the industry, which would rather rely on consulting, or delegate their concerns in heritage and culture to foundations. Foundations linked to businesses were boosted by a Law passed in August, 2003, which aims at developing private sponsoring through tax deduction. 2 University d'Artois graduates are presently working for such a foundation. Their number is growing fast and one may hope that such opportunities will increase in the near future.

Secondly, the need for heritage interpretation in the context of long-term urban renovation projects⁷ may bear new jobs opportunities which favour versatile and adaptable industrial heritage

⁶ The 'business section' of the French Association of Archivists has now some 230 members. Most of them are employed by public utilities rather than private businesses, but the trend is promising.

⁷ The cities of Brest, Lille and Roubaix, the *département* of Seine-Saint-Denis are good examples of such large-scale renovations.

specialists who combine scholarly knowledge and practical skills – one may guess rightly that the first of the latter should be a good ability to negotiation.

At a smaller scale, as more communities become aware of their industrial heritage sites as assets for cultural development,⁸ would they be kept as open air museums and recreational areas, or developed as art centres, more missions may be offered to industrial heritage graduates in charge of interpreting the sites for museum goers or new users.

But when one comes to the bottom line, the involvement of industrial heritage graduates in renovation projects and in an architect's office staff remains non-existent. Architects would claim that historical studies of the industrial site they are working on should be done by the owner or project designer and included in the order they have to comply with. The public owner would rather consider the opportunity of development offered by the building than its former use and value as heritage. As renovation accounts for 2/3 of the building market and keeping prominent ancient buildings, which offer sometimes opportunities in size, height and surface which would not be authorized for a new construction, is now a first option for communities, we may hope that historical knowledge and proficiency in industrial heritage analysis and management may be appreciated in a near future by city planners and architects as a necessary component of their staff.

To conclude

As introductory remarks to our session, this study, which should be developed and extended in the near future, stresses on our responsibility as teachers for our students' future employment. The syllabus we academic do propose should follow the trend of the labour market. Conversely, our commitment in industrial heritage may contribute to the development of new job opportunities. More specialists in industrial heritage also contribute to its acknowledgment as a field of study and activity. We hope in new professions and positions which may come up with the current change in heritage policy, now trusted to regional and local councils, and the development of private initiatives. The new missions involved in urban renovation – studies and inventories of industrial heritage, assistance in planning, in the architectural project – should develop in the near future.

Through the training of industrial heritage management specialists who are not only scholars but act in the fields of tourism, renovation, culture, industrial heritage enters the realm of sustainable development.⁹ It will play a major part in the technical and scientific culture and help people understand the dramatic technological changes they are subjected to. What is now at stake through the future of past industry is the part that memory and technology, tangible and intangible heritage will play in today society.

⁸ Fabrice Lextrait, "Friches, laboratoires, fabriques, squats, projets pluridisciplinaires... Une nouvelle époque de l'action culturelle", report to the Minister of Culture, 2001 (online at: <http://www.culture.gouv.fr/culture/min/index-archives.htm>).

⁹ See for instance the application of the coal basin of the North of France to the world heritage list as a cultural heritage site which involves the population into various cultural activities centred on the past coal industry, heritage and landscapes, understood as a factor of social identity and an asset for future development.

Annex. Master diplomas specifically dedicated to industrial heritage and/or "heritage of the present times" (19th-20th century) under review

Master diplomas specifically dedicated to industrial heritage and/or "heritage of the present times" (19th-20th century)

Level (all courses are open to professionals, some are intended to continuing education only)	MASTER 2 (university 5th year)	BACHELOR (university second year) for professionals	MASTERE SPECIALISE (post-diploma, 6 th year) for professionals	MASTER 2 (university 5th year)	MASTER 2 (university 5th year)
	http://www.univ-artois.fr/francais/formation/ufr/histgeo/formation/Master%20professionnel%20MVP.htm	http://www.cnam.fr/cdht/bachelor.html	http://www.cluny.ensam.fr/formadiplomantes/forma_mastercl.htm	http://www.ish.univ-savoie.fr:8080/ish/02/Offre_formation/masters/histoire/pist	http://com-extra.univ-fcomte.fr:8088/CONSULTATION/FORMATION/FORMATION/PHP/fichediplome.php?dip=5HEI&prf1=MASTER&int1=sciences%20humaines%20et%20sociales&prf2=domaine&int2=sciences%20humaines%20et%20sociales&prf3=mention&int3=histoire,%20art,%20archéologie&prf4=specialité&int4=histoire%20des%20sociétés%20et%20des%20économies%20industrielles%20en%20Europe&prf5=finalité&int5=professionnelle&libdfd=sciences%20humaines%20et%20sociales
University or school (name/localization)	Université d'Artois (Arras)	Conservatoire national des arts et métiers (Paris)	Ecole Nationale supérieure des Arts et Métiers (Cluny)	Université de Savoie (Chambéry)	Université de Franche-Comté (Besançon)
Department	History	-	-	History and Sociology	History

Name	« Spécialité mise en valeur du patrimoine, option patrimoine industriel, scientifique et technique »	« Médiation culturelle, gestion et valorisation du patrimoine »	Mastère spécialisé Technologie, Culture et Patrimoine	Master histoire et sociologie, spécialité patrimoine industriel, scientifique et technologique	« Histoire des sociétés et des économies industrielles en Europe »
Date of creation	2002	2004	2004	2004	2005
Duration	1 yr	1 yr	1 yr	1 yr	1yr
Tuitions	regular State university fees	2 000 €	6750 € out of which 6000 are charged to the institution where the internment takes place	regular State university fees	regular State university fees
Objectives	« offrir une solide connaissance du PIST, [,,] la maîtrise du monde du PIST et du tourisme de découverte économique, de leur environnement juridique et institutionnel et de leurs partenaires »	« Fournir des méthodes clé en main pour l'étude et la mise en valeur du patrimoine scientifique et technique »	« Former des chefs de projet, capables de concevoir et coordonner des projets d'utilisation de sites patrimoniaux (patrimoine historique, friches industrielles, militaires, patrimoine rural, paysager...) à des fins culturelles et artistique »	« Former des cadres alliant connaissances historiques et patrimoniales, scientifiques et technologiques »	« étude et mise en valeur du patrimoine de l'industrie »

Expected job opportunities (as anticipated in official flyers and websites)	« former des professionnels capables de répondre aux attentes de l'ensemble des interlocuteurs dans le domaine de la valorisation du patrimoine : entreprises, collectivités locales, institutions muséales et lieux de mémoire »	160 hours 230 hours	The students are architects, engineers, persons in charge of cultural events who gain knowledge in heritage, and vice-versa	Cadres dans les organismes et entreprises suivants : * Entreprises spécialisées dans la rénovation de bâtiments historiques ; * Entreprises du spectacle spécialisées dans la création d'événements à caractère historique (son et lumières...) ; * cabinets d'architectes (architectes d'intérieur spécialisés en muséographie...) ; * organismes publics liés au patrimoine et à la culture ; * collectivités territoriales ; * musées, guides conférenciers ; * maîtrise d'ouvrage, bureaux d'études spécialisés ou non ; (diversification de leurs activités : lumière, design intérieur...) ; * associations liées à la préservation du patrimoine et à l'histoire ; * conseiller historique ou technique auprès d'éditeurs de CD-Rom ou jeux à caractère historique...	« cadres de la fonction publique d'État et territoriale et des entreprises, journalisme, métiers du patrimoine et de la documentation. »
Number of students per year	ca. 10				
Classes	16 weeks		6 months, 360 hours	one term	
Field work term / internship	16 weeks		6 months	one term	not specified, but compulsory

Master diplomas addressing heritage management or tourism oriented towards "heritage of the present times" (19th-20th century) and history of technology

Level	DEA (Master 2, 'Research' and not 'professional training', = first year of doctoral studies)	MASTER 2 (5th year)	MASTER 2 (5th year)	MASTER 2 (5th year)	MASTER 2 (5th year)
University (name/localization)	A joint initiative of CNAM, Université de Paris I - Panthéon-Sorbonne, Université de Paris-Sorbonne- (Paris IV), the Ecole des Hautes Etudes en Sciences Sociales and Université de Paris VIII (after 1992)	Université de Paris I - Panthéon-Sorbonne (Paris)	Université Blaise Pascal (Clermont-Ferrand)	Université Jean Monnet (Saint-Etienne)	Université de Bourgogne (Dijon)
Department Name	History DEA d'histoire des techniques	History Master 2 Histoire et gestion du patrimoine culturel	Tourism Master 2 Tourisme et valorisation des territoires, option "Tourisme et patrimoine du quotidien"	Master 1 et 2 Territoires, patrimoines et environnement spécialité Métiers des patrimoines 2 options: "gestion des patrimoines et conservation" et "matériaux des patrimoines"	Law Master Administration économique, sociale et culturelle Master 2 Métiers de l'art et de la culture
Date of creation	1987	1993	1993		
Duration	1 yr	1 yr	1 yr	1 yr	1 yr
		http://desspat.univ-paris1.fr/	http://www.univ-bpclermont.fr/COMPOSANTES//sh/tourisme/rubrique.php3?id_rubrique=9	http://portail.univ-st-etienne.fr/LABIERP/0/fiche_LABIERP__laboratoire/	http://www.u-bourgogne.fr/index.php?rid=1421&uid=43&domain=1&cycle=&diploma=3&type=&cid=829 ET http://portail.univ-st-etienne.fr/50140_30/0/fiche_formation/

Tuitions	regular State university fees	regular State university fees	regular State university fees	regular State university fees	regular State university fees
Objectives	Doctoral studies in history, sociology, anthropology of technology; preparation to vocational training in technology and scientific culture, heritage interpretation and management.	"Former des spécialistes de la valorisation du patrimoine culturel en utilisant les compétences propres aux historiens."	"Former des cadres spécialisés dans le tourisme des savoir-faire, aptes à susciter et accompagner les initiatives des entreprises et collectivités publiques"	Donner une solide formation aux professionnels du patrimoine (associations, collectivités territoriales...). Préparer aux épreuves des concours des filières culturelles territoriales et de l'Etat. Former et sensibiliser les étudiants dans quatre domaines : La Conservation préventive, la gestion des Patrimoines et la préparation aux concours des filières culturelles, la Conservation et restauration des matériaux des patrimoines.	"Donner des compétences d'administration et de gestion adaptées au champ professionnel de la culture afin de permettre la conception et réalisation de projets culturels ou de valorisation patrimonial, par des collectivités territoriales et/ou des partenariats privés."
Expected job opportunities (as anticipated in official flyers and websites)		"Les cadres formés par ce Master deviendront des directeurs de projet patrimonial, chefs de projets, ou consultants, avec mission d'étudier, de gérer et de valoriser le type de patrimoine historique qu'on leur confiera ou qu'ils auront proposé de valoriser"	Grandes entreprises, chambres de commerce, cabinets conseil, collectivités territoriales (institutions du tourisme)		chefs de projets et assistants-chef, administrateurs de compagnie et toutes structures d'animation culturelle, concepteurs et évaluateurs de projets artistiques et culturels, chargés des relations avec les médias, responsables de services éducatifs.
Number of students per year		20-25 (300 applications)		25	ca. 10
Classes (number of weeks)	1 yr	1 year	5 months		
Field work term / internship (nr of weeks)	none	3 months	5 months		12 to 16 weeks (420 hours)

