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Preserving scientific heritage to promote science? A case-study from the University of Strasbourg Louis Pasteur

Introduction

Though commemoration is a regular process within scientific communities, those that emerged in the 1980s were different[1]. Not only were they self commemoration but they were also made public; using strong communication tools, gathering media. It was not one institution or one scientific discipline in particular; it was the whole scientific community that was involved in this collective celebration of science.

Historians of science have now identified a strong change of regime, a "deep crisis" as Levy-Leblond put it, in regard to science legitimacy within society[2]. Consequently, it appears important for scientists to strengthen their identity and establish a "dialogue" with society. Commemorative actions were thus linked to strong communication actions in order to legitimate their scientific choices and build their future[3]. It is also in this particular context that the concept of scientific and technical culture emerged in France[4]. Very often heritage preservation plans were started in order to exhibit this heritage and demonstrate to the layman to whom it was important to talk to. In my paper I will illustrate how commemoration, communication and scientific and technical culture sustained heritage process within scientific institutions since the 1980s. I will discuss the particular example of the University Louis Pasteur in Strasbourg.

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[1] P.G. Abir-Am, C.A. Elliot (eds), *Dossier Commemorative Practices in Science: Historical Perspectives on the Politics of Collective Memory* , „Osiris", 14, 1999.

[2] J.-M. Lévy-Leblond, *Défisciences*, „Alliage", 22, 1995, p. 2–6.

[3] S. Boudia, *Le patrimoine des institutions scientifiques comme objet de recherche*, „Lettre de l'OCIM", 84, 2002, p. 45–49; P. Fayard, *La communication scientifique publique. De la vulgarisation à la médiatisation*, Lyon, Chronique Société, 1988.

[4] A. Bergeron, *La culture des savoirs: culture scientifique et technique et universités*, Rapport pour la Mission de la culture et de l'information scientifiques et techniques et des musées, Paris, Palais de la découverte, 2000.

Preserving scientific heritage at the University Louis Pasteur of Strasbourg

At the beginning of the 1980s, scientists at the University Louis Pasteur in Strasbourg, mostly physicists usually retired or about to be undertook to preserve various scientific instruments of the University, mostly those related to physics (but not only). In 1982, they created an association called AMUSS, Association for Science Museums in Strasbourg. Their goal was "to valorise and animate existing scientific museums and collections and to create a museum of science and technology in Strasbourg"[5]. The University Louis Pasteur already had a museum of zoology managed both by the city of Strasbourg and the University, a museum of mineralogy and a botanical garden. All three were built by the Germans at the end of the 19th century. In addition to these museums few scientific collections are also exhibited in showcases in various departments of the University; for instance, collections of anatomy or palaeontology[6].

The main preoccupation of the AMUSS's members was the preservation of obsolete scientific instruments by organising their systematic collection. Their actions led to important accomplishments, each of them achieved only with hard negotiations as one can guess. Among their main achievements one can list: a museum within a building of the astronomical observatory next to the planetarium built in 1981; a showcase within the Institute of Physics; small showcases in the entrance of the department of nuclear physics; and last but not least the rebuilding of a Crockroff-Walton accelerator at the Cronenbourg campus. This was the first particle accelerator built in 1944 by the Germans, which allowed the French physicists to start nuclear research in Strasbourg after the Second World War[7].

Many events helped the setting up of this "organised" preservation of scientific instruments led by the AMUSS. Firstly, on the local level, one can name the frequent emptying of physics laboratories at that time and concern about what should be done with the old stuff. One can also name the celebration of various centenary anniversaries: for instance, the 100 years of the Institute of Physics and of the astronomical observatory, the 500 years of the university which certainly reinforced the commitment of the scientists to their history and further provided opportunities to write about it[8]. Secondly, national factors certainly helped the setting of a preservation plan; for instance, the law for orienting and planning research and technological development in 1982, which inscribed the diffusion of scientific knowledge as part of the mission of the researcher, but also the law of 1984, which stated that the diffusion of scientific culture and information was a mission of the universities. Thus, linked to their preservation activities, the members of AMUSS were involved in various events in the public understanding of science and with science in the making by explaining scientific knowledge with hands on experiments. In that field the AMUSS was not the only actor. Various actors were involved in the setting

[5] http://misha1.u-strasbg.fr/AMUSS/assos1.htm

[6] For a general presentation of the university collections and museums of the universities of Strasbourg see: http://collections.u-strasbg.fr/

[7] R. Casel, *La recherche nucléaire à Strasbourg: les dix premières années, 1941–1951*, Strasbourg, Centre de recherches nucléaires, 2003.

[8] *Les sciences en Alsace, 1538–1988*, Strasbourg, Oberlin, 1989.

of a local scientific and technical culture policy; amongst whom the early involvement of scientists at the University Louis Pasteur is to be underlined. The main testimony is certainly the building of the planetarium in 1981; the first university planetarium created in France. Next to scientists, two research laboratories in the social sciences were also involved in the definition of objectives and means for the development of a scientific and technical culture policy.

The relationship of these various actors led to the creation of the concept of *Jardin des sciences* (garden of science) at the end of the 1980s. The aim was to "create a place of communication, dialogue and exchange between academics and the general public"[9]. The three main missions were: firstly, the diffusion and animation of scientific and technical culture; secondly, the preservation and "the valorisation of scientific and technical heritage of Strasbourg and its area"; thirdly, the development of history of science research linked to the creation of "a regional conservatory for scientific archives"[10]. The *Jardin des sciences* was created in 1989 and took the administrative statute of an association directed both by the University Louis Pasteur and the city of Strasbourg. Funds were provided by the State and the Region councils for four years. However, this association disappeared and was dissolved, "because of tension between its various actors and the limited impact of its actions: there was not a real strategic understanding of its role and only acted as a funding provider for local structures with no common activities"[11].

Despite this failure, the ULP maintained its involvement in a couple of projects during the 1990s: the renovation of the gardens of the historical campus and the building of a museum of seismology and earth magnetism within the historical seismological station. The management of this museum was given to a *maître de conférences* of the Institute of Earth Sciences. About thirty instruments, mainly seismometers, are on display in this museum[12]. In 1998, the *Jardin des sciences* was to be born again as a new project lead by Jean-Yves Merindol, president of the University between 1997 and 2002. In order to prepare this new ambitious project the *Mission culture scientifique et technique* was created, directed by a physicist who had been strongly involved in activities of scientific and technical culture for years. A study of feasibility of the project was requested of the *Cité des sciences et de l'industrie* in Paris, which submitted an orientation note in August 1999. The main idea of coordinating the activities of the various structures of the university involved in the diffusion of scientific culture was maintained in the new project. However, the *Jardin des sciences* would take a more materialised form and receive support from a science centre. This admiral ship was to be built within the Institute of Zoology, which included at that time both research laboratories and the museum. This institute was to be renovated in order to build the new museum "with a new museography, based on the main theme »from inert to life objects«[13], using collections but also

[9] Proceeding of the University administrative Board, session of the 27th february 1990, p. 11.

[10] Proceeding of the University administrative Board, session of the 27th february 1990, p. 11–12.

[11] J.-Yves Mérindol, *L'expérience du Jardin des sciences à l'université de Strasbourg I* [in:] *Regard sur le patrimoine culturel des universités, patrimoine artistique, scientifique, technologique, Séminaire national interministériel: ministère de la Culture et de la Communication et ministère de la Jeunesse, de l'Éducation nationale et de la Recherche organisé par l'Espace culturel de l'Université des sciences et technologies de Lille 1, 1–2 avril 2004*, http://ustl1.univ-lille1.fr/culture/agenda/04/patrimoine/txt/16merindol.pdf

[12] A precise inventory is in process but information about the museum and the instruments are available on: http://eost.u-strasbg.fr/musee/En/Accueil.html

[13] *De l'inerte au vivant*.

integrating hands on platforms, space for debate and presentation of science in the making, in order to question the impact of new scientific discoveries on society"[14]. The role of heritage and the role of museum were rethought, modified, renovated, even rebuilt in order to, on the one hand, "give Strasbourg a proper equipment for public understanding of science"[15] and on the other hand, to offer a showcase of the scientific research pursued at the ULP. The head manager of the project, who had previously worked at the *Cité des sciences*, underlined "the gap between what the university museum shows and the scientific skills within the university. The researchers do not find a place to express themselves within the university museums. In other words, the equipment that should be put in place should take into account the questions that sustain scientific research in Strasbourg and inform the general public: especially in research fields like molecular biology and material sciences"[16]. At the same time, a general study on university collections was started in order to "proceed to a real expertise" and engaged a specific reflection on their future.

Neither this expertise, nor the renovation of the Institute of Zoology was completed. It is of course difficult to evaluate the reasons that led to this second failure; they are many, complex, as always with such ambitious projects, in addition to being strongly politically linked. However, it is interesting to underline that part of the tensions were due to the compatibility of such a renovation with the preservation of the collections, especially that of zoology. This story is a good illustration of the ambiguous relationship of a scientific institution with its heritage. The question of heritage preservation within scientific institutions is not an obvious one, even though museum structures already exist and despite the existence of a deeper reflection on the role or the status of the university and science within society. This story also highlights that the act of preservation is not enough in itself; on the contrary, its legitimacy is strongly connected to other stakes. In other words what are the scientists' motives for setting preservation plans?

Heritage preservation is firstly a commemorative act "acte mémoriel"

Heritage preservation plans within scientific institutions have usually emerged when important changes occurred: the closure or the moving of a laboratory, the retirement or death of a major figure, or more profound changes like mutation within scientific disciplines. This act could be the one of individuals, who worked with or without the acknowledgment of their peers, and may create an association in order to legitimate their act and make it more visible within their institution. This kind of mobilisation usually supports the collection of obsolete instruments within laboratories or the trash. This process sometimes goes hand in hand with the writing of self-history, the one of a collective adventure to which members of the association participated.

These memorial practises that crystallised around material heritage are associated with a strong committed discourse that celebrates science and universal scientific concepts. Therefore, this mobilisation of heritage by the scientists can be connected by many

[14] *Le Jardin des sciences*, „Etude de définition", ULP, avril 2002.
[15] *Ibidem*, p. 13.
[16] Interview of Virginio Gaudenzi, „Strasbourg magazine", 131, mai 2002, p. 17.

points to that in other areas, like industrial heritage or rural heritage, and to other academic disciplines, and it is part of a larger act[17]. In this sense, one can state that the existence of a heritage process within the scientific community since the 1980s is still in action today. However, this process and the commitment of scientists with their heritage generated many tensions. Heritage is attached to the past when science should rather be driven by future and innovation. Consequently, to understand the viability or non viability of heritage preservation within scientific institutions, one has to take into consideration other imperatives defined by scientific institutions at the same time heritage preservation was mobilised.

Heritage as a tool for communication and the diffusion of scientific culture

The first imperative is certainly the involvement of the heritage process into the more imperative need to communicate. Many examples can be found in which heritage was used as a strong communication tool. The positive impact was that many heritage preservation plans (inventories, restoration) were linked to special events with strong communicational impact. The negative impact was that these special events had a short life, as was the interest in heritage. Very few actions actually lead to a long-term policy or to the official protection of a historical monument, for instance.

The second imperative is the use of heritage to develop scientific and technical culture. The 1980s and the 1990s are strongly characterized by the development of scientific and technical culture. This outburst was the turning point for two major changes that concerned both science and cultural administration. On the one hand, science that has been dedicated to national needs, industrial development goals and national economical policy since the Second World War, seems to be willing to take culture up again. On the other hand, (this sentence needs to be reworded) during the seventies and the eighties, strong claims arose to get over with a mainstream cultural policy, only for the elite, and obtain the recognition of plural cultures introduced with new media. The two laws already mentioned were a strong expression of this change.

Though these new policies were quite efficient for industrial heritage, their impact on scientific heritage is less evident. Quite quickly scientific and technical culture policies and actions got rid of their link with heritage preservation. One of the most speaking examples of this divorce is certainly the building of the *Cité des sciences et de l'industrie*, the final project gave very little place for scientific collections and heritage, although many scientific instruments were collected and stored from the onset, and despite the involvement of historians of science and techniques and the creation of a department of history of science. The only testimony of this concern with heritage is the submarine that is still in the park. The astronomical telescope of Paris observatory "la grande lunette coudée," which was supposed to be also in the park, was not as lucky. It is now getting rusty under the ring road next to, but outside storage.

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[17] H. Glevarec, G. Saez, *Le patrimoine saisi par les associations*, Paris, La Documentation française, 2002; S. Chaumier, *Des musées en quête d'identité. Écomusée versus technomusée*, Paris, L'Harmattan, 2003.

This unfinished or intermittent mobilisation of heritage carried by the development of the diffusion of scientific and technical culture is also well illustrated in Strasbourg. The story of the *Jardin des sciences*, still in the writing, underline several elements that allow us to better understand what was at stake in heritage preservation process during the eighties and the nineties. It especially puts the ambiguous relationship that keeps both the aim to develop a scientific culture and to preserve scientific heritage in the limelight. These aims emerged at the same time, were built one to another, and were mutually mobilised to find their legitimacy and get funds. However, this common development reached its boundaries quite quickly; the scientific culture took its distance in order to promote an innovating science that is dynamic and attractive.

Concluding Remarks

Therefore, if heritage has been regularly mobilised to construct scientific culture since the 1980s, it was also as regularly excluded. Is one of the specificities of the heritage process engaged by scientists expressed in this perpetual re-invention? This endless fluctuation of what heritage is used for, and the goal that sustains heritage preservation plans, certainly makes scientific heritage different from other kinds of heritage, which are more in charge of by professionals. In other words, if the heritage process is not excluded from scientific institutions, long-term heritage preservation policy, which necessarily include rules as regard to its management, its exhibition, its professionals knowledge and skills is yet to find legitimacy.

STRESZCZENIE

Zachowywanie naukowego dziedzictwa dla promocji nauki? Wybrany przypadek z Uniwersytetu im. Louisa Pasteura w Strasburgu

Celem tego artykułu jest analiza różnych ról, jakie nadano zbiorom uniwersyteckim i muzeom na Uniwersytecie im. Louisa Pasteura w Srasburgu przez ostatnie 30 lat. Ta refleksja sytuuje się na rozdrożu czterech wielkich jednoczesnych zjawisk: rozszerzania troski o dziedzictwo, tworzenia naukowej i technicznej kultury wiedzy, wejścia w erę komunikacji i rosnącego pragnienia uniwersytetów, by stać się aktorem w dziedzinie kultury. Wszystkie te zjawiska przyczyniły się w różnym stopniu i zakresie do nadania nowej roli muzeom oraz zbiorom uniwersyteckim – i trwa to nadal. Te zjawiska są też wyrazem dramatycznych zmian z którymi konfrontuje się francuskie szkolnictwo wyższe od końca lat osiemdziesiątych. Wymieńmy choćby takie, jak: nieangażowanie się państwa, wzrastające współzawodnictwo

międzynarodowe, pochwała nauk stosowanych jako wartości wiedzy kosztem badań podstawowych, wzrastająca troska opinii publicznej o badania naukowe i ich zastosowanie oraz zmieniająca się pozycja kadry naukowej na arenie politycznej. Kolekcje i muzea uniwersyteckie biorą udział w licznych dyskusjach dotyczących ich przyszłości i tej stojącej przed uczelniami. Jednak nawet poddawanie się zmianom nie jest gwarancją znalezienia stałej roli dla uniwersyteckich zbiorów i muzeów.