Pushing the Patented *Enveloppe:*

Secrecy in a Culture of Disclosure

• 1923 •

How do you establish priority of an idea or discovery? And once established, what sort of rights or rewards does this priority actually provide? Finally, do these rights and rewards somehow gain from being conceptualized as property? In his 1923 Rapport sur la Propriété Scientifique, the Italian senator and Turin Law Professor Francesco Ruffini raised a set of questions deemed crucial to the future well-being of the international scientific community. He also offered a solution: the new legal regime of scientific property.¹ Later known simply as the Ruffini report, the study had been commissioned by the Commission Internationale de Coopération Intellectuelle, the elite corps of scholars, scientists and diplomats who since 1922 served in an advisory capacity to the newly formed League of Nations. As one of the twelve members dedicated to the promotion of international intellectual cooperation-other notables included Henri Bergson, Marie Curie, Robert Milikan and Albert Einstein-Ruffini chaired the subcommittee on intellectual property, one of three special working groups established to tackle what the Commission saw as the most pressing issues at hand. Initially one of many "miscellaneous questions," scientific property swiftly turned into an all-embracing problem complex enough to warrant extra consideration. "Intellectual property, in general, is not sufficiently safeguarded by existing legislation" the *Commission* stipulated, "and scientific property is not safeguarded at all." Starting out by identifying what they saw as an unfortunate absence of protection, the Commission immediately launched a more proactive statement: "In the matter of scientific discoveries it should be held that the idea itself is entitled to be safeguarded and not merely the application of the idea."² Trying to identify a precise genesis in the creative process that could be individualized, fixed and made into property was a radical take on established intellectual property law. So radical, in fact, that scientific property later ended up a proverbial dead duck in both the scientific and legal communities.

But of course, at this stage Ruffini knows nothing of the future bleak fate of his report. Given the initial ambition of the *Commission* to arrive at a possible protection of ideas rather than applications, it made sense to focus on identification and proof of priority. But how did you go about securing priority of an idea or discovery? In four different ways, Ruffini argued. By publication, by perforated envelope, by patent of principle, and by ordinary patents. A century later, only the first seems familiar enough. And this despite seismic shifts in scientific publishing since the seventeenth-century, primarily the ways and means by which the scientific journal today has "virtual monopoly on expert scientific authorship."³ Regardless of these shifts, however, the most recent and most substantive of which is the transition from analogue to digital space, publishing your findings remains a priority benchmark. Publications like "special journals, *les mémoires des académies*, congress proceedings," showed, Ruffini argued in 1923, a "marked tendency toward internationalization."⁴ The same type of outlets and the same internationalization processes exist today. When it comes to patents, however, the separation between "of principle" and "ordinary" complicates things, and will be explored in more detail below.

What *is* of direct interest in the following, however, is the second option, nestled inbetween publications and patents: the perforated envelope, "type de *l'enveloppe Soleau*." Ruffini cautioned his readers not to fall victim to the same false impression he admitted to having himself when he first heard of it; that it was "something absolutely mechanical and almost childlike, illsuited to the gravity of the subject."⁵ What ultimately convinced him that this particular "flat paper container with a sealable flap, used to enclose a letter or document," could do things an ordinary flat paper container could not, were a few characteristics absent from the envelope-entry in the *Oxford English Dictionary*, characteristics that look pretty much the same in 2019 as they did in 1923.

Now, as then, the *enveloppe* Soleau can only be bought from the *l'Institut national de la propriété industrielle* (INPI) in Paris. The price of \in 15 provide you with "simple and cheap evidence that allow you to constitute proof of creation and assign a precise date to your idea or project."⁶ The inside of the probative envelope consists of two compartments in which you place documentation in support of your claim, ensuring that its total thickness does not exceed 5mm. With an endless list of potential senders, there is only one recipient of the double envelope. Addressed and dispatched to the INPI, laser stamped on arrival—the "perforated" belongs to another era—INPI archives one copy and returns the other to the sender. Renewable once after the initial five-year period has expired, after ten years in the archive, INPI destroys the envelope. Secrecy earmarks the entire process: the information inside the envelope is supposed to stay hidden until the sender asks for it to be revealed; the container itself is "inviolable," impervious against any secret attempt to open it "with a view to modifying the enclosed document," something which "becomes detectable without difficulty."⁷ So, enveloped secrecy inside a system built on disclosure.

It is this almost childlike object, the perforated *enveloppe Soleau* that Ruffini admitted having underestimated, that is at the center of attention in this paper. Inspired by micro-history, or, "the intensive historical investigation of a relatively well-defined smaller object, or a single

event,"⁸ the *enveloppe Soleau* is such a "smaller object" from which an "intensive historical investigation" unfolds. The Ruffini report and the controversies surrounding scientific property represents an important frame for this narrative. Primarily, as a critical juncture in the life of both the international science and legal communities. Given the repercussions and experiences from the war, science and industry were anxious to ensure the best possible conditions for future competitiveness and frontier research. What were the odds that a perforated envelope would be the answer to these challenges? When Ruffini puts the *enveloppe Soleau* on par with publishing and patenting it feels like he is comparing apples with oranges. Literally and metaphorically speaking, the weight of the first seems infinitely lighter than that of the two others. The main purpose of this study is to explore how the *enveloppe Soleau* rose to such prominence as proof of priority: in respect to its materiality, in respect to how artefacts can be read as a "material representations of sociotechnical networks,"⁹ and in respect to the sanctioning power emanating from a specific institutional authority. The smaller object is much bigger than it seems. And the bigger story is one of the structural and ongoing interdependency between secrecy and disclosure, or, even more precisely, how secrecy is integrated in a culture of disclosure.

As the *enveloppe Soleau* sends information between worlds, it travels between private and public, secrecy and disclosure, what we perceive of as the outside and inside of the intellectual property system, categories that lie at the heart of the shifting dynamics that earmark disclosure and secrecy in private as well as public worlds.

• 1666-1806 •

To be featured on equal standing with centuries-long practices such as publishing and patenting, to have made it onto the radar as one of four major ways by which to prove priority; quite a feat for an everyday object ubiquitous to the point of invisibility. But the *enveloppe Soleau* did not arrive at this position overnight. And the historical processes paving the way for Ruffini's 1923 endorsement are worth considering in some detail.

Critical to the success was of course the eponymous inventor himself, bronze manufacturer Eugène Soleau (1852-1929). As secretary, vice-president and later president of the *Bureau de la Réunion des Fabricants de Bronzes*, he played a key role in the development of legal protection for *les arts décoratifs*, nationally and internationally.¹⁰ But the logic of the *enveloppe Soleau* can be traced much further back in time. Initially to the way in which artists, sculptors, engravers and jewelers were recognized as equal to authors and composers in a law from 1793.¹¹ Oddly enough, still more relevant is *Loi portant établissement d'un Conseil de Prud'hommes à Lyon*, enacted by Napoléon on March 18, 1806. This was not a new patent law, nor a new *droit d'auteur*, but the creation of a *conseils de prud'hommes*, a form of arbitration tribunal for the powerful Lyonnaise textile industry. Consisting of nine members, five manufacturers and four weavers, the law had

two major objectives: to self-discipline the industry and to regulate competition between manufacturers.¹²

But the mandate of the tribunal went beyond arbitration. The reason why Soleau and the *Bureau de la Réunion des Fabricants de Bronzes* would take an interest in a law expressly designed for the textile industry was the *conseil de prud'hommes*' right to determine counterfeits and passing these cases onto relevant courts. Article 15 of the 1806 law stipulated that anyone who wanted to rely on the *conseil de prud'hommes* in matters regarding priority disputes and counterfeits would have to deposit a sample "folded in an envelope bearing its stamps and signature, on which will also be affixed the stamp of the industrial tribunal." When registered, the sample received a number, a certificate which was returned to the sender. In case of dispute between two or more manufacturers, the council would open the packages and determine priority. Protection was either 1, 3 or 5 years *or* in perpetuity, the cost of which was set at 1 franc for each year or 10 francs for eternity.

L'Académie des Sciences was another French institution with early modern roots receiving and archiving secret information in the shape of envelopes. Since 1735, anyone could submit a sealed, dated and signed note or *pli cachétes* to the Académie and expect the institution to keep the envelope archived until the author in question asked for it to be opened and its contents revealed. A method, an idea, or an invention: the note could cover anything the author or originator considered worthy of preservation or proof in case priority had to be invoked. It did not even have to be in the shape of an envelope, since the deposit of objects, such as vials, was also accepted.¹³ Any uncertainty on the legal power of the *plis cachetés* vis-à-vis patents were settled in the French patent law of 1844, which stipulated in its article 20 that "Anteriority does not result from a memorandum filed under seal (to a learned society) and opened after the patent application." The early Academy had a central role in the privilege-patent system, as one of its roles between its foundation in 1666 until 1794 was "l'examen des machines," awarding innovators a royal privilege for exploitation.¹⁴ But with the patent system slowly transitioning from a culture of guilds and privileges into a culture of contract between the state and the inventor, the priority of patents came to rest on disclosure.¹⁵ Patents trumped *plis*. Disclosure trumped secrecy.

Practices of using sealed envelopes as a form of insurance,¹⁶ have therefore had a place both in what we tend to think of as pure science and in the applied industries. In the latter category we find professional institutions like *Ingénieurs et Scientifiques de France* (IESF) which has implemented its own system of sealed notes, with specific regulations in terms of archiving and destruction. The principle of double-archiving does not exist in the case of the *Académie*, which only receives and archives. The *enveloppe* Soleau, on the other hand, draws its authority from a particular materiality (the perforated, patented double envelope); a formalized process of proof (the stamp); the double archiving (in an institution and with the individual) and under strict temporal limitations (a century in some cases and a decade in others). Choosing short cycles of protection or choosing eternity, costs vary from zero (*Académie*) to $99 \in$ (IESF). Nothing is said of destruction in the *conseil de prud'hommes*, but in 1860, the *Académie* gave itself authorial rights to expose—a century after initial deposit—the sealed notes and "publish, conserve or destroy" the document inside. Setting a definitive deadline for archiving was perhaps a preemptive strike of what was to become an increasingly unmanageable influx of envelopes: by 1976, the *Académie* had such an extensive collection of sealed notes that it was forced to launch a commission to open the backlog of accumulated envelopes.¹⁷ But the increasing formalization of a print-based patent and publication-system of disclosure does not mean that the *pli cacheté* becomes redundant. In 1933, even the *Scientific American* offered itself as a depository.¹⁸ The need to have the method, idea, or innovation a resting information inside an envelope with the potential of disclosure varying from days, month, to simply a century, remain until this day.

• 1889 •

As secretary of the *Bureau de la Réunion des Fabricants de Bronzes*, in 1889 Eugène Soleau authored a report on behalf of the organization, summarizing the legal situation for his profession. In it, he launched a scorching critique against the 1806 law and concluded: "[T]his law is not made for us." The "us" in question referring of course to the community of bronze manufacturers. The reason for their exclusion was simple enough. Because the sample was to be put in an envelope, this really left out "reproductions of sculpture, nor editions made in bronze, iron, zinc or silver."¹⁹ In fact, it bordered on the absurd to fold a bronze sculpture or a cast in an envelope. Time was another challenge. Textile-patterns and fashion changed with the seasons, but bronze manufacturing went from father to son, was the result of time-consuming, costly and cumbersome work. Only a few years later, Soleau continued to argue against the law, where "the real stumbling block is this formality of the prior deposit."²⁰ It did not matter that some of the leading legal minds in the nation were convinced that a sale before a deposit did not render the protection invalid: deposit did not create property. On this, Soleau cautioned, opinions were divided, and putting too much faith in the 1806 law was not advisable.²¹

The purpose of the 1889 report was therefore to "perfect the weapon we want to use," giving plaintiffs a tool by which they could survive the injustice of the law.²² What was needed was an unassailable property title which could convince judges that you were "indisputable owner of what is said to be stolen,"²³ and hence authorized to take a forger to court. The sculptor's receipt was one possible option, but the problem with such receipts—the most common proof in his own business—was that they were not really standardized. These ad hoc pieces of paper did not sufficiently describe or act as a referent to the object in question. The need for standardization is important for several reasons. Equivalence is important in terms of facilitating the way in which claims are both claimed and interpreted, it represents modern thinking and

administrative efficiency. To construct such proof is all the more important considering the context in which Soleau finds himself and his association in 1889. They no longer produce for



a national market, and they no longer display their works only nationally. Soleau has intimate knowledge of this new market, especially the ease by which his chandeliers, models, and bronze sculptures can be counterfeited. The Paris Convention for the Protection of Industrial Property was only six years old at the time of his report, but it had come into fruition largely because of the problems associated with the display of machines and artwork that were the very basis of the popular international

expositions.²⁴ How could you display something, thereby putting it into the public domain, and then forfeit any chance of patent protection because the object or innovation in question had become prior art? The uncertain legal status of casts, sculptures, and ornaments is why he chooses to exemplify with "one of these receipts which has already been admitted without dispute by the courts."²⁵ The receipt in question was one he had used himself, and the backing of legal authority Eugène Pouillet had resulted in an important modification of the receipt, the addition of a photograph in order to add further precision to the document.²⁶ He proposed a receipt stating the name of the sculptor, the model, the buyer.

In 1902, the lobbying would have effect. The *loi Soleau* of March 11, extended the protection of 1793 also to the works of sculpture, thus codifying the will set out in the 1889 report. But there were other changes in 1901-02 which would have far-reaching consequences for the *enveloppe Soleau*. French engineers and innovators had for a long time wanted to see the publication *intégrale* of patents, and the demand for quicker, more accurate and less costly publication of patents was a main impetus behind the change in law.²⁷ Publishing the whole patent document, rather than just having it listed in abbreviated form indicated that vested stakeholders were beginning to connect new information strategies with the patent system. Another important change concerned the separation of expired patents and valid patents. Expired patents being archived at the *Conservatoire national des arts et métiers* (CNAM) and patents in force being consultable at the *Ministèr du commerce* was counterintuitive and inefficient. The innovator could use the inspiration from old and new patents both, Minister of commerce Alexandre Millerand emphasized, and the "centralization to the same local of all documents concerning industrial property" was the obvious solution.²⁸ As a signatory to the 1883 Paris Convention, France had promised to abide by article 12, which stipulated that

contracting parties should "establish a special service for industrial property and a central depot for the communication to the public of patents, drawings or industrial models, as well as trademarks."²⁹ When *l'Office national de la propriété industrielle* (ONPI) was formed in 1901, a designated Patent Office was a novelty in France, but old news in the U.S. (1836), the UK (1852), Germany (1877), and Sweden (1885). The establishment of the *l'Office national de la propriété industrielle* will be important not only because it centralizes the documents that serve as inspiration for new innovation to one place, but because it strengthens the institutional bureaucracy and authority of patents into one body: ONPI.

• 1910 •

On October 28, 1910, Eugene Soleau went from being a lobbyist to being a patentee. A slight exaggeration, perhaps, since he already held two previous patents for incandescent lamp fittings.³⁰ But patent 443.541 for "Mode de protection et de timbrage à date des documents, dessins, etc., tenus secrets," is a radical departure from his earlier innovations. So far, we have seen how the practice of sending secret information to some sort of trusted safekeeping have a long tradition in science as well as in industry. But there is something profoundly incongruous with a patented invention (which as such must be disclosed) which promises to securely transport *secret* proof of anteriority to a place whose authority in large part rests on the administration of a legal right justified on the basis of disclosure. After all, *non-disclosure* is exactly what the perforated envelope offers its user.³¹ So, in a system which is increasingly dependent on disclosure, the need to find solutions to the fact that "making things public is an inherently risky business,"³² must also



develop.

Soleau now innovates, not in the realm of *arts decoratifs*, but in the realm of technologies and bureaucracies of paper, forms and files.³³ He is taking all his knowledge and experiences of sealed envelopes and priority via secrecy, adding his personal experience from a domain which has struggled to find its role in the intellectual property system, and fuses it all into a patent which moves him and its user into the expanding domain of documents. Reading the patent specification and looking at the visual representation is to see the whole genealogy of the earlier envelopes from the *prud'hommes* and the *Académie* evolved into a modernized, simplified, and above all, standardized format.

Despite the changes in French law of 1901-02, one important aspect stayed the same. As opposed to most other industrialized nations at the time, France did not implement any preexamination to ensure novelty of the innovation in question. Instead, patents came with the famous caveat "Without governmental guarantee," or S.G.D.G (*Sans garantie du gouvernement*), which stipulated that it had been issued "without initial examination, at his own risks and perils, without guarantee of the reality, novelty or merit of the invention or of the fidelity or exactitude of the description." Should any litigation result from conflicting claims on the perforated envelope, Soleau would have to defend himself in court. So, the *patent* carries one stamp: the one saying that it comes with no guarantee, whereas the *enveloppe* carries another stamp, also issued by the government, saying that it guarantees secrecy. The institution is having it both ways.

• 1911 •

Almost a year after his first patent application, in 1911, Soleau filed for an improvement on his innovation, classified in class 13, "Articles de bureau, enseignement, vulgarisation," subsection 3, "Publicité, postes, communications par pigeons voyageurs." The novelty he introduced in patent 14926 was that the envelope could now be addressed to two "bureaus, one national and



one international, located in two different countries." The *Office national de la propriété industrielle* (ONPI) in Paris was still the primary recipient, but the improved version—the one in the carrier pigeon category—added a second addressee, the *Bureaux Internationaux Réunis pour la Protection de la Propriété Intellectuelle* (BIRPI). The combined administrative seat of the Paris and Berne Unions was another form of proof of the power of standardization.

The patent of perfection is an important step in the consolidation of the *enveloppe* Soleau on its road to becoming a "moyen de preuve international," rather than merely a national curiosity. Adding the two addresses, the one in Paris and the one in Berne invites and accommodates subsequent sanctioning from *two* administrative seats. Only a few years later, this also became reality. First nationally, with the decree from March 10-13, 1914, giving the enveloppe official status within the ONPI framework, and then, internationally, when BIRPI accepted the subsequent deposit and registration of the *enveloppe Soleau* in 1915.³⁴ In fact, BIRPI implemented more or less wholesale the French format of registration, perforation and return to sender. ONPI agreed to pay BIRPI 1 francs for each envelope the bureau had received in the preceding month. But the most important aspect of the new service offered by the bureau was that it, in article 7, extended the same service to all countries in the Paris Union who might wish to make use of it. ONPI could terminate the service at any time, BIRPI with a six-month notice, in the case "inconveniences arose, especially, if the income for this service did not suffice to cover the costs."³⁵ By 1915, the *enveloppe Soleau* is patented, improved, sanctioned at home and internationally. It is ready to become the answer Ruffini will be searching for. It is ready to conquer the world.

• 1923 •

And then the Great War happened. The catastrophic event which, according to Ruffini's report, prevented the enveloppe Soleau from attaining an otherwise inevitable success. The numbers were hardly encouraging. By 1919 BIRPI had only received 24 enveloppe Soleau.³⁶ But the Commission is optimistic, and when they ask BIRPI for their input on three priority questions, one of which is the feasibility of scientific property, they expressly mention the *enveloppe* as a possible solution. Penned by the Director, Ernest Röthlisberger, BIRPI's answer is less enthusiastic: scientific property is one of three reforms that the Paris and Berne Unions considered premature or unrealizable in whole or in part: the other two being a universal bibliography and a universal library. Scientific property is up against poor odds. As far as the "ingenious double perforated envelope," invented by M. Soleau was concerned, BIRPI wrote, it was reserved for designs and industrial models, not yet tested in the scientific domain, with limited experience of breaching national borders. But then BIRPI concluded: "However, from now on, one might investigate if the enveloppe Soleau could not help in fixing the priority of all manifestations of the mind, in all creations of a literary or artistic order.³⁷ On the one hand, the envelope was untried, tested only in a very limited area of intellectual property, on the other, it seemed to hold a promise of securing priority in *all* fields, including the scientific. As BIRPI continues to debate the question of scientific property, it will come down hard on the enveloppe Soleau:

The scientist who has kept his light under the bushel is entitled to no reward. The deposit in a closed envelope is useless – aside from the question of scientific honor – other than affirming the priority of a work which the author proposes to prevent others from benefiting: on the contrary, the question is how to reward the person who first put his ideas at the disposal of others.³⁸

The only possible use BIRPI could envision for the *envelopp*e was securing time, time to prepare a patent application, that is, to integrate the enveloppe into the logic of patents.

At its core, the quest for scientific property was concerned with reward, ensuring that scientists received their just due. Inspiration had come from France. But not, at least not initially, from the scientific community. In the spring of 1920, the French droit d'auteur had been revised to include a *droit de suite*, a form of resale right guaranteeing artists a certain percentage on the profits made on the resale of a painting. It was an attempt to compensate for the fact that too many artists-and France could congratulate herself on having plenty of them-lived in abject poverty while creating their masterpieces and then had to sell these for a pittance before they most likely died destitute. Descendants faced similarly depressing prospects, suffering in silence while the paintings in question continued to make money, much money, when sold on to collectors or galleries. As might be inferred from the scenario described above, the droit de suite was a subset of *droit morale*, that particular aspect of French copyright law safeguarding the inalienable (even perpetual) moral integrity of the author and the work. Although the droit de suite was about the follow-up sales, the interest was with the lack of compensation for the originator, the first. In order to provide the next of kin with proper reward it was necessary to identify who the originator was. Some of the same concerns preoccupied scientists, in this case meaning the discoverer, who was unseen by the law. Scientists were not that different from artists. Industrialists had piggybacked on the hard work of scientists long enough. Just as galleries had profited from the sale of a painting. The time had come to change the rules of the game. On April 4, 1922, the Chambre des députés discussed a first draft for such a law, made by Deputée Joséph Barthelemy. In eleven articles, Barthelemy's proposal was very much a legal hybrid: suggesting a scheme of recompense to scientists on any industrial applications following from their discoveries, setting the duration of scientific property equal to that of *droit d'auteur* (fifty years), but also recommending modifications within the patent law of 1844.³⁹

Just as the underlying movement towards scientific property looked to *droit d'auteur* in order to correct the perceived wrongs against an entire community, did Ruffini find the *enveloppe Soleau* attractive because it came out of another section of intellectual property—*dessins et industrial models*—which, Ruffini argued, offered a "zone neutre" between copyright and patents.⁴⁰ The war-like metaphor is not so odd as it sounds. But Ruffini's weapons are limited. Mostly, by the entrenched binary structure of copyright/patent which is firmly set in place by the Paris and Berne Convention and Unions and their shared administration through BIRPI. Perhaps it was coming out of the experience of the Great War that made it possible to think differently about the fairly entrenched copyright/patent division, but scientific property was a hybrid, a mongrel. Not so strange then, that Ruffini would look to another mongrel, which had come out of another dichotomy—the pure and applied *arts*—as a possible solution.

• Conclusion •

Scientific property never became a reality. Assigned a somewhat marginal afterlife as an ultimately unsuccessful French utopian (or dystopian, depending on your viewpoint) initiative, there is little doubt that the idea of scientific property took root stronger and survived longer in France than elsewhere. Even when practically the entire international community had condemned the idea as impossible, even dangerous, the French persisted in searching for a protection of ideas and discoveries. BIRPI ceased to receive and archive the perforated envelopes in 1930, when the 1925 Hague Agreement Concerning the International Registration of Industrial Designs had been ratified. This agreement, which made deposit direct with BIRPI, basically rendered obsolete the *enveloppe* Soleau as international proof. A total of 871 *enveloppes* Soleau had been deposited in Berne.⁴¹ The *enveloppe Soleau* never did transcend national borders but continued as a French solution.

Almost everything about the *enveloppe Soleau* places it outside the intellectual property system. It offers no ip protection. Its historical roots are in early modern practices of arbitration and priority, which were understood at the time of the Ruffini report to be essential in securing better conditions for scientists, better conditions that were conceptualized by experiences and solutions in a completely different part of the intellectual property system. But for all its limitations, the *enveloppe Soleau* continues to prosper, not only in a paper-version, but as from 2016 also dematerialized, as *e-Soleau*. There is no longer any need to worry about the thickness of the envelope, other than in megabytes, the space of archiving now appearing almost endless.

So, what is the bigger story of the smaller object the *enveloppe* Soleau? How can we understand the larger ramifications of the envelope, its lineage from 1666 to 1806 to 2016 and the current e-Soleau? First, because it is yet another evidence of how complex the relationship between secrecy and disclosure as "manifestations of proprietary attitudes" toward knowledge has been since the early modern period.⁴² But the most striking aspect of the *enveloppe* is perhaps not how it grows out of traditions that go back in time to early modern practices, but how it manages to survive and carve out a space for itself inside the modern intellectual property system, how it offers secrecy inside a system where disclosure is the norm. Secrecy is intimately allied with the dissemination of knowledge, but the separation between secrecy and disclosure is not absolute. When Mario Biagioli discusses trade secrets, scientific publications and patents as techno-scientific knowledge regimes, he argues that despite their separate histories, conflicting rationales and distinct ideologies, all three have in common that they operate on a "secrecyopenness spectrum."43 The question of how to best control the circulation of knowledge is seldom answered by choosing either full disclosure or complete secrecy. Instead, there exists a wide range of options vis-à-vis why, when and how something is revealed or not, a scope of possibilities that cannot be captured by the either/or of binary thinking. You might be part of a research team or work individually as scholar or scientist, you might thrive in collective or single formation, you might do both things at once; the general principle that "[k] nowledge and inventions [...] cannot start in the open but need to be moved into openness,"⁴⁴ still applies. The *enveloppe* Soleau is one response to "unavoidable risks inherent in the process of publication and priority claiming."⁴⁵ Such protective responses have taken different forms and engendered different strategies and solutions across knowledge regimes and historical periods. They have also taken different material form. As when an envelope provides a simple solution offsetting unavoidable risk and enabling protection of valuable knowledge. A fragile solution, but still. The second and related observation of the *enveloppe* is that even if the enveloppe does not provide any ip protection it can give you prior user rights. Proof of prior rights over secret information/trade secrets.

A third way of understanding the *enveloppe* is as a buyer of time. Time is absolutely critical in the long and expensive process that is patenting. The basic units of 5+5 year = destruction is only one temporal limitation. Although the patent system is based on disclosure, secrecy *before* disclosure is essential. In certain jurisdictions there are grace periods of 6 or 12 months before the filing of the patents which allows for precise disclosures not invalidating the novelty requirement. Intellectual property history is impregnated with time. Publishing *before* patenting is impossible since that would make the invention public/prior art and therefore un-patentable.

A fourth lesson concerns how the enveloppe acts as a wedge, a disturbance in the increasingly binary intellectual parallel systems of protection that have emerged in particular contexts and then lived on or simply been abandoned. Scientific property was in many ways constructed as a hybrid outside the copyright/patent framework. The Soleau seems to offer a possible protection for creative works that have no real home. It comes out of the tensions of decorative arts or models, but when that finds an international treaty, it becomes obsolete. Today, the argument for the Soleau is business methods, or other form of knowledge that seems in search of an intellectual property.

Finally, because the *enveloppe Soleau* is a living entity, an ongoing service provided by the INPI, it might not be such a surprise that INPI gives no archival access to researchers who would like to study the administrative history of the *enveloppe* Soleau. All the material that has served as the basis of this paper has been found elsewhere. As Julien Penin has noted, since the whole process is one of secrecy, we know nothing of companies that have deposed envelopes at the INPI and because the envelopes are destroyed, do not have access to them afterwards. Any empirical investigation on a micro-economic level, is therefore, to quote Penin, impossible.⁴⁶ In more narrow sense, this is a research impediment and limits the approaches available. In extension, it suggests that a more significant lacuna exists in the study of intellectual property, the study of the institutional memory of patent offices. Memory, not only in the sense of certain sources and documents being untraceable because of secrecy, but also because memory somehow seems alien to an institution that is completely focused on the future rather than the past. Be that as it may. The administrative, bureaucratic history of the *enveloppe* Soleau still remains to be written.

Notes

- Commission de Coopération Intellectuelle, "Rapport Sur La Propriété Scientifique." [Ruffini report] A number of studies relevant to the question of scientific property include Miller, "Intellectual Property and Narratives of Discovery/Invention," Galvez-Behar, "Le Savant, l'inventeur et le politique," Löhr, "Le Droit d'auteur et la première guerre mondiale."
- Committee on Intellectual Co-operation, (paper presented at the First session, Geneva, August 1 to 5th, 1922),
 6.
- 3. Csiszar, "Seriality and the Search for Order," 403.
- 4. Commission de Coopération Intellectuelle, "Rapport Sur La Propriété Scientifique," 21.
- 5. Ibid., 21.
- 6. INPI website, <u>https://www.inpi.fr/fr/proteger-vos-creations/lenveloppe-soleau/enveloppe-soleau</u> [Accessed February 11, 2019].
- 7. Poulantzas, "Legal Protection of Management Methods," 277.
- 8. Szijártó and Gyl Magnússon, What Is Microhistory?, 4.
- 9. Hilaire-Perez and Verna, "Dissemination of Technical Knowledge," 544.
- 10. On the early history of the organization, see Voillot, "Créer Le Multiple."
- 11. For an excellent overview, see Emptoz and Marchal, Aux Sources De La Propriété Industrielle.
- 12. Kieffer, "La Législation Prud'homale de 1806 à 1907," 10.
- 13. Carosella and Buser, "Innovations et secrets," 77.
- 14. Berthon, "Les Plis cachetés de L'Académie des sciences," 71; Carosella and Buser, "Innovations et secrets."
- 15. See Mario Biagioli's argument on patents and political representation in "Patent Republic."
- 16. Biagioli, "From Ciphers," 227.
- 17. Berthon, "Les Plis cachetés," 72.
- 18. Scientific American, 219.
- 19. Soleau, "Étude," 18.
- 20. Soleau, "De la propriété," 10.
- 21. Soleau, "Étude," 19-20.
- 22. Ibid., 68.
- 23. Ibid., 70.
- 24. For an excellent overview, see Richardson and Tomas, Fashioning Intellectual Property.
- 25. Soleau, "Étude," 70.
- 26. Ibid. note 1.
- 27. Dumas, "La création de l'Office de la propriété industrielle." Galvez-Behar, La République Des Inventeurs.
- 28. Journal Officielle, 5858.
- 29. World Intellectual Property Organization (WIPO), Paris Convention for the Protection of Industrial Property. Available at <u>http://www.wipo.int/treaties/en/text.jsp?file_id=288514#P227_38153</u> (Accessed February 11, 2019).
- 30. In 1894 and 1902. Source: ESPACENET https://worldwide.espacenet.com
- 31. Penin, "Enveloppe Soleau," 90.
- 32. Biagioli, "From Ciphers," 213.

- 33. Vismann, *Files*; Gitelman, *Paper Knowledge*; Gardey, *Écrire, Calculer, Classer*; Hull, *The Government of Paper*. Ben Kafka uses the term "paperwork" as an overarching description. Kafka, "Paperwork."
- 34. La Propriété Industrielle, "Partie Officielle. France," 97-98.
- 35. La Propriété Industrielle, "Partie Non Officielle," 98.
- 36. Coppieters, "L'enregistrement," 54.
- 37. La Propriété Industrielle, "Coopération Intellectuelle," 23.
- 38. Ibid., 23.
- 39. La Propriété Industrielle, "La proposition de loi Français," 87-88.
- 40. "Ruffini Report," 21.
- 41. La Propriété Intellectuelle, "Les debuts du depôt," 251.
- 42. Long, Openness, Secrecy, Authorship, 89.
- 43. Biagioli, "From Ciphers," 219.
- 44. Ibid., 220.
- 45. Ibid., 213.
- 46. Penin, "Enveloppe Soleau," 98.

References

Berthon, P. "Les plis cachetés de l'Académie des sciences." Revue d'histoire des sciences 39, no. 1 (1986): 71-78.

- Biagioli, M. "From Ciphers to Confidentiality: Secrecy, Openness and Priority in Science." *British Journal for the History of Science* 45, no. 2 (2012): 213-33.
- ———. "Patent Republic: Representing Inventions, Constructing Rights and Authors." *Social Research* 73, no. 4 (2006): 1129-72.
- Carosella, E D, and P Buser. "Innovations et secrets, les plis cachetés de l'Académie de sciences." *Histoire des sciences*, no. 432 (2013): 72-77.
- Commission de Coopération Intellectuelle. "Rapport sur la propriété scientifique." 1-29. Genéve: Sociéte des Nations, A.38.1923 XII 1923.

Committee on Intellectual Co-operation. Paper presented at the First session, Geneva, August 1 to 5th, 1922.

- Coppieters, Daniel. "L'enregistrement international des dessins et modèles." La Propriété Industrielle 35, no. 5 (1919): 51-54.
- Csiszar, Alex. "Seriality and the Search for Order: Scientific Print and Its Problems during the late Nineteenth Century." *History of Science* 48, no. 3-4 (2010): 399-434.
- Dumas, J-P. "La création de l'office de la propriété industrielle et le débat sur la publication des brevets au début du XXe siècle." *La revue administrative* 56, no. 336 (2003): 641-53.
- Emptoz, Gérard, and Valérie Marchal. Aux sources de la propriété industrielle. Guide des archives de l'institut national de la propriété industrielle. Paris: INPI, 2002.
- Galvez-Behar, G. La République des inventeurs. Rennes: Presses Universitaires Rennes, 2008.

———. "Le savant, l'inventeur et le politique. Le role du sous-secretariat d'Etat aux inventions durant la première guerre mondiale." *Vingtième Siècle. Revue d'histoire*, no. 85 (2005): 103-17.

- Gardey, D. Écrire, calculer, classer. Comment une revolution de papier a transformé les sociétés contemporaines (1800-1940). Paris: La Découverte, 2008.
- Gitelman, Lisa. Paper Knowledge. Toward a Media History of Documents. Durham, NC: Duke University Press, 2014.

- Hilaire-Perez, Liliane, and Catherine Verna. "Dissemination of Technical Knowledge in the Middle Ages and the Early Modern Era: New Approaches and Methodological Issues." *Technology and Culture* 47, no. 3 (2006): 536-65.
- Hull, M. The Government of Paper: The Materiality of Bureaucracy in Urban Pakistan. Berkeley: University of California Press, 2012.
- Kafka, Ben. "Paperwork: the State of the Discipline." Book History 12 (2009): 340-53.
- Kieffer, Monique. "La législation prud'homale de 1806 à 1907." *Le Mouvement social*, no. 141 (Oct-Dec 1987): 9-23.
- La Propriété Industrielle. "Partie non Officielle. Études générales. Protection des dessins et mòdeles. Application de la méthode Soleau," Vol. 31 No. 8 (31 august 1915): 103-04.
- La Propriété Industrielle. "Partie Officielle. France," Vol. 31, No. 8 (1915): 97-98.
- La Propriété Industrielle. "La proposition de loi Français," Vol. 38, No. 6 (1922): 82-88
- La Propriété Industrielle. "Coopération Intellectuelle," Vol. 39, No. 2 (1923): 16-24.
- La Propriété Industrielle. "État actuel de la question de la propriété scientifique (second article)." Vol. 39, No. 9 (1923): 131-36.
- La Propriété Industrielle. "Les debuts du depôt international des dessins ou modèles industrieles," Vol. 46, No. 11 (1930): 249-53.
- Long, Pamela O. Openness, Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance. Baltimore, MA: John Hopkins University Press, 2001.
- Löhr, Isabella. "Le droit d'auteur et la Première Guerre mondiale : un exemple de coopération transnationale européenne." *Le Mouvement Social*, no. 244 (Juillet-Septembre 2013): 67-80.
- Miller, David Philip. "Intellectual property and Narratives of Discovery/Invention: The League of Nation's Draft Convention on 'Scientific Property' and Its Fate." *History of Science*, no. 3 (2008).
- Penin, J. "Enveloppe Soleau et droit de possession antérieure: definition et analyse économique." *Revue d'economie industrielle*, no. 121 (2008): 85-102.
- Poulantzas, D M. "Legal protection of management methods: some proposals." *Chitty's Law Journal* 23, no. 8 (1975): 274-83.
- Richardson, Megan, and Julian Tomas. Fashioning Intellectual Property: Exhibition, Advertising and the Press 1789-1918. Cambridge University Press, 2012.
- Scientific American, "Preserving Proof of Invention," Vol. 148, No. 4 (1933): 219.
- Soleau, Eugène. "De la propriété des modèles d'art appliqués a l'industrie." Paris: Typhographie Morris Père et fils, 1898.
- ———. "Étude sur la propriété des modèles d'art appliqués a l'industrie." Paris: Typographie Morris Père et fils, 1889.
- Szijártó, I M and S Gyl Magnússon. What is Microhistory? Theory and Practice. London: Routledge, 2013.
- Vismann, Cornelia. Files. Law and Media Technology. Stanford: Stanford University Press, 2008.
- Voillot, Elodie. "Créer le multiple: la Réunion des fabricants de bronze (1839-1870)." Diss. Université Paris Ouest Nanterre La Défense.