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CONCEPTS OF PROPERTY  
IN INTELLECTUAL  
PROPERTY LAW

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## On the prehistory of intellectual property

ALAIN POTTAGE AND BRAD SHERMAN

Hohfeld's analysis of fundamental legal conceptions takes as one of its starting points Justice Holmes' observation that '[i]t is one of the misfortunes of law that ideas become encysted in phrases and thereafter for a long time cease to provoke further analysis'.<sup>1</sup> We focus in this chapter on one such 'encysted' idea – namely, the compound assumption that intellectual property rights relate to 'ideas', that ideas are intangible things and that the architecture and operation of intellectual property rights is shaped by a real difference between tangible and intangible things. From this premise, intellectual property lawyers derive a set of conclusions that are famously expressed in Thomas Jefferson's letter on the patentability of Oliver Evans' automatic mill:

If nature has made any one thing less susceptible than all others of exclusive property, it is the action of the thinking power called an idea, which an individual may exclusively possess as long as he keeps it to himself; but the moment it is divulged, it forces itself into the possession of every one, and the receiver cannot dispossess himself of it. Its peculiar character, too, is that no one possesses the less, because every other possesses the whole of it. He who receives an idea from me, receives instruction himself without lessening mine; as he who lights his taper at mine, receives light without darkening me.<sup>2</sup>

<sup>1</sup> Wesley Newcomb Hohfeld, 'Fundamental Legal Conceptions as Applied in Judicial Reasoning' (1916-1917) 26 *Yale Law Journal* 710-70 at 711, note 4.

<sup>2</sup> Thomas Jefferson, Letter to Isaac McPherson, 13 August 1813, available at: [http://press-pubs.uchicago.edu/founders/documents/a1\\_8\\_8s12.html](http://press-pubs.uchicago.edu/founders/documents/a1_8_8s12.html) (last accessed 4 April 2013). Jefferson misunderstood the true nature of Evans' invention. The real innovation was not in the specific improvements that Evans made to the familiar mechanical elements of the milling process, nor even in the aggregate effect of these discrete improvements; it lay instead in the conception of the milling process as an automated production line: 'Thomas Jefferson's opinion of Oliver Evans' devices was low. He saw only the details, not the thing as a whole ... If Evans' invention be split into its simple components, Jefferson is of course right. The chain of pots was used throughout the Ancient World for raising water, and the endless Archimedean screw, the screw conveyor, is found in almost every

In the language of modern intellectual property scholarship, ideas are said to be by their nature non-excludable and non-rivalrous;<sup>3</sup> no person can be prevented from accessing and possessing an idea that has been publicly disclosed, and no person's use restricts or diminishes the use of another. So, for example, modern writers suggest that intellectual property rights are monopoly rights rather than property rights,<sup>4</sup> that the institutions of intellectual property analogize ideas to material things by creating 'artificial scarcity',<sup>5</sup> or that intellectual property is especially 'costly to protect'.<sup>6</sup> For some purposes, theoretical questions about the distinction between material and immaterial things are beside the point. Anyone who wants to intervene in the politics of intellectual property probably has to work with the old theory that intellectual property is just 'a temporary state-created monopoly given to encourage further innovation'.<sup>7</sup> But our interest is in the historical or sociological 'reality' of intellectual property rights, and patents in particular. In an earlier work we explored the fabrication of the invention as an intangible thing.<sup>8</sup> Our hypothesis was that intangibility was a 'figment'; there is no dimension of reality in which inventions might subsist independently of the artefacts, texts or drawings from which they are elicited. Intangibility is an effect of representation, interpretation and argumentation. We started from the premise, first, that 'the difference between idea and embodiment is an effect of interpretation, and interpretations are artefacts of representational and communicative practices',

late Renaissance book dealing with machinery ... [B]ut for Oliver Evans, hoisting and transportation have another meaning. They are but links within the continuous production process: from raw material to finished goods, the human hand shall be replaced by the machine. At a stroke, and without forerunner, Oliver Evans achieved what was to become the pivot of later mechanization' (Siegfried Giedion, *Mechanization Takes Command: A Contribution to Anonymous History* (Oxford University Press, 1948), p. 23).

<sup>3</sup> In economic terms, ideas are 'public goods'; on the capture of the justificatory language of intellectual property by (neoliberal) economic theory see Philip Mirowski, *Science Mart. The Privatization of American Science* (Cambridge, MA: Harvard University Press, 2011).

<sup>4</sup> James E. Penner, *The Idea of Property in Law* (Oxford University Press, 1997), pp. 119–20.

<sup>5</sup> James W. Harris, *Property and Justice* (Oxford University Press, 1996), p. 44: 'The law takes an intangible thing and builds around it a property structure modelled on the structure which social and legal systems have always applied to some tangible things.'

<sup>6</sup> William M. Landes and Richard A. Posner, *The Economic Structure of Intellectual Property Law* (Cambridge, MA: Belknap, 2003), p. 18.

<sup>7</sup> James Boyle, *The Public Domain. Enclosing the Commons of the Mind* (Yale University Press, 2008), p. 21. On the question whether this premise is truly 'Jeffersonian', see Adam Mossoff, 'Who Cares What Thomas Jefferson Thought About Patents? Re-evaluating the Patent "Privilege" in Historical Context' (2007) 92 *Cornell Law Review* 953–1012.

<sup>8</sup> Alain Pottage and Brad Sherman, *Figures of Invention. A History of Modern Patent Law* (Oxford University Press, 2010).

and, second, that 'to explain how the invention is produced and held steady, we [need] a material theory of how the invention is distinguished from its embodiment and how that specific distinction is recorded, communicated, and sustained'.<sup>9</sup>

In this chapter, we develop that line of argument by turning our attention to the other side of the distinction – the legal figure of the tangible thing. We do so by way of what might be called the prehistory of intellectual property rights; more precisely, the history of a period in which literary and artistic productions were construed as material things rather than as the embodiments of intangible works. We draw on Marta Madero's history of the medieval legal rubric of *tabula picta*,<sup>10</sup> which suggests that in the course of analysing property rights medieval lawyers generated a 'material' reality that was relatively autonomous from reality as it was conventionally understood. Borrowing a phrase from the art historian Michael Baxandall, Madero suggests that the language of the glossators was 'a conspiracy against experience in the sense of being a collective attempt to simplify and arrange experience into manageable categories'.<sup>11</sup> Materiality in property law was not materiality as it was commonly experienced.

<sup>9</sup> Pottage and Sherman, *Figures of Invention*, pp. 9 and 14, respectively.

<sup>10</sup> Marta Madero, *Tabula Picta. Painting and Writing in Medieval Law* (Philadelphia: University of Pennsylvania Press, 2009).

<sup>11</sup> Madero, *Tabula Picta*, p. 3, citing Michael Baxandall, *Giotto and the Orators. Humanist Observers of Painting in Italy and the Discovery of Pictorial Composition* (Oxford: Clarendon Press, 1971), p. 44. It is not clear how closely this resonates with Baxandall's own approach. Although Baxandall treated the humanist discourse on art as a language that configured the way things were seen – 'observation was linguistically enforced' (Baxandall, *Giotto and the Orators*, p. 9) – he promptly restored this same discourse to the milieu of artists, patrons and viewers. Expanding on the Wittgensteinian proposition that 'meaning is use', Baxandall observed that 'in classical Latin much of the meaning of words lay in an institution of relationship with other words, a system of cross-references, distinctions, contraries, and metaphorical habits' (Baxandall, *Giotto and the Orators*, p. 14). See also Christopher Wood, 'When Attitudes Became Form' (2009) *Artforum* 43–4, at 43: 'In Baxandall's Florence, "art" was the medium of a social relation among artists, patrons, and other beholders, sustained by a common repertoire of skills, mental and affective habits, and bodily disciplines. This was a world in which art was still woven tightly into the tissue of daily experience, and of civic life, and yet was already recognizable as art – that is, as a refined and beautiful supplement to practical life.' Madero has in mind a more restricted horizon of use. Although *Tabula Picta* is characterized as a contribution to 'legal anthropology', this is not the kind of anthropology that seeks to flesh out the social practices in which legal texts or semantics are implicated. Madero's concern is not with the 'judicial processes or sociological dynamics through which conflicts are resolved in a given society', but with 'the technical processes specific to a modal understanding of experiences and practices which, together, subjects them to the logical

This sense of 'things' as contingent artefacts is not especially novel. The terms of Madero's analysis were foreshadowed in Yan Thomas' classic analysis of the Roman legal form of the thing (*res*). In Roman law, *res* was actually a name for the trial process, and for the legal issue that the parties were disputing through that procedure: '*res* meant first and foremost the trial, or the issue in dispute.'<sup>12</sup> Things took the form of a *res de qua agitur*, or 'thing in question'. Of course lawyers recognized that legal arguments had to do with things in the world, but the 'real' or 'material' existence of these things was eclipsed by the existence that they came to have within the discursive or rhetorical frame of legal debate: 'The objectivity of a *res* was simply that which was conferred upon it by a *causa* [a legal name or definition]: this kind of objectivity resulted from the dialogue in which the partners in the controversy were engaged.'<sup>13</sup> The form of the *res* has inspired theoretical reflection on the composition of things. Thomas' account of the Roman lawyers' sense of the thing as *res de qua agitur* is taken up in Bruno Latour's construction of the 'matter of concern', or that which 'brings people together *because* it divides them'.<sup>14</sup> Again, material things are effects of representational and communicative practices.

We draw on Madero's history of *tabula picta* to make a simple point: intellectual property rights are not peripheral, exceptional, fictional or tenuously analogous forms of true property rights. In the context of adjudication, as in other specialized theatres, things, whether they are imagined as tangible or intangible, are the products of discursive schematization; they are 'semantic artefacts'. In the case of even the most material of things, the lawyer's apprehension of the object will be framed and conditioned by layer upon layer of (documentary) representation.<sup>15</sup> For example, land is

articulation of legal categories and gives them a reality removed from the evidence of the senses' (Madero, *Tabula Picta*, p. 2). The proposition that legal technicalities construct a reality 'removed' from the world is the basic premise of Madero's analysis, but this 'remove' is affirmed rather than explained.

<sup>12</sup> Yan Thomas, 'Res, Chose et Patrimoine (Note sur le Rapport Sujet-Objet en Droit Romain)' (1980) 24 *Archives de la Philosophie du Droit* 413–26 at 415. In fact, the relation between *res* and *causa* was just one strand in a metonymic knot of *res-lis-causa*, which bound together the sense of *res* (the thing that was at stake in the trial), *causa* (the case in the sense of legal issue or question) and *lis* (the procedural frame of the trial, action or litigation). This triad represented 'the different perspectives from which one could consider the 'legal value' attached to a given set of circumstances' (*Ibid.*, 416).

<sup>13</sup> Thomas, 'Res, Chose et Patrimoine', 421.

<sup>14</sup> Bruno Latour, 'From Realpolitik to Dingpolitik' in *Making Things Public* (Cambridge, MA: MIT Press, 2004), p. 13.

<sup>15</sup> See Bruno Latour, *The Making of Law. An Ethnography of the Conseil d'Etat* (Cambridge: Polity, 2010), Chapter 2.

materialized in cadastral plans, geological or environmental surveys, evidence of occupation and use, records of transactions, and so on. Each of these layers of representation is a considerable technical, administrative or organizational achievement, and only if we forget this, as first-order participants are bound to do, can we overlook the role of communicative techniques in translating materiality into and across the courtroom. And similar processes of translation are involved in the other theatres in which the shape of the invention is negotiated: the lawyer's office, the process of patent examination, the valuation of a patent or patent portfolios, and so on. Ultimately, our suggestion is that far from being the poor relation of 'true' property rights, the making of intellectual property rights exemplifies what is involved in the emergence and maintenance of property rights in even the most material of things.

## 1 Utility

Before turning to intellectual property's prehistory, we briefly take in the 'patent controversy' in late nineteenth-century Europe. For a brief moment it seemed that a number of European nations were about to abolish their patent regimes. The strength of the movement for abolition was such that *The Economist*, one of the most influential voices in the argument against patent rights, declared in 1869 that '[i]t is probable enough that the patent system will be abolished ere long'.<sup>16</sup> Although the terms of the debate were shaped by particular political and legal traditions, arguments for the abolition of patents were based on the common premise that patent rights did not stimulate and diffuse innovation but actually obstructed free trade. Not all economists were opposed to the maintenance of patent regimes,<sup>17</sup> but all were agreed that the justification of patent regimes turned on the criterion of social utility. Because the new 'patent republics' of the late eighteenth century defined themselves in opposition to the old regimes of privilege and monopoly,<sup>18</sup> it was difficult to find a normative idiom for the justification of rights based on social utility. Nowhere was this clearer than in France, where the tension between natural right and utility was especially acute. Augustin-Charles Renouard, writing in 1836, observed

<sup>16</sup> Cited in Fritz Machlup and Edith Penrose, 'The Patent Controversy in the Nineteenth Century' (1950) 10 *Journal of Economic History* 1–29 at 1.

<sup>17</sup> For a survey of positions in the debate see generally Machlup and Penrose, 'The Patent Controversy in the Nineteenth Century'.

<sup>18</sup> See Mario Biagioli, 'Patent Republic: Representing Inventions, Constructing Rights and Authors' (2006) 73 *Social Research* 1129–72.



that the most fundamental question to be addressed in relation to literary property was 'whether property is based on a necessary and natural right, or whether it is just a creation of civil law, born of a convention established by positive laws, with a view to increasing social utility'.<sup>19</sup> The problem was that limited rights granted by governments were apt to be seen as lapses back into the privileges of the *ancien régime*, but the effect of treating intellectual property rights as founded in natural right would be almost as bad; it would, as Renouard put it, re-establish a kind of aristocracy, and would grant 'privileges and favours that our social order rejects'.<sup>20</sup>

The first republican patent statute of 1793 affirmed in its first article that an invention was the property of the inventor, but then went on to require the same inventor to make a full disclosure of the invention and to deposit documents, models or specimens, and, crucially, limited the term of a patent to five, ten or fifteen years, depending on the fee paid by the patentee, after which period the invention would fall into the public domain. Writing in 1852, the economist Charles Coquelin pointed out the absurdity of this formulation; having declared that the invention belonged to the inventor by natural right, how could one then limit the duration of the right to a maximum of fifteen years and then make a gift of it to the public?<sup>21</sup> It may be that the promoters of the legislation were entirely alive to the contradiction. Machlup and Penrose suggest that the promoters of the legislation adopted the idiom of natural right in 'deliberate insincerity', in an attempt to make acceptable a measure that would have been less acceptable under the name of a privilege.<sup>22</sup>

Coquelin's entry for 'Brevets d'Invention' in the *Dictionnaire de l'Economie Politique* (1852), which he edited with Gilbert Guillaumin, took on the argument that inventors acquired a true property right in their invention by virtue of 'first occupation'. Coquelin proposed to consider the nature of patent rights from the two conventional perspectives of utility and right [*de l'utilité et du droit*].<sup>23</sup> He agreed that all inventions were discoveries, if only because 'the forces set to work by an inventor existed in nature prior to their discovery, and someone else might just

<sup>19</sup> Augustin-Charles Renouard, 'Théorie du Droit des Auteurs sur les Productions de Leur Intelligence' (1836-37) 5 *Revue de Legislation et de Jurisprudence* 241-74 at 244.

<sup>20</sup> Renouard, 'Théorie du Droit des Auteurs sur les Productions de Leur Intelligence', 253.

<sup>21</sup> Charles Coquelin, 'Brevets d'Invention' in Charles Coquelin and Gilbert Guillaumin (eds.) *Dictionnaire de l'Economie Politique* (Paris: Librairie de Guillaumin, 1852), vol. I, pp. 209-23 at p. 214.

<sup>22</sup> Machlup and Penrose, 'The Patent Controversy in the Nineteenth Century', 16.

<sup>23</sup> Coquelin, 'Brevets d'Invention', p. 216.

as well have discovered them'.<sup>24</sup> But the 'discovery' of an invention was peculiar because 'ideas' were carved out of a process that was thoroughly social. What the inventor might mistake for the product of an individual mind was in fact generated by a social process. In 1850 *The Economist* said of inventors that 'their minds and their inventions are, in fact, parts of the great mental whole of society'.<sup>25</sup> Coquelin's point was similar; each invention was an effect of 'circumstances, location, and period [*les circonstances, la situation et l'époque*]'. And, if this was so, it followed that 'in any invention there is always a good part that already belongs to the public'.<sup>26</sup>

However inventions originated, they could not be occupied or possessed in the same manner as material things. Some of Coquelin's examples might now seem eccentric, but they were commonplace topics in the nineteenth-century debate. Take, for example, the analogy between Christopher Columbus' discovery of America and Vasco da Gama's discovery of the passage to India around the Cape of Good Hope.<sup>27</sup> Coquelin observes – at some length – that although Columbus had actually been in search of a passage to the Indies, the unanimous view in Europe was that title to the lands that he had so fortuitously discovered belonged to Spain, whereas in the case of da Gama no one had ever imagined that the passage could become the exclusive dominion of Portugal: 'The passage to the Indies was not one of those bounded material objects which necessarily have to be possessed [*exploités*] by one nation alone, but rather one of those which, of their very nature, are accessible to the whole world and are necessarily the common property of humanity'.<sup>28</sup>

In terms that resonate very closely with Jefferson's formulations, Coquelin went on to observe that 'by its very nature' an invention 'escapes true appropriation'.<sup>29</sup> Invoking the same metaphor of fire, 'which is communicated and spreads without diminishing at its hearth or source',<sup>30</sup> he pointed out that 'twenty, thirty, or a hundred individuals can use the invention in as many different places, and the exploitation by one in no way affects the exploitation of another'.<sup>31</sup> So one could have a natural right to land, but not an invention:

<sup>24</sup> *Ibid.*, p. 217.

<sup>25</sup> Cited in Machlup and Penrose, 'The Patent Controversy in the Nineteenth Century', 15.

<sup>26</sup> Coquelin, 'Brevets d'Invention', p. 222.

<sup>27</sup> *Ibid.*, pp. 217–18.   <sup>28</sup> *Ibid.*, p. 218.

<sup>29</sup> *Ibid.*, p. 214.   <sup>30</sup> *Ibid.*, p. 214, citing Renouard.

<sup>31</sup> *Ibid.*, p. 219. In the case of an invention one could say that ideas could be circumscribed: 'They can be specified, delimited, and clearly fixed on paper by means of descriptions and

In granting to one person or another the exclusive possession of an estate in land, the law does no more than respect the nature of things, which prevents this estate from being enjoyed by many people; it merely decides between competing claimants. In securing to one man the benefit of an industrial invention the law goes against the nature of things, which is such that this invention should be exploited by many people; it creates a monopoly where none existed before.<sup>32</sup>

It is not possible here to embark on a proper analysis of the implications of the nineteenth-century debate as to natural right and utility, but we draw three points from the line of argument in Coquelin's discussion. First, the distinction between material and immaterial things echoes or derives from a broader distinction between those things that are capable of 'true' appropriation and those that are not. Second, these distinctions were settled in the course of the nineteenth century through a debate about the relation between property founded in natural right and property founded in utility. Third, the effect of making this distinction was to settle a division of labour between the legal theory of property and an economic theory of property, and to do so very much in favour of the latter.

## 2 Before intellectual property

Madero's history excerpts the Roman texts and medieval glosses and commentaries that were collected under the heading of *tabula picta*. Under this heading, the glossators worked out the legal principles that should govern cases concerning the ownership of books and paintings. A *tabula picta* was a panel painting, a wooden board onto which the painter would layer a ground of glue and gesso before applying the pigments that were used to compose the finished painting. By extension, *tabula picta* came to include texts and commentaries related to the question of the ownership of manuscript books (*chartae*). For medieval lawyers, paintings and books were species of the same genus because 'painting and writing happened when someone applied colour or ink to a surface, to a *tabula* in the case of paintings, to a *charta* or *membrana* in the case of texts'.<sup>33</sup> Because they understood books and paintings as composites of different kinds of material – in essence, the wooden or parchment substrate and the pigment or ink applied to it – lawyers treated them as tangible objects rather than

drawings, and they can even be given tangible form in the model made by the hands of the inventor.'

<sup>32</sup> *Ibid.*, p. 219.

<sup>33</sup> Madero, *Tabula Picta*, pp. 4–5, translation modified.

as embodiments of a literary or artistic work. Perhaps this was a residue of the Roman lawyer's tendency to apprehend fabricated things as 'sets of composite parts'.<sup>34</sup> In any case, the terms themselves, *tabula* (board)<sup>35</sup> and *charta* (parchment) should be taken literally, as references to the material surfaces upon which characters or motifs were drawn, rather than as shorthand terms for works of authorship.

The doctrinal texts compiled under the rubric of *tabula picta* worked with a basic *casus* – a dispute between the owner of the substrate (parchment or panel) and the owner of the inks or pigments applied to that substrate as to the ownership of a finished manuscript or painting. According to the basic logic of *dominium*, a right over a thing survived, and could be transmitted from one *dominus* to the next, so long as the material thing in which the right was inscribed remained identifiable. If the thing in question ceased to exist, or ceased to have the identity originally ascribed to it, then *dominium* was extinguished. The difficulty of the question of *tabula picta* was precisely the difficulty of specifying this relation between property rights and the material things in which they were inscribed. Did the property right of the owner of the raw parchment or *tabula* persist through to the finished book or painting on the basis that the innate 'power of attraction'<sup>36</sup> of *dominium* caused it to absorb the added inks or pigments, or did the addition of these materials extinguish the original *dominium* by creating a new thing? How closely did the legal identity of a thing depend on the continuity of its material substance? The material substance of things is continually being eroded, fractured, accreted to, dissolved, transformed, mixed, compounded or dispersed, if only in the most marginal or imperceptible of ways.<sup>37</sup> When these processes

<sup>34</sup> See Yan Thomas, 'L'Institution Civile de la Cité' (1993) 74 *Le Débat* 23–44 at 30.

<sup>35</sup> Madero emphasizes that *tabula* always meant 'a painting' (*Tabula Picta*, p. 27), rather than the kind of wax tablet that was used in various kinds of social transaction in Rome (on this latter sense of *tabula* see Elizabeth A. Meyer, *Legitimacy and Law in the Roman World. Tabulae in Roman Belief and Practice* (Cambridge University Press, 2004).

<sup>36</sup> On this power of attraction see Madero, *Tabula Picta*, Chapter 7.

<sup>37</sup> The human body provided a ready and universal frame for this experience of change and continuity: '[L]et us imagine that, when its parts change, a body becomes another: following that reasoning, we ourselves would not be who we were a year earlier, because, according to the philosophers, we are made of minuscule particles, some of which leave our body every day, while others come from the outside to replace them. This is why, when the species of a body remains the same, we consider that the body also remains the same' (*D.* 5.1.76). Some early Christians were concerned to know how, if they were to die a martyr's death after being thrown to the lions in the arena, they could then be resurrected in the Kingdom of God, given that their material substance would inevitably be dispersed by the process of dismemberment and digestion. See further Caroline

are noticed, one can either hold the nominal identity of the thing steady, saying that material changes do not go to the essence of that identity, or one can decide that material transformations warrant the ascription of a new identity. According to Madero, the conceptual action in the rubric of *tabula picta* was driven by this tension 'between *materia* and *species*'.<sup>38</sup>

One approach to the question of whether the ownership of the board or parchment prevailed over the ownership of pigments or inks was through the basic categories of *accessio* and *specificatio*. The textbook examples of *accessio* were cases such as the gradual augmentation of the *dominium* of a riparian landowner by means of alluvial deposits, or the extension of the *dominium* of the owner of a female slave to a child born to that slave. The first example was sometimes characterized as *accessio continua* because the thing that was the subject of *dominium* was enlarged by the addition of material substance to material substance, while the second was called *accessio discreta* because a new species or individual was born into the *dominium* of the owner. The classic examples of *specificatio* were cases in which a raw material had been transformed into an artefact (grapes made into wine), where two different materials were mixed to make a new species (gold and silver to make *electrum*), or where one material was affixed to another to form a new and indivisible object. The general principle was that the new *species* belonged to the person who made it (subject to a duty of compensation) unless the original material could be recovered and restored to the *dominus* (say, by melting a statue down into a mass of metal). Paintings and manuscripts did not fit very easily into these categories. Even if the broad trend, from the Roman period onwards, was for lawyers to recognize that a *tabula picta* belonged to the painter, and for the later medieval glosses and commentaries to recognize that a manuscript belonged to the scribe, the arguments that generated these conclusions were far from straightforward.<sup>39</sup>

Walker Bynum, *The Resurrection of the Body in Western Christianity, 200-1336* (New York: Columbia University Press, 1995).

<sup>38</sup> Madero, *Tabula Picta*, p. 7.

<sup>39</sup> Yan Thomas observes, with a reference to Madero's study, that although the analyses of the materiality 'borrowed eclectically from various philosophical currents, they were always specific because beyond the identity of the *res*, what was sought was the imputability of a right: to whom should the changeable and transformed thing remain or become imputed? (Yan Thomas, 'L'Extrême et l'Ordinaire. Remarques sur le Cas Médiévale de la Communauté Disparue' in Jean-Claude Passeron and Jacques Revel (eds.), *Penser par cas* (Paris: École des Hautes Etudes en Sciences Sociales, 2005), pp. 45-73 at p. 56). To borrow Geertz's borrowing of terms first used by the anthropologist Alexander Goldenweiser, one might say that the inventiveness of the glossators was just a mode of 'involution' - 'virtuosity within monotony'. Clifford Geertz, *Agricultural Involution. The*

The late twelfth-century commentaries of Placentinus adapted the logic of *specificatio* to a novel theory of the 'dignity' of paintings. According to Placentinus, a *tabula picta* would qualify as a new *species* if the painter had created a work that had the 'dignity' proper to an *icona* or *imago*.<sup>40</sup> The dignity of a work was a function not of value but of the subject matter of the painting and of the pigments used in its execution; a work of appropriate dignity would depict 'a man rather than a bear or a lion', and would employ 'a range of man-made colours'.<sup>41</sup> The resulting species would belong to the *specificator* – that is, the painter – rather than the owner of the unprepared *tabula*. Madero suggests that the insistence on man-made pigments signifies an appreciation of the 'technical competence'<sup>42</sup> involved in their use; the shapes and textures of the finished motifs had already to be anticipated by the painter in the process of mixing and preparing the substances of which pigments were made. Indeed, even the process of preparing the *tabula* – priming its surface with glue and sawdust, applying to it successive layers of mashed parchment, various qualities of plaster and more glue, then outlining the subject in ink – might have seemed to turn the wooden support into a new *species*, even before the picture was actually painted.<sup>43</sup> For Placentinus, the form of an *icona* or *imago* did not emerge from the mixing of materials: 'the conditions for the creation of a new species were the dignity of the subject represented, the use of proper pigments that were carefully prepared, and a respect for painterly techniques – not the logic of the transformation of substances.'<sup>44</sup>

The glossator Azo, writing in the early thirteenth century, when the trade in manuscript book production had become established, mocked Placentinus' 'fabulations' about the dignity of painting and proposed a criterion of value (*pretiositas*) that was based not on dignity but on cost and aesthetic value. On that basis a painting attached its *tabula*, and, because 'the scribes of our times have become painters',<sup>45</sup> so too did a text attach its parchment support. For the post-glossator Odofredo, the skill achieved by contemporary scribes was such as to elevate writing above painting; as a rule, writing carried its parchment support with it, precisely because of the artistry expressed in textual inscriptions, whereas

*Processes of Ecological Change in Indonesia* (Berkeley: University of California Press, 1963), p. 81.

<sup>40</sup> Madero, *Tabula Picta*, pp. 38–43, 62.

<sup>41</sup> *Ibid.*, pp. 38–40. <sup>42</sup> *Ibid.*, p. 41.

<sup>43</sup> *Ibid.*, p. 66. <sup>44</sup> *Ibid.*, p. 45.

<sup>45</sup> Cited in Madero, *Tabula Picta*, p. 79. See also p. 33: 'the writing was more precious than the *charta*.'

a painting would carry its support with it only in certain cases. Bartolus proposed yet another criterion of value (*pretiositas*), which started from the premise that liquid things were more precious than dry things. In the case of a *tabula picta*, the pigments covered the surface of a *tabula* so entirely that the liquid prevailed over the dry and the paints attached the board; in the case of *chartae*, the inscriptions accrued to the substrate. By contrast with Placentinus' theory, this medieval theory of *pretium* might well have been that, rather than forming a new *species*, a *tabula* and the pigments applied to it subsisted as two distinct but inseparable material layers, and the pigments carried the board with them by an effect of prevalence. Or, as in the case of Placentinus, the theory may have been that although pigments and board were unlike in raw substance, according to the principle of *ferruminatio* they nonetheless formed a single thing that was continuous in 'spirit'.

### 3 A legal physics

The materialism of medieval glossators was a legacy of Roman law, which treated both rights and objects as 'things'. Rights were incorporeal things (*res incorporales*) and the objects to which they referred were corporeal things (*res corporales*). Roman lawyers imagined rights as external or incidental attributes of their corporeal referents. Rights were attached to corporeal things rather than compounded into them. The exception was property: a property right was treated as a 'real right' (*ius reale*) because the right was so tightly implicated in its material object that the one merged into the other. Right and thing formed a single *corporeale*. To transfer the object was to transfer the right, and the modalities of the right were directly conditioned by the material properties of the thing. This gave rise to the medieval sense of land as 'real' property. The rights that persons might have in relation to land were supposed to be inscribed or rooted in the land itself – hence Heinrich Brunner's characterization of the relation as one of 'racination [*Radizierung*]'.<sup>46</sup> Inspired by this general premise, doctrinal arguments about the ownership of books and paintings paid very close attention to the nuances of material fabrication, to the way that *tabulae* were prepared for painting, to the composition and texture of pigments and inks, and to the relative weight, extension or proportion of material ingredients. Yet the effect of the lawyers' 'conspiracy against experience' was that materiality in the ordinary sense was

<sup>46</sup> See Jean Clam, *Trajectoires de l'Immatériel* (Paris: CNRS, 2006).

translated into a set of categories and processes that owed their existence to the dynamics of legal argument rather than any 'natural' properties or propensities. Figuratively, one might say that law ascribed its own 'physics' to material things.

The construction of this legal 'physics' can be illustrated by reference to the categories of *ferruminatio* and *adplumbatio*, which were mobilized in the analysis of *tabula picta* because they addressed compositions of worked (*factae*) as distinct from unworked (*infectae*) materials.<sup>47</sup> Both categories took their names from real material processes. *Ferruminatio* described the process by which, for example, the parts of an iron statue were welded together with iron, or in which silver was used to fuse silver to silver. In such cases the principle was that continuity of material substance produced 'a substantial coherence which gathered originally distinct objects into a single body imbued with an internal force, contained *uno spiritu*, or, as the gloss had it, *una elementatione*'.<sup>48</sup> The legal effect was that *dominium* in the originally distinct parts was extinguished by the process of soldering. By contrast, *adplumbatio* described configurations in which parts made of one material were soldered together by another – where lead (the generic soldering medium) was used to fuse iron to iron, or silver to silver. Here, the principle was that the original parts remained recoverable, so that the *dominium* of their owner(s) persisted into the composite artefact.

The theory of *ferruminatio* was interesting to Placentinus because it met an objection to the argument that the technique of the painter and the dignity of the subject transformed the board into a new *species*. The objection was as follows: if a painted *tabula* could be scraped back to its original condition and restored to its original *dominus*, then, according to the basic principles of *specificatio*, *dominium* in the original *tabula* was not extinguished. Placentinus countered that such an operation could not be performed 'without damage', and that the pigments were fused to the *tabula* by something akin to a process of *ferruminatio*. Although the finished *tabula* was made of diverse material substances, Placentinus

<sup>47</sup> Cases concerning mixtures of things such as grains or fluids were treated as instances of *confusio* or *commixtio*; see Madero, *Tabula Picta*, p. 60: 'Essentially, while *ferruminatio* and *adplumbatio* weld two things that retain a definite form, *confusio* and *commixtio* mix liquid or solid things of unstable or fluid form.' The distinction between *factae* and *infectae* was not exactly the difference between raw materials and products of workmanship; artefacts were treated as *infectae* if, like inks and pigments, they did not have a determinate form (see *ibid.*, pp. 102–3).

<sup>48</sup> *Ibid.*, p. 88 (translation modified).



invoked the example of seeds and trees<sup>49</sup> to argue that things that were not of the same substance could nonetheless form a compound with the quality of coherence or unity that characterized the products of *ferruminatio* (as distinct from *adplumbatio*). In the process of taking root, a tree or seed effectively became 'one' with the soil; and although this mode of oneness was conceptually distinct from the coherence achieved by a process of *ferruminatio*, it had the same legal effects.<sup>50</sup> This two-stage analogy – between things that were truly *ferruminatae* and plants, and then between plants and paintings – suggested a more general legal category of things that were indissoluble, whether they were made of the same or different substances.

The physics of medieval property law was forged through analogies of this sort. The analogy between welded statues, plants and paintings suggested that these different kinds of material composition had something in common. Each process generated a material form that could be considered to be indissoluble. But this quality of 'coherence' or 'indissolubility' was not a matter of fact; it was generated by introducing legal criteria or schemata into 'real' material textures or propensities. One could equally well say – against Placentinus' theory – that a painting was analogous to something joined by *adplumbatio*. Indeed, the fourteenth-century commentator Alberico de Rosate construed paintings in precisely these terms; the form of the painting was a kind of body that was soldered to the substance of the *tabula* by the intermediate substance of pigments.<sup>51</sup> Placentinus and Alberico de Rosate construed the same material composition, the same set of material textures, in radically different ways, and they did so because the logic of medieval property law was such that normative effects had to be drawn out of the material composition of things. Lawyers scrutinized the texture and behaviour of material things in search of features to which they might ascribe legal significance, and which might, more precisely, be taken as a basis on which to qualify, refine or redefine the legal categories that were brought to bear in questions of property. The more intense the lawyers' scrutiny of material reality, the more readily that reality dissolved into a plastic resource for analogical arguments.

<sup>49</sup> The Digest assimilated things joined by *ferruminatio* to 'things that are planted, bodies that are nourished by food found in nature, and things resulting from specification' (*ibid.*, p. 54).

<sup>50</sup> For Placentinus, 'painting was *ferruminata* only in its appearance' (*ibid.*, p. 62), but it yielded the same procedural consequences.

<sup>51</sup> *Ibid.*, pp. 64–6.

#### 4 The materiality of the intangible

Property lawyers no longer spend much time scrutinizing the materiality of things. Ownership transactions are made by means of paper documents or digitized forms, and it is rarely necessary to retrace the 'chains of reference'<sup>52</sup> that connect these two-dimensional representations to real things.<sup>53</sup> Speculatively, one might say that the Roman and medieval doctrines of *specificatio* and *accessio* are now largely obsolete<sup>54</sup> because craft techniques such as welding, soldering, mixing and embellishing have been eclipsed by the technologies of the industrial production line. In a culture in which both products and the wrappings in which they are packaged are mass produced, the question whether one person's grain has been confused with another's, or whether the work of the artisan should prevail over the rights of an owner of raw materials, is rather less likely to arise. The prime mover in the making of a series of manufactured artefacts is either the design – the patented invention – from which they are produced or the production line itself as a complex artefact of organizational knowledge. Intellectual property doctrine emphasizes the former at the expense of the latter. In so doing, it overlooks the sense in which the 'ground' of invention is constituted by the organizational logic of the production line.<sup>55</sup> But the point is that the property law that pertains to 'things' in the age of manufacturing is intellectual property law. The laws of tangible property have given way to the laws of the intangible, but this has not been accompanied by a radical change in the way that lawyers apprehend 'things'. In the context of the infringement action, the appreciation of intangible 'ideas' involves the close scrutiny of the materiality of things.

Although adjudication is now a very different process, if only because its social ecology is so different, it is difficult not to see the similarity between

<sup>52</sup> For this notion, see Bruno Latour, *Pandora's Hope* (Cambridge, MA: Harvard University Press, 1999).

<sup>53</sup> A rare modern example is *Borden (UK) v. Scottish Timber Products* (1981) Ch. 25. For a classic analysis of *accessio* and *specificatio* in English law see Anthony G. Guest, 'Accession and Confusion in the Law of Hire-Purchase' (1964) 27 *Modern Law Review* 505–20 at 506.

<sup>54</sup> The question of 'how property behaves in mixtures' has been revived by the law of restitution, but most exercises in tracing property rights have to do with funds rather than grains or liquids, and so with accounting procedures rather than some material 'physics'. See Peter Birks, 'Mixing and Tracing Property and Restitution' (2001) 54 *Current Legal Problems* 69–98.

<sup>55</sup> See James Beniger, *The Control Revolution* (Cambridge, MA: Harvard University Press, 1986), pp. 241–2 where the paradigmatic nineteenth-century invention, the

the scrutiny of brush-strokes or other material textures in a copyright infringement action,<sup>56</sup> or the comparison of two mechanical artefacts in a patent infringement action, and the medieval lawyers' decomposition of the material form of a painting or manuscript. Although the conceptual schemata are very different – modern intellectual property lawyers decipher material form and texture as the traces of an intangible work or invention rather than as manifestations of qualities such as unity or dignity – in both cases the effect is to generate a factitious physics, which in one case is called 'tangible' and the other 'intangible'.

In the case of patent law, the best example of this effect is the role of patent models in patent litigation in the United States in the nineteenth century. We have already explored various aspects of the use of models in patent litigation,<sup>57</sup> but we return to the example here to make a simple point about the distinction between tangible and intangible things. For patent lawyers, the art of demonstrating a patent model was to decompose the material form of the model to reveal the shape of the intangible invention. As we have suggested, the assumption in classic patent law was that the invention was immanent in its material embodiment. According to this understanding, the invention was 'manifested only in the material shape, configuration and operation of a material artefact or process. It [was] the material embodiment seen under a particular aspect.'<sup>58</sup> A patent model could be set on a table, pointed at from any aspect, picked up, rotated or upended so as to display a point of interest to the audience and, if need be, brought to the bench or the jury so as to facilitate closer inspection. The object was not to evidence the shape of the machine, but to reveal the outline of the intangible invention, which nineteenth-century patent

sewing machine, was used to explain the importance of coordination: 'Sewing machine manufacturers, for example, had to control a major flow of metals from the foundry through tumbling, annealing, japanning (enamelling and laquering), drilling, turning, milling, grinding, polishing, ornamenting, varnishing, adjusting, and testing. Meanwhile, these processes had to be coordinated with parallel work lines producing metal attachments, needles, and tools, while woodworking and cabinet-making operations – among the most complicated in the mass production of furniture in the nineteenth century – kept pace in still other departments. Output from these various production lines had to be coordinated in a final line that completed the tasks of assembly, gauging, inspection, final testing, and preparation for shipment.'

<sup>56</sup> See Jose Bellido, 'Looking Right: The Art of Visual Literacy in British Copyright Litigation' (2012) *Law, Culture & the Humanities*.

<sup>57</sup> Pottage and Sherman, *Figures of Invention*, Chapter 5; Alain Pottage, 'Law Machines. Scale Models, Forensic Materiality and the Making of Modern Patent Law' (2011) 41 *Social Studies of Science* 621–43; Pottage, 'Forensic Machinery' (2011) 43 *Cabinet* 75–80.

<sup>58</sup> See generally Pottage and Sherman, *Figures of Invention*, pp. 12–13.

doctrine called the principle of a machine. Our hypothesis is that there is a close resonance between the way that patent lawyers in the classical age saw through the form of the model to the outline of the invention and the way that medieval lawyers saw through the composites of substrate and pigment to the spiritual essence of materials – their dignity, *pretiositas*, or unity of spirit.

One might say that things are very different in the contemporary age, which is characterized by the emergence of truly immaterial intangibles, notably software inventions that (at least as far as lawyers are concerned) have neither material form nor material effect. But even here there is a kind of materiality in play, namely the materiality of text. As we have suggested elsewhere, the patent claim now functions as a kind of textual machine:

The elements of the patent claim represent the mechanical components of a machine or artifact but they do so by means of elements that are defined and articulated not by physical or chemical forces or complementarities, but by the ‘physics’ of syntax, convention, and discursive action ... The patent claim is an abstract machine, and claim drafting and interpretation are themselves mechanical arts, practised in the medium of semantics, rather than physics.<sup>59</sup>

For some purposes – particularly in relation to information-based inventions – textual materiality might seem to be an inadequate substitute for physical materiality. Hence the suggestion that it might now be time to reinstitute the old requirement that inventors submit a patent model with their applications, less for the purposes of litigation than in the interests of more effective patent examination.<sup>60</sup> No matter how ephemeral the subject matter might be, texts or documents are the media in which even the most intangible of things becomes real and tractable in the courtroom

<sup>59</sup> See generally Pottage and Sherman, *Figures of Invention*, Chapter 7.

<sup>60</sup> See Brendan Koerner, ‘Make an Old Idea New to Fix the Patent Backlog’ (30 August 2011) *Wired*: ‘The USPTO could instantly slash the number of applications by compelling inventors to submit working models whenever feasible. The most abstract inventions would be exempt, of course, but these constitute a small minority of applications; business models, for example, made up about 2 percent of the patents issued last year, and drug compositions were roughly 3 percent. The bulk of inventors would have to come up with three-dimensional examples of how their creations would look and function. Have a great idea for a longer-lasting semiconductor? A sturdier toxic-waste container? A safer lawn dart? Don’t just submit a diagram; make a model the examiner can touch. Perhaps that requirement would have been draconian in decades past, when creating models from complex designs was prohibitively expensive. But rapid-prototyping tools now make it possible for anyone to produce a high-quality mock-up, typically by hiring a service that specializes in such technology.’

or fora in which they are judged. In the context of adjudication, as in other specialized theatres, things, whether they are imagined as tangible or intangible, are the products of discursive schematization; they are 'semantic artefacts'. This is because there is no dimension of reality in which inventions, signs or designs might subsist independently of the artefacts, texts or drawings from which they are elicited. Intangibility is an effect of representation, interpretation and argumentation.

The upshot is that intellectual property rights are not peripheral, exceptional, or tenuously analogous forms of property. Indeed, the discourse of intellectual property is now more materialist than almost any other language of property law. Intellectual property lawyers probably spend more time scrutinizing the material compositions and textures of things than do other species of property lawyer; and, in so doing, they carry on the old art of eliciting a properly legal physics from things. If tangibility and intangibility are just two alternative names for this spectral physics, then intellectual property law may be the true heritor of the old European tradition of 'real' property. Hence our suggestion that, far from being the poor relation of 'true' property law, intellectual property actually exemplifies what is involved in the making of property rights in even the most material of things.

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## Property in brands

### The commodification of conversation

DEV S. GANGJEE

#### Introduction

This chapter traces the emergence of a new *res* or object of protection within European trade mark law. Proprietary rights in trade marks have conventionally been premised upon the mark's ability to communicate useful information, namely the commercial source of goods or services.<sup>1</sup> Granting exclusive rights to a mark preserves its ability to reliably signal origin. This ability reduces consumer search costs and protects producer goodwill.<sup>2</sup> Contemporary EU trade mark law goes further and protects the more expansive brand dimension associated with a successful trade mark. The Court of Justice of the European Union (CJEU) has enabled this by recognising not only the origin indication function of marks, but also their advertising, investment and communication functions as well. Viewed comparatively, it is the most generous trade mark regime in this regard<sup>3</sup> and therefore of considerable interest. The brand is a remarkably elusive and protean, yet undeniably valuable intangible. So what are the doctrinal tools and

<sup>1</sup> This source or commercial origin indicating function is referred to as the essential function in the EU. See Ilanah Simon Fhima, 'How Does "Essential Function" Drive European Trade Mark Law?' (2005) 36 *International Review of Intellectual Property and Competition Law* 401.

<sup>2</sup> See for example Case C-10/89 SA *Cnl-Sucal NV v. Hag GF AG* (1990) 3 CMLR 571 at 582–583 (AG Francis Jacobs) ('[T]rade marks reward the manufacturer who consistently produces high-quality goods and they thus stimulate economic progress ... they [also] act as a guarantee, to the consumer, that all goods bearing a particular mark have been produced by, or under the control of, the same manufacturer and are therefore likely to be of similar quality').

<sup>3</sup> *L'Oreal v. Bellure* [2010] EWCA Civ 535 at [20] (Jacob, LJ) (observing that as a result of the increasing recognition of brand value, 'the EU has a more "protective" approach to trade mark law than other major trading areas or blocs').