Hercule Florence.
Le Nouveau Robinson
References to the titles of Herculé Florence’s drawings include language variations, barbarisms and grammatical or spelling errors to be found in the original documents. These flaws reflect the situation he found himself in: caught between his mother tongue (French) and his adopted language (Portuguese). The English translations do not reproduce these variations and errors.
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   Introduced by an extract from the article entitled:
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Papier-monnaie, circa 1840

In 1841, Hercule Florence published a little fourteen-page pamphlet summarising a printing process for paper money titled *Essai sur la impression des Billets de Banque par un procédé totalement inimitable*. Precisely, some observations about a forgery of Brazilian Notes, and the method to know if they are genuine (with a printed imitation). As Florence stated in the preliminary thoughts printed on the pamphlet's first page, this was his attempt at solving a problem felt at the time by many in Brazil (his adopted country) and one he had been deeply involved in since the mid-1830s: the slow emergence and use of paper money throughout the Brazilian Empire, and the consequent circulation of counterfeit notes. Thinking through these aspects of the modern monetary system meant thinking, directly or indirectly, about value: the value of the raw materials sold by plantation and mine owners in Brazil to European companies; the value of the slaves who were working the lands to extract those raw materials, and who were becoming increasingly costly as pressure from England, France and the United States of America mounted throughout the 19th century to abolish free labour; the value of aesthetic objects, so far removed from the necessities of the everyday life; the value of paper money itself, which despite being nothing more than small pieces of paper, stood in for materials and labour as the ultimate, most perfect and abstract symbol of value. With this text of 1841, Florence would for the second time make experiments public that, as he stressed in the pamphlet's opening pages, he had been working on for some time. The year before, he had initially published a slightly different pamphlet. 

Throughout the 1830s, Florence had been immersed in a series of inventions, principally printing experiments, and most crucially what he called Polygraphie, the seminal process for his proliferating insistence and passion with printing and reproduction, and which unfolded, during the same period, into the making
ENSAIOS
SOBRE A IMPRESSÃO
DO PAPEL-MOEDA

...
make clear that the model used in France in the early 19th century was, for him, the best example of how to build a monetary system that could be both local and national at the same time.

What was he therefore proposing? That paper money would be printed locally in a town for exclusive circulation within the confines of that said town, but that, if need be, could be exchanged for the banknotes printed in Rio de Janeiro, the capital city of the Empire. There would be municipal banknotes, regional banknotes, state banknotes, and national banknotes. Following the same logic, there would be banking directors at each of these instances, overseeing the printing of the banknotes, but also, very importantly, the modes of exchange. For example, if someone from one town in a northern state were to travel to a town from another state farther south and needed to exchange banknotes, in order to have ‘local’ money, the town’s banking director would oversee the exchange, and also, crucially, make sure that the transaction did not involve fake banknotes. The value of the banknotes themselves had to be guaranteed.

As Florence worked on a potential system, he experimented with producing what he called Papel Inimitável, his central contribution to this issue of money, circulation and value. The examples of this printing invention, capable of ‘printing all colours simultaneously’, differ quite drastically. Some are clearly works-in-progress, cases of the different steps that the process required before the final paper in question would emerge. Those works-in-progress show either blotsches of colour on well delimited frames on paper, or well defined geometric coloured shapes also within those well-defined frames (figure 2). The latter reveal an uncanny resemblance to the future Mondrian, as well as Klee. The former bear a likeness to many of the yet to come attempts at fragmenting the continuity of the colour field undertaken by the Impressionists (figures 3 and 4). One must imagine that of the surviving examples, those onto which Florence printed his description of the paper (used for publicity and marketing) were the most convincing attempts.

There are two distinct moments when Florence produced these final or close-to-final versions of his Papel Inimitável: in February 1843 and 1870. The 1843 examples were printed not long after he printed the 1841 pamphlet, and state that they were his third attempt (figure 5). This paper, Invented by Hercule Florence as can be read in the heading to the work, printed on the upper section, was obtained ‘mechanically’, and would give a banknote what he calls ‘millions of circumstances’, each of these serving as a point of comparison between notes, which were what would guarantee their validity. These ‘circumstances’ are the name that Florence gave to the visual consequence of eighteen lines drawn in multiple colours, in waverning curves (mainly) and straight lines (less often), sharring the frame like tight amorphous coloured shapes seen through a microscope.

The 1870 examples are quite different from the earlier trials (figures 6, 7, 8). The coloured lines are thinner, more microscopic than in the 1843 example; the amorphous shapes formed by the curving lines are tighter, occupying the whole visual plane, which is now composed of one set of curved linear shapes and its mirror
image. Furthermore, in the text printed over the coloured shapes, Florence no longer describes in the same detail the process of printing 'all colours simultaneously', but states the uses and reasons for the Papel Inimitável: the "recent appearance of forged banknotes [...] took me to present this work once again, which could be accepted if attention were paid to me."

Comparing the two texts, it becomes clear that the printing capacity of presses also increased over the thirty years that separate them, as well as the overall quality. The 1870 copies look less rough. The whole range of surviving examples suggests that Florence continued working on and perfecting this invention over the years between the 1843 and 1870 final examples, with some attempts dated 1858, for example (figure 9), despite their failure to elicit the interest of banks or other financial institutions. The failure of his intentions to enter circulation, to be taken up and become popularised through their use, is at the heart of all of Florence's work, so in that respect, what happened to the Papel Inimitável is no exception, but rather, one of the trademarks of his work. The beauty and aesthetic quality of all the trials and surviving examples, from the 1840s, 1850s and 1870s, and particularly all the ones that do not have any words printed over them and that therefore can quite easily be viewed as works of art, suggest a possible reason for the repeated failure of this
invention. Paper money and banknotes were meant to be worthless in their materiality and valuable in their symbolic value. Hercule Florence's *Papel Inimitável* is a carefully crafted, visually complex, technically sophisticated and beautifully printed. There is a mismatch between its aesthetic character and the use it was destined for. Their value is precisely as visual objects, but as visual objects they should have been worthless.

Florence was an avant-garde persona – interested in and focused on recording animal sounds and not only images of nature, as travellers and naturalist painters were at the time; coming up with the term *photographic* years before it was ever coined and used elsewhere, specifically Europe; thinking through ways of financially unifying an enormously vast country still to be connected by a fast-moving railroad or transportation system, or even a telegraphic system; trying to pave the way for the passage from use-value to exchange-value economies that would need to create value and peg it to money, the most abstract symbol of all; working through the conceptual and material inter-relatedness between art and the economic structures of society – ahead of his time, misadjusted to the common trends of his context. Fundamentally out of sync with his time and with his context, throughout his life, in his notebooks, his printout materials, his diaries and his personal correspondence, Florence both bluntly stated and indirectly hinted at the lack of response and interest that all of these inventions, projects and programmes generated: "Always distracted by my artistic works, I wasted my time without producing anything." "Here, nobody gave any attention to my works." Florence's *Essai sur les moyens d'imprimer le Papier Monnaie d'une maniere terminement [sic] inimitable* (Florence kept using this or a variation on this title in his numerous notebooks, where he wrote down the results of his experiments in preparation for the intended publication of his discovery) is full of remarks regarding the time wasted and the sacrifices made time and again to arrive at a discovery. And even more time and even greater efforts would be needed for the discovery to be adopted and recognised. This sums up the story of Florence's life: the desire for and lack of recognition.

There had been little use for financial institutions in Brazil before 1850. First, because there was little circulating currency in Brazil until 1890. It was mainly an illiquid economy. In many ways, there was no need for currency, and the economy functioned through credits, where money rarely changed hands. Credit was active amongst different individuals who were powerful players in the circulation of goods and slaves, and between them and the government – colonial until 1822, and independent from Portugal thereafter. One of the crucial reasons why there was no need for liquidity before 1890 was that there were no wages paid to most labourers, given that in 1822, the year of Brazil's independence from Portugal, half the population living in Brazil was composed of slaves, earning, of course, no wages. 1850 marked the official end of the international transatlantic slave trade – although in Brazil the slave trade continued until 1889, through the internal commerce of slaves from less economically productive to more productive areas of the territory, and by physically and materially supporting the growth of enslaved families.

The demise and changing structure of the slave trade and of slave labour from 1890 to 1889 slowly introduced the need into the Brazilian economy for liquidity to pay the increasing wages. Coffee, Brazil's main export product from the mid-1870s onward had been produced in slave-worked plantations until the 1840s, but after 1850 and the restrictions on the slave trade, coffee production relied on the introduction of waged labourers from southern Europe. The Brazilian
government had agreed to subsidise the travel costs of immigrants arriving to work on coffee farms when the political and economic elite protested against the slave trade regulations. This all meant that after 1850, currency and banks were needed like they had never been before in Brazil in order to set up and run the new money business. The development of financial institutions meant the need to think through the issue of liquidity and property — as slaves and infrastructure had to be transformed into money — and the consequent need to expand what until then had been a very small number of financial institutions. After independence and up until the mid-1830s, there was practically only one bank in Brazil: the centralised Banco do Brasil. Between the mid-1830s and the 1850s, a total of five commercial banks were created, one each in the provinces of Bahia, Maranhão, and Pará, and two in Rio de Janeiro, the capital. They were private banks, and each printed their own currency, known then as "reais.

Money had been issued in Brazil for close to fifteen years without any legal framework and no kind of regulation, centralised control or oversight from the government. In 1850 this quickly changed, and economic historians agree that the "imperative of this regulation appears to have been the abolition of the slave trade." Indeed, soon after 1850, banking establishments began to appear everywhere, as it seemed to be a good deregulated business to enter, given the new resources suddenly made available and the need for new liquidity. This is when the government stepped in to establish what became the first commercial legislation in Brazil: the Commercial Code of 1850. Its main purpose was to protect investors and depositors from fraud. Crucially, it laid out regulations for the types of paper credit that could be used for payments, and established the formats of paper currency to try and eliminate the circulation of forgeries.

This was the environment in which Florence began thinking through the shape and mode of operation of a financial system that could unify a country with such a vast territorial expansion such as Brazil, and a way of printing paper that could be used by the new financial institutions and move towards a liquid economy.

Florence's reflection on money production was focused on the means of printing, on the technical and aesthetic dimensions of creating banknotes. For if money was to hold onto its value, or even to embody it, according to Florence it had to become a materialisation of the 'imitable', a symbol of universality.

Indeed, because there is no absolute and exact sameness, neither in printing nor in writing, as Florence would often repeat, there is no such thing as an identical copy. Thus, if paper banknotes cannot be set aside and recognised as a category of banknotes identical to one another, if they cannot be distinguished by common but distinguishable features, then according to Florence, they each need to become absolutely differentiated; they need to become genuine originals, i.e. pure artworks. This is the starting point for Florence's work on the production of paper that would be resistant to forgery. Florence's solution to possible undistinguishable copies of banknotes is to embrace the fact that indeed every banknote, no matter how perfect the technique of mechanical reproduction will be, will ultimately turn out to be different: each banknote is already an original. Money, in order to be money and keep its value, should be irreproducible; it should thus obey the logic of randomness and not that of repetition. For Florence, the shapes formed on the engraved paper - on which money would then be printed - would be random. Colours would be placed on the engraving plate without choosing them, without deciding on their arrangement, leaving them to form patterns of their own.

"Le hazard [hazard] ne produit jamais deux choses égales" [Chance never produces the same thing twice]. Randomness is the technique used to produce abstract value. Florence thus wanted to produce a unique object, the value of which could be ascertained from within, through its form, material and composition. A certain anti-standardisation is therefore at the heart of these of Florence's experiments, but at odds with its being a proposal concerning money. Money is the most extreme type of abstraction, hence fundamental in the configuration of the exchange value of objects, which were now clear commodities under the reign of a modern capitalist economy. Yet Hecaleu Florence sought to make money a material and aesthetic expression of exchange value; to turn every paper banknote into a symbol through the implementation of an 'imitable' technique.
Money, circa 1970

In 1970, Brazilian conceptual artist Cildo Meireles showed several works for which he had used money – real money banknotes – as material. In June, he exhibited *Money Tree* in Rio de Janeiro’s Agnus Dei Gallery. He had folded one hundred one-cruzeiro banknotes, tightly wrapped an elastic band around them, and placed this paper-money sculptural piece on a pedestal. Shown in a commercial space, Meireles carefully offered a literal *mise en scène* of the equation of artworks to wealth and money, and a critique of the contemporary art market’s speculative way of assigning value to its products and artists. Meireles listed the price of *Money Tree*, for sale at the gallery, as twenty times the face value of the banknotes. Between July and September of 1970, two of Meireles’s conceptual activities from the *Insertions into Ideological Circuits* project were exhibited in MoMa’s Information exhibition: the Banknotes and Coca-Cola series, where he intervened on Coca-Cola bottles and circulating banknotes with slogans, exploring the notion of circulation of goods and information. In the case of the Banknotes, Meireles had printed messages on one side of each note – like ‘Yankees go home’, and ‘Straight elections’ – and his aesthetic-political explanation on the other side of them: “to register information and critical opinions on banknotes before returning them to circulation” (figure 13).

These pieces were conceived and printed amid what was then referred to as the ‘Brazilian miracle’: the period between the late 1960s and the mid-1970s, when, under military rule, Brazil underwent a surge in its gross domestic product and made enormous financial gains. This growth went hand in hand with oppressive labour rights and anti-union measures, to keep labour costs as low as possible and attract foreign investment: pre-empting the neoliberal economic policies to be imposed decades down the road. Inflation, which ran amok in the late 1960s, was covered up with currency changes. This ‘Brazilian miracle’ saw the cruzeiro – the official currency since 1943 – phased out to introduce the ‘novo cruzeiro’, which lasted only three years. In 1970, the economy reverted to the cruzado, which remained the currency until 1986 when the cruzado replaced the cruzeiro. The attempt to paper over the dramatic economic situation was made through a multiplicity of tactics in the specific case of the circulation of money and the question of value: changes of currency, and a partial devaluation of currency every four weeks between 1968 and 1971. The ping pong from cruzado to novo cruzeiro over only three years, together with the ‘crawling peg’ devaluation strategy adopted by the military government, unveiled the arbitrariness behind the concept of value in a financial economy – an economy organised around financial institutions, issuing money, centralising and abstracting work and materials first into exchange values, and later into speculation. This real-life interplay between institutions and the objects to which they assigned value (i.e. between government, banks and paper money) is nothing short of a parody of the question of value in late capitalism, and coincides with the period when Meireles conceptualised his banknote works first exhibited in 1970.15

14, Cildo Meireles, *Corpo de Adele*: *Cruzeiro* (Money Tree), 1970

The arbitrary value of art (and of money)

Value as an arbitrary attribute once materials and labour are eliminated or covered over; this could be said to be the most profound link between Herculé Florence and Cildo Meireles, two Brazilian creators, separated by almost one hundred years. Yet there are crucial differences between them. The most evident being, of course, that Florence was trying to understand abstract value – how could one banknote have value once it had travelled beyond the physical sphere where a community of people who knew each other had somehow established at value, once it had been unpegged from its material and social conditions – while Meireles, a century or more later, was criticizing the arbitrariness of value in an increasingly de-regulated financial system. But a further distinction is also necessary, one that places their projects with money as actually exact opposites: Meireles was destroying money while Florence was attempting to produce money. Both, along the way, we must remember, were also trying to earn a living, and in that sense 'make money' as the common saying goes.

Another distinction must be made. Meireles was making art. Florence was not. At least not from what can be gathered by reading his essays and notes on the project in his writings on the Papel Inimitável. This is surprising for two main reasons: first, because the examples of Papel Inimitável that have survived resemble works of art, and they could easily pass as pre-mid-20th century abstract artworks, made sometime between the closing decades of the 19th century and the first decades of the 20th as art objects; secondly, because today, they actually circulate – for example in this very exhibition – as works of art i.e. their status has changed, and as a consequence, their value has also changed. Yet we must remember that Florence was not interested in the production of artistic works, but rather that he was attempting to develop a tool that would allow him to print paper that resisted forgery, that could guarantee the uniqueness, and hence the value, of the object.

What is paradoxical is that while wanting to produce a tool for making money whose worth would never be questioned, his method for making money was quite similar – uncannily so – to the making of a work of art. Modern forms of paper money can have no value in themselves; paper money must be an empty signifier of sorts, because in and of itself it is nothing but a piece of paper whose value is linked to a system of institutions who give value to it. Yet while intending to produce a symbol of exchange value, Florence produced what today's market and art world would consider aesthetic value.

If the examples of Papel Inimitável look like works of art, it is largely because Florence's method for making those papers had a logic analogous to the making of art objects; that of looking for a form that would be an expression or embodiment of its content. But again, how to embody or represent exchange value, meaning that which has been deprived or emptied of any material, historical, sensitive and concrete quality, usage or experience? Both Florence's and Meireles's artworks and writings echo one another, posing us this puzzling question of the arbitrariness and randomness at the core of our exchange system... and at that of the art market.