From Jeanneret to Le Corbusier: Rusting Iron, Bricks and Coal and the Modern Utopia

TIM BENTON. In a letter to Amédée Ozenfant of 9 June 1918, Jeanneret wrote: ‘I have discipline in my business affairs, but neither in my heart nor in my ideas. I have let the habit of impulse thrive in me for too long’. In November he wrote to his parents, after a visit to the site for the abattoir of Chaluy at Nevers, ‘My life is a paradox; exhausting. By day I am an American … [and] read Taylor and practice Taylorism’. The implication is, of course, that he reverted in the evening to being an artist and intellectual.

The business-man/artist fascinated Jeanneret. A role model was the entrepreneur-architect Auguste Perret, the dapper art lover and patron of Art et Liberté whose architectural practice was underpinned by his construction work. On 14 May 1919, Jeanneret wrote to Tony Garnier at Lyons expressing his admiration and promoting himself as a business-man-architect on the grounds that ‘I believe that an architect should be responsible both financially and technically for the works he creates’.

Amédée Ozenfant too, seemed to offer Jeanneret a model of harmonious unity of business and art:

‘In an office with harsh lighting, he has his American desk, his filing cabinets, his telephone, and his paint box and easel; everything is grouped around a swivel chair; and during working hours he runs the Jouve culture salon, where the grand courtesans go. He paints, he writes, he reads’ (Fig. 1).

Between 1917 and 1921, Jeanneret tried to follow suit, making money, designing buildings, painting and writing – sometimes in turn, sometimes in parallel. He even wrote to his parents, in May 1919, suggesting that he might make a fortune quickly and retire to paint full time: ‘I soon hope to have all the money that is necessary to totally liberate me from the material worries of life’. By 1921, this experiment had failed, disastrously. I believe that this failure, and the form it took, materially helped the butterfly of Le Corbusier to painfully emerge from the chrysalis of the thirty-three year old Jeanneret.

I want to focus on the ‘horror’ of reality, of the point where imagination and hope hit the buffers of bankruptcy. This is the underside of capitalism, dealing in liquidated war stocks of scrap metal – barbed wire, corrugated sheet and angle irons. I want to paint a picture of a world of bailiffs, of unsecured loans, of harebrained schemes which might make a fortune but which end in accusations of theft and fraud, of tons of goods which go missing on railroad trucks, of debts covered by loans covered by further loans and postponed, month by month until Jeanneret’s businesses were passed into the hands of the receivers and he is finally released into bankruptcy.

Along the way he lost money invested by his father* and finished up owing money to many of his friends, whose debts obsessed him until well into 1924.

‘So what?’, you might ask. What, if any, is the causal relationship between Jeanneret’s business dealings and the development of Le Corbusier’s career as writer and architect?

---

1 A version of this paper was given at the Symposium ‘Le Corbusier before Le Corbusier’ held jointly by the Bard Graduate Center, the Institute of Fine Arts and the Graduate School of Architecture, Columbia University on 24-25 January 2009. I was able to work it up further as a seminar paper in the Biography working group at the Getty Research Institute, on February 10. I am grateful to Andrew Morrall, Professor Jean-Louis Cohen and Professor Mary MacLeod for the invitation to the first event, and to Professor Tom Crow and Charles Salas of the Getty Research Institute for a visiting scholarship which allowed me to complete this work rapidly. 2 Cited in François Ducros, Amédée Ozenfant “Purist brother”: an essay on his contribution, in Carol S. Eltie, L’Esprit Nouveau: Purism in Paris 1918-1925, LACMA, Los Angeles 2001, p. 76. 3 Letter to parents, 22 November 1917, cited by H. Allen Brooks, Le Corbusier’s Formative Years, Univ. of Chicago Press, Chicago 1997, p. 496 (Brooks’s translation). 4 G. Fanelli and R. Gargiani, Perret e Le Corbusier confronti Laterizi, Bari 1990, p. 79-82. 5 ‘… j’ai estimé qu’un architecte devait pouvoir se porter responsable financièrement, techniquement des œuvres qu’il conçoit’ (FLC B2-02-54), cited in J. Janij, Le Corbusier Choix de lettres, Birkhäuser, Basel 2002, pp. 150-5. 6 Jeanneret to William Ritter, March 1918, see Ducros in Carol S. Eltie, op. cit, p. 76 n. 16. Interestingly, when Ozenfant later opened up a fashion boutique called ‘Les robes d’Amélie’ in 1924, Le Corbusier criticised him for being ‘idletante’ (Ducros, op. cit, p. 95). 7 Jeanneret to parents, 19 May 1919 (Brooks, op. cit, p. 501). 8 His father gave him a loan of 6,000 Swiss francs on 25 March 1920 (FLC G1-02.92), which Jeanneret needed to pay back a loan to E. L. Bomand, the director of SABA (27 September 1917), which Jeanneret had borrowed to set up the brick factory at Athis. Jeanneret agreed to pay his father 10% on 7,500 francs which he had placed into an account, while awaiting a settlement of Jeanneret’s court cases against Antoine Schwob (a claim for 10,275.85 francs) and Alfred Riviére (in the Scala Cinema affair). In the end, Jeanneret settled out of court with Schwob for 6,485 francs on 15 June 1920 (FLC G1-02.216), not 3,485 as Brooks maintains (p. 409) but, by October 1920, he had neither repaid his father nor paid him any interest. When prompted, he grudgingly handed over 500 francs (192 Swiss francs) representing 5% interest from 1 April to 30 October and threw in a free subscription to L’Esprit Nouveau (Jeanneret to father, 29 October 1920 (FLC G1-02.59)). 9 Although Jeanneret and Ozenfant registered the title for a new series entitled Commentaires sur l’Art et la Vérité Moderne on 14 November 1918 (FLC B2-13 337) and announced in its first volume Après le Cubisme a series of further publications, including Vers une Architecture (‘already at the printers’), it is almost certain that the articles for L’Esprit Nouveau
These are the months, from July 1920 – December 1921 (that is up to L'Esprit Nouveau 13) in which Jeanneret became Le Corbusier and wrote the articles which, when published as Vers une Architecture, constituted the most influential book on architecture of the twentieth century. This is the moment of Citrohan I, of the publication of Dom-Ino and the 1919 housing schemes with their full Modernist potential exposed. These are the articles which critique European architecture by the yardstick of American rationalism and industrialisation.

The author of the white utopia of Vers une architecture was a man whose hands were black from pressing briquettes from coal and coke dust. The man who advocated industrialisation was a man who knew that industrialisation did not necessarily work. I see this, not as Allen Brooks does, as a simple passage between an unsuccessful episode of business into a return to art and architecture, but as a cathartic rite of passage into the 'happy schizophrenia' of Le Corbusier's most creative period.

I do not hold, as some do, that art is necessarily demeaned if its autonomy is impugned by association with life. Nor am I prepared to reduce the aesthetic to an illusion of the rational mind. But there is no necessary causal connection between life and art. If life does affect art, perhaps fear of death would be a good test case. Jeanneret was in Paris during the aerial bombardment of Paris in 1918, including the attentions of the Gotha bombers and the random shelling of the Big Berthas. He wrote to his mother:

'I repeat, there is in my character no sense of personal danger of any kind, business included; I would make an excellent soldier. I have no fear of death, either my own or that of others.'

On 17 February, Jeanneret wrote to his parents claiming that he had nearly been killed by a bomb near his office and another near his apartment. In fact, a shell from Big Bertha did in fact land in the rue Jacob, and many others in the streets he frequented (Fig 2). But there is no reason to doubt his own insouciant approach to these alarms and excursions, nor to look for effects in his art. It is not this kind of biographical detail which interests me.

More interesting is the relationship between the image of industry and engineering (a staple of Le Corbusier's epiphany of modernism) and Jeanneret's experience of participating in it. Before looking at the latter, I will make a case for taking seriously this relationship. We probably all agree, especially after the work of Stanislaus von Moos and Beatriz Colomina, that one of the key achievements of Le Corbusier-Sauniére's articles in L'Esprit Nouveau was the metaphorical use of images.

That is, that the message, while purporting to show the reforming impact of cold reason and American engineering on an outworn formal language of architecture, actually promoted a new visual language stripped of its brutal context. Far from advocating contingency, these are images of physical and spiritual liberation. Images of aeroplanes juxtaposed with discussion of the
Loucheur/Bonnefoy housing bill work both as symbols of modernity and as an icon of release, escape into the clouds.

This image (Fig. 3) of a Farman Goliath bomber, under the signature of ‘Le Corbusier-Saignier,’ is preceded by the words: ‘Intelligent man, cool and calm has acquired wings. We need men who are intelligent, cool and calm to build the house and lay out the city’19. The Apollonian man-bird may be intelligent, cool and calm, but his Futurist imagination soars as he leaves the ground. And below it one reads: ‘Messers Loucheur and Bonnevey have put forward a bill with the aim of building, in ten years, from 1921 to 1930, 500,000 low-cost and hygienic dwellings... To carry out the Loucheur programme we will have to totally change the common practices of the architectural establishment, sieve the past and all its memories through the mesh of reason and define the problem like the aircraft engineers did, in order to build machines for living in by mass production’20. But to ‘define the problem’ like the engineers is not simply to solve the problem of how to manufacture the ‘machines à habiter’ but how to fly away from the bothersome detail of cheap, working class housing.

The frontispiece to the article illustrates a by then out-dated (but beautiful) rear-engined Farman bomber flying over the trenches (Fig. 4).

Here we read: ‘Noone today denies the aesthetic which emerges from the creations of modern industry’ (‘Nul ne nie aujourd’hui l’esthétique qui se dégage des créations de l’industrie moderne’); ‘The aesthetic which emerges from the conditions of modern industry’, but also ‘the aesthetic which escapes...’ Le Corbusier-Saignier goes on to assert that many machines, in their proportions, play of volumes and materials are ‘truly works of art’ (‘de véritables œuvres d’art’). The passage from the mechanical to the artistic has been achieved. The marriage of ‘raison froide’ and the imagination – ‘the same spirit which built the Parthenon’ - is emphasised by the cropping of the images.

The reproduction contrasts smooth and angular, technical and poetic; it places the viewer in the cockpit, ready for take-off. The struts could be pilotis, the wing a reinforced concrete slab, framing the view of the future. The image is a machine for stimulating the architectural imagination.

One key image is used twice in the L’Esprit Nouveau articles. In the article in L’Esprit Nouveau 13 (December 1921) which drew together the whole of Le Corbusier-Saignier’s argument and launched his own housing schemes, including Citrohan I, we find a curious image (Fig. 5).

Six months before, in ‘Des yeux qui ne voient pas...’ L’Esprit Nouveau 10, c. July 1921) the same image, subtitled ‘Bellanger. Conduite intérieure’ had illustrated an ambitious definition of architecture as high art which turned on two propositions:

‘In a nation of high culture, art finds its expression in the real work of art, concentrated and stripped of every utilitarian purpose: the painting, the book and music.’21

Art was therefore ‘superfluous’ but necessary for a country of high culture. But, while peasants loved ornament and painted frescoes, intellectuals wore English suits and owned easel paintings and books. So:

‘Decoration is the necessary superfluity needed by the peasant and proportion is the necessary superfluity needed by the man of culture.’22
The illustration of the car with the hand-built Bellanger coachwork illustrates this thesis as follows. The coachwork is obviously 'superfluous' (and therefore eligible to be an art work) and its perfection of form appeals to the intellectual's need for proportion. The picture underscores the claim that automobiles can aspire to the condition of art, through perfection of the 'standard', like the Parthenon. Three issues later (No 13), the same image has become a metaphor of the 'machine à habiter', sandwiched between the words 'Esthétique de l'Ingénieur' and 'Maisons en Série' and heading off another discussion of the Loucheur-Bonnevay housing bill. Now the slim verticals of the coachwork represent pilots, the windows hint at the 'fenêtre en longueur' and the wooden roof represents a reinforced concrete slab. The automobile engineers provided Le Corbusier-Saunier with symbolic images from which, first an 'Architectural' and then a mass housing, reading could be peeled away.

Or, in a more literal vein, the 'villes-tours' in L'Esprit Nouveau 4 (January 1921), stimulated by Auguste Perret's interview in L'Intransigeant 25 November 1920, are illustrated to contrast 'la poussière, les punaises et le bruit étouffant des villes actuelles' with 'l'air salubre' of the 60 floor towers proposed by Le Corbusier (Fig. 6).

The towers escape not only from the dust and noise of the street but also from the hubbub of exchange, of profit and loss, of promise of fortune and horrors of debt.

Just as Le Corbusier-Saunier peeled away the superfluous aesthetic from the functional products of industry, I'm going to suggest that it was only when Jeanneret had fully experienced and then dumped the horrors of business dealings, with their inexorable laws of cause and effect, that he could himself finally escape into a new world of the imagination.

THE BRIQUETERIE D'ALFORTVILLE

I am not going to give you a history of the Briqueterie d'Alfortville. I propose to focus only on its death-throes, from 1920-1921. Neither am I going to discuss Jeanneret's scheme to manufacture the Swiss asbestos product Everite in France nor his involvement with the Compagnie Industrielle du Froid. I'm going to pick out two micro-histories from Jeanneret's business dealings, and then summarise the final collapse of his affairs, against the chronology of the first issues of L'Esprit Nouveau.

From the tantalising glimpses offered us in Brooks's Le Corbusier's formative years, it would seem that the Briqueterie was in production in December 1917 and already in full flow that year, to the point of accumulating 4 million blocks by September 1918 with a debt of 100,000 frs (Fig 7).

It's certainly true that remnants of this initial debt, of September 1918, to friends like Daniel Niestlé and Sigismond Marcel, were still being paid off in 1920 (partly out of subscriptions to L'Esprit Nouveau which Jeanneret may or may not have repaid). According to Francesco Passanti, Jeanneret himself invested around 5,000 frs in Alfortville, some Swiss friends invested a bit more and Max du Bois provided the site and the raw materials. Some time after August 1918, a new investor (probably Sigismond Marcel) was found to substantially expand the plant. Jeanneret owned the plant until it was incorporated into SEIE in the week of 7 January 1919, at which point...
Jeaneret was awarded 100 (out of 500) shares in the new company⁴⁴.

The factory produced 'plots' in two sizes (50 x 25 x 15 cm and 40 x 20 x 20 cm) and bricks (6 x 11 x 22 cm), using Swiss machines to compress the cinders and cement mixture. The output during 1918 was modest, until September 1918 when, with the help of a financial financier (probably Sigismund Marcel) Jeaneret purchased a new machine for 70,000 frs capable of making 20,000 bricks a day. On 17 February 1918 Jeaneret wrote to his parents: 'Alsbourg takes up a great deal of time. This enterprise might become profitable and even generous if the 'ifs' remain 'ifs' or at least are not carried out too painfully'⁴⁵. In February 1918 he was still supplying small trial orders of 'plots' to SABA building sites⁴⁶ and on 18 February he proposed an agreement with SABA to provide them with 70% of his output, at rock-bottom prices, until their orders had been satisfied⁴⁷. It would be surprising if large quantities of the cinder blocks had been sold by that date, since he still feels the need to argue for the value of the expensive blocks of 40/20/20 on the grounds of speed of execution (36 m² of wall per day compared to 6-8 m² of wall using bricks)⁴⁸. It seems that on 18 April 1918, Jeaneret sold his entire stock of bricks and was able to pay off some of his debts and buy new machines⁴⁹.

But Alsbourg was clearly not making much money. Up to the summer of 1920, stocks were increasing faster than sales. The high cost and perhaps the porosity of the 'plots' meant that, by 1920, the emphasis was on the smaller bricks and on a new line of 'Tandem' cement roofing tiles (covering 11 to the m²). The Tandem tiles give us a clear insight into Jeaneret's business acumen. These tiles too were considered too expensive and Jeaneret blamed Dobler, the manufacturer of the five machines he had bought, apparently for 4,000 frs⁵⁰. By 14 September 1920, his workers had only reached a production of 160 tiles per 10 hour working day per machine, compared to the 225-50 as promised, which meant that even with five machines they could only manufacture 750-800 tiles per day⁵¹. To date, they had only made one sale, of 10,000 tiles. According to Jeaneret, their costs were between 750 and 800 frs per thousand (over half of which was the raw materials) and yet they couldn't sell them at 800 frs at the factory, or 840 frs at the railroad⁵². Perhaps the only large sale of these tiles was 12,000 for the roof of a cinema by the architect Andriot at 55 Ave Bosquet in Paris, since this was the sale mentioned in several letters as a reference⁵³. He sold 3,500 tiles for 3,922 frs to his friend Paul See in December 1920⁵⁴ and offloaded a truck of 3,000 tiles to Desjardins on the basis of commissioned sales. Desjardins was to charge 875 frs per thousand and take a commission of 25 frs/1,000⁵⁵. It is not clear how many were sold at what prices. By July 1921, Jeaneret was offering the Tandem tiles at 625 frs/1,000 and by October 600 frs/1,000⁵⁶. On 21 June 1922, Jeaneret tried to sell some tiles to the architect Vergne at half-price (400 frs/1,000)⁵⁷.

In January 1919 and again in 1920 the brick works was flooded, though it is not clear how much was actually lost (Fig. 8)⁵⁸. From the records I have seen, it is only in the autumn of 1920 that the Briquetierie starts to sell bricks and tiles in any quantity, and by then it was too late⁵⁹. In June 1920 Jeaneret had taken an order for 70,000 bricks of which 60,000 at least had been delivered by
October 22nd. In October 1920 he claimed in a letter to the Société des Travaux Publics that he had sold 1 million bricks to for the Grand Frigorifique de Tolbiac, but this should be taken with a pinch of salt.

The detailed history of the briqueterie d'Alfortville remains to be written, but it is clear that by December 1920, SEIE owed around 566,000 frs to suppliers and other creditors and 250,000 to the stockholders, against which they could only set 710,000 frs of assets, including the dubious values of 256,000 frs for plant (the factory was eventually sold off for 45,000 frs in 1923) and 298,000 frs for unsold stock (which realised only a fraction of its value). In March 1921 the SEIE was forced to seek protection from its creditors under a 'règlement transactionnel' which was awarded by the Tribunal de Commerce on 11 April. From then it was simply a matter of time until the business was closed down. Whether the briqueterie might have been saved until the upturn of the construction industry in 1921-22 is difficult to assess, but what is certain is that Jeanneret gambled the available assets and small turnover on two speculative ventures whose failure precipitated the crisis of late 1920.

He embarked other speculative ventures between December 1919 and the autumn of 1920.

The context was the very uncertain one of a post war France gripped by economic depression on the one hand and a moral indignation on the subject of German war reparations which destabilised investment and the restoration of manufacturing industries. The Treaty of Versailles had established the principle that Germany and Austria should repay all the damage caused to the allies by its aggression. Unfortunately, no-one could agree either a figure for total reparations or a means of payment which would allow Germany to create the wealth to carry out the payments. The end result was the French occupation of the Ruhr in 1923 and galloping inflation in Germany which allowed the debts to be repaid with increasingly worthless money.

The two most pressing issues, however, were the effects of war and German reparations on the key commodities of steel and coal. The Germans had destroyed many of the French coal mines. At the same time, the recuperation by France of the steel industries in Alsace created an increased demand for coal to fire the furnaces. But France had always been a significant importer of coal, from Britain and Germany. Forcing Germany to hand over stocks of coal at low prices would have benefited French industry but bankrupted the French coal industry. Attempting to force them to supply large quantities of steel would have had a similar effect on French steel prices. When the British coal mines began to experience a severe depression, producing strikes and a sharp downturn of production, the situation was made even worse. There simply wasn't enough coal around to heat the big cities, let alone light the furnaces of a struggling industrial revival. The result was to create price controls and a black market in scrap metal and unconventional forms of fuel. This is the world into which Jeanneret launched himself in November 1919.

**JEANNERET'S DEALS IN SCRAP METAL**

On 14 November 1919, Jeanneret wrote to a M. Eliot in Bordeaux, trying to purchase 100 tonnes (1 tonne = 100,000 kilos) of scrap...
He rather hoped M. Eliot would back-date the sale, to escape the 'suspension' in the sale of military materials. This is the deal he described to his parents on 24 January 1920 like this (in Allen Brooks's paraphrase): 'It's Saturday, I'm back from La Pallice, Bordeaux and Toulouse where I am trying to negotiate a deal with sixteen million francs'.

He eventually (end of March, 1920) managed to buy 87 tonnes of iron and steel, consisting of 50 tonnes of sheet metal, 32 tonnes of angle iron and 5 tonnes strip metal, for 52,765 francs. The agent M. Simonot, was the sous Secrétaire d'État à la Liquidation de Stocks de Guerre. To raise this large sum, Jeanneret paid 30,000 from his private account and asked the CCF bank for credit on the rest. In a letter of 19 March 1920 he urged the bank to believe that this deal was bound to create a profit of at least 13,000 francs, even at prices 25% below market. This seems to have been linked to a proposal to form an investment company with M. Russier to build motorised steel barges (February 1920). On 23rd March 1920 Jeanneret is writing to the Naval yard at Cruybeke, Antwerp, asking if they can build steel barges 38.50 x 5.05 to Jeanneret's design.

Meanwhile, in December 1919, Jeanneret had also splashed out 62,327 francs in Le Havre on c.100 tonnes of iron and steel. This deal was carried out with M. Dupuis, also an agent for the Commission for the Liquidation of Stocks de Guerre.

Jeanneret's efforts to cash in on this outlay of 115,092 francs began promisingly. For example, from the Dupuis sale, he managed to sell 25 tonnes to Richard et Naveaux, for which he expected 28,750 francs. This would have given him around 90% mark-up. Instead, he was paid 25,000 francs, on the grounds that the wagons were light by several tonnes. Despite protesting, and threatening the transportation agent, he only seems to have received 797 francs of the missing 3,750 francs. Even so, Jeanneret sold at 1,000 francs the tonne what he had bought at 606 francs the tonne, a mark-up of 65%. The law of 31 July 1919 had stipulated that liquidated stocks should not be traded at higher than 25% mark-up, and Jeanneret signed a declaration to that effect on 13 March 1920, so this wasn't bad work. But some of the remaining 75 tonnes seems to have got stuck in the Le Havre sea port of Tancarville, where it began to accumulate charges. It is possible that 20 tonnes sold to Lapauze in Paris on 29 April 1920, for 17,400 francs, came from this batch. At any rate, in April 1921 he was still struggling to avoid paying penalty charges on 4.6 tonnes of tube and 25 tonnes of sheet steel in the military depot of Tancarville in Le Havre.

The story of the Bordeaux wagon-loads was more satisfactory. Two sales were made, to Lapauze in Paris, for 50 tonnes and 37 tonnes, but a large amount, estimated at between 12.7 and 10.8 tonnes, went missing in transit on two trucks. On 1 June, Jeanneret accused the 'camionneur' who loaded the steel onto the trucks in Bordeaux of theft or negligence, and over the next 8 months pursued him, without success. His diaries are peppered with references to these transactions.

On 12 June he was planning a trip to Bordeaux and La Pallice to see Simonot and Rodriguez to try to sort things out and perhaps sell the remaining stocks (Fig. 9). Jeanneret was able to charge...
73,950 frs for the 87 tonnes he had bought for 52,765 frs which, after deducting 6,000 frs for shipping offered him a profit of 15,285 frs, although it is still not clear whether this sum was ever paid in full, due to the missing wagons.

In both cases, Jeanneret's inexperience led him to place too much trust in agents and haulers in remote locations who had every reason to feather their nests and no real fear of prosecution. In the case of the Bordeaux shipment, neither the vendor nor the railway company would accept responsibility because Ducos had failed to enter a precise weight on the cargo manifest. In the case of the Le Havre consignment, Jeanneret's agent did not stay at the station long enough to check the wagons as they arrived, leading to the ensuing dispute. During this whole process, Jeanneret had to pay agents in Bordeaux and Le Havre, lawyers' bills and the time to write over a hundred letters and make countless phone calls, as well as at least three trips to Bordeaux and two to Le Havre.

At least the market conditions, given the steel shortages, in the first half of 1920 were favourable. All things being equal, Jeanneret would have made a handsome profit on both these deals, selling at 850 frs and 1,000 frs respectively materials he had bought at just over 606 frs per tonne. But the market crashed during 1920, and the remaining stocks proved increasingly difficult to offload. Part of the reason was the modicum of success achieved at the Reparations conference in July 1920 at Spa, which produced a trickle of German reparations in kind. But, in November 1920, as the second issue of L'Esprit Nouveau appeared, Jeanneret still had 90 tonnes of miscellaneous scrap metal on his hands, which he desperately tried to pass on to a string of clients, including the long-suffering Dan Niestlé. On 17 November, Jeanneret was offering the scrap at 630 frs the tonne, on the 18th it had come down to 618 (and he told Niestlé that he had paid 613 frs per tonne for it) but by 26 November, the price was 610 frs, which, if Jeanneret were to be believed, would represent a loss. The final fate of this 90 tonnes cannot yet be ascertained but we must assume that they disappeared into the hands of the receiver Beaulavon under the 'règlement transactionnel' which led to his bankruptcy from the spring of 1921. From one symbolically potent material of industrialisation, we can now turn to the other foundation of the industrial revolution.

THE CROWN AND STAR BUSINESS; DEALING IN LOW GRADE COKE AND COAL

A little-observed detail on the advertisement of PL.Couturier R.Aébi and Company, who made the 'Aéro-Mélangeur' machines Jeanneret used in the brick factory and printed in the first six issues of L'Esprit Nouveau, is the line: 'Machine spéciale pour agglomérés combustibles' (Fig. 10).

Jeanneret bought some of these special machines around July 1920, as the Trois Rappels à MM Les Architectes were being prepared for publication and began making briquettes of coke and coal dust.

The chronic coal shortage in France was made worse in 1920 by transportation strikes in France and coal strikes in Belgium,
France and Britain. Like everyone in Paris, Jeanneret had suffered from the cold. In January 1918, Jeanneret bitterly complained to SABA about the inadequate fuel supplied to his office. His secretary Mademoiselle Satre Buisson had ‘nearly died of pneumonia’³⁹. In fact the Minister Louis Loucheur had to meet the Parisian fuel crisis with stocks of wood saved for emergencies of this kind (Fig. 11).

Jeanneret believed that industrial unrest would lead to a sharp rise in the cost of fuel in the winter of 1920 (Fig. 12).

He therefore set about buying lots of broken (‘2d quality’) British Crown and Star briquettes (which he described as the best, used by the British and French navies, ‘pure Cardiff’⁴⁴). These he mixed with coal and coke dust and ‘grésillons de coke’ (coke chips). He offered these in various qualities: ‘coke métallurgique’ (which would not light by itself but could be added to lit boilers and was much in demand in the steel industry), ‘coke-enrichi’ (which consisted of the coke and coal dust mixture enriched with oil) and when both of these seemed unsatisfactory, half in half coke and coal. He appointed an agent, Berger, to canvas sales outlets, advising him, for instance, to try constructors of steam trucks, since these were not supposed to use coal, for reasons of pollution⁴⁵. By 9 October, Berger had only sold 4 tonnes of briquettes and Jeanneret urged him to speed up. One problem was that in the cold weather the briquettes hardened (due to a ‘chemical combination’) and wouldn’t light⁴⁶. Another problem was that the briquettes were friable and broke up easily. Carrey, a client in Le Havre, having ordered 100 tonnes on 29 October 1920, complained on 8 November that the briquettes were ‘unsellable’ ‘friables et réduisent en poussière’ and stopped his cheque⁴⁷. Jeanneret rushed up to Le Havre next day and tried to get the agent Lemaître to intervene, to stop the wagons being sent back. As a result of this intervention, the blame was put on Carrey’s lorrey-driver and a reduced proportion of the briquettes accepted by Carrey⁴⁸. By 29 December, with the payment for the briquettes still outstanding, Carrey was complaining that his clients would not accept the briquettes on quality grounds⁴⁹. On 31 May 1921, large quantities of the bricks were unsold in Tancarville, and Jeanneret was desperate to ‘liquider cette affaire qui est plus que désastreuse’⁵⁰. In November 1921, the bailiff presented him with a bill for stocking charges and in February 1922 Jeanneret begged his agent to sell the briquettes as best he could ‘even at auction’⁵¹. The final 1,556 frs payment for this load was only paid in February 1922⁵².

On 23 September 1920, the Banque Industrielle de Chine was threatening to foreclose on the debt, which now stood at 75,000fr. In trying to persuade them to delay, Jeanneret’s arguments were less about bricks and a hoped-for revival of the construction industry, and more about the economic miracle he expected any moment now from the sale of his briquettes⁵³. Prices were temporarily low, he said, because of cheap war reparations German coal and an unusually warm winter. But he was setting up sales outlets and discussing deals which will ensure serious down payments which will ‘transform our accounts’. He included production schedules and estimates showing the profits expected on the deals already signed. He hopes the cold weather will boost sales. He asked for their confidence for a few more weeks. But with hundreds of tons of coal and coke dust and fragments coming in, 40 tonnes per week, and no sign of a rise in prices, Jeanneret had to begin trying to resell the raw materials as they came in⁵⁴. He also started selling off the raw materials for his brick production and effectively stopped manufacture at Alfortville.

---

⁶³ Letters of 15 January 1918 (FLC R3-04 180). ⁶⁴ Letter to Camus Duchemin et Cie. 29 / 10 / 1920 (FLC G1-02 525). In this letter he admits that the briquettes were now much better quality compared to the 10 tonnes of ‘coke enrichi’ he had sold him for 325 frs the tonne in September (see FLC G1-02 345). Based on a report written by Félix Domer he was now mixing the coke powder with coal 50%. ⁶⁵ Jeanneret to Berger 9 October 1920 (FLC G1-02 464). On 24 and 25 September 1920, he had offered him large quantities of grésillons de coke to sell (FLC G1-02 391 and 397). ⁶⁶ Jeanneret to Berger 17 November 1920 (FLC G1-02 677). ⁶⁷ 29 October 1920 (FLC G1-02 563) and 8 November 1920 (FLC G1-02 619 and 625). ⁶⁸ Jeanneret letter to Carrey summarising the situation 12 November 1920 (FLC G1-02 642). ⁶⁹ Jeanneret to Carrey 29 December 1920, refusing to accept that Carrey’s clients will not buy the briquettes (FLC G1-02 1028). ⁷⁰ Jeanneret to Lemaître, asking him to place the briquettes in the magasins généraux des docks du canal de Tancarville 9 February 1922 (FLC G1-03 97). ⁷¹ Jeanneret to Rousset 22 November 1921 (FLC G1-03 352) and letter to the director of the Docks du Canal de Tancarville 9 February 1922, referring to the ‘coal briquettes which are stocked in your warehouses and which belong to you’ (FLC G1-03 445). ⁷² Jeanneret to Carrey 7 February
By this time, he was deep into the trade in ‘traiets’ (IOUs redeemable in one or two months time) and ‘valeurs’ (date-limited credit based on an IOU from a third party) and opened a special account of discounted ‘traiets’ at the bank. To give a flavour of this kind of business, Jeanneret owed large sums to Lhoir, Mangin and Legendre, suppliers of 356 tonnes of ‘grésillons de coke’. On 28 October, 1920, Jeanneret explained that he could not pay off the ‘traite’ for 18,209 frs due on that day but could settle with a ‘traite’ of 15,000 frs and a cheque for the rest. Next day he found that Lhoir Mangin & Legendre had not waited for the cheque but had put the debt into the hands of the bailiff Rouille who had already sent it in for cashing up. Jeanneret rushed round to the bailiff to honour the cheque, but at the cost of additional charges.

By October, Jeanneret was trying to settle outstanding debts in briquettes and grésillons de coke. He even tried to pay off Ferrero, one of the companies who supplied the coal dust, in briquettes made from their own coal dust, while simultaneously trying to obtain a reduction in price on the grounds of the poor quality of their product. He also tried to unload some of his unused fragments of Crown and Star briquettes. Unsurprisingly, he had little success. Trying to sell coke and coal to coal dealers was a low point in Jeanneret’s business career.

By 9 October, the Banque Industrielle de Chine was bouncing his cheques, and he was forced to offer as security 390 shares in l’Energie Industrielle, along with their valuable coupons, which Jeanneret hoped might be redeemed quickly, and an extension of his overdraft until January.

By November 1920, in addition to nearly 100,000 unsold bricks at Alfortville, Jeanneret had 1,000 tonnes of stockpiled coal and coke briquettes. He still hoped that some clients would make big orders; on 13 December he complained to Truchon that the Galeries Lafayette had offered to take 1.5 million francs’ worth of briquettes and was now asking for a sale of 500 frs in compensation.

So, let’s summarise.

In the Spring of 1920, while the subscriptions for L’Esprit Nouveau (10,000 frs each in four instalments) were being collected from his friends, he embarked on the second of his two scrap metal deals. In July 1920, while the first three issues of L’Esprit Nouveau were being prepared for publication, Jeanneret was rushing around France trying to extract payment for missing trucks of steel and find buyers for unsold scrap metal.

In October 1920, with the appearance of L’Esprit Nouveau 1, he was buying large quantities of broken briquettes and coal dust and negotiating to postpone his 75,000frs overdraft at the bank. On 18 October he signs over his precious shares in L’Energie Industrielle, but by 28 October he has to accept that, with the overdraft now standing at 100,000 frs, he was not going to be able to redeem his shares. His own bank account, in the CCF is now being drawn in to cover the debts at the Banque Industrielle de Chine.

On 10 November 1920, with L’Esprit Nouveau 2, he wrote to his parents that he was just back from Le Havre, ‘where I have been sorting out a tiresome business [the case of the briquettes which wouldn’t sell]... Business is becoming critical, the vice is tightening, I don’t know whether I’m going to survive, it’s general, for the big and the small. My time is therefore pitiless and the Review takes me late into the night’. He writes about his hard life, ‘pursuing daring and elevated goals... I have withdrawn into myself, I no longer take any interest in details and have lost any sociability... You have no idea what the struggle in Paris is like.

1922 (FLC G1-03 441). -73 2000 tonnes of good quality coke powder from British and French factories were earmarked for him, he said, and his briquettes had been tested in the laboratoire of the Arts et Metiers (FLC G1-02 396). -74 For example, on 25 September he tried to sell Truchon of Galeries Lafayette 150 tonnes of English coke fragments and another 150 tonnes of Crown and Star briquettes (FLC G1-02 396). -75 Jeanneret to the Credit Commercial de France bank 21 October 1920 (FLC G1-02 521). -76 FLC G1-02 558. -77 Jeanneret letter of 27 October 1920 (FLC G1-02 553). -78 Jeanneret to Ferrero, 28 Oct 1920, offering to sell them briquettes made from their powder at 275 frs. Also offering them briquettes made of half in half coke and coal for 300 frs and 275 tonnes of Crown Star briquettes some in pieces and some in powder. Can sell either the whole perche or the briquettes en fragments after criblage (FLC G1-02 554). -79 Jeanneret to Banque Industrielle de Chine, 9 October 1920 (FLC G1-02 460). -80 In fact, the bank later (July 1921) passed them on as security to one of Jeanneret’s creditors, Truchon from the Galeries Lafayette. When he eventually called the debt in (February 1922), the last stage of the bankruptcy of SEIE was precipitated. -81 Jeanneret to Truchon 13 december 1920 referring to previous letter of 23 September (FLC G1-02 903).
You have to have staked your claim to find this out. And this in the
world of ideas. Jeanneret's elision of business dealings and the
struggle to make it in the intellectual arena is very significant.

Unsurprisingly, he was too busy in December to insert his third
Rappel. On 13 December he actually tried to offload 50 tonnes of
his briquettes on the Bank at a heavily discounted price (250
frs). He told them, if they mixed the briquettes with anthracite,
they would burn. On 15 December 1920 he wrote to his parents,
'I await my destiny which depends not on me but on fate.' Brooks
notes that his mother was reduced to tears by this. On 29
December 1920 Jeanneret wrote to his parents: 'I'm losing a
great deal of money, that's true. But my life has never been more
replete than now. You know I'm not the type to lie down and quit.
If a storm today sweeps my business away it destroys money and
nothing more. I feel pity for those who are attached to money! This
crisis may actually improve life for me by allowing me to undertake
activities more appropriate to my skills, and which are the results
of my own initiatives.

In January 1921, soon after the Perret interview about his City
of Towers, documented for us by Francesco Passanti, the third
of the Rappels is published, with Le Corbusier-Saugnier's own
designs developed from Henard and Perret. This article is one of
the first to draw together all the aspects of Le Corbusier's archi-
tectural and urban thought, opening dramatically with his analysis
of the Akropolis and continuing to exhibit his housing models,
including the towers and Citrohan. Jeanneret sends this article to
a number of people with some encouraging words. Le Corbusier
is struggling free from Jeanneret (Fig. 13).

From February-April 1921, as his articles become ever more
architectural and divorced from the industrial context, his financial
situation grinds inevitably to bankruptcy. The advertisement
for the Briqueterie d'Alfortville appears for the last time in L'Esprit
Nouveau 5 (Fig 14). In issue 6, March 1921, the architect Le
Corbusier has his first apotheosis in L'Esprit Nouveau, in a care-
fully stage-managed review of the Villa Schwob (Fig. 15).

On 22 March 1921 the SEIE at its extraordinary meeting asks
the Tribunal de Commerce for a 'règlement transactionnel' (a form
of receivership) and this is granted on 11 April. From then on the
affairs of SEIE are in the hands of the receiver Beaulavon, under
the règlement transactional obtained from the Tribunal de com-
merce while his articles hit the high note of Modernism.

Curiously, in June 1921, the Briqueterie went briefly back into
production now (producing between 25,000 and 67,000 bricks
per week), but of course it was working not for Jeanneret but to
pay off the creditors, managed by the Comptoir Brique et Tuile.
Jeanneret received only 30 frs per thousand bricks sold. On 29
July the faithful foreman Houdet, who worked at the Briqueterie
from 15 August 1919 was given his papers. On 31 July the fac-
tory was closed and Madame Petit, his secretary since 9 January
1919 was given her papers. Various plans to sell off the Briqueterie
were canvassed, including one to sell the equipment
to Barcelona.

The modernist imagery of his articles and the confident tone
of his arguments are no longer engaged.

One after the other, over the next year, his court cases against
his creditors fail, including his attempt to sue Bellec, manager of
the Briqueterie, for theft or misappropriation (150,000 bricks had
gone missing on 1st January 1921 and a further 250,000 bricks
in April, when Jeanneret had caught him in ‘flagrant délit de
détournement’). Finally, someone was finding a use for Aero
Scorie bricks®. The agony went on, however, well into 1922, with
Le Corbusier continuing to pay off his debts as best he could,
while opening his private bank account to scrutiny. On 4 March
1922, all but three of the creditors, representing 241,186 frs
voted to accept the winding down of the business™, but sales of
bricks and tiles continued spasmodically until June 1923 and the
final liquidation of the Jeanneret’s business only took place then.

CONCLUSION

Jeanneret’s first automobile was a Ford, and his tale of woes in
October 1920 had been completed by a ‘slight accident with a
taxi’ (Fig. 15)※.

The gap between the reality of industrial production and the
symbolism of modernity is nicely encapsulated by this incident.
The cars which represented a claim to modernity for French
industry, the Citroëns, Renaults and Voisins, could outstrip the
American Ford only by styling and the perfectioning of form. It
is the advertisement of the Delage, published in the L’Esprit
Nouveau numbers 11/12 and 13 which captures this spirit
(Fig. 17).

As Jeanneret left the troublesome realities of real machines
and processes behind him, Le Corbusier could begin to trade
freely in the icons of Modern architecture. (Figs. 18, 19).

Tim Benton, <T.J.Benton@open.ac.uk>, is Professor of Art
History at the Open University, UK. His research interests
include Le Corbusier’s work of the 1920s and 1930s and the
history of modern architecture and design. For several years he
has been working on a book on Le Corbusier’s domestic archi-
tectural designs (1914-1935) which includes a study of all the
architectural drawings and documents associated with these
projects. He has developed computer software for the analysis
of architectural drawings as part of this research.

He is currently working as selector for a major exhibition on
Art Deco to be presented at the Victoria and Albert Museum in
April 2003 and in Toronto (autumn 2003), San Francisco (spring
2004) and Boston (autumn 2004).