

MICROSCOPIC HISTORY:  
A MEETING OF INFLUENCES

Since 1940 I have been attempting to give a new orientation to the study of the early relations between Brazil and France. Preceding works have been limited to the examination of grandiose or picturesquely dramatic events—the piracy of the Normans in the Northeast, the Brazilian festival at Rouen, the repercussion of the French Revolution upon certain Brazilian revolutions such as the *Inconfidencia Mineira* or *Villegaignon* at Rio de Janeiro, the mission of French artists at the Brazilian court of Don João VI. Finally some interest has been shown in contacts with French scholars, among them Saint-Hilaire, and with Portuguese America; further interest has been evidenced in the influence which French scholars and artists exerted during the course of the nineteenth century upon the most cultivated people of Brazil.

Without wishing to impugn the importance of those subjects, I propose to give their share of credit to the innumerable petty technicians, businessmen, pastry cooks, pharmacists, and midwives, to the daguerreotypists—

Translated by Elaine P. Halperin.

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to all the French artisans who seem to me to have exerted a considerable influence on Brazilian life during the nineteenth century. However, their influence remained so obscure that not the slightest trace or acknowledgment of their good and faithful services is to be found in official documents. Therefore, in order for a researcher to reconstitute the principal data relating to their activities or their influence, he must leaf through less illustrious documents than those of the university or diplomatic files. He must have recourse to mere commercial reports compiled by consuls, the modest servants of diplomacy; or he must turn to letters or to family archives where, through sheer inertia, dressmakers', hatters', tailors', boot-makers', midwives', and carpenters' accounts have been kept; or else to the medical prescriptions compounded in the pharmacies of early days, or to the archives that have been preserved in a bureau like that of public works. He scans newspaper advertisements, the paying section of old Brazilian newspapers and peculiar, I believe, to them—under headings such as “at the request of an interested party,” “wanted,” “of interest to others”—which overflow with precious information, sometimes indiscreet and even scandalous, referring most intimately to the lives of apparently ordinary people. He must also have recourse to the confessions and denunciations in the Holy Office “concerning Brazilian territory,” that is to say, that entire portion of Brazilian society which is composed of sugar-cane planters, of priests (mostly Portuguese), of Christians of recent date. Among the latter are Lutherans, Frenchmen, Hollanders, Jews, Englishmen, and gypsies; Frenchmen and Protestants are far more numerous than one imagines.

In 1954 a historical seminar took place at Columbia University; among the participants were Professors Silvio Zaval of Mexico, Frank Tannenbaum, and Clarence Haring, Americans (from Columbia University and Harvard respectively), and J. M. Parry, an Englishman who, for a while, was connected with Cambridge University. All were shocked when I reminded them that Judaism and Protestantism, the one organized in synagogues and in communities, the other in chapels and in schools, had their origins in the very Catholic lands of Brazil; it was in Brazil that Jewish literature and the catechization of the Amerindians by Evangelical Christianity manifested themselves for the first time in the Americas. Indeed, the attempts of the French Protestants in Brazil to establish themselves in an orthodox French colony dates from the middle of the sixteenth century; it was organized or protected by Admiral Coligny and was also associated with the name of Villegaignon. This subject has already been studied by

Paul Gaffarel in his work entitled *Histoire du Brésil français* (Paris, Maisonneuve, 1878); it has also been examined in terms of a general movement (the Huguenot migration) by Charles Weiss in his *History of the French Protestant Refugees* (Stringer & Townsend, N.Y., 1854) and by Gilbert Chinard in *Les Réfugiés huguenots en Amérique* (Paris, 1935). But not one of these authors established the fact that it was at Rio, in 1555, that Protestantism for the first time systematically took root in the Americas; this initiative on Brazilian territory was followed by the establishment of Huguenots in South Carolina and in Florida, from 1562 to 1565, and in the Antilles in 1611.

Yet, as early as the beginning of the seventeenth century, it was not in the south of Brazil that the presence of North European Protestants, the French included, made itself felt, but rather in those regions of Portuguese America that were not subject to Lusitanian-Catholic domination: in the North and more precisely at Recife. At Recife itself, from 1630 on, with the help of the Dutch invasion (which altered the countryside and completely changed the mode of life through a transformation of ideas and techniques), a culture began to evolve that differed in some essential regards from the earlier one. In the old Portuguese city, now Dutch, European Protestants settled. Among them were Frenchmen and Sephardic Jews that came from Holland, as well as others of Portuguese and Spanish origin. Both Jews and Protestants lost no time in opening synagogues and temples. In the light of these facts, it is easy to understand the cosmopolitanism that developed in Recife, not only during that period, but also at earlier times. Recife was a center where Lusitanian-Catholic culture encountered various Northern or North European cultures. Among the latter a French culture asserted itself. During the epoch prior to the conquest of Pernambuco by the Dutch this had already worried the agents of the Holy Office, who feared that our culture might assume a Huguenot aspect or expression: a revolutionary or heretical aspect from the Lusitanian-Catholic point of view. Quite possibly, the word *francesia*, suggesting heresy, novelty, oddity, a certain refinement in attire, in manners, and in courtship, acquired at that time the special flavor that it was to preserve for so long in Brazil. This occurred, despite the presence among the European settlers of Pernambuco during the sixteenth century of Frenchmen of firmly established Catholic faith, like certain natives of Boulogne; in Picardy, "Reyno of France . . . married to Maria Cavalcanti, carpenter at Ribeyra, domiciled in the Isle of Tamaraca and presently residing in that city," as one reads on

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page 315 of the *Première Visite du Saint-Office aux Territoires du Brésil. Dénonciations de Pernambouc 1593-1595* (São Paulo, 1929). More about this person is recorded under the date line of August 31, 1595, thanks to the deposition of a Christian of old stock, Lope Martins, bootmaker: “. . . who has maintained a steady relationship with him and has always considered him to be a sincere man, and one of good conduct.” Nonetheless, in the *Première Visite du Saint-Office aux Territoires du Brésil. Dénonciations de Bahia 1591-1593* (São Paulo, 1925), Capistrano de Abreu, the organizer of this precious material on the sixteenth century, observes that during the period of the visit of “antarctic France, Pero de Vila Nova, who had come from Europe, was still in Brazil, in the company of Bois le Comte and the delightful Jean de Lery” (and the historian believes that this can only be a reference to Monsieur de Bérit who appears in one of the denunciations). It was he who said at the Inquisition that Protestants coming from France had disseminated books and propagated the Lutheran doctrine, after having opened up schools of their persuasion. This same historian understood the importance of the fact, mentioned in *L'Itinéraire de Brésil* by the sixteenth-century settler, Gabriel Soares de Souza, that at the start of the century many Frenchmen—adventurers—were to be found scattered over Brazilian territory in search of “Brazilian wood”; they were not only living with Amerindians but also, in a sense, had settled on these lands, were surrounded by many women “and had not the slightest intention of returning to France.” It was Frenchmen and many others “who came to Bahia and Sergipe each year in French ships and became incipient half-breeds, living and dying like pagans. We come across their descendants today; they are blond, fair-skinned and freckled and they pass for Tupinamba Indians and are even more barbarous than they.” Consequently, it is understandable that in 1594 the great Portuguese Inquisitor was concerned with protecting the Portuguese domains of America not only from the dangers of Judaism, but also “from certain beliefs and other heretical misconceptions,” including that of “certain people, men as well as women, who live estranged from our Holy Catholic Faith,” committing and perpetrating “offenses and crimes of heresy.”

On page seven of the *Première Visite du Saint-Office au Territoire du Brésil. Confessions de Bahia 1591-1592* (Rio de Janeiro, 1935), there is a revealing confession by the French Catholic, Nicolas Louis, “native of Dieppe, son of Robert Cluc and his wife, both of them French and Catholic, about forty years of age, residing in Brazil for twenty-two years, domiciled at Sergipe and married to Lusía Fernandes, half-breed”; the

declaration asserts that once, in the course of a voyage that included other Frenchmen, the ship was captured at sea by Protestants who were also French. Nicolas Louis lived with them for a month and a half, accompanied them under duress when they practiced their cult, although at heart he never approved of them. Another confession is even more revealing of the situation of Frenchmen of that era who, though they were Catholics, were sometimes obliged to appear to be Protestants. I am speaking of the confession of Pero de Vila Nova, “of French nationality, native of the city of Provins,” mentioned on pages 91–93 of the same book; this confession contains a good many precious details. It reveals that Pero de Vila Nova, when he was still very young, came to Brazil, where he married a Catholic of very old Christian stock—Lionor Marques de Mendonça. He stated at the Inquisition that “in the year 1557 a flotilla of three ships came from France under the command of Monsieur Debuelle (Bois le Comte), a Catholic; also on board were Messieurs de la Fonsilha, Théret, du Pont, de Bérít, de Bolex, and de la Chapelle, accompanied by many noblemen and also by many Frenchmen, most of whom were Protestant. They arrived in three ships that landed at Rio de Janeiro, on the Brazilian coast. These Frenchmen settled there at a time when no Portuguese had as yet arrived at Rio de Janeiro.” It was then that “the Protestants, who were far more powerful than the Catholics, began to disseminate their books and propagate their Lutheran doctrine by founding public schools,” as we have already mentioned. Moreover, “they obliged and forced young men and even young boys, under pain of corporal punishment, to attend these schools and to study this doctrine.” The man who made this statement found himself obliged to pretend Protestantism and to attend the Lutheran school and study its doctrine.

If everything that Pero recounts in his confession is true, he was a man more sensitive to his situation as a Catholic than as a Frenchman. He therefore fled and rejoined “the Portuguese Christians,” after having encountered “pagan Indians, among whom he lived for nine or ten years, never knowing what day was Sunday, having completely lost all notion of time, unaware of when Lent occurred, and this is how he came to eat meat on days when it is forbidden by the church.” Thus, Pero wavered for some time (although he preserved at heart his Catholic faith, according to his confession to the Holy Office) between three or four cultures: the French Catholic, the French Huguenot, the Amerindian, and finally the Portuguese Catholic—until the day when he fixed on the latter, his decision having been influenced by his marriage to a Catholic Portuguese. How-

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ever, he did not hesitate to divulge the Lutheran doctrines and rites to the Portuguese Catholics, although his intention (if we are to believe his explanations to the Holy Office) was to point up Protestant errors to those who asked him for details, and not to instruct or to present as good that which he did not view as such and of which he, in fact, disapproved. But however he revealed or divulged the doctrine, the fact remains that he spread information about practices which were unknown until then among Portuguese Catholics and that he thus became a propagator of "dangerous French ideas."

The same thing was doubtless true of his compatriots, Marin Paris and André de Fonte, who, according to the information Pero gave at the Inquisition, had also left the Huguenots in order to rejoin the Christians, one of them having married at Rio de Janeiro and the other at San Vicente.

It must be said that others among Bois le Comte's French companions, residing in Brazil, kept their Huguenot religion, although disguising it at times, and propounded their doctrines and their ideas. Thus, thresholds of Franco-Huguenot culture were constituted that differed from the dominant Lusitanian-Catholic. Curious prototype of the Franco-revolutionary culture of the eighteenth century, and even of the Franco-socialist of the nineteenth! It would not be an exaggeration to presume that many French or European Protestants, among those that settled at Recife at the time of the Dutch occupation, married Portuguese or natives as did Pero de Vila Nova and that they assimilated the dominant culture sufficiently to live among the Portuguese Catholics so that their different customs did not become an object of scandal in the eyes of the people. Nonetheless, they preserved, besides more delicate manners than those of the Portuguese, ideas and doctrines that were in contradiction to those in authority, and they even propounded them without any intention of imposing them, adopting the same propaganda technique that Pero acknowledged before the Holy Office. It was thus that they were to acquire favor among the Lusitanian-Catholic settlers. The latter differed from those recently arrived in the kingdom in that they were already settled on Brazilian soil and aspired to better treatment than they might have expected from their mother-country.

Leaving aside the doctrinaire content of the forms of persuasion utilized by the agents of French culture among other peoples, it is interesting to note that since the sixteenth century those who believed in Lusitanian-Catholic orthodoxy considered these agents to be extremely dangerous because they were essentially seducers; their forms of persuasion or of dis-

semination of new ideas were equally seductive. In his *Histoire du Brésil français au XVI<sup>e</sup> Siècle* (Paris, 1878), Paul Gaffarel points out the fervor with which Villegaignon informed his friend, the austere Calvin, of his plan to conquer the southern territories of Brazil, the source of antarctic France's development; it is quite clear that one reason why the undertaking failed was the excessive Calvinist austerity which typified this attempt at European colonization in the tropics. But we must not forget that these excesses were Calvinist and Swiss rather than French or even Franco-Huguenot; nor should we forget that among the Europeans of French language and Protestant faith who surrounded Villegaignon (who was surrounded, moreover, by French Catholics as well) conflicts rapidly broke out, not alone of a theological but also of a psychological nature. An example was the struggle waged by the "Geneva doctors" and the Reverend Cointra (whom José Carlos Rodrigues calls the "Sorbonne doctor" on page two of his *Mémoire sur les Religions acatholiques*). We must emphasize that this conflict involved two types of characteristics and of national cultures (whose apparent common denominator was the French language): the French type and the Geneva type.

Although divided, the Protestants—Frenchmen, in part—who settled in Brazil with Villegaignon acted with intelligence against Lusitanian-Catholic orthodoxy. They not only spread "heresies" among the "pagans" in 1560, of which Abbé José Anchieta, a Catholic missionary, spoke with indignation in a letter addressed to Cardinal Don Henrique; they also sent many pagan children to Calvin himself, or elsewhere, to become propagators of their faith. Even Villegaignon took a certain number of them with him. Anchieta has left us further information according to which, after the capture of Fort Coligny by the Lusitanian Catholics, "a great quantity of heretical books . . ." were found there. The Lusitanian Catholics then became alarmed and decided to take firm action against the Frenchmen who returned to their camp because the latter, influenced as they were by such reading, could be very dangerous as propagators of heresies; and also because among them in Brazil were experts in the liberal arts, in Greek and Hebrew, who had composed veritable Holy Scriptures.

No one seemed more dangerous to them than one of these "experts" or "doctors," discovered among those deserters from the Calvinist retreat who rejoined the Lusitanian Catholics. He knew the Spanish language and he knew it well. It was in its idiom—we are citing here from Anchieta's account in a letter dated June 1, 1560, to the general Father of the Company—that the intruder "immediately began to laud himself as a gentle-

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man and a doctor, and thanks to his titles and to his natural amiability, he quickly began to attract people and to win their respect. . . .” He was accompanied by three others whom the letter described as “idiots.” Furthermore, in the seventeenth century, another Jesuit, Simão de Vasconcelos, recounts this episode on page 136 on his *Chronique de la Compagnie de Jésus au Brésil* (Rio de Janeiro, 1864). He recalls that this intruder, a seductive man endowed with some scientific knowledge and not too refined in his manners, but on the other hand gifted with the art of oratory, in confronting his audience which consisted of simple people (such were most of the Lusitanian Catholics), used to mingle with his tales of “voyages, saints, indulgences, bulls, stories of the Pope and of the Roman church, jests or proverbs which made those who understood them laugh and impressed the ignorant, for he spoke a perfect Spanish and everyone loved his verve.” In Simão’s opinion, this seductive person was Béles, who was executed by the Lusitanian Catholics. Others believe that it was Cointra, the Sorbonne theologian who accompanied Villegaignon to Brazil; certain people—Baron Ramiz de Galvao, for instance—have suggested that it was a Brazilian historian and that the fact that Cointra was the lord of Boules accounted for the confusion. In any case, this madman who disrupted Lusitanian-Catholic orthodoxy in Brazil during the sixteenth century was French. And only a Frenchman of that epoch, a French intellectual, who stood out from the three “idiots” who accompanied him—Genevans, no doubt—could have conducted himself among Lusitanian Catholics as our anti-Catholic doctor did: by adding to his science a “joyous and easy natural amiability,” by enlivening his scholarly work with persuasion and “francization,” with humor and proverbs which made those who understood them laugh and impressed the ignorant. . . .”

The memory of these contacts with the French, always “charming” though heretical, explains the fact that during the eighteenth century at Pernambuco an anti-metropolitan movement began to take shape. Among the conspirators, as José Domingos Codeceira—along with other historians—recalls, on page 86 of his book, *L’Idée républicaine au Brésil. Priorité de Pernambouc* (Recife, 1894), someone concluded that it would be preferable, as a last resort, “to give in to the French, those clever warriors, rather than to serve those uncouth, ill-mannered and ungrateful Portuguese.”

Documents relating to the so-called Bahia revolution “of the tailors” reveal that the conspirators entertained such a warm feeling for the French, for their ideas and their doctrines, that it would be no exaggeration to regard this revolution as a somewhat lyrical monument erected by half-

breeds who were nourished by French ideas. The revolution of the Inconfidência Mineira also had at its head students and priests imbued with these same ideas. A decisive role in its most secret organization is even attributed to a Brazilian who had studied natural sciences at Coimbra, José Alves Maciel. He happened to be in Paris when “the French government was preparing an expedition under Lafayette’s command to aid the Americans,” and “he contacted Jefferson”—an admirer of France. Maciel, who had succeeded in joining this expedition and in going to the United States, perhaps dreamed of a similar expedition to Brazil; that is to say, of an alliance of Brazilians with “the French, those well-trained soldiers” who, in the eyes of the most restless Lusitanian-Americans, continued to symbolize European civilization in its highest form—far superior to the Iberian forms of civilization. Consequently, it was thanks to contact with the liberal and progressivist ideas which characterized the century that the wish to escape from an inferior situation as a mere plantation colony began to take form in Brazil. The Pernambuco revolutions of 1817 and 1824 were born of this admiration for France, of this intimacy with French notions and suggestions that were suitable for adaptation in Brazil. Recife was the point of fusion.

It was here, too, that the social movement that erupted into the so-called revolution “of the beaches” was intellectually prepared. This revolution was presented more as a nativistic and anti-oligarchical exacerbation than as a socialist movement of a kind—socialism of French inspiration—which the people of Recife had dreamed about, nourished as they were by French ideas and by French political culture. But there is no cause to scorn the movement; it could be viewed, after all, as an ignobly demagogic explosion which consisted in “eating the sailors,” that is to say, in massacring the Portuguese, in exalting the white and Indian half-breeds, and furthermore, in punishing members of the rich “Cavalcanti” family, the most feudal people of the province. We refer here to a Brazilian movement which broke out in 1849 in Pernambuco and in which the French engineer, Vauthier, certainly participated, although not directly and knowingly, of course. (Orthodox revolutionaries have never been his apologists and have always considered him a foreigner in the service of the Rego-Barros Cavalcanti oligarchy, and of other despotic elements of that epoch, all of them despicable in the eyes of the revolutionaries.) In other words, he was looked upon as having spread ideas contrary to the orthodoxy and to the dominant social order in Pernambuco (just as the French Protestants, to whom the declarations of the Holy Office refer, had done earlier). In

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Vauthier's case, this was a matter of ideas on "technical progress" linked with "social progress." Victorious, these ideas were to promote a new type of society and culture in which the leading class was to be found more frequently among scholars, technicians, and intellectuals than among land-owners or the rich. This wave of ideas, which in the beginning gave rise to "Fourierism," was to be transmitted to "positivist Comtism"; the movement developed in Brazil during the second half of the nineteenth century with remarkable vigor and expressed the most important intellectual and political influence which had ever been handed down systematically from France. It was a more powerful influence than that of the French Protestants, the Encyclopedists, or the revolutionaries of 1789; more powerful than the influence of Voltaire or Rousseau, Montesquieu or Diderot, or Cousin, Jouffroy, Proudhon, Saint-Simon and Fourier. Fourier was a kind of Jean-Baptiste mainly because of Vauthier's and Figueredo's efforts to disseminate ideas. For many Brazilians preoccupied with problems of technological change and social reorganization, it was Fourier who paved the way for the message, which met with hardly an obstacle, of "positivist philosophy" and "political positivism," and for the republican revolution which took place in Brazil and which was to substitute the positivist sphere with the slogan "Order and Progress" for the national monarchical emblem. Indirectly, however, and without marked republican inclinations, Vauthier, the engineer of Ponts et Chaussées who, from 1841 to 1846, headed a technical mission in Pernambuco, helped to set the stage for this new movement and to insure its success, thanks to his having propagated doctrines and ideas on "social progress" which supplemented those on "technical progress." These doctrines which harmonized order and progress were propounded by Fourier and Saint-Simon and later developed by Comte.

Why, then, has Vauthier been so forgotten in a study on the evolution of Brazil which is not only technical but social and political as well? Doubtless because, in the eyes of many people, and despite his status as a former pupil of the Ecole polytechnique of Paris, he was merely a technician like dozens of others. And also because Brazilian history is written without proper regard for the significant effort that so many technicians, engineers, artisans, small businessmen, and industrialists contributed in order to modernize the apparel, the mode of life, and the social customs of the country. These people did not attain great political or academic honors for their innovations, but they were nonetheless men who, without fanfare and without publicity (except for the indiscreet, paid sections, entitled "of interest to others," or in the marriage or obituary columns), greatly

contributed to changing the life, the environment, the regional, local, and sometimes even the national landscape. Let us take as an example the Frenchmen who persisted in bringing to Brazil vegetables from the south of France and Europe. They wanted to enjoy, in tropical America, the familiar French flavors in their soups and stews, mixed with the meat of tropical animals like the armadillo or the wild boar. And there were many other such examples and experiments, forgotten today, which enriched the Brazilian diet.

Vauthier was a name not entirely unknown when, in 1937, it appeared in print and revived, in the minds of Brazilians, the somewhat forgotten story of this French engineer. He headed a mission of technicians in Recife which achieved a kind of French revolution in the north of Brazil. It endeavored to build bridges instead of guillotines. Thus new relations were established between men who had been separated by the awesome waters that flowed in the tropics and created profound social cleavages between groups of human beings. The mission, therefore, had this human aspect, further reinforced by Vauthier's socialist point of view. In the eyes of the Brazilians, he represented the propagator of Fourier's ideas. His name was not unfamiliar to the most cultured Brazilians. But little, indeed, we might say nothing, was known about his life, his training, and his secondary activities in Brazil.

Luck was in my favor because my friend, the Paulist historian, Paulo Prado (who knew of my interest in the Brazilian activities of that French engineer), discovered in Paris the manuscript of Vauthier's personal diary in which he had made notes on his principal technological experiments as well as his experiences as a European in Brazil, his reactions to the stimuli and complications of an environment that was entirely new to him and at the same time archaic in contrast to his science and knowledge. I was also fortunate when many of his letters from Recife on Brazilian architecture were published in Paris in a review that specialized in architecture and even contained a few illustrations. Furthermore, another friend, Professor Arinos de Melo France (the author of a work of great value for anyone interested in the study of the relations of France and Brazil: *L'Indien brésilien et la Révolution française*), responding with kindness to my request, was able to interview, during his stay in the French capital, one of the European descendants of Vauthier. This man gave my friend copies of many documents dealing with the adventures—for it was adventure in the best sense of the word—of young Louis Léger in Brazil, during the first half of the nineteenth century.

One of their most significant aspects was that they did not merely repre-

sent the experiences of an engineer or a technician but also those of a socialist. Vauthier was one of the pioneers of the expansion of French ideas in Brazil. It was largely thanks to him that a desire for the social renovation of the Brazilian people was awakened among the intellectuals and even the politicians in Recife. This desire was in harmony with the pre-Marxist, socialist suggestions which, having given what we might call today a laborite tone to what seemed at first to be merely the political claims of the so-called "Revolt of the Beaches," remained vivid in the mind of Antonio Pedro de Figereido. These suggestions were manifest in the thinking of Nascimento Feitessa, and in the end they gave a fresh orientation to the abolitionist preoccupations of Joachim Nabuco.

Joachim Nabuco, as we know, was not content to be solely an abolitionist; he never resigned himself to fighting for exclusively juridical or political solutions to problems, but always tried to consider them in the light of their social complexity. Nor was he willing to be merely a disciple of some professor of law on the faculty at Recife—a school that made no impression on his intelligence nor on his character—or a disciple of the Saint Paul school, where he finished a part of his higher education by conforming to that excellent custom of the time which required future politicians, judges, or lawyers to attend both institutions. How, then, do we account for his inclination toward socialist ideas, and his predilection for social solutions? It would seem that both university and extra-university contacts of intellectuals, politicians, and the more restless students with European or American ideas of social reform were traditional at Recife. Some of these ideas were propounded in Brazil by Abreu e Lima, Bolivar's friend and collaborator in the Hispano-American struggle against Spanish domination. It also seems that Joachim Nabuco was deeply inspired or stimulated by these intellectuals, Antonio de Faguereido, for example, and some publicists, none of whom, by the way, had a university training. Perhaps, as a child, he had read in his father's library (his father represented Vauthier in a law case at Pernambuco) the collection of reviews called *Le Progrès*. This publication was tinged with socialism and contained European and particularly French innovations in the field of inventions and technology, presented in a somewhat romantic fashion. Doubtless he also read the French socialist publications for which, for a time, Vauthier seems to have been the principal propaganda agent in Brazil and that the latter's remarkable influence made itself felt as far away as Rio.

We must not forget that Vauthier had just graduated from the Ecole polytechnique of Paris, one of the most advanced centers of European

science during that epoch. In France, then a leading country in the field of pure and applied sciences, the Ecole polytechnique was on a par with the Ecole normale supérieure as regards the renewal of teaching, scientific research, and also social philosophy. France, whose technological activity was to have repercussions in the United States—at that time very French in trend—was not to be outstripped in this domain by England until after 1850 and by Germany only at the end of the century.

Occasionally one closely associates the development of applied sciences (which can never be totally divorced from the pure sciences) in France with the French Revolution, the leaders of which, at a given moment, called upon the nation's scientists and even demanded of them solutions to problems of a political nature, thus stimulating an alliance between the sciences and industry, technology, the discoveries of engineers, and the work of administrators. S. F. Mason, both a scientist and a historian, in a recent book, *Main Currents of Scientific Thought* (New York, Schuman, 1953), reminds us, on page 353, that after the Jacobins closed the Académie des sciences de Paris in 1793, after they executed Lavoisier and the astronomer Bailly (who was the mayor of Paris), after they drove Condorcet to suicide and were responsible for the terrible words, uttered by the vice-president of the revolutionary tribunal that condemned Lavoisier: "The Republic has no need of scientists"—a reaction against this anti-scientific stupidity set in among the revolutionaries themselves. Then a movement of great appreciation for scholars and men of science sprang up which led to the establishment of the mathematician Lazare Carnot as minister of war and the geometrician Monge as minister of the navy. The chemists Fourcroy and Berthollet were encouraged to pursue their experiments, which were regarded as serving the public interest. The Académie des sciences were reconstituted as one of the three sections of the Institut de France, whose activities were also devoted to literature and to the so-called moral and political sciences.

It was precisely in this atmosphere of high appreciation for scientists, for the pure and, above all, the applied sciences as taught by scholars, that the Ecole polytechnique and the Ecole normale supérieure were valued as almost messianic institutions by France and by individuals or groups who looked toward France as toward a new Jerusalem. In 1794, the four hundred students of the Ecole polytechnique had as professors such men of genius as Laplace, Lagrange (who taught physics and mathematics), Monge, professor of geometry, and Berthollet, professor of chemistry. These truly illustrious scientists had as pupils, and were to have as succes-

sors, physicists like Malus, Arago, Poncelet, Poisson, Cauchy Sadi Carnot; chemists like Gay-Lussac, Thénard, Vauquelin, Dulong, Petit. The Ecole polytechnique and the Ecole normale supérieure, with their great professors concentrated in Paris, became for French or European youth, thirsting for knowledge and science, what Professor Mason calls a veritable “Mecca.” There sprang up an atmosphere imbued with the presence of famous scientists who were at that time the greatest of university scholars, the greatest inventors, and the most revolutionary men of science, from a social point of view, in all Europe. These schools constituted the threshold of irradiation of a regenerating culture which emerged from a country which some considered to be not only the most admired among Brazilians but also the most loved during the first half of the nineteenth century. S. Dutot, on page 33 of his book, *France et Brésil* (Paris, 1857), stated in general terms that the Brazilians respected the English and valued the Germans, but “it is the French whom they love and imitate.” One can even go so far as to say, in speaking of north European technology, and principally of French technology, that for many enthusiasts of Progress with a capital “P” and of Science with a capital “S,” it represented for Brazil and the Brazilians the cure for all the ills engendered by the Portuguese system of colonization based upon slavery. “Every European who becomes acclimated to the tropics, every discovery which places the power of a machine where man’s strength is giving out, in short, all progress brings the day of delivery closer,” according to Dutot. On this point he would not have had the complete approval of another Frenchman who had contact with Brazil during the same epoch, the Count de Gobineau. The latter considered the theory of ethnic determinism to be a formidable reality, greater than all the purely social progress which idealists or naïve reformers might dream about. It was from this “Mecca,” from this almost messianic school which the Ecole polytechnique represented, that a French engineer at the head of a technical mission was to come to Recife. The presence of this mission in Brazil was to mark one of the most important revolutions which occurred in Brazilian life thanks to a team or an organized group of technicians under the command of a man of science who also had economic, social, and political knowledge. Indeed, some of his reports, the one of 1844 for example, was to harmonize with the works of Bishop Azevedo Coutinho and also with those of the “Bahian School” of economists, because of the attention paid to an examination of regional economic conditions.

During the period of the Ecole’s greatest splendor as a center of technical

science and of moral thought, the young Vauthier got his higher education. There he learned his trade as an engineer which he later dedicated to Pernambuco, and there he acquired his knowledge, the best that a young man in his field could aspire to in all of Europe, in fact, in the entire world.

Let us not forget that at the time of Vauthier's arrival in Brazil Fourierism was in vogue among the French intellectuals of that period. This was principally true of "the early students of the Ecole polytechnique and the Ecole centrale, the businessmen, industrialists, and physicians," as Professors F. Armand and R. Maublanc state in their study on Fourier, first published in Paris and then, in 1940, in Mexico in a Spanish version, thanks to the efforts of the Fonds de Culture économique. Both these French professors think of Fourierists as "the heirs of the eighteenth century," in other words, of the French rationalism of that century, and as "romantic enthusiasts"; and, in both instances, as "sincerely and profoundly socialist." These innovators made no secret of this; they declared themselves to be socialist through "philanthropy" and also because of a "clear insight into the vices of the dominant regime" of which Fourier had made a critical analysis, brilliant in its lucidity and reasoning. But, although they were revolutionaries in their objectives, they were not at all so in their means of action. On the contrary, the violence that the Marxists and the anarchists were to adopt was repugnant to them.

Many researchers, in studying the history of socialist movements in Europe, have found evidence of the decisive influence of Fourierism upon Marxism in regard to objectives common to both movements. Apparently Marxist socialism drew away from Fourierism principally on account of the means of achieving the socialist "utopia." Therefore comparisons made by researchers like Armand and Maublanc between what they call the "phalansterian utopia" of the Fourierists and the "Soviet reality" of the Marxists are not out of order. They stress the fact that while Fourier regarded work in the "phalansteries" as the "finest of sports" and workers as "industrial athletes" or "agricultural champions," the U.S.S.R. has created "oudarniks" and Stakhanovite teams which represented nothing more than the application of Fourier's ideas to industrial enterprises governed by a dictatorial state. The Soviet tendency to use newspapers, inscriptions on bronze, and even statues for glorification stems from Fourier's influence (the application of Fourier's semi-anarchical and syndicalist ideas). In glorifying men who broke this or that record in doing a difficult type of work, and thus endowing work with a magnificently sporting characteristic, Stalinist-Leninism utilized intelligently one of the most brilliant of

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Fourier's insights. Perhaps the same intuition occurred to Vauthier when he came to Brazil. The country at that time was in such a state of pre-industrialization that its economy was still in a feudal phase. This was hardly conducive to organizing workers into a more sporting than martial form of "industrial armies." Even under such conditions, Vauthier perhaps came to realize that, in certain patriarchal Brazilian communities, the work of the slaves followed rhythms that emanated from the preservation, on the one hand, of African rites of solidarity, harmony, and cooperation, and, on the other, of Christian and European syndicalist rites which we still find in Brazil today in the ceremonies of brotherhoods and congregations. Moreover, these rhythms foreshadowed the sporting rhythms which were part of the psychological technique of the cooperative and socialist work organizations recommended by Fourier to his disciples; this technique was practiced in those phalansteries that were not uniquely romantic, but practical and objective as well. Furthermore, it was these same rhythms that the Marxists of modern Russia were to imitate and which the Russian Soviet were to put into operation on a large scale in their vast empire, under the pressure of a tyrannical, dictatorial regime—a regime that has been going strong for many years in the famous USSR and which is defined as state socialism in its most authoritarian form, doubtless in keeping with the necessities of the Russian situation and with the semi-Asiatic antecedents of Russia.

But I merely wish at this time to emphasize the considerable influence that the technique of applied science and the work of French engineers exerted upon Brazil during the first half of the nineteenth century, culminating in the arrival in the north of the empire, dominated at that time by somewhat feudal barons, of a French engineer who was also a socialist. This socialist was engaged to head the public services in the northern province at a time when one of these so-called feudal barons was the president or governor of the province. The truth is that this baron was reared in France. Doubtless it was there that he became acquainted with new French technical methods. Doubtless, too, he heard French voices announcing a new world—a world that would result from scientific progress and from intelligence directed to perfecting the conditions of life and of human relations.

It was during the regime of João VI that advertisements similar to Carlos Durand's (March 18, 1818) began to appear in the *Gazeta do Rio de Janeiro*. Durand announced that, "at the request of several artillery officers of this city," he had sent to Paris for "complete boxes of compasses with a

table of calibration for cannons which had been mentioned in an imperial ordinance.” These boxes, Durand added, came from “the workshop of the famous Lenoir, first mechanical engineer of his Royal Highness, Louis XVIII; Lenoir had a monopoly on the manufacturing of tools destined for the French Ecole polytechnique.” And finally, “the beauty of execution and finish of these tools leave nothing to be desired.” What more could one ask for in the mathematical instruments of that time? These tools, emerging from Lenoir’s hands in Paris, represented the best of their kind. Lenoir was his Royal Highness the King of France’s first mechanical engineer. France was the queen of all nations in the field of mathematical and physical sciences as well as in that of the arts. Paris was its capital and the Ecole polytechnique, for which Lenoir worked, was located in Paris. His instruments would be close to perfect—well finished and beautiful. France was not England; her tools and machines combined “beauty of execution” with “finish.”

“Writing ink” from France was also excellent, as was announced in this same *Gazeta* on September 12; excellent, too, were the shoes for men and women, not only because of the softness of their leather but also because they were made in Paris “with the greatest care.” They were “to be used in America” “in accordance with the taste of the country,” that is to say, Brazil, again according to an announcement by the same Carlos Durand on November 14. No less attractive were French inventions for Brazilian use like “the machine to husk coffee quickly, as well as rice and wheat,” advertised by the inventor himself, a “French carpenter and mechanic recently arrived in this capital,” on November 13, 1819. Or again the “well-known metal stills of French invention,” advertised by “Dupont, French coppersmith,” on September 6, 1820—metal stills which Dupont “manufactured for a moderate price” and which were capable of “distilling three pipefulls in twenty-four hours.” The *Jornal do Commercio* was soon to publish advertisements of other French inventions, entirely adaptable to Brazilian use, such as shirt collars “which do not lose their shape because of humidity or bodily heat” and which, according to the *Jornal* of August 21, 1828, were on sale at Berthier’s store. French satins were also advertised along with English. In an advertisement published on November 25, 1828, the public’s attention was called to “a watch manufactured by Bréguet, first clockmaker of Paris, member of the Académie of sciences,” a watch that strikes the quarter-hours and “is operated by a diamond, the essential part of the mechanism being also made of diamonds.” This watch was so constructed that it was protected against impacts and changes in atmos-

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pheric conditions. Finally, it had, among other advantages, “a secret compartment in which to place someone’s picture.” Also advertised were “rich harnesses for one or two pairs of horses,” recently arrived from France on the ship “Henriette” (December 11, 1828). The machines advertised in this same *Jornal* on March 13, 1830, were also, it seems, French. They included a very recent one “recommended for the service it gives and its perfect adaptability to the usages and customs of the country: a machine to grind rice, corn and coffee that operates with from twenty-four to one hundred cogs. . . .” Other machines were advertised for sale at Coquet Frères: “To prepare cassava root; it does the work of from twenty to sixty mills which are usually used for this purpose”; “to dry flour without the intervention of anyone”; “to throw away rice kernels, to pick out ears of corn and bean pods”; “for cultivating rice and beans by reducing the enormous manpower which this cultivation formerly demanded”; “to search for gold or any other metal, for precious stones or springs, at any given depth”; “to uproot tree trunks and break up ground.”

To these newspaper advertisements appearing in the capital during the reign of Don João VI and Don Pedro we must add some of those that appeared in Recife around the time when Vauthier was in Brazil. For example, in the *Diário do Pernambuco*, on January 9, 1840, a French bakery advertised that it made “bread by mechanical methods which made it better and cleaner”; in the same *Diário* of January 29, 1841, a goldsmith announced that he had brought from France “all kinds of instruments . . . most of them as yet unknown in Brazil.” In the April 8, 1842, issue François Chabrilac, who claimed to be a “professor of the natural sciences at the Collège de Lyon in France,” informed all those interested in natural history that “he stuffed all kinds of animals to perfection, for collections as well as for the ornamentation of rooms.” These advertisements, which seemed to have been written by Englishmen (because of the supremacy which their authors claimed to possess in this or that technical or mechanical field), in reality were written by Frenchmen. This proves the extent to which Europe was still subjugated by the prestige of French science and technology which had scarcely begun to be overshadowed by England’s progress. It is important to stress this point: to wit, that Vauthier came to Brazil when France, and more precisely the Ecole polytechnique, were at the height of their splendor as a European center of scientific progress and of the manufacturing of tools and precision machines which combined beauty with utilitarian value. French products, watches, shoes, mechanical inventions, were still rivaling those of England. In many fields the French

even had the advantage; for the Brazilians were more inclined to follow the French taste, styles, and techniques than the English or German.

Vauthier, while he was not a man of genius, was not an ordinary technician either. He did not come to Brazil with the primary purpose of amassing a large fortune, nor was he satisfied to make his mission essentially a bureaucratic one. He was an innovator who did not try to avoid the responsibilities incumbent upon him in an environment as different from Europe as was Brazil during the first half of the nineteenth century—the responsibilities of adapting, re-creating, and even creating.

In his book, *The Life of Braxton Craven. A Biographical Approach to Social Science* (Durham, N.C., Duke University Press, 1939), Professor Jerome Dowd began to wonder as early as seventeen years ago if the time had not come for certain sociologists to specialize in biographical studies. And he cited the example which a leader in the field had already provided, William I. Thomas. In his monumental work, *The Polish Peasant in Europe and America* (Chicago: University of Chicago Press, 1918–20), Thomas devoted an entire volume to a biographical study of a peasant, Wladek Wiszenewski. The author justified the importance thus given to a single biographical study by asserting that all problems which lent themselves to psychological analysis were identical. This was so regardless of whether the material used for such an analysis stemmed from minute biographical data on people or from the study of the designated mass phenomenon. And moreover, in Thomas' opinion, this material should be regarded "as the perfect type of sociological material." The use of any other material can be explained only by the practical difficulty of obtaining sufficient quantities of biographical data to meet the sociological demands for generalization. On the other hand, when, as in Vauthier's case, one finds abundant autobiographical material, such as a personal diary and letters written from Pernambuco or Recife to France, about a man who can be regarded as representing an important group of French innovators and technicians working in Brazil during the nineteenth century, then this particular case is as deserving of sociological attention as the peasant, Wladek Wiszenewski. Of course, as Thomas observes, in referring to Wiszenewski, it is not possible for the sociologist to study the life stories of all those individuals connected with a social reality. Consequently, we have to limit ourselves, as Thomas suggests and as the naturalist says he does, to the study of a few representative cases that offer us results that are applicable, insofar as this is possible, to all the cases they represent. Vauthier's case is obviously that of a French technician representative of a whole group of French technicians.

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The latter, during the course of the nineteenth century, constituted the messengers of specifically French knowledge, represented mainly by the Ecole polytechnique. The center of technical progress and, at the same time, propagators of a doctrine of social and technical renovation, they transmitted this knowledge to territories outside of Europe, particularly to Brazil, which at that time was one of the areas most accessible to French influence.

According to Professor Dowd, typology should be applied to biographical studies that culminate in sociological interpretations. Typology is defined by Thomas as dividing men into several groups: those who are essentially bohemian, leading a life that responds to transitory impulses, unstable in character and uncertain in behavior; those who are sedentary, that is to say, conservative in the sense that they are attached to conventions, rely upon them, and are incapable of efforts at independence or innovation; finally, those who are primarily creative, who pursue a definite goal in life, who are innovators, who instead of being dependent upon conventions or on a certain atmosphere, attempt to alter or renovate these.

During his stay in Brazil Vauthier must certainly have adapted himself. Indeed, studies of situations show that a man is not always the same in different atmospheres. He can be conservative in one situation (this was true of Don João VI when he was the regent in Portugal) and an innovator in another (as was this same prince when he settled in Brazil). Moreover, these tendencies vary with age. For example, Thomas deduced from his study of Wiszenewski that the Polish peasant was bohemian in his youth and a philistine when middle-aged. As for Vauthier, we believe we can say that he showed himself to be a mixture—both a bohemian and creative, with some of the traits of a mercenary philistine. But he was principally creative. An innovator by the very fact of the national situation that witnessed his birth (he was a Frenchman who grew up during a period when Europe was revolutionized by technology and science—and when French science outstripped English and German science) and by the fact of his university training; he also played a messianic role because of the very nature of his work. As head of a public work mission in a Brazilian province, Vauthier was to enjoy extensive and elastic powers that enabled him to innovate, renovate, and reform. As a Fourierist his socialist philosophy of life strongly reinforced this creative proclivity and predominated over his bohemian and particularly his philistine tendencies. He believed himself to be invested with a mission in regard to the Brazilians—a mission to propagate a philosophy implying a new social organization which paral-

leled a new technical organization. This philosophy of technical and social progress was also one of harmony, balance, and social order; of order and progress—in anticipation of Comte's positivist slogan.

It would be interesting to study Vauthier's personal diary today, his letters, his polemics in the newspapers, the articles in the paid sections of the newspapers, written either for or against him, in which all kinds of intrigues were either welcomed or repulsed. Such a study would enable us to discover to what extent the kind of personality he possessed when he arrived in Brazil from France changed under the pressure of an atmosphere determined by attitudes in harmony with new and, at times, unexpected and unforeseen situations. We know that it is precisely in the study of the boundary between these two factors (the personality type and the socially conditioned attitude) that the modern so-called social or humanist sciences today find their two principal criteria for a social analysis of man; the anthropological criterion which, as stated by Professors Leo W. Simmons and Harold G. Wolf (the latter a doctor and professor of neurology, the former a professor of sociology) on page 150 of their recent work, *Social Science in Medicine* (New York, Russell Sage Foundation, 1954), constitutes personality typing; and the sociological and psycho-sociological criterion which is that of attitude conditioning. These two criteria are closely related to each other in the sense of being integrated into the field of psychiatry. Several schools of psychoanalysis are interested in researches of a sociological and historico-social nature.

Under these conditions, the characterization of social individuals in terms of their type or by a study of their personality is not enough to explain their participation in the processes of contributing to or transferring culture. Vauthier, for example, helped to transmit French culture to Brazil during the first half of the nineteenth century. Yet, at the same time, he was a Frenchman particularly affected (given his type of creative-bohemian personality) by Brazilian values that were at times imposed upon him in situations to which a purely philistine Frenchman would not have exposed himself, either materially or spiritually, with the same intensity. Many are the works today in which, when confronted with problems such as these, comparatively diverse cultural and sub-cultural patterns are considered, as well as their impact upon personal adaptations.

The authors of *Social Science in Medicine* observe (page 104) that “when a person undergoes a new, arresting, or disconcerting experience, he may cast about for an explanation and assessment of it. The shortest and most usual course is to turn, just as a child turns to his parents or a religious per-

son to his priest, to an authoritative surrogate who is ready with definition and elucidation.”

For Vauthier, who was called upon to demonstrate his authority as chief engineer over the other French engineers working with him in Brazil, it would seem that the “authoritative surrogate” was France herself, not in her vaguely maternal form, but as represented by the Ecole polytechnique and by French scientific thought which had prepared Vauthier and his French collaborators for this Brazilian undertaking. It was this that inspired Vauthier’s answer to a communication from a certain “PhilopatRIA,” in a correspondence published in the November 25, 1841, issue of *Diario do Pernambuco*. “PhilopatRIA” had expressed doubts about the capacity of French technicians to do a good job on their project and had called them “impostors and adventurers.” Vauthier answered: “I can easily prove by irrefutable documents that I have been a student of the Ecole polytechnique of Paris; attendance at this school, as everyone knows, is only permitted to the rare students who are able to pass many and difficult examinations and who have given incontrovertible proof of their profound knowledge of mathematics and other disciplines.” He recalled with a certain lack of modesty his victories at the Polytechnique: “After serious study I left this school one year ahead of most of my friends in order to direct maritime projects in the department of Morbihan. . . .” Further on he said: “I can assure this dear PhilopatRIA that I shall never regard as beyond our capacities the projects which the provincial government will deign to entrust to us, no matter what difficulties they might present.” Again he protested: “Inasmuch as we have retained our jobs in France, thanks to the official leave given us by the French government, we are not afraid to re-enter our country where we shall always find a bread to eat that is less bitter than that of discredit and insult; for despite our absence, the minister of state in charge of our branch of the administration who requested and obtained high posts for us from our Sovereign, will always be pleased to have us return to share the heavy burden which our colleagues are carrying.” And he ended up by saying: “Brazil is not a lesser place for having sought the help of French science. The Russian Ecole polytechnique was created by French engineers of the Ponts et Chaussées. . . . England, a country so rich in scientists and technicians, entrusted Monsieur Brunel, a French engineer of Ponts et Chaussées, with the task of digging a tunnel which will be the greatest accomplishment of our times. . . . It was French engineers who helped Mohammed-Ali with the tremendous projects carried out in Egypt. It was Monsieur Cerisy, a French engineer, who created the squadrons and

arsenals of this country; its schools are directed by Monsieur Lambert, and gigantic enterprises here are under the direction of Mougel, my compatriot and classmate. And, since I possess the same credentials as these illustrious Frenchmen, I do not consider myself incapable of rendering the same services to Brazil.”

In other words, nobody could regard him as a stranger without a country or a trade, or as a man who was attempting to mislead the Brazilians with his false or superficial knowledge. He was a Frenchman, a French engineer and former pupil of the Ecole polytechnique, a classmate of French engineers who were already famous, like Mougel. He had a glorious mother—France and French science, the Ecole polytechnique of Paris—in short a nation, a science, and a school to which England herself turned for help in spite of all her scientists and technicians.