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THE FIRST MODERNS

PROFILES IN
THE ORIGINS OF
TWENTIETH-CENTURY
THOUGHT

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10 THE CENTURY BEGINS IN PARIS

MODERNISM ON THE VERGE

1900

Inevitable Paris beckoned. . . .
—*The Education of Henry Adams*

Vienna was *fin de siècle*, a phrase that came from Paris; but Paris in 1900 was not at the end of a century. It was at the beginning of one. Already, in the 1880s and 1890s, it had provided a medium (and a stage) for the invention of modern poetry. By 1900, with department store millionaires buying Monets and Sisleys, impressionism was already the establishment in Parisian galleries, and in its journals and reviews the *Décadence* that still captivated Vienna was moribund by the 1890s. In Parisian faculties of philosophy, the scientism and positivism taught in Vienna had already been dissected. To Vienna in that last decade of the old century had come ambitious young men from the polyglot provinces of a geographically compact empire; but to Paris in 1900 came the young of both sexes and from every corner of the globe. One attraction was the World's Fair, a larger edition of the Eiffel Tower fair of 1889; but more important may have been the sense these young people had by 1900 that France's leadership was more open to even the odder kinds of creative ambition than that of any other nation. It may even have been the strength of Parisian anarchism; but at the time Paterson, New Jersey was the world center of anarchism, and the only creative Modernist Paterson ever attracted was William Carlos Williams. Whatever the reason, they came in droves, transient and permanent, provincials and foreigners, poets and physicists, painters and politicians, until, swamping the Parisians themselves, they had made a graceful nineteenth-century city into the epicenter of Modernism. Paris in 1900 became the first world cultural capital of the twentieth century, a position it would hold for more than two generations.

As the trickle grew to a flood in 1898, Paris already housed some of the most creative young minds in the Western world. At number 7, rue Cassette, floor two and one-half, a strung-out Breton named Alfred Jarry was writing things that would have deeply shocked a Pole named Marie

Curie, who was in a shed near the Physics Faculty, one neighborhood east, refining tons of Czech pitchblende ore into the first milligram of radium. In the same city where the now ailing Mallarmé had held his poets' Tuesdays, Professor Henri Poincaré was pursuing the strange implications of Cantor's sets and Maxwell's radiation laws, and composers Gabriel Fauré, Claude Debussy, and Erik Satie were stretching key signatures to the breaking point. Painting in Montmartre in complete obscurity were a German named Hansen, who would become, as Emil Nolde, one of the founders of expressionism, and the Czech Frantisek Kupka, soon to be among the founders of abstraction. In nearby Fontainebleau, the English composer Frederick Delius, who had been there since the last World's Fair in 1889, was composing *Paris: The Song of a Great City* in 1899.

Among Parisians who had already made their mark by 1900 were an American painter, James Whistler, one of the town's toasts; and an Irish writer, Oscar Wilde, who was one of its scandals. Wilde's compatriot, William Butler Yeats, had learned the symbolist aesthetic in Paris after his friend, the English critic Arthur Symons, brought him there in 1896. Symons had written the symbolists their history in 1899, and Jean Moréas, a Greek, had written their manifesto in 1886. Two Poles, Wyzewa and Krysinska, and two Americans, Merrill and Vielé-Griffin, had expatriated themselves in the 1880s to join the movement, and, as we have seen, to Whitmanize it. Paris was full of Belgian writers, too, like the Whitmanesque poet Emile Verhaeren; the symbolist novelist Georges Rodenbach, author of *Bruges-la-Morte*, who died there in 1898; and Maurice Maeterlinck, who had moved to Paris for a year in 1886, written the classic symbolist play *Pelléas et Mélisande*, and settled there for good in 1897.

Makers of theatrical modernism were drawn here from every country in Europe. The Irish playwright George Moore had come as early as 1873, making friends with Mallarmé and Dujardin and bringing back to the English-speaking world the first news of symbolism. Synge and Yeats came in the nineties, confirming Moore's message. The Austrian theater critic Hermann Bahr had learned *Décadence* in Paris in 1888, and his friend, the playwright Arthur Schnitzler, paid a visit in the spring of 1897. The German Frank Wedekind had been in Paris between 1891 and 1895, haunting circuses and cabarets and drafting plays about a whore named Lulu. The Norwegian, Bjørnstjerne Bjørnson, who had written realist dramas before Ibsen, was there in the 1880s, and was thus able to meet and quarrel with a young Swedish genius named August Strindberg, a visitor from 1876 who was there again in 1883 checking out the Paris cabarets. Returning to Paris in 1894–96 to conduct alchemical experiments and write his madman's diary, Strindberg had met and argued with still other venturesome Norwegians, like the writer Knut Hamsun, whose

Hunger had foreshadowed the modern novel in Oslo in 1890, and the painter Edvard Munch, who had learned enough in Paris to change the course of his art in 1889. There were even a few Russians. Chekhov came in 1891 and again in 1897. In 1895 Vladimir Ilyich Ulyanov, a young rebel known only to the Russian police and a few comrades, came several times to Paris. By 1908, having renamed himself Lenin, he would move the whole Russian Social Democratic Party to the City of Light.

In retrospect it is clear that what all these debutants needed was an all-around impresario. This they got in 1899. On the night of October 4, a bastard Monégasque with the Polish name of Kostrowitsky took his mother's instructions and, neglecting to request his bill, strolled out of their fancy hotel in the Belgian resort of Stavelot and boarded the night train for Paris. It would be a cold, hard winter, but Wilhelm Kostrowitsky emerged from it a Parisian. Within a dozen years, having dubbed himself Guillaume Apollinaire, he would be Paris's best-known poet, and the leading journalist of the avant garde. But for that first spring in Paris, Kostrowitsky would be watching the arrière-garde stage its last great self-congratulation, the Grande Exposition Internationale et Universelle de 1900: The Paris World's Fair.

> New Year's Eve, at half past one, I begin the great journey. . . . Hurrah! . . . And in the new century when I am in Paris, the great pit of sin, I shall often think of your sweet and peaceful little house. . . .[1]
>
> —Paula Becker

The "sweet and peaceful little house" was Otto and Helene Modersohn's in the little art colony of Worpswede, near Bremen, in north Germany. Their departing friend was Paula Becker, a twenty-three-year-old painter. Just ending her apprenticeship, she had begun to paint in curiously flat, monochromatic planes. Becker was an original, quite probably a genius. Clearly, she had to get to Paris, but unlike Apollinaire, she would plan her trip in advance. On New Year's Eve, 1899, she presented her ticket at the Hamburg railroad station. Traveling on the line Apollinaire had used, Becker arrived in Paris as the sun rose on the first morning of 1900, ready to take a deep draught of the new century at its source.

> One hour from Paris and my heart is full of anticipation. . . .[2]
>
> —Paula Becker

A "clattering carriage" took her off to a tiny studio in Montparnasse where she fell asleep, ecstatic and exhausted. Fellow Worpswede artist Clara Westhoff, nearly three years younger and also unmarried, knocked on her door and woke her, and they talked until daybreak. Becker quickly enrolled at the Académie Colarossi, one of the few art studios in the

world where women were permitted to study. Within twelve months, Becker's harbinger would be followed by an extraordinary parade of genius, from Isadora Duncan in May to Bertrand Russell in August to Pablo Picasso in October.

> I am in Paris. I departed on New Year's Eve. . . . And now I am living here in the bustle of this great city. . . .[3]
>
> —Paula Becker

The Great Exhibition wasn't open yet, but on February 25 Becker and Westhoff wandered over to the fairgrounds on the right bank, peeked into the huge art exhibit hall called the Grand Palais, where "the poor little sculptor's apprentices from the evening life-drawing class . . . are doing the stucco work."[4] One was probably Matisse.[5] His wife was expecting another baby, and at thirty-one Henri Matisse was earning his bread with his friend Albert Marquet, painting the laurel leaves on the cornice of the Grand Palais ceiling. Becker did not know who Matisse was in 1900, and hardly anyone else did either. He had been a gifted Beaux-Arts student and had had a show in 1896 that provoked Maurice Denis to call him "the Mallarmé of painting;" but by 1899 his mentor, Gustave Moreau, was dead and Matisse had given up a promising academic future to do things his own way. From the small income earned from the laurel leaves, Matisse had just laid out a rather large chunk, 1,300 francs, for a little painting of bathers by an ex-impressionist named Cézanne. At sixty-one Cézanne was still painting in his beloved Aix-en-Provence, but not many knew it. Moneyed collectors didn't like his strange perspectives and "differentiation of the color planes . . . toward the infinitely small." Roger Marx had fought tooth and nail to get three little Cézannes hung in the French exhibit in the Grand Palais. The only dealer in Paris who had Cézannes was Ambroise Vollard, who kept one of the many small art shops in Montmartre's rue Lafitte. Born on Réunion in the Indian Ocean, Vollard was also one of the few dealers who could show you a Gauguin—Matisse had bought one from him in 1898. Paula Becker never found Matisse; but in late May 1900, she found Vollard's shop and saw her first Cézannes.[6] They confirmed everything she was doing and changed her life. That was the sort of thing that was happening all over Paris in 1900.

The France they came to was still quaint with the preindustrial. Toilet paper was unknown, and house-to-sewer connections as rare as bathtubs and toothbrushes. In 1883 Strindberg called France "a bloody country" where "a piss costs 5 centimes, to shit at least a franc, and [friends] who were here a few days ago said one couldn't get a fuck for less than 10 francs."[7] Nonetheless, it was uniquely lively. By Eugen Weber's count it published 2,857 periodicals, of which more than 70 were Paris dailies.[8]

Americans may be shocked to learn that Paris had nearly 350,000 electric lamps, and France more than 3,000 automobiles; but in fact France was as far ahead of the United States in the development of the automobile as it was in that of the bicycle. The first Michelin Guide had just come out, nearly a hundred automobiles from several countries were on display in the Palace of Civil Engineering and Public Transport just up the Champ de Mars from the Eiffel Tower, and the Vélodrome Buffalo, the world's most advanced bicycle track race course, had just opened on the site where Buffalo Bill had made his Wild West Show the hit of 1889.

As the Fair's opening day approached, France was just getting over the most egregious political *affaire* since the founding of the Third Republic. The retrial of Captain Alfred Dreyfus in August 1899, and his release from jail in September, had been preceded by an attempted right-wing coup in February and followed by the death of a Dreyfus partisan in a duel with an anti-Dreyfusard member of the French parliament. So convulsive was the Dreyfus Affair that at its height, in 1898, the French foreign office had had to order a French army detachment in the Sudan to haul down its flag and pull out to Somalia. Fashoda was abandoned largely because France felt too little domestic unity to sustain a possible conflict with England. Even cyclists divided. In 1900, auto enthusiasts on the staff of *Le Vélo,* uniformly anti-Dreyfus, seceded to found a new journal, *L'Auto.*

In the midst of it all, there had had to be an extraordinary presidential election on February 29, 1899, because President Félix Faure had been found in bed in the Elysée Palace, dead and nearly nude, just after his meeting with the Cardinal Archbishop of Paris. Security men had bundled the president's mistress, Meg Steinheil, out of a side entrance, but not quickly enough to prevent gossip. Then in June the new president, Emile Loubet, had been assaulted by anti-Dreyfusards at the Auteuil racetrack. A week later, 100,000 liberals, moderates, and socialists had paraded through Paris in defense of Dreyfus. A week after that the anti-Dreyfus government fell and a Dreyfusard took over as premier. Georges Clemenceau, the editor who in 1898 had printed Emile Zola's great attack on the anti-Dreyfus government, "J'Accuse," called the new government's enemies *fauves* (wild beasts), and in other countries there were even calls to boycott the Fair. Vienna heard about it all from the dispatches of the Paris correspondent of the *Neue freie Presse,* who had been reporting on it since his eyewitness account of Dreyfus's public derogation back in 1895. This was, of course, Theodore Herzl, who had by 1900 founded a small movement that was coming to be called Zionism.

But the government held, with its coalition of socialists and democrats, and so did Dreyfus's vindication. On January 8, 1900, a week after Paula Becker's arrival, a French court finally convicted the anti-Semitic leaders of the attempted coup of February 1899, and the famous Affair

began to cool down. By April 1900, Dreyfus himself was able to get away to the provincial town of Carpentras, to try to recapture his peace of mind. By April 14, when President Loubet finally opened the Great Exhibition, Paris was ready to forget politics for a moment and celebrate.

Opening ceremonies were elaborate and leisurely. The French president, accompanied by the Republic's new ally, the Czar of All the Russias, dedicated a new bridge across the Seine to the czar's father, Alexander III. (Alexander had been a bit bloodthirsty, but only the anarchists were tactless enough to dwell on that.) The Alexander III Bridge was the Fair's axis, connecting the great esplanade of exhibits on the left bank north of the Invalides with the two major exhibition halls on the right bank between the Seine and the Champs Elysées: the Petit Palais and the Grand Palais. In the "Great Palace," the beaux-arts greenhouse where Matisse had painted the laurel leaves, were hung works of art the various nations had judged and sent as their best, including huge symbolist fantasies by the Finn, Gallen-Kalela, varnished historical tableaux by the likes of Meissonnier and Bouguereau which the Academy considered France's best, and a large sentimental piece called *The Last Moments* by a gifted Spanish teenager named Pablo Ruiz Picasso. Later, the ribbon was cut on the entrance of the new Métropolitain subway, sculpted by Hector Guimard in a shape suggesting giant blooms and tropical vegetation.

> But more about the Exposition, also in fragments, because everything is still whirling and tumbling before my eyes. . . .[9]
>
> —Paula Becker

On hand to film the ceremonies were Raoul Grimoin-Sanson, with 10 synchronized 70-millimeter cameras in a tethered balloon, and the two "light brothers" from Lyon, Auguste and Louis Lumière, the first Frenchmen to perfect the fascinating sequential picture-taking of Muybridge and Marey. The Lumières had given the world's first public exhibition of movies in Paris in 1895. One of their favorite subjects was the two-speed electric moving sidewalk that ran down the Esplanade of the Invalides and along the right bank of the Seine past the national pavilions. Though a lot shorter than the new Métro subway, it was, at five miles an hour, at least as good a way to travel as the Fair's electric train; and it made a delightfully disconcerting film. On the two opening nights, April 14 and 15, the Lumières took a shot at filming the complicated illuminations along the Seine and at both ends of the Champ de Mars, the Eiffel Tower and the Palace of Electricity.

On May 20, Baron Pierre de Coubertin, inventor of the modern olympic movement, proudly opened the Second Olympiad, the first ever to admit women, in the City of Light. Overshadowed by the Fair, the events were so scattered in Parisian time and space that even after com-

peting some athletes were still unaware that they had been in an Olympic Games. By the time the Olympiad petered out in October, French athletes had taken the marathon and 28 other gold medals. The Americans had won only 20, including women's golf; but they had bettered their great showing at the first Olympiad in 1896, and Frank Jarvis had won the emblematic 100-meter dash.

> Eating is very expensive here. . . . One can just manage to get one's fill for a franc.[10]
>
> —Paula Becker

At Maxim's, the luxurious café near the fairgrounds founded in 1892, champagne flowed for the Fair's opening, while the more disdainful voices of the avant garde could be heard in Le Départ on the threshhold of the Latin Quarter, the Sélect in Montparnasse, the Deux Magots and the Café de Flore in St. Germain-des-Près. In Montmartre the old Chat Noir had finally closed in 1898, its shy pianist, Erik Satie, self-exiled to the Arceuil suburb; but other alumni like Alphonse Allais and Jules Renard were still entertaining Paris with absurdist humor, and Albert Robida, who had put on the Chat Noir's precinematic "shadow-theater," was emerging as one of the Fair's stars for his plaster reproduction of medieval "Old Paris" on the right bank near Alma Bridge. In any case, the Montmartre cabarets, weird and legion, were very much in business in 1900. Aristide Bruant, his anarchism mellowed a bit, still held forth at the Mirliton. Frédé's café, the Zut (Damn), and Adèle's Lapin A. Gill (Gill's Rabbit—the old Cabaret des Assassins) sold drinks for twenty-five centimes or less, and it was still under fifty centimes to go to the Quat'Z'-Arts or the Moulin de la Galette. At the Moulin Rouge (two francs), open in Montmartre since the last World's Fair, the dwarfish figure of Count Henri de Toulouse-Lautrec could be seen, joking over a drink about his recently concluded stay in the Neuilly alcoholism clinic. The Moulin's great cancan dancer, La Goulue, had gone out on her own in 1895, and the minuscule Count had painted some flats for her performing booth far from Montmartre and from the Fair. There at the Trône fairgrounds Lautrec was to see her for the last time, in the late September of the World's Fair year, her figure raddled, "living between a stray dog and a tame swallow." Montmartre was the place for dancers. There were even two circuses in Montmartre, the Nouveau Cirque and the Cirque Médrano (formerly the Fernando). In the same neighborhood, a Dutchman named Kees Van Dongen, who that March had come to Paris to stay, was cadging food. Five years later wildly colored paintings by him would hang with Matisses, Dufys, and Derains in the famous "Fauve" room at the Salon des Indépendants.

In the age of limelight, the theaters were open too, in every sense of the word. It depended entirely on your subscription, or your aesthetic—or both. If you were ready for anything, the Théâtre de la Gaité would produce it, from the most paper-thin farce to the strangest novelty. In the spring of 1894, the Gaité had reluctantly allowed itself to be hired for a play called *Axël*. The author, Villiers de l'Isle-Adam, had died some years before, vainly trying to produce it. ("Living?" says Axël in the last act "Our servants will do that for us.") If you liked short pieces strung together (this would soon get the name vaudeville) you could go to the Folies-Bergère, the Olympia, the risqué Eldorado, or the Eden-Théâtre, where Yvette Guilbert sang songs and "said" monologues. If you preferred Sarah Bernhardt, you could go to the Théâtre Sarah Bernhardt and see her play, *en travesti*, the lead role in *Hamlet*. If you favored realism or naturalism, you might have felt a bit at a loss between 1894, when André Antoine closed his Théâtre Libre (where "modern" theater was said by so many to have begun in 1887), and 1897, when he reopened his place as the Théâtre Antoine; but there were plenty of slice-of-life plays in the interim, and in the end Oscar Méténier hired a chapel and opened the Théâtre du Grand Guignol especially for blood, gore, and terror. Connoisseurs of magic went to the Théâtre Robert Houdin, where director George Méliès worked little miracles with the new lighting and stage machinery, and indulged a growing fascination with the movies. Occultists not on call at the Rose + Croix chapel of Joséphin "Sâr" Péladan went to the Théâtre la Bodinière, where in 1899 Mina Mathers had staged *Rites of Isis*, somewhat disconcerting her brother Henri Bergson. Symbolists with subscriptions gathered to see symbolist plays at Paul Fort's Théâtre d'Art, now renamed the Théâtre de l'Oeuvre and run by a mad impresario with the improbable name of Aurélien-Marie Lugné-Poë. At this theater symbolists could hobnob with anarchists. On the night of December 10, 1896, at the Nouveau Théâtre in Montmartre, Lugné-Poë had staged one of the great scandals of the history of French theater, *King Ubu*, by Alfred Jarry, in which a royal figure waddles on stage in Act One, Scene One, and says, "Shit!" (Jarry had tried to establish a certain distance by adding an extra consonant to the word; but everyone heard "shit" just the same.) A week later, Lugné-Poë had calmly opened a medieval fantasy by Maeterlinck at the Théâtre de l'Oeuvre.

On the Champs Elysées in May, just north of the fairgrounds, a theater was opened especially for one performer, the extraordinary dancer Loïe Fuller, late of Fullersburg, Illinois, and her company of women. On a stage illuminated from every direction by the new electric light (in 1898 she had written to Marie Curie asking whether radium would work as theater lighting) Fuller spun herself and the various parts of her thin, loose robes, catching the reflections, and looking for all the world like the fluid vortex in some strange apéritif. This was art-nouveau dancing, "modern style" as some Germans called it; but in America, you

simply called it "skirt-dancing." Fuller's breakthrough solo, "Serpentine," had been developed not long after her New York début in 1890. Mallarmé had been delighted by it when he first saw Fuller at the Folies Bergère in 1893. "La Loïe" was filmed in 1895. By the time she opened on the Champs Elysées in 1900, Raoul Larche and Koloman Moser were trying to capture her in bronze, but the continuity of her performance seemed to defy anything but film.

From London, where she was dancing "Spring Song" in bare feet, a twenty-two-year-old Californian named Isadora Duncan arrived to join her brother at 4, rue de la Gaité and see La Loïe for herself. Fascinated, she went backstage, and soon accepted Fuller's invitation to join the troupe. Isadora's stint with the Fuller company was brief—as a militant heterosexual, she felt a bit out of place—but the lessons about choreography and publicity were forever.

For Ruth Dennis of Somerville, New Jersey, a year younger than Duncan, the trip to see La Loïe and the Great Exhibition was no less educational. Dennis came in the summer, following her run in the London tour of David Belasco's *Zaza,* and Loïe's work delighted her. When *Zaza* returned to New York and Dennis to Brooklyn, the stage was set for her eventual transformation into Ruth St. Denis. Fuller, Duncan, and Dennis were not the first dancers—and would certainly not be the last—to remake themselves in Paris. Vaslav Nijinsky, Irina Pavlova, and their fellow performers of the Russian classical ballet, for example, would be transformed into the avant-garde Ballets Russes by six successive seasons in Paris starting in 1908; and Josephine Baker, born on the wrong side of the tracks in St. Louis in 1906, would debut as an exotic in Paris in 1925. In the end, however, Paris's most notorious dancer would be its least revolutionary. Margaretha Geertruida Zelle MacLeod was a Dutch single mother who came to Paris in 1903 to launch herself as a model, only to be turned down by the first painter she went to because he found her breasts too small. At that MacLeod, too, became a dancer, the talk of a certain *haut monde* at whose parties, wearing nothing but the predecessor of the brassiere, she danced things vaguely East Indian and called herself Mata Hari.

Not all the Americans in Paris in 1900 were dancers. Did Isadora Duncan notice another woman who had grown up in her old home town of Oakland, William James's young psychology student Gertrude Stein? Stein passed through Paris for the first time that summer, touring with her brother Leo and Mabel Weekes, the girlfriend through whom, a few months later, Gertrude was to meet May Bookstaver, her first love. Did Gertrude notice the distinguished-looking black man with the goatee, who had traveled to the Fair in steerage to install his grand-prize-winning exhibit on black economic development? He was William James's old philosophy student, W. E. Burghardt Du Bois of Great Barrington, Massachusetts, who would go on to the Pan-African Congress in London that year and would, a decade later, found the NAACP. James himself might have introduced them, but he was skirting Paris, resting in European health spas and trying to finish *The Varieties of Religious Experience.* Did Natalie Barney of Philadelphia, the future lesbian militant who caught the eye of Colette in the Bois de Boulogne that summer, also catch the eye of Stein or Duncan?[11] Or that founder of American art photography, Edward Steichen? Or the bald and dignified Bostonian, Henry Adams, who had moved into a hotel near Trocadéro Palace on May 12, hoping to make sense of the twentieth century? The Trocadéro, across the Seine from the Eiffel Tower, was the center of a vast French colonial exhibit that included Cambodian temples and North African villages, and would soon house a permanent ethnographic museum of "primitive" and colonizable peoples. Adams made no mention of the colonial exhibit, but at sixty-two, he belonged to a generation sensitized against racism. Radioactivity baffled him, and even the art officially exhibited at the fair was not to his liking. Still, he knew a historic event when he saw it.

> Scores of artists,—sculptors and painters, poets and dramatists, workers in gems and metals, designers in stuffs and furniture,—hundreds of chemists, physicists, even philosophers, philologists, physicians and historians,—were at work, a thousand times as actively as ever before, and the mass and originality of their product would have swamped any previous age, as it very nearly swamped its own.[12]

Little did he know what was really being prepared in Paris for his swamping; though he may have got an inkling in July, when Samuel Langley, confident that he would soon invent the airplane, showed Adams the colossal electric dynamo in the industrial exhibition hall. As he fought the urge to pray to it, Adams thought, so much for Mont Saint-Michel and Notre Dame.

But the old gave way to the new in unexpected ways. In his mother's house at 9, boulevard Malesherbes, a breathless young dilettante named Marcel Proust was finding his long, slow, strange way to a novel by translating John Ruskin's paeans to Gothic style for the *Figaro* and the *Gazette des beaux-arts.* Like so many real Parisians, Proust left town just before the Fair opened, spending that spring retracing Ruskin's footsteps in Venice. In Paris, literature still mourned the death of Mallarmé in 1898, but the newest and youngest of his disciples were about to be heard from. On February 1, 1900, one of them, André Gide, took over from Léon Blum as literary critic of the *Revue blanche,* the most influential desk on what was then France's most influential avant-garde review. Founded and subsidized by the Natanson brothers, it had published

everything from Jarry's *Ubu,* Teodor de Wyzewa on Walt Whitman, Mallarmé on theater, and Félix Fénéon on Van Gogh to Paul Signac's famous definition of post- or "neo-impressionism." On March 19, Signac and Fénéon had opened a Seurat exhibition in the *Revue*'s reception rooms, whence the great canvases, from *Une Baignade* to *Le Cirque,* had finally been sold. As for Gide, by 1900 he had published books in every genre, and by 1913 he would be a dean of the French literary world, just powerful—and foolish—enough to turn down Proust's *Remembrance of Things Past* for publication without reading it. On the last day of May 1900, he went not to a desk but to the church of St. Honoré d'Eylau, north of the Trocadéro, where he and his old friend Pierre Louÿs were to stand witness to a wedding. Gide had introduced Louÿs to Mallarmé, and almost everyone at St. Honoré was veteran of Mallarmé's Tuesday salon, except Pablo Casals, who had played his cello at the engagement party five days before. As for the groom, he was Paul Valéry, who was then trying to decide between mathematics and literature. Louÿs had introduced him to Mallarmé's poetry ten years before, and Valéry would eventually succeed to Mallarmé's eminence as the most deliberate, hermetic, and challenging French poet of his time. There was a German poet who would one day be matched with him, Rainer Maria Rilke, but Rilke was touring Russia that May. He would not get to Paris until 1902, to write about the sculpture of Auguste Rodin, and was not to find out about Valéry until 1921.

The best-selling book of 1900 was nothing so daunting, however. It was a new novel called *Claudine à l'école* (Claudine at school), equally titillating but considerably more upbeat than its competition, *Journal of a Chambermaid,* by the surviving Decadent Octave Mirbeau. Supposedly it was by "Willy," Henri Gauthier-Villars, whose attacks on Dreyfus had just cost him his job as music critic on the *Revue blanche.* "Willy" used to say that the young wife he had imported from Burgundy in 1893 and kept carefully housebound in Paris had helped by telling him "the most delicious things about her school." In fact, it was precisely his wife, Sidonie-Gabrielle Colette, who had written the book, and to Willy's order in the first year of their marriage. For years, until Colette finally left him, they kept the secret: not an easy thing for Colette, since her creation became so famous in 1900 that people used to say Claudine was better known than anyone except God and Dreyfus. *Claudine à l'école* sold 40,000 copies in two months, and became one of the first successful media tie-ins in publishing history. Stores all over Paris were selling "Claudine" lotion, "Claudine" ice cream, "Claudine" hats and collars, "Claudine" pefume, "Claudine" cigarettes. There were postcards with Colette's picture dressed as Claudine, and at the Samaritaine department store, you could even get "Willy" rice-powder.[13] Just the thing for the summer of the Fair.

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The weather that summer was particularly beautiful. The senior innovator of French music, Gabriel Fauré, was rehearsing three separate bands in the open-air ampitheater at Béziers in the south to première his new opera, *Prometheus.* As always, painters who could manage it left Paris for places where nature came on stronger. The young and obscure either went back where they came from or made do with the valley of the Seine outside Paris. Paula Becker's friend, Otto Modersohn, came to Paris, but was almost immediately called back to Worpswede to attend his dying wife. Maurice de Vlaminck, whose small income came variously from competitive cycling, contributions to left-wing papers like *La Revue anarchiste,* and playing in a gypsy orchestra at the Great Exhibition, painted where he lived, on the banks of the Seine at Châtou. That meant a lot of commuting. Sometime in June or July, the train that took him to Paris went off the rails, and in the confusion he met a fellow commuter for the first time. This was Matisse's friend André Derain, who was studying his craft at one of Paris's many studios. They made a date to paint together the next day, and within the year they were sharing a studio in Châtou and experimenting with the flat planes of increasingly brilliant colors that would be christened fauvism in 1905.[14] At about the same time Becker, who had, without ever meeting them, learned the same new way of painting, returned to Germany to sit in the claypit at Worpswede, read Hamsun, and absorb the lessons of Paris at leisure.[15]

> I *love* color. It must submit to me.[16]
>
> —Paula Becker

As summer went on, Paris emptied of painters and began to fill up with professors. The great international scholarly associations, most of them formed only during the past decade, had arranged to have their conventions coincide with each other, and with the Great Exposition itself. A special building had been built for them on the right bank, downstream from the Horticulture greenhouses next to the Alma Bridge. The homeopaths and battleship designers had already met there in July; but August was when the Thirteenth International Congress of Medicine planned to bring Santiago Ramón y Cajal to Paris and give him its 5,000-franc prize for the most significant work since their last conference in Moscow. The most abstract thought also waited for August. The International Congress of Philosophy was scheduled to take place August 1–5. Mathematics would follow immediately on the 6th, simultaneously with physics. Electrical engineering (like the Society against Tobacco Abuse) would meet last, from the 18th to the 25th. Addressing or attending all four conferences was France's senior polymath, Henri Poincaré, whose clear and graceful essays stood on Paul Valéry's night table next to Cantor's papers on set theory. Poincaré had made fundamental contributions to the epis-

temology of science, the logic of sets, the mathematics of function theory, the old physics of gravitation, and the new physics of electrodynamics. A paper Poincaré published in 1895 had helped invent a new branch of geometry to deal with continuity in the abstract, which he called *analysis situs* or topology. The third and final volume of his monumental *Celestial Mechanics,* building on the great works of the French Newtonians Laplace and Lagrange, had just come out, with the foundation of the future "chaos theory" buried in it.[17] As each of the great discoveries made by his guests in Paris was announced to the world, Poincaré was there to explain and promote it. His address to the physicists on the relations between the experimental and the theoretical was among the first to question the existence of the ether.[18] He was there in the audience with Max Planck as Planck's Berlin colleague, Willi Wien, questioned Planck's radiation theory, and Otto Lummer explained, in French, the odd new results he had begun to get that spring in his black-body experiments.[19] For Poincaré, physics, philosophy, and mathematics were all approaches to the same great questions. It would hardly be his fault if at these conferences he so often missed the trees for the woods.

The Congress of Philosophy, in fact, proceeded to try to define the foundations of mathematics. A phalanx of Italians, led by the amiable Giuseppe Peano, descended on the Palace of Congresses with papers about reducing geometry to three undefinables and discussing whether "definable" was definable. Peano himself gave a paper on August 3 describing the power of his new notation for a symbolic logic of propositions (a sort of logical algebra), and a stab at the long-sought definition of number. The talk overwhelmed a twenty-eight-year-old Englishman named Bertrand Russell. He and Alfred North Whitehead had come on the invitation of Louis Couturat, Russell's correspondent about Cantor's sets and the foundations of geometry, and author of what in 1896 was the definitive study on the mathematical infinite. Russell's conference paper was about what "between" and other positional concepts might mean (a Dedekind sort of question), but Peano seemed to have all the answers. "I observed," wrote Russell, "that he was always more precise than anyone else, and that he invariably got the better of any argument upon which he embarked. As the days went by, I decided that this must be owing to his mathematical logic."[20] Thereupon Russell went to Peano and asked for copies of everything he had written. The day the Congress closed, he went home to Fernhurst to apply Italian methods to the foundations of arithmetic, missing not only the final philosophers' coffee at the Café Voltaire but also the first meeting of the Second International Congress of Mathematics on August 8. As we shall see, the work led him to the discovery of the first of the new century's daunting list of logical undecidables, and demolished one of the foundations of nineteenth-century thought.

At the Mathematics Congress, which almost instantly withdrew fron the Palace of Congresses to the more familiar precincts of the scienc Faculties (not far from where Marie and Pierre Curie tended their vat of uranium salts), the keynote address was given by Germany's greates mathematician, David Hilbert of Göttingen. Like Poincaré, Hilbert wa one of the last mathematicians in history who could see the subjec whole, and he seized the opportunity provided by the new century to propose its agenda. There were, he told the Congressists, twenty-three outstanding problems in mathematics in 1900, and their solution would be the business of the twentieth century. He was very nearly right. Of the twenty-three "Hilbert Questions," twenty have been either solved or otherwise disposed of, and little has been done in twentieth-century mathematics that has not been related to their solution.[21] All of Axiomatic Set Theory has come out of attempts to answer Hilbert's first Question, which was none other than Cantor's Continuum Problem. The theoretical invention of the computer came in an attempt to answer the Tenth Question, which had asked for proof positive that you could always decide whether a certain kind of equation was solvable and decide it in a finite number of steps. There turned out to be no such proof, because, in fact, there is no such decidability. Hilbert's declaration, "There is always a solution. There is no ignorabimus," and Poincaré's reply, "today absolute rigor has been attained," have the fragrance now of pressed flowers from the old century. When mad Nietzsche finally died of tertiary syphilis in Weimar on August 25, he too seemed like a nineteenth-century figure. Only later would thinkers realize how much he had claimed we did not and could not know.

In the Worpswede art colony, where Rilke had spent September talking art and idealism and casting his spell over Clara Westhoff, Paula Becker was falling in love with the widower Otto Modersohn, and he with her. As Remy de Gourmont wrote that year in an essay called "La Morale de l'amour" (The morality of love), loves born of idealism have unpromising futures.[22] Rilke and Westhoff were lovers by February 1901, married that spring, parents by December, and separated within the year. Marriage to Modersohn soon got in the way of Becker's originality, not to mention her painting trips to Paris.

At the end of the first week of September, the great International Congress on the Rights of Women was gaveled to a close, and the painters began to return to Paris. Out on the Channel coast, three ambitious Normans—Raoul Dufy, Othon Friesz, and a powerfully built youth named Georges Braque—got on the train for the center of the art world. Two future fauves for Montmartre, and one cubist. In October, a small Spanish teenager with enormous black eyes, fresh from his first local one-man show in February, decided to see what his prizewinning picture looked like on the wall of the Spanish exposition at the Grand Palais. In the

bargain, he would at last see the city where most of his Catalan friends were getting their cues—Paris, the European center of artistic and political anarchism. He got on a train in Barcelona with his best friend Carles Casagemas, and jolted through the Pyrenees in a third-class carriage. When they arrived at the d'Orsay station (today a museum of the art of the old century) with lots of appetite and not much money, they must have made a beeline for Montmartre. Casagemas wrote home on October 25 that they liked the Clichy cabarets, but couldn't afford to stay long at hotels like the Nouvel Hippodrome and had jumped at the chance to take over a cheap studio their compatriot Nonell was vacating at 49, rue Gabrielle.[23] This forgettable Montmartre address thus became Pablo Ruiz's first studio in the city that would turn him into Picasso. *The Last Moments* doubtless pleased him up on the wall, and so did his luck. He found an agent, Pere Mañach, who wasted no time in putting a few of Picasso's bullfight pastels in with the marvelous Gauguins and Van Goghs at Berthe Weill's gallery in the rue Victor Massé in Montmartre. Three of them sold in three weeks. There was a Seurat show over at *La Revue blanche,* but Seurat was dead, and Lautrec was still alive. Picasso went to meet him, painted a Lautrec-like café scene, and sold that, too, to the left-wing editor of the *Dépêche de Toulouse* for 250 francs. It was enough for a night or two at the brothels on the rue de Londres, with perhaps some laughs at the expense of the legislators running this year's big campaign to regulate prostitution and prevent syphilis. Picasso, who could offer women little more than a vast and appreciative appetite, watched disapprovingly as Casagemas slowly began to fall for a semiprofessional named Germaine Gargallo.

After more than 50 million visitors, the Fair closed on November 12. Stein went back to Johns Hopkins resolved to start an affair with May Bookstaver. Henry Adams packed his trunks for Washington. It was a Paris autumn, no different from those that had inspired Laforgue in the 1880s:

> Where can one sit? The park benches are dripping and wet;
> The season is over, I can tell it's true;
> The woods are so rusty, the benches so dripping and wet,
> And the horns so insistent with their constant halloo![24]

On the last day of November, Oscar Wilde was found dead in his hotel room. Much that he represented had died with him, including the lush "decadent" style of the 1890s, but Wilde's delight in contradiction and paradox lived on in the young Frenchmen he had met in Paris, like Jarry, Louÿs, and Gide. As for his *Salomé* and other symbolist plays and poems, their future would lie with composers like Richard Strauss.

Or the thirty-eight-year-old Claude Debussy. He was very good, but almost unknown. His opera of *Axël* had never been produced, and only his short *Prélude* to Mallarmé's *Afternoon of a Faun* (1894) had given the Paris musical public any idea of his colossal originality. His friend, the ubiquitous Pierre Louÿs, was doing his part by inviting Debussy home to lunch, and had introduced him that fall to Valéry. In return, Debussy had been setting Louÿs's 1894 book of poems, *Les Chansons de Bilitis.* On December 9, the beginning of the concert season, Claude Debussy saw the première of two of his orchestral *Nocturnes.* In *Nuages* (Clouds), a pentatonic tune seemed to move through assorted minor keys suggesting an impressionist seascape. In *Fêtes* (Festivals) the World's Fair found its musical commemoration. Ethereal themes represented the illuminations (and perhaps the new generation) in triple and quintuple meter, while a brass band playing patriotic chestnuts in 4/4 time seemed to wander tactlessly through them, its predictable chords clashing with the new harmonies everywhere until the end. In the first week of February 1901, as the season was ending, Debussy would première yet another piece, the finished first section of the *Chansons de Bilitis.* That same week Gabriel Fauré would see the first Paris performance of his *Pelléas et Mélisande.* Debussy's own *Pelléas,* begun in 1893, would definitively establish his reputation in 1902; but the *Revue blanche,* avant-garde as always, had given Debussy the column Willy used to write on music in 1901.

On December 20, Picasso, Pallarès, and Casagemas got on the train to return to Barcelona. Though Germaine had cooled to Casagemas, it had taken his two friends some doing to convince him to leave her behind (they had even visited the terminal syphilis ward at the Saint-Lazare Hospital), and their work wore off as the train journey wore on. Casagemas went as far as Picasso's parents' home in Málaga, but then he turned around and took a train back to Paris. With a shrug, Picasso went back to work. In February, he got word announcing that Casagemas had pulled out a revolver in the Hippodrome café, shot vainly at Germaine, then put the barrel to his head and killed himself. Picasso was devastated. His first "blue" paintings followed, eventually including *The Burial of Casagemas* and the huge canvas of his friend and a woman that expressed Picasso's new understanding of the relation between sex and death, *La Vida* (Life).

Like so many others, however, Picasso could not stay away from Paris. He was back in June 1901, skipping a show of his work in Barcelona in order to enjoy his first one in Paris among the Cézannes at Vollard's. It was then he met the poet Max Jacob and discovered how cheap the beer was at the Zut. He was back again in October 1902, to see his second Paris one-man show at Berthe Weill's, and to visit a painter friend named Paco Durrio who had a studio near the galleries in a ramshackle building at 13, rue Ravignan. There Paco and Picasso found themselves

discussing Gauguin far into a December night, and when Picasso came back to Paris for good in the spring of 1904, it was to live and work where Durrio had.

> [T]his Paris is a city and I am not here for the last time.[25]
>
> —Paula Becker

Far to the east, Paula Modersohn-Becker couldn't stay away either. Each New Year and each February 8 (her birthday) Paris seemed to beckon. With Otto's permission, she went to study in Paris for February in 1903, and again for February and March in 1905. On February 23, 1906, she left her husband without permission, intending never to come home again; but Otto followed her to Paris that fall and managed to change her mind. In March 1907, she said goodbye to the Cézannes in the Collection Pellerin and went home with her husband. She was pregnant. In November of 1907, the year Picasso broke through into the artistic realms Becker had always been headed for, Paula Modersohn-Becker died of an embolism brought on by the birth of her first child.

> It's like being a child who wishes to be big and grown up, the fact of adulthood has long since lost its excitement. That is why my stay in Paris was such a happy one. I had such strong hopes.
>
> —Paula Modersohn-Becker[26]

11 HUGO DE VRIES AND MAX PLANCK

THE GENE AND THE QUANTUM

1900

The last year of the nineteenth century began on January 1, 1900. The "civilized" world, less numerate than it thought it was, celebrated the beginning of the twentieth century on that New Year's Day; but it was not so far wrong. Two of the most fundamental scientific discoveries of the new century would be made in 1900. One of them, the quantum of energy, would be found by a physicist so conservative he had devoted his whole career to "finishing up" thermodynamics by ridding it of the last trace of statistical uncertainty. The other, the gene of heredity, had already been found by a physics teacher, a part-time biologist who had devoted seven years of his life to a statistical study of garden peas. The discovery of the physicist would be announced at the very end of 1900 by the physicist himself, Max Planck, forced by the results of a new set of experiments to make a strange new assumption. The discovery of the physics teacher would be announced when 1900 began, and the teacher himself, Gregor Mendel, had been dead for fifteen years. It was one of the classic cases of an idea whose time had come.

Father Gregor, born Johann Mendel, was a peasant boy from Moravia, the same Habsburg backwater as Freud and Husserl. His brains had earned him a chance at a university degree, but in 1843, instead of completing physics, he had become a monk. Seven years later, after a year teaching science as a high school substitute, he went to the University of Vienna to try again. He had been a teacher for seven years when he failed his second teacher exam in Vienna in 1856. There is no way of knowing how that failure affected him; but we do know that almost the first thing he had done after coming home to Brno, a provincial town in what is now the Czech Republic, was to begin collecting carefully chosen examples of *Pisum sativum*—garden peas—to plant in a special section of his monastery garden. For seven years thereafter he had controlled their pollination, cultivated and cross-fertilized six generations of their offspring, carefully

cluding Jews. Ternon, "Il s'agit bien d'un génocide," *L'Histoire* 187 (April 1995), 42–43.

NINE

1. Freud to Wilhelm Fliess, 4 January 1899, in Freud and Fliess, *Correspondence*, ed. J. Masson (Cambridge: Harvard University Press, 1985), 338.
2. Freud, "Über Deckererinnerungen" (Screen memories), *Monatschrift für Psychiatrie und Neurologie* 6, no. 3 (September 1899), 215–30; in *The Standard Edition of the Complete Psychological Works of Sigmund Freud* [hereafter *StdEd*, with volume and page numbers], ed. J. Strachey (London: Hogarth, 1953–1974), vol. 3.
3. Freud, *The Interpretation of Dreams*, in *StdEd*, 4:136–37, 192–93, 216, 229, 230, 239, 337, 424–25.
4. Ibid., 4:249–50.
5. Ibid., 4:97, 152, 193, 196–98, 275, 398n; 5:440, 447–48, 475.
6. Freud, *New Introductory Lectures* (1932), in *StdEd*, 22:22.
7. Sigmund Freud to Wilhelm Fliess, 1 February 1900, in Freud and Fliess, *Correspondence*, 398.
8. *The Letters of Sigmund Freud and Arnold Zweig*, ed. Ernst Freud, trans. E. and W. Robson-Scott (New York: Harcourt, Brace and World, 1970), 23.
9. Freud, *The Interpretation of Dreams*, in *StdEd*, 5:481.
10. Ibid., 4:212.
11. The indispensable work on Freud's training in the materialist neuroscience of the nineteenth century and his work as a histologist and neuroanatomist is Frank J. Sulloway, *Freud, The Biologist of Mind* (New York: Harper Paperback, 1983).
12. Freud, *The Interpretation of Dreams*, in *StdEd*, 5:422.
13. Ibid., 4:206.
14. Ibid., 5:450.
15. Forel, in *Clark University 1889–1899 Decennial Celebration* (Worcester, Mass.: Clark University, 1899), 412–13. Forel called Breuer and Freud's a "doctrine of arrested emotions, which, unfortunately, was developed into a one-sided system."
16. Ramon y Cajal, in *Clark University 1889–1899 Decennial Celebration*, 320.
17. Forel, ibid., 410.
18. Freud, *The Interpretation of Dreams*, in *StdEd*, 4:111, 115, 117.
19. Ibid., 4:206. The cocaine episode is documented conveniently in *Cocaine Papers: Sigmund Freud*, ed. R. Byck (New York: Meridian, 1974).
20. Freud, *The Interpretation of Dreams*, in *StdEd*, 4:111.
21. Ibid., 4:170.
22. Ibid., 4:195.
23. Ibid., 4:195, 5:469.
24. Ibid., 5:437.
25. Ibid.
26. Ibid., 5:527, 531. "Act as though, for instance, you were a traveller sitting

next to the window of a railway carriage and describing to someone inside the carriage the changing views which you see outside." Freud, "On Beginning the Treatment," in *StdEd*, 12:135.
27. Report of Josef Breuer's discussion on 4 November 1895 of Sigmund Freud's papers, "Über Hysterie" (14, 21, 28 October), *Wiener Medizinische Presse* 36 (1895), 1717.
28. Freud, *The Interpretation of Dreams*, in *StdEd*, 5:483.
29. Ibid., 5:480.
30. Ibid., 5:525.
31. Ibid., 4:318.
32. Jeffrey M. Masson has been first and foremost in advancing this view of the crucial turn in Freud's thinking. See his edition of Sigmund Freud and Wilhelm Fliess, *Correspondence*, ed. J. Masson (Cambridge: Harvard University Press, 1985).
33. Freud, *The Interpretation of Dreams*, in *StdEd*, 4:260, 262, 263.
34. Freud to Fliess, 6 August 1899, in Freud and Fliess, *Correspondence*, ed. J. Masson, 365.
35. Freud, *Analysis, Terminable and Interminable*, in *StdEd*, 23:245.
36. Freud, *The Interpretation of Dreams*, in *StdEd*, 5:453.
37. An almost Freudian uncertainty about the possibility of agreement on Freud's legacy recently (December 1995) forced the U.S. Library of Congress to cancel an exhibit on Freud. For a current snapshot of the Freudian thicket see Frederick C. Crews, *The Memory Wars: Freud's Legacy in Dispute* (New York: New York Review, 1995).

TEN

1. Paula Becker to Otto Modersohn, 30 December 1899, in Paula Modersohn-Becker, *Letters and Journals* (Evanston, Ill.: Northwestern University Press, 1990), 144.
2. Paula Becker to her parents, 1 January 1900, ibid., 151.
3. Paula Becker, *Journal*, ibid., 152.
4. Paula Becker to her sister Milly Becker, 29 February 1900, ibid., 167; to her parents, 13 April 1900, ibid., 179.
5. Though Matisse would not have been from Becker's classes at the Académie Colarossi, described in letters to Milly Becker and to Otto and Helen Modersohn, ibid., 168, 170.
6. Clara Rilke-Westhoff, "A Recollection," ibid., 173.
7. Strindberg to Claes Looström, 15 October 1883, in *Strindberg's Letters*, ed. and trans. Michael Robinson (Chicago: University of Chicago Press, 1992), 1:117.
8. Eugen Weber, *France, Fin-de-Siècle* (Cambridge: Harvard University Press, 1986).
9. Paula Becker to Otto and Helen Modersohn, May 1900, in *Letters and Journals*, 186.
10. Paula Becker to her parents, 4 January 1900, ibid., 154.
11. Shari Benstock, *Women of the Left Bank: Paris, 1900–1940* (Austin: University of Texas Press, 1986), 82–83.

12. Henry Adams, *The Education of Henry Adams* (1907), in Adams, *Novels, Mont Saint Michel, The Education* (New York: Library of America, 1983), 1088.

13. Allan Massie, *Colette* (New York: Penguin, 1986), 43.

14. In March 1901, Derain would take Vlaminck to the van Gogh retrospective at the Bernheim jeune gallery and introduce him to Matisse.

15. Paula Becker, *Journal,* Worpswede, 2, 3, 5, and 26 July 1900, in *Letters and Journals,* 193–95.

16. Paula Becker, *Journal,* undated, ibid., 152.

17. Henri Poincaré, *New Methods of Celestial Mechanics* (Les méthodes nouvelles de la mécanique céleste, 1892–1899); ed. and trans. Daniel L. Goroff (Woodbury, N.Y.: American Institute of Physics, 1991).

18. Poincaré, "Sur les rapports de la Physique expérimentale et de la Physique mathématique," reprinted in *La Science et l'hypothèse* (Paris: Flammarion, 1902); trans. W. J. G., "Hypotheses in Physics" and "The Theories of Modern Physics," in *Science and Hypothesis* (New York: Dover, 1952).

19. Wilhelm Wien, "Les lois théoriques du rayonnement," in *Rapports du Congrès Internationale de Physique* (1900), 2:23–40; Otto Lummer, "Le rayonnement des corps noirs," ibid., 41–99.

20. Bertrand Russell, *Autobiography* (London: Unwin paperback, 1978), 147.

21. Felix Browder, *Mathematical Developments Arising from Hilbert Problems,* Proceedings of Symposia in Pure Mathematics, vol. 28 (Providence, R.I.: American Mathematical Society, 1974).

22. Remy de Gourmont, "La Morale de l'amour," in *La Culture des idées* (Paris: 10/18, 1983).

23. Carles Casagemas to Ramon Reventós, 25 October 1900, trans. in Marilyn McCully, ed., *A Picasso Anthology* (Princeton: Princeton University Press, 1982), 27–28.

24. Laforgue, "L'Hiver qui vient" (The coming of winter), in *Selected Writings of Jules Laforgue,* ed. and trans. William Jay Smith (New York: Grove Press, 1956), 90.

25. Paula Becker to Otto and Helen Modersohn, May 1900, in *Letters and Journals,* 187.

26. Paula Modersohn-Becker, *Journal,* 2 April 1902, ibid., 275. A year later, in Paris, Rilke wrote for her his great "Requiem for a Friend":

but
then you were in Time, and Time is long.
And Time goes out, and Time fills up, and Time
Is like a relapse in a prolonged illness.

aber
nun warst du in der Zeit, und Zeit ist lang.
Und Zeit geht hin, und Zeit nimmt zu, und Zeit
ist wie ein Rückfall einer langen Krankheit.

ELEVEN

1. "[A]s a rule hybrids do not represent the form exactly intermediate betwe the parental strains." Mendel, "Versuche über Pflanzenhybriden" (Experimen on plant hybrids), *Verhandlungen der naturforschenden Vereines in Brünn* (1865); trans. E. R. Sherwood, in Curt Stern and Eva R. Sherwood, eds., *Th Origin of Genetics: A Mendel Sourcebook* (San Francisco: W. H. Freeman, 1966 9, and Alain F. Corcos and Floyd V. Monaghan, eds., *Gregor Mendel's Exper ments on Plant Hybrids: A Guided Study* (New Brunswick, N.J.: Rutgers Unive sity Press, 1993), 77. Corcos and Monaghan translate Mendel's word *Spaltung* a "segregation" on p. 91. Cf. Stern and Sherwood, eds., *Origin of Genetics,* 15.

2. Mendel, "Versuche . . . ," in Stern and Sherwood, eds., *Origin of Genetic* 11, and Corcos and Monaghan, eds., *Mendel's Experiments,* 82.

3. Mendel, "Versuche . . . ," in Stern and Sherwood, eds., *Origin of Gene ics,* 13.

4. Ibid., 22; and Corcos and Monaghan, eds., *Mendel's Experiments,* 11 The italics are Mendel's own. Ronald Fisher ("Has Mendel's Work Been Redisco ered?" *Annals of Science* 1 [1936], 115–37) tried to show that Mendel's result were "too good" and might have been fudged, but in fact they weren't that goo (Franz Weiling, "What about R. A. Fisher's Statement of the 'Too Good' Data c J. G. Mendel's Paper?" *Journal of Heredity* 77 [1986], 281–83).

5. Mendel, "Versuche . . . ," in Stern and Sherwood, eds., *Origin of Genet ics,* 22.

6. Robert C. Olby, *Origins of Mendelism,* 2d ed. (Chicago: University of Chicago Press, 1985), 102. One offprint was sent to Anton Kerner von Marilaun and two more ended up in the libraries of Martius Wilhelm Beijerinck an Theodor Boveri.

7. Karl Nägeli and A. Peter, *Die Hieracien Mittel-Europas* (Central Europea hawkweeds), 2 vols. (Munich, 1885–89).

8. Mendel's letters to Nägeli are available in Stern and Sherwood, eds., *Origi of Genetics,* 56–102.

9. Karl Nägeli, *Mechanisch-physiologische Theorie der Abstammungslehr* (A mechano-physiological theory of inheritance) (Leipzig: Oldenburg, 1884).

10. E. Posner and J. Skutil, "The Great Neglect: The Fate of Mendel's Pape between 1865 and 1900," in Olby, *Origins of Mendelism,* 216–19.

11. Hermann Hoffmann, *Untersuchungen zur Bestimmung des Werthes von Species und Varietät* . . . , 1869; Albert Blomberg, "Om hybridbildning hos d fanerogama vaxterna" (Ph.D. thesis, Uppsala, 1872); Schmalhausen, "On Plan Hybrids: Observations on the Petersburg Flora" (master's thesis, St. Petersburg, 1874), cited in Olby, *Origins of Mendelism,* 222–26, where it is shown that Darwin read Hoffmann but seems to have missed the reference to Mendel.

12. Wilhelm Olbers Focke, *Die Pflanzen-Mischlinge: ein Beitrag zur Biologie der Gewächse* (Giessen, 1881), 108; trans. Stern and Sherwood, in Stern and Sherwood, eds., *Origin of Genetics,* 103. Like Freud's *Traumdeutung,* Focke's book was available in the year before its printed date of publication. See Olby, *Origins of Mendelism,* 228–29.

13. Carl Correns to H. F. Roberts, 23 January 1925, in Stern and Sherwood, eds., *Origin of Genetics,* 135.