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Leibniz in Paris

I n the early spring of 1672, a German secret agent arrived in Paris. He carried with him a plan that he and his patrons believed could pave the way to peace among nations and eventually return to Europe the religious unity that had been lost with the Protestant Reformation.

It was a grandiose project based on visionary hopes. Although the visit had been approved, even encouraged, by the French, the envoy was uncertain as to what kind of reception to expect. He was new to the diplomatic game and unfamiliar with the ministers with whom he hoped to meet. He must also have been forewarned by his superiors about the pitfalls of making alliances in the volatile political environment of the seventeenth century, and especially with as unpredictable and opportunistic a partner as France. What might be agreed to one day could easily be the forgotten victim of new alliances the next. With the possibility of difficult and protracted negotiations ahead, an extended stay in the city was arranged, and the agent settled into an

apartment on the Left Bank. There was some urgency to his mission, however, as the great powers were once again on the brink of war.

For eighty years, from France's decades of civil turmoil in the sixteenth century through the falling out of the German states between 1618 and 1648—the so-called Thirty Years War—the continent had been wracked by incessant conflict. There were various causes for these hostilities, including domestic political crises; class struggle; territorial disputes; the clash between centralized power and local independence within the Holy Roman Empire (a vast domain extending west to east from France to Poland, and north to south from the Low Countries to the Italian states); and long-standing feuds involving the Empire, France, Spain, Denmark, Sweden, England, the Netherlands, and others. As mercenary armies marched across frontiers and waged their battles with little regard for collateral damage, civilian populations were decimated, crops were ravaged, and the social and economic upheaval made life utterly miserable. The medieval Western world of many small kingdoms, however competitive, violent, and unstable a place it may have been, had given way to the uncertainties of post-feudal society and to the more complicated and destructive rivalries within and among great nation-states.

Gone, too, was the general uniformity of faith that—despite schisms and heresies, as well as the occasional threat of unbelief—had long comforted medieval Europe in the face of violence, pestilence, and other evils. The wars of the late sixteenth and early seventeenth centuries were also, especially in France and Germany, religious wars, the sad legacy of the Reformation. In France, the majority Catholics battled Calvinist Huguenots—a vicious conflict that was only superficially (and momentarily) quieted by the Edict of Nantes in 1598, which granted religious and political rights to the Protestants. In the lands of the Holy Roman Empire, the tenuous unity among the three hundred member-states was undone by fighting among Catholic,

Lutheran, and Calvinist forces. The German troubles were exacerbated by outside meddling: when one side seemed about to prevail, sympathetic factions from elsewhere came to the aid of the other. Thus, in the 1630s, just as Catholic Bavaria and its Counter-Reformation allies were about to overwhelm the Lutheran territories of the north, French, Danish, and Swedish forces intervened on behalf of the Protestants.

Finally, with the land of Europe laid to waste and the warring parties drained of their resources, some degree of order was restored in 1648 with the signing of the Peace of Westphalia. This broad series of agreements was supposed to bring an end to the warfare and introduce lasting peace and stability to the continent. The treaty redrew political boundaries and established new religious ones. The German lands were now self-governing territories, with each to determine its own official religion. (The Peace also thereby initiated the ultimate dissolution of the Holy Roman Empire.)
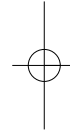
The respite, however, was only temporary, and over the intervening years dynastic rivalry, expansionist desire, and, above all, economic competition fueled a number of relatively short-lived but highly consequential conflicts, particularly among France, Spain, England, and the Netherlands. With the new year of 1672, the one-hundredth anniversary of the beginning of the hostilities that ended with the Peace,[1] Europe seemed destined to endure yet another century of fighting.

As in 1572, everyone's attention was once again focused on a strategically important and highly lucrative corridor of territory bordering the North Sea: the Low Countries, what is now Belgium, Luxembourg, and the Netherlands. The first time around, the attack had been led by Spain, which was seeking to keep rebellious provinces in line. The Hapsburgs, occupying the Spanish throne, inherited these properties of the French dukes of Burgundy in the mid-sixteenth century. But distant Catholic rule did not sit well with the local Calvinist population that dominated in the seven northernmost provinces, and

by the early 1570s the revolt was in full force. Spain responded with a considerable show of strength, and the war lasted eighty years (concluding with the Treaty of Münster, part of the terms of the Peace of Westphalia).

This time, it was France that had made the first move. As one of the superpowers of the period, the Bourbon monarchy represented an effective counterweight to its Iberian Hapsburg archenemy. The aggressive and ever-acquisitive Louis XIV had long been covetous of the southern Low Countries, the Catholic provinces that remained loyal to Spain and were now called the Spanish Netherlands; he wanted to see them restored to French rule. Louis finally invaded Flanders and the other southern provinces in 1667. Then, in alliance with the prince-bishop of Cologne, the prince-bishop of Münster, and the crown of England, the French king turned his sights on what was now the Dutch Republic, the Protestant provinces of the northern Netherlands that, having won their independence from Spain, were currently enjoying their Golden Age.

There were long-standing political and economic grievances between France and the United Provinces, including clashes over trade, territory, and alliances. It was also a classic confrontation between old and new, between Catholic and Protestant, and between royal absolutism and republicanism. While occasionally willing to side with Holland when it suited its geopolitical purposes—for example, in the Second Anglo-Dutch War, in 1665—the long-established French monarchy had little tolerance for the upstart Calvinist republic. It even actively sought to undermine the quasi-democratic federation of equal and independent provinces and replace it with a centralized government ruled by a kinglike figure, one who would serve France as a reliable and like-minded ally in the turbulent political mix of the period. As tensions increased, a number of attempts at a negotiated settlement between the two powers failed. Not one to wait for a diplomatic solution when a military one was at hand, Louis declared war on the Dutch in January 1672.

By the time the German emissary set off for Paris in late March on behalf of his employer, Johann Philipp von Schönborn, the Elector of Mainz, the French army had already crossed the Dutch border. Johann Philipp and other German princes, whose lands were still recovering from the devastation of the Thirty Years War, were worried that they might be next on Louis's agenda. The Elector took the advice of his minister of state, Baron Johann Christian von Boineberg, and sent his young privy counselor to France to see if the Sun King's attention could be turned to other, perhaps more enticing projects.

It was no ordinary diplomat whom the Elector and the baron entrusted with this delicate foreign mission. While inexperienced in foreign affairs and physically and socially awkward, he was gifted in many ways. The twenty-six-year-old man on his way to the French capital was a philosopher-scientist-mathematician of great promise, an individual destined to become a major player in Europe's intellectual life in the seventeenth century. He was, in fact, one of the great geniuses of all time.

Gottfried Wilhelm Leibniz was born on July 1, 1646, in the Lutheran town of Leipzig, part of Saxony. His father, Friedrich, was vice chairman of the philosophy faculty and a professor of moral philosophy at the University of Leipzig. His mother, Catharina Schmuck, was Friedrich's third wife.[2]

Leibniz studied liberal arts at the University of Leipzig and earned his bachelor's degree in 1663 with a dissertation titled *A Metaphysical Disputation on the Principle of Individuation*. Despite his talents for abstract philosophical thinking, he decided on a career in law. After a summer studying mathematics at the University of Jena, he returned to Leipzig to pursue his degrees in jurisprudence. Although Leibniz received the bachelor's degree, the university refused to grant him a doctoral degree, which was required for admission to the university's faculty. The problem had nothing to do with the merit of Leibniz's

work but everything to do with professional rivalries and probably some personal grievances against him. Academia in Leipzig was a highly competitive enterprise, and it seems that more senior candidates for the doctorate conspired to marginalize younger, albeit equally deserving candidates, including Leibniz. There is some reason to believe, moreover, that the wife of the dean of the law faculty took a dislike to Leibniz and influenced her husband against him.[3] Leibniz was deeply stung, but possessed of a restless energy, he did not dwell on the affair. He saw that his future lay elsewhere and simply took his dissertation and moved to the University of Altdorf, where he was awarded a doctorate in jurisprudence in 1666.

By this time, Leibniz realized that he was, after all, not so interested in a university career in a law faculty. He believed that he could pursue his political, legal, and scientific schemes more effectively outside a formal academic setting. He thus turned down the offer of a professorship at the University of Nuremberg and, through the patronage of Baron von Boineberg (whose acquaintance he probably made through an alchemical society to which they both belonged), soon entered the service of Boineberg's once and future employer, the Elector of Mainz. By 1668, Leibniz, while not yet a resident at the court, was already laboring on revisions to Mainz's legal code. In 1670, he and Boineberg moved to Mainz, where Leibniz took up an appointment as the powerful Elector's privy counselor of justice and served on the state's high court of appeals. During this period, he also put in time as Boineberg's personal secretary, librarian, and policy adviser, undertaking for the baron a variety of legal, political, diplomatic, and literary projects. These included cataloguing Boineberg's library and composing arguments to help settle the question (satisfactory to the interests of the Elector and his allies) of succession to the Polish throne, which had recently become vacant after King Johann Casmir's abdication.

It is not enough to say that Leibniz was a man of many interests. He was always thinking and acting well beyond the official jurisprudential and political duties of his position, and his extraordinary intel-

lect knew practically no bounds. He lived by Terence's famous saying *humani nil a me alienum puto* ("I consider nothing pertaining to human affairs outside my domain"). Leibniz was a true polymath, and by the end of his long life he had made substantial and lasting contributions to the fields of philosophy (including metaphysics, logic, ethics, and epistemology), law, politics, mathematics, natural science, linguistics, theology, history, Bible criticism, and even engineering and technology. Both an accomplished scholar and a highly original thinker in his own right, he was a *devoté* of the new but not without a profound respect for the old. He sought, for example, to reconcile the progressive scientific ideas of his contemporaries (such as Galileo, Descartes, and Huygens) with the ancient metaphysical insights of Plato and Aristotle.

During his years in Mainz, Leibniz began work on what he called his "universal characteristic," a so-called "alphabet of human thought." This was a profoundly ambitious scheme for reducing all ideas and reasoning to a single, perspicuous symbolic system. Later in life, he referred to this project as his "universal symbolism . . . in which all truths of reason would be reduced to a kind of calculus."[4] The all-encompassing language and method would eliminate the many sources of confusion and error that he believed derive from our imprecise everyday language, and thus would allow us to achieve the highest degree of certainty in thinking and efficiency in philosophical communication. In this period, Leibniz also started developing his ideas in physics. In 1671, he published his *New Physical Hypothesis*. This treatise is composed of two essays, the "Abstract Theory of Motion" (which he dedicated to the Académie des Sciences, in Paris) and the "Concrete Theory of Motion" (dedicated to the Royal Society, in London). In these and other scientific and metaphysical writings, Leibniz addresses a wide variety of questions, including the nature of matter, mind, and motion; the fundamental principles governing the collision of bodies; and—something that would occupy him throughout his career—the problem of the continuum, or the generation of a

continuous quantity from discontinuous units (such as a line from points, continuous motion from discrete movements, and time from moments). He also wrote on jurisprudential and religious themes (including the immortality of the soul and the resurrection of the body) and on political matters. He even published (anonymously) a satire on Louis XIV and his militaristic ambitions, *The Most Christian Mars*, in which he mockingly "justifies" the French king's aggressive behavior toward his European neighbors by explaining that since the Flemish, Dutch, and German lands lay between France and "the Turks," Louis has first to pass through the lands of these "poor Christians" before attacking the enemy to the east.[5]

Leibniz began by far the greatest and most ambitious of his projects in this period, one that would assume immense significance and consume much energy throughout his life: his self-appointed mission to heal the schism at the heart of Western Christianity. He believed that the issues that divided Catholics and Protestants in Europe at the time were not so insuperable that some common ground could not be found. Much of the problem, he insisted, lay not in basic dogma but in the particular, nonessential beliefs and customs that had developed within each tradition. "Most of the objections that can be made against Rome regard the practice of the people rather than the dogmas," he wrote in 1682.[6] If only one could discover and properly interpret the core beliefs that unite all Christians—and distill them from the layers of ecclesiastic organization, ceremonial observance, and sectarian understanding within which they had become encrusted—there would be a possibility of reuniting the faithful within a single church. Leibniz would begin his reasoning with the Catholics and Lutherans in the German lands, but his hopes extended to a reconciliation throughout all of European Christendom.

It is probably no accident that many of Leibniz's patrons were former Protestants who had converted to Catholicism: Johann Philipp; Baron von Boineberg; the duke of Hanover, Johann Friedrich von

Braunschweig-Lüneburg, whom Leibniz would serve after his Paris sojourn; and Ernst von Hessen-Rheinfels, who in the 1680s played essentially the same role in Leibniz's life as Boineberg does in the pre-Paris period. While Leibniz himself remained a Lutheran throughout his life (although it is unclear how deeply he held his religious beliefs), his discussions and plans with these Catholic authority figures stimulated and sustained his commitment to a grand ecumenical project.

Leibniz believed that with little difficulty, Lutherans could approve the substance of much of what had been proclaimed by the Catholic Church's Council of Trent. Meeting from 1545 to 1563, and acting in response to the threat posed by the Protestant Reformation, this ecumenical body was charged with specifying those doctrines of salvation, sacramental theology, and canon law that constitute the core and non-negotiable principles of Christianity; it also sought to standardize the practice of the Latin Mass, into whose celebration many modifications had been introduced over time. If there were any controversial or ambiguous claims about grace, penitence, justification, or other mysteries arising from the council's deliberations, Leibniz insisted, they could easily be reinterpreted in a way consistent with both Catholic dogma and the principles of the Confession of Augsburg of 1530, which established the articles of faith for Lutherans.

It was an extremely optimistic, even utopian perspective to take. The divide between Roman Catholicism and Lutheranism seemed unbridgeable on many central points. Where the Catholics allowed for salvation through good works, the Lutherans insisted on justification through faith alone. Moreover, Lutherans believed that a human being was completely passive under the influence of grace, while the Council of Trent explicitly condemned this opinion. But Leibniz was nothing if not an optimist. Thus, in the late 1660s and early 1670s, while still at the court in Mainz, and at the urging of the Catholic Boineberg, he began composing a number of theological and religious works devoted not just to refuting atheists and materialists but also to

showing that there is room for essential doctrinal agreement between Catholics and Protestants. He hoped to win approval from the Pope for his philosophically informed but (from Rome's point of view) rather unorthodox interpretations of various Christian dogma, especially those concerning the Eucharist. In writings later collected as the *Catholic Demonstrations*, Leibniz argued for the existence of God and for the immateriality and, consequently, the immortality of the soul. He then showed how the miraculous transubstantiation of the wine and bread into the blood and body of Christ at the moment of consecration could be understood in a way that was both acceptable to Protestants (who rejected transubstantiation, the standard Catholic idea that the substance of the bread is destroyed or removed and replaced with the substance of Christ's body during the Eucharist, albeit underneath the freestanding sensory appearance of bread) and consistent with the Council of Trent's demand that there be a "real presence" of Christ in the host.[7]

Throughout Leibniz's career, much of what he says about God, freedom, grace, and evil—including his claim that ours is the best of all possible worlds—relates to this grand unification project. His choice of correspondents, the content and tenor of his writings, even his residence and travels were often dictated by the interfaith dialogue he sought to initiate and the religious reconciliation he hoped eventually to accomplish.

Mainz was a small town. Despite the presence of the court of the Elector, it was not cosmopolitan enough for a man of Leibniz's ambitions. His gaze, like that of many intellectuals of the time, was directed to the cultural and intellectual capital of Europe: Paris.

Leibniz followed events on the French intellectual scene closely. He sought correspondents in Paris who could enlighten him on current events, recent publications, and the activities of philosophical and

scientific societies. Above all, he had a keen interest in what was happening at the Académie des Sciences. He aspired one day to belong to this young but august body, and the dedication of his "Abstract Theory of Motion" to the Académie was no doubt a ploy to gain its favor. To Leibniz, Paris was "the most knowledgeable and powerful city in the universe."[8] If there was to be any hope of advancing his scientific, mathematical, and philosophical interests, not to mention realizing his dream of ecumenical unity, he would have to find a way to get there.

The opportunity finally arrived with the French invasion of the Netherlands. Even before the attack on the Dutch Republic, Leibniz had been pondering how the German states should deal with the growing French threat. He believed that the best defense would be to send Louis XIV's army on a detour. This would require convincing the king that his real interests lay elsewhere, away from the German lands and from Christian territory altogether.

What Leibniz had in mind was a new crusade against the infidel. This time, however, the target would be not Jerusalem but Egypt. A conquest of that ancient land would benefit not only France, Leibniz intended to argue, but all of Europe. It would bring intramural peace among the Western powers and allow the Christian states to band together and strengthen their defenses against the ever-present Muslim threat from the east, especially the Turks.

Boineberg was very enthusiastic about Leibniz's *Consilium Aegyptiacum*, and he was soon able to enlist the Elector's support for it. He had Leibniz draft a memorandum for the French king that outlined the plan and highlighted its advantages both for France itself—much more effectively than an open war, a successful Egyptian campaign would weaken the Dutch military and economy and render the French "masters of the seas"—and, more momentously, for "the well-being of all humankind."[9] It was a fantastical project—"a bit chimerical," as Boineberg puts it in his cover letter to the French king—but it was, Boineberg thought, the Electorate's best hope.

The French foreign minister, Simon Arnauld de Pomponne, was initially intrigued by the proposition, although he thought that its execution would demand more detail. He discussed the matter with the king, and in a letter of February 1672 he encouraged Boineberg or a representative to come to Paris to present the plan formally.

Boineberg knew that the mission had to be a secret one, lest the Dutch get word of it. He also suggested to Pomponne that it would be best if the author of the project himself came to lead the discussions with the French. Thus, in March 1672, Leibniz was on his way to Paris. In his bag was his "Plan for a New Holy War."

The Paris that greeted Leibniz was not yet Baron von Hausmann's city of grand boulevards. But neither was it any longer the walled medieval town that it had been up through the sixteenth century. In fact, just a few years before Leibniz's French sojourn, the king and his powerful finance minister, Jean-Baptiste Colbert, had decided to remake the city into a modern metropolis. They began by tearing down the medieval ramparts that encased the northern and southern sections of the city—then, as now, divided into Left and Right banks by the River Seine—and replacing them with tree-lined thoroughfares. This allowed the city to flow seamlessly into the *faubourgs*, or outlying residential areas. They also initiated a campaign of monumental architecture in the classical style: grand public buildings, triumphal arches, commemorative statues, and open public squares. The landmark structures of the Collège des Quatre-Nations, Les Invalides, the Observatoire, and the Gobelins all date from this period.[10] In all, Louis and his minister spent over twenty million *livres* on architecture and landscaping for Paris, much of it on the Louvre and the adjacent Tuilleries, despite the fact that the king himself did not much care for the city and far preferred his new and still-expanding home at Versailles. (He decamped from the Louvre, the royal palace adjacent to the river on the Right Bank, in February of 1670, never again to spend another night

there; by 1683, the entire court had moved to Versailles, at a great inconvenience to those who still had to carry out their business in Paris, more than ten miles away.) The result of all this construction was a much more open and navigable city, less dense in its housing and less congested on its byways than the medieval version.

This was the time when Paris became known as the City of Lights, mainly because of the great increase in the number of streetlamps keeping the city illuminated at night. This modern feature—along with broader streets and renovated bridges—allowed for safer passage of the city's thousands of horse-drawn carriages, a relatively recent addition to its transportation system. These luxurious vehicles took their fashionable owners to the city's cultural riches—to the theater at the Palais Royale, where one could enjoy the latest comedy by Molière or tragedy by Racine, or to the recently built opera house, where one could hear the premiere of a new work by Jean-Baptiste Lully, the king's official *compositeur de la musique instrumentale.* Colbert's Paris was an elegant, technologically progressive, cosmopolitan, and aristocratic place. It was also, like any city of its size at that time, poor, dirty, malodorous, and often dangerous.

The royal administration was not only concerned with giving the city a new façade. Following the model of earlier governments, and especially that of Cardinal Richelieu, Colbert and his team also sought to renovate the soul of the city and refine its creative and intellectual life. While Richelieu established the Académie Française in 1635, and the young Louis XIV (at the urging of Charles Le Brun, the official court painter) founded the Académie Royale de Peinture et de Sculpture in 1648, Colbert gave the king's moral and financial support to the Académie des Sciences, officially founded in 1666, as well as to an Académie des Inscriptions et Belles-Lettres (1663) and an Académie Royale d'Architecture (1671). With these institutions in place, Paris quickly became the place to be for anybody in the arts, letters, or sciences.

Leibniz landed in this remade Paris, Europe's undisputed arbiter of

culture, ideas, and taste, on March 31, 1672. He had in hand a letter of introduction from Boineberg to Arnauld de Pomponne. Boineberg praised Leibniz's "fine qualities," and described him as "a man who, while his appearance may not suggest it, can very well carry out what he promises."[11] Boineberg admired his protégé—he later referred to Leibniz as "an inexhaustible treasury of all the most wonderful sciences that a solid mind is capable of mastering"[12]—but as Boineberg's letter suggests, Leibniz did not look the part of a diplomat. He was short and gangly, with a prominent nose overshadowing a thin mouth. His large head was made to seem even larger by an oversize wig, and his gait was anything but graceful. He was impatient with formal etiquette and uncomfortable with the banalities demanded by polite company. By his own admission, he did "not make a very good first impression." Despite all this, he was quite a sociable man who enjoyed good conversation and entertainments—something his success as a courtier would depend on, no matter how ill-suited he may have appeared for the job.

After announcing his presence to Pomponne and thereby discharging himself of his first official order of business, Leibniz wasted no time as he waited for a response from the French court. He was finally in Paris and took full advantage of all the city had to offer. Where he lived upon his first arriving is unknown. It may have been in a community of expatriate Germans in the Hôtel des Romains on the rue Ste.-Marguerite. But by May 1673, he was settled in lodgings in the St.-Germain neighborhood on the Left Bank (what is today the Sixth Arrondissement), on the rue Garancière, just behind the church of St.-Sulpice and around the corner from the Luxembourg Palace. The location was perfect. It was a short walk to the academic world of university faculties and the nearby *collèges*, the Quartier Latin (so called because of the language of instruction), and not far from the French administrative and diplomatic heart on the Île de la Cité and at the Louvre. It also offered convenient access to Paris's cultural offerings.

Leibniz often went to the theater, once catching a performance of one of Corneille's works, and was a great admirer of opera as well.

Upon his arrival, he immediately started taking French lessons. While working in Mainz for the Elector, he must have had some familiarity with French, if only a basic reading knowledge. But he needed to be fluent and idiomatic in the language that was becoming, along with Latin, the lingua franca of the international Republic of Letters. (By the end of his stay, Leibniz said that he had come to "speak in Parisian."[13]) He also studied Greek, with Pierre-Daniel Huet, at that time an assistant tutor to the Dauphin, later the bishop of Arranches and a major figure on the French philosophical and theological scene.

Leibniz also made the rounds of Paris's scientific and philosophical community and sought out the savants who could be of service to his intellectual plans. "Paris is a place where it is difficult to distinguish oneself," he wrote. "One finds here the most expert men of our time, in every kind of science, and it would take a lot of work and a bit of fortitude to make a name for oneself here."[14] The city, he says in a letter to his friend Louis Ferrand soon after his arrival, "is paved with so many learned people," and he regretted the amount of time he had to spend on his official business. "I am reduced to a voluntary hermetic existence, speaking practically to no one aside from two laborers, in the midst of so many great men."[15] Still, life in Paris was not all diplomatic drudgery for Leibniz: when not engaged in what he called *mon affaire*, he attended meetings of the Académie des Sciences in the king's library and mingled with its international cohort of mathematicians, physicists, and astronomers, including Giovanni Cassini, the discoverer of Jupiter's spot and of the gap in Saturn's rings; Otto de Guericke, a fellow alumnus of the University of Leipzig; the Danish astronomer Olaus Roemer; and Claude Perrault, a French doctor and physicist.

In terms of his own development, the most important acquain-

tance that Leibniz made in Paris was the Dutch scientist and mathe-
matician Christiaan Huygens. Huygens had been in Paris since 1666,
brought there by Colbert himself to create the Académie des Sciences.
Leibniz had extraordinary natural mathematical talent but was still a
relative novice in the discipline. Neglecting for a time his other in-
terests, especially those for which he needed more advanced math-
ematical training, he worked closely with Huygens, supplementing
those lessons by reading the mathematical papers of Blaise Pascal,
and quickly gained a solid reputation as a mathematician. "I am at-
tending here neither to jurisprudence, nor to belles lettres, nor to
controversies (things that principally occupied me in Germany), and
instead I have begun basic studies to understand mathematics, in
which I have had the good fortune to discover thoroughly unfamiliar
truths, as letters from the most skilled mathematicians of our time will
attest."[16] Good fortune indeed: by the end of Leibniz's four-year stay
in Paris, he had invented the calculus.

Leibniz hardly ignored his other philosophical and scientific con-
cerns while in Paris. His writings from this period cover a range of is-
sues in metaphysics, physics, logic, and philosophical theology, many
of which continue the lines of thought he had been pursuing while
still in Mainz. In his papers between 1672 and 1676, there is more
work on the problem of the continuum in a variety of domains, as
well as essays on the cohesion of bodies, the nature of the soul, the
cause of motion, the relationship between mind and body, and "the
existence of a most perfect being." Since 1669, Leibniz had also been
concerned with a reconciliation between the new mathematical sci-
ence of nature—devoted to clearly formulated, quantifiable mecha-
nistic explanations of phenomena—and some of the metaphysical
principles of the ancients, especially the dynamic role that, in the Aris-
totelian philosophy, immaterial entities (such as minds or souls) play in
the world of bodies.[17] Moreover, this period marked the beginning of
his long-term concern with the problem of evil and his idea that ours
is the best of all possible worlds. Nonetheless—and this is an indica-

tion of Leibniz's prodigious intellectual energy—as much attention as all of these other questions received, they often took a backseat at this time to his mathematical education.

During his Paris period, Leibniz also made a short voyage to England, in early 1673. There he attended meetings of the Royal Society and made the acquaintance of England's own leading scientists, including Henry Oldenburg, Robert Boyle, and the irascible Robert Hooke—but not, notably, Isaac Newton, with whom Leibniz would soon engage in a priority dispute over the invention of the calculus. Oldenburg, the Society's corresponding secretary, arranged for Leibniz to give a demonstration of the arithmetical calculating machine that he had been working on in Paris. The event was not entirely successful, as Leibniz had some trouble getting the machine to work properly, but that did not prevent the Society from unanimously electing him a fellow in April of that year.

He did not have as much luck with his French scientific colleagues. Despite Leibniz's growing reputation and the evident admiration for him among many of his peers—"Never has a foreigner . . . had a more favorable reception from the people of merit," he wrote in 1672[18]—there was solid resistance to admitting this young German to the king's official body of learned gentlemen. In 1675, Leibniz's nomination for membership to the Académie des Sciences was rejected. The fact that he was not a Catholic did not help his cause. Leibniz, however, believed that his nationality was the true reason for his rejection. He suspected that some of the academicians felt that there were already enough foreign members in the organization. He also blamed the matter on personal animus, as he had the disappointment he experienced at the University of Leipzig; in this case, it was envy over his talents and accomplishments. He did not receive the honor until 1700.

This slight did little to deflate Leibniz's high opinion of himself. While he was capable of self-deprecation before his social superiors, particularly those with whom he wished to ingratiate himself (often for the purpose of financial gain), he was also given, on occasion, to

exaggeration. In a letter of 1675, with only a handful of publications to his name, he nonetheless describes "the renown that I have acquired in the courts of Princes and among a good part of the learned and illustrious of Europe."[19] Leibniz had a robust sense of his own innate talents and a clear idea of what he could, if properly supported, contribute to the good of humankind. Fortunately, his grandiose self-assessment turned out to be correct.

In the end, the Egyptian plan never got very far. It is unclear whether the French king ever gave it a formal hearing; Leibniz certainly never had the chance to present it to Louis directly, and may never even have seen the foreign minister, Pomponne, with whom he had some difficulty arranging a meeting. Besides, with France already in control of a large portion of Dutch territory, an important element of the project was moot (although Leibniz continued to revise the plan to keep it up with current events). Moreover, despite his initial interest in the project, Pomponne soon dismissed the whole idea as ridiculous and anachronistic. As early as June 1672, he declared that "holy wars . . . have been out of fashion since Saint Louis."[20] (Louis IX had died in 1270.)

Leibniz was sorely disappointed. While the Egyptian project was a convenient excuse for an extended stay in Paris, he took it very seriously; it was something he had long worked on and in which he had placed great hope. Still, there were other business matters to attend to. One of Boineberg's other motives in sending his secretary to France was to have Leibniz take care of some of his financial interests there, including the collection of back rents he was owed on several properties. And in November 1672, Boineberg's son, Philipp Wilhelm, arrived in Paris to be tutored by Leibniz. It was not an easy job—Leibniz set up a very demanding daily schedule, but the young man had other things on his mind besides book learning—and Leibniz would soon chafe under these duties.

Then, in December of that year, devastating news arrived. Baron von Boineberg was dead from a stroke. Leibniz was deeply affected by the loss. He called Boineberg "one of the great men of the century," and regarded him not only as his employer but also as a close friend.[21] Boineberg's death was followed just a few months later by the death of their mutual employer, Johann Philipp. With his two patrons gone, Leibniz now was in danger of being cast adrift. While these deaths meant there was less pressure to return soon to Mainz, they also represented the possibility of losing the moral and financial support that would allow him to remain in Paris. Fortunately, the new Elector, Lothar Friedrich von Metternich, saw the advantage of having an agent in the French capital, and he agreed to allow Leibniz to continue on as a kind of cultural attaché who would report back on scientific and artistic matters.[22]

Leibniz loved Paris. He had arrived with enormous expectations, and the city exceeded all of them. It was an exciting environment for him, both intellectually and socially, and his experience there played a crucial role in his philosophical development and in his reputation in the world of ideas. He also enjoyed himself immensely in the French capital and was reluctant to leave. Always seeking to improve his financial condition, Leibniz nevertheless turned down a number of potentially lucrative offers while in Paris—including the positions of secretary to the chief minister of the king of Denmark and counselor to Johann Friedrich, duke of Hanover. Although he had been dismissed as Philipp Wilhelm's tutor by the Boineberg family in September 1674 and his relationship with the family had slowly deteriorated after the baron's death, Leibniz had means enough to linger in Paris for over a year. Eventually, however, he had to face economic reality. In late 1675, in need of a secure position with a guaranteed salary, he agreed at last to serve Johann Friedrich as counselor and director of the ducal library in Hanover. He was supposed to be on duty by Jan-

uary 1676, but succeeded in putting off his departure from Paris—and in testing the duke's patience—for months. Finally, in October, he saw that he could delay no more and took his leave of Paris, never to return.

It is unclear how much of Leibniz's mature philosophy, as appears in his writings from the late 1680s on, was developed during his Paris years.[23] It is certain that a number of central elements of his later thought—metaphysical theses about minds, bodies, and nature; theological theses about God; and moral theses about happiness and human well-being—were already in place at the time. Leibniz may not yet have arrived at his famous "monadology" or mysterious "preestablished harmony"; he was still seeking the ultimate metaphysical truth about the world, unsure about what was really real in things and their relationships. But he had already come to the firm conclusion that, despite the evil and sin that we see around us, regardless of how much suffering and imperfection we encounter, this world of ours is, among all the possible worlds that God could have created, the absolute best—and that God created it for just that reason. It was also in Paris that Leibniz was able, for the first time, to test this cornerstone of his philosophical legacy, for he encountered there a number of philosophers deeply involved in thinking about these very same issues. Some of them challenged his way of thinking about God and evil, and others provided him with tools for precisely formulating his ideas.