

**LEARNED SOCIETIES.** In the era of the Enlightenment, cultural pursuits characteristically took the form of the learned society. This phenomenon grew to the extent that Bernard Le Bovier de Fontenelle labeled his Century the “Age of Academies.” In 1747, the marquis d’Argenson of the Prussian Académie Royale des Sciences et Belles-Lettres elaborated, saying, “Literary and learned Europe now constitutes, so to speak, a single society, united in a common purpose—the progress of the sciences and letters—in which each academy becomes a kind of Congress.” Similarly, in 1763 for Richard de Ruffey, president of the Académie Royale des Sciences, Arts et Belles-Lettres of Dijon, “The academies form various colonies in the Republic of Letters.”

Contemporary learned societies were primarily urban phenomena and took their place alongside other contemporary urban institutions. Eighteenth-century Paris was best endowed with learned societies, embracing the Académie Française (1635), the Académie Royale de Peinture et Sculpture (1648), the Académie Royale des Inscriptions et Belles-Lettres (1663), the Académie Royale des Sciences (1666), and others devoted to architecture (1671), music (1672), surgery (1748), and medicine (1778). London boasted the Royal Society of London (1662), the Royal Society of Antiquaries (1751), the Royal Society for the Encouragement of Arts, Manufactures, and Commerce (1754), and the Royal Academy of Arts (1768). Saint Petersburg, Stockholm, and Copenhagen each possessed national language, fine arts, and science academies. In Madrid, there were learned societies for history, and belles-lettres, and the Real Academia Española de la Lengua, devoted to the Spanish language (1713). The famous Institute in Bologna (1714) incorporated two independent academies: one for the sciences, another for belles-lettres. Less prosperous polities typically incorporated several disciplinary areas within a single learned society, as seen in the many academies of sciences, belles-lettres, and arts that dotted the French provinces, or in Frederick II’s Académie Royale des Sciences and Belles-Lettres in Berlin (1744), which included an extraordinary class of speculative philosophy. In the end, eighteenth-century learned societies incorporated a multitude of different disciplines: archaeology, architecture, agriculture, antiquities, the mechanical arts, economics, history, languages, literature, medicine, music, painting, philosophy, poetry, religion, sculpture, surgery, and the sciences—both in general and focused on particular disciplines, such as botany, cartography, meteorology, or naval sciences.

Contemporary learned societies spread across Europe, from the Kongelige Norske Videnskabers Selskab (1760) in Trondheim in the north to the Reale Accademia delle Scienze e Belle-Lettere (1778) in Naples in the south, and from the Academia Scientiarum Imperialis (1724) in Saint Petersburg in the east to the Academia Real des Ciências de Lisboa (1779) in the west. Learned groups of one sort or another penetrated to virtually every level in the provinces of Europe. The extension of contemporary learned societies beyond the boundaries of Europe and into colonial settings also speaks to the expansive geography of the phenomenon of the learned society in the eighteenth century and to its transnational character. In this regard, consider the American Philosophical Society (Philadelphia, 1768), the Bataviaasch Gnootschap van Kunsten en Wetenschappen (Batavia, 1778), the Asiatic Society of Calcutta (1784), and the Société Royale des Sciences et Arts (Haiti, 1784). The American Academy of Arts and Sciences (Boston, 1780) may be added to this list, as well as private societies elsewhere in the postrevolutionary United States.

Private societies existed in Brazil from the 1720s, including an *Academia Científica do Rio de Janeiro* (1772–1775).

### **Renaissance Academies**

The organizational and institutional character of eighteenth-century learned societies developed from Renaissance antecedents and the humanist movement. By the fifteenth century, Renaissance humanism began to take on significant organizational and institutional dimensions, and hundreds of literary and fine arts societies sprang up outside the universities, wherever educated people gathered. Ficino's *Accademia Platonica*, founded in Florence in 1442, is sometimes pointed to as the first of this new type of organization, although Michele Maylender signals the *Accademia Aldina* (1495), associated with the Aldine press, as the first formal "Renaissance" academy. One source indicates that around seven hundred new "academies" arose in the sixteenth century alone, mostly in Italy, and Maylender's comprehensive survey of such associations lists approximately twenty-five hundred appearing in the period 1500–1800. Renaissance academies took an interest in a broad range of cultural subjects: art, music, literature, language, architecture, poetry, history, archaeology, religion, the theater, the hunt, and equestrian and military arts. Renaissance academies devoted to science emerged comparatively late, but notable organizations such as the *Accademia dei Lincei* (Rome, 1603–1630) and the *Accademia del Cimento* (Florence, 1657–1667) took up scientific investigations and became rallying points for their members.

Renaissance academies exemplify changed conditions for the organization of learning in the early modern period. These groups, however, were neither formally chartered nor state-supported institutions, and because they depended on the patronage of their noble sponsors, Renaissance academies for the most part were ephemeral organizations. By the same token, Renaissance-style academies continued to exist and expand in the eighteenth century, particularly in Italy. Many were obscure and transitory, but one, the movable *Academia Naturae Curiosorum* (1677), remained a high-status institution of science and medicine throughout the eighteenth century. A distinctive feature of these academies was the occasional spawning of daughter organizations or "colonies," as evidenced by the many *Arcadia*, or poetry academies, that spread throughout Italy. In yet other cases, Renaissance-style academies became transformed into typical eighteenth-century learned societies; thus, the *Accademia Virgiliana* of Mantua (1686) became the *Reale Accademia di Scienze, Lettere ed Arti* of Mantua in 1768.

### **Function and Place in Society**

A public, civic function for learned societies began to emerge with the Florentine *Accademia del Disegno* (1562) and *Accademia della Crusca* (1584), the former dictating artistic and architectural standards for Medici Florence and the latter compiling an Italian dictionary. These formalizing tendencies became firmly established with the *Académie Française* (1635), the flurry of learned society creations under Louis XIV, and the foundation of the *Royal Society of London* (1662). Several features distinguish these institutions and successor societies from previous organizational settings for science and learning. First, they were official corporate bodies with charters issued by the nation-state or other governing authority. To varying degrees, these societies received financial

support from the state, and they reciprocally performed official functions as part of formal or informal government bureaucracies. They had patrons, but the role of the patron declined to eventual insignificance. They devoted themselves explicitly to research and to advancing their areas of expertise. Unlike universities, their intellectual commitments were not subservient to other institutional goals, and they essentially did no teaching. This set of characteristics distinguishes eighteenth-century-style learned societies from their Renaissance predecessors and from contemporary universities.

### **Enlightenment Learned Societies**

Although they need to be distinguished from universities, in some senses eighteenth-century learned societies complemented them. Contemporaries commonly claimed that academies and societies were institutions for creating knowledge, whereas universities were places for transmitting it. In any event, ties between learned society and university were often close. In the Russian System, the Imperial Academy in Saint Petersburg officially was above the university and the gymnasium, and the Bolognese literary and scientific academies were the formal research arms of the University of Bologna. The *Königliche Societät der Wissenschaften* of Göttingen (1752) was informally but closely connected to the university. Scientific societies also established links—sometimes formal, sometimes informal—with observatories and botanical gardens. The Academy of Sciences in Paris, for example, was closely associated with the *Observatoire Royal* and the *Jardin du Roi*. In Berlin, Stockholm, and Saint Petersburg, the local academies controlled an associated observatory. The Royal Society of London was the nominal “overseer” of the Royal Observatory at Greenwich.

The number of official learned societies grew exponentially after 1700 as part of a Europe-wide institutional movement. Among scientific societies, for example, the first half of the century witnessed the creation of the leading national institutions: London (1662), Paris (1666), Berlin (1700), Saint Petersburg (1724), Stockholm (1739), and Copenhagen (1742). Major provincial and regional societies arose at this time in Montpellier (1706), Bordeaux (1712), Bologna (1714), Lyons (1724), Dijon (1725, 1740), and Uppsala (1728). The period following 1750 saw the appearance of societies in lesser European states and provinces: Göttingen (1752), Turin (1757), Munich (1759), Mannheim (1763), Barcelona (1764), Brussels (1769), Padua (1779), and Edinburgh (1783), among other locales. The learned society movement became such an institutional trend that in the case of the *Hollandsche Maatschappij der Wetenschappen* (1752), for example, the lack of a comparable local institution provided a motive to create one. By 1789, about seventy formally chartered scientific societies existed in Europe.

Among at least a certain class of urban dwellers, the formation of learned societies represented an expression of contemporary sociability, and dozens of unofficial organizations complemented the set of formally chartered institutions. Some, like the *Naturforschende Gesellschaft* of Danzig (1743) or the *Società Italiana* of Verona (1782), remained private but enjoyed a high status. Many others were on their way to formal recognition by the end of the century. Many more ephemeral societies spread across England, the Low Countries, Germany, and Italy, bringing the world of science and polite learning to urban centers and literate communities of all sizes. In Britain, a

distinctive form of provincial society, the Literary and Philosophical Society, appeared toward the end of the eighteenth century; such societies in Manchester (1781), Derby (1783), and Newcastle-upon-Tyne (1793) constituted early instances, and their numbers grew into the nineteenth century. An informal club, the Lunar Society of Birmingham (1766–1791), is often cited in this context as evidence of the coming together of contemporary science and technology and because of its extraordinary membership, which included Joseph Priestley, James Watt, Matthew Boulton, and Erasmus Darwin.

Why would virtually every Western polity—from the Holy Roman Empire to the Commonwealth of Pennsylvania—charter learned societies? The primary answer is the perceived usefulness of these institutions. In a *quid pro quo* exchange between state and institution, societies delivered technical expertise in support of governance, and, in return, societies received recognition, aid, and a modicum of independence to govern their own affairs. The Académie Française regulated the French language and produced an official *Dictionnaire*, a potent instrument of social and political control. The Académie Royale des Sciences in Paris judged patent claims. The Royal Society of London provided occasional expert opinions to the British government on such matters as protecting buildings against lightning strikes. Academies in Berlin and Stockholm produced almanacs. A lesser society might aid local authorities in regional development; to this end, the Académie Royale des Sciences et Belles-Lettres of Bordeaux, published a six-volume natural history survey of the surrounding province of Guyenne (1715–1739). In considering the advantages offered by institutionalized expertise, one should not overlook the elements of glory and prestige accruing to the state. In return, the major learned societies received formal recognition, legal existence, and often financial support. Most were also free to elect and police their own members, to publish freely, and to initiate projects.

A useful distinction can be drawn between societies *per se* and academies, as exemplified by the prototypes of Royal Society of London and the Académie Royale des Sciences in Paris. Generally speaking, societies had a larger, less structured membership, received less government support, and thought of themselves as more independent than were academies. Conversely, academies were more clearly institutions of state, with a smaller, more restricted, and often paid membership and with more explicitly defined official duties. (An institution's name, however, is not a reliable guide to its type; the Société Royale des Sciences of Montpellier, for example, was an academy.) Although differences between academies and societies were real, it goes too far to distinguish institutions categorically. A more accurate view sees them as functionally similar, but characteristic of two different cultural spheres: the society was typical of maritime, Protestant, relatively more democratic Europe, and the academy typical of Continental, Catholic, and relatively more authoritarian regimes. In the final analysis, it is more useful to rank institutions, regardless of type, into hierarchical categories, downward from national organizations, through regional, provincial, and local associations, to the most ephemeral groups of amateurs.

### **Types of Societies**

Fine arts and language academies constituted two major subgroups of eighteenth-century learned societies, but their influence was inevitably local. Because of the more international character of

science, the scientific societies formed the most cohesive set of contemporary learned societies. The best-studied group, they take pride of place in the larger learned society movement. Eighteenth-century academies and societies fostered the natural sciences in a variety of ways. Members presented the results of their research at society meetings, and learned society proceedings—typified by the *Histoire et Mémoires* of the Paris Académie Royale des Sciences and the *Philosophical Transactions* of the Royal Society of London, quickly became the primary vehicles for the publication of original research. Although constituting only one-quarter of contemporary journals treating the natural sciences, learned society publications contained the most original science and were the dominant segment of the scientific periodical press in the eighteenth century.

Academies of all sorts actively directed research by organizing prize contests which offered financial rewards and publication outlets for work on topics set by sponsoring institutions. The most famous was the contest of 1750 sponsored by the Dijon Académie des Sciences, Arts, et Belles-Lettres on the social and moral effects of sciences and the arts, which was won by Jean-Jacques Rousseau. The question posed by the Paris Academy for 1737 on the nature of fire, to which Voltaire and Mme. de Châtelet responded, is another notable example; though neither won the prize, the Academy published both essays by these celebrated figures. Contemporary learned societies organized thousands of such competitions during the eighteenth century and awarded not insignificant sums as prizes. The systematic study of these contests remains to be undertaken, but no one doubts that learned societies thus stimulated a great deal of scientific and literary work and animated local, national, and international communities.

By the mid-eighteenth century, European scientific societies began to formalize interinstitutional contacts (notably through the regular exchange of publications) and to coalesce into a Europe-wide system of institutions. The Imperial Academy in Saint Petersburg, for example, maintained a *commercium litterarium* with more than twenty other learned societies. Reciprocal elections of honorary and corresponding members reinforced these ties, and collaborative projects in the second half of the century strengthened the international network of academies and societies that spanned eighteenth-century Europe. In this spirit, consider several initiatives to link groups of societies formally. Condorcet's plan of the mid-1770s to unite French provincial academies failed, but a provincial effort led by the Académie Royale des Belles-Lettres of Arras beginning in 1785 succeeded. A major thrust of the Société Patriotique de Hesse-Hamburg (1775) was precisely to serve as a center to unite the diverse activities of contemporary learned societies. In Germany, a successful formal association of German academies dates from 1794.

Scientific institutions also undertook research projects directly. The expeditions sent to Lapland and Peru by the Parisian Académie Royale des Sciences in the 1730s to measure the shape of the Earth and to adjudicate disputes between Newtonians and Cartesians were a celebrated example. Led by the learned societies, the coordinated efforts to observe the transits of Venus in 1761 and 1769 rank as the largest scientific projects of the eighteenth century. In 1761, astronomers made 120 observations from sixty different locales around the world; in 1769, they produced 151 observations from seventy-seven stations globally. The network of scientific societies provided the

institutional backbone for organizing these efforts and processing the results. The initiative sponsored by the *Societas Meteorologica Palatinae* (the Meteorological Society of Mannheim) in the years 1780–1795 to collect weather data from around the world is a less known but equally ambitious institutional undertaking. The Mannheim society sent out cases of calibrated instruments and received data back from stations throughout Europe and the Americas; its success can be measured by the twelve (now impenetrable) volumes of *Ephemerides* it published between 1783 to 1795.

Sociologically, eighteenth-century learned societies defined local and international communities. The number and quality of a person's learned society memberships measured his status in the contemporary world of learning. In a handful of instances, scientific societies provided the institutional and economic wherewithal for the pursuit of full-time careers. Thus, the mathematical physicist Leonard Euler (1707–1783) spent his entire professional life within the confines of the scientific academies, beginning at the Saint Petersburg Academy (1727–1741), continuing at the Berlin Academy (1741–1766), and ending back at Saint Petersburg (1766–1783). The case of Joseph-Louis Lagrange (1736–1813), who moved from academies in Turin to Berlin and then to Paris, likewise shows how academies formed an institutional base for professional careers in science.

Agricultural, economic, and “patriotic” societies represent another significant subset of Enlightenment learned societies. The movement began in Scotland with the Honourable Society of Improvers of the Knowledge of Agriculture (1723), but the German states became a main center of such activity, counting two hundred associations devoted to economic development and practical affairs, including the *Patriotische Gesellschaft zu Hamburg* (1724), the *Akademie gemeinnütziger Wissenschaften* (Erfurt, 1755), and the *Kurfürstlich-Sächsisch-Ökonomische Sozietät* (Leipzig, 1764). Furthermore, as Henry Lowood emphasizes, these German societies developed a specifically German discipline, *Kameralwissenschaften*, the cameral sciences of public administration. The Iberian Peninsula, not strongly endowed with scientific societies, was an active center of economic societies, counting nearly seventy *Sociedades Económicas de Amigos del País* in the Old World and the New in 1791. A related agricultural society movement spread throughout France and its colonies beginning in the 1760s.

The ideology of the day made academies and societies institutional outposts of the Republic of Letters, and much of their collective activity in the common culture consolidated Enlightenment savants and institutions into the unique transnational unity known by that name. Other forces, however, operated against Enlightenment cosmopolitanism. Different national language academies, for example, had little in common; the work of the Dutch *Maatschappij der Nederlandsche Letterkunde* (Leiden, 1766) seems not to have affected its counterparts in other nations. Moreover, publication in lesser vernacular languages, such as English or Swedish, raised linguistic barriers. The several efforts to translate the *Handlingar* of the Royal Swedish *Vetenskapsakademie* and the *Philosophical Transactions* of the Royal Society of London prove that the obstacles of language were not limited to literary societies. The thirteen-volume *Collection Académique* (Paris, 1755–

1779) further exemplifies this problem and its solutions; the series translated the proceedings of foreign academies and societies into the nominally universal language of French.

### **Centrifugal Forces**

Various brands of nationalism tended to divide contemporary learned societies along nationalistic lines. The great academies in France, England, Prussia, Russia, Sweden, and the rest were erected on national bases and, in part at least, for patriotic reasons. Each of Leibniz's several plans for a learned society for Germany, for example, incorporated notions of pan-German identity and nationalism, as did the efforts to create a *Deutsche Akademie* in the eighteenth century. In Italy, the periodical *Giornale de letterati d'Italia* (Venice, 1709–1740) incorporated a strong program of Italian cultural union, and the *Società Italiana* (Verona, 1782) sought the unification of Italian savants and institutions.

Beyond nationalism, particularistic inclinations tended to atomize learned societies into regional and local associations with only limited cultural and scientific horizons. The characteristic development of “regional studies” (*Landeskunde*) in contemporary German societies may be seen in this light, as might the stubborn independence of French provincial academies. The sixty-odd learned associations that arose in the Low Countries in the second half of the eighteenth century likewise privileged regional and particular biases over national and international outlooks. Many short-lived groups in eighteenth-century England exhibited similar characteristics, but nowhere was particularism more a factor than in politically fragmented Italy, where the least provincial academy in the smallest provincial town jealously guarded its privileges and identity and looked on neighboring associations with hostility. The luster of the well-studied, ecumenical great academies easily blinds us to the reality of closed-minded small towns.

A final, divisive factor lay in differences of religious confession. Leibniz's plans for learned societies, for example, were grounded in an almost evangelical vision of Protestant Germany. In contrast, German Benedictines established learned associations in several of their monasteries, notably the *Societas Litteraria Germanico-Benedictina* (Kempten, 1752). Italy was full of Renaissance-type academies devoted to the Catholic religion, and Pope Benedict XIV himself established two academies in Rome specializing in religious (that is, Catholic) history, the *Accademia di Storia di Ecclesiastica* (1741) and the *Accademia di Storia di Liturgia* (1748). All these factors acted centrifugally to weaken the Republic of Letters and the international system of learned societies.

Although the absolute number of learned societies continued to grow into the nineteenth and twentieth centuries, the “Age of Academies” ended with the French Revolution. The Jacobin Convention closed state-sponsored societies in France in 1793, and elsewhere in Europe and in the colonies, the period's political and military upheavals disrupted the previous modus operandi of learned societies. By and large, after 1815 specialized societies and strictly professional organizations, such as the Zoological Society of London (1826) and the British Association for the Advancement of Science (1831), superseded the general learned societies as active centers for the production of knowledge. Learned society membership increasingly became an honor achieved at

the end of a career, rather than a post for working savants. With nineteenth-century universities revitalized as centers for research, academies and societies likewise became less consequential. Like so much else of the Old Regime, learned societies had become relics of the past.

[See also Academies; Libraries; Lyceums and Museums; and Salons.]

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