National Mapmaking from Oronce Fine to Guillaume Postel (1525–1570): Fine, Jolivet, Nicolay, and Postel

French nationalist understandings of geography were stimulated by the Renaissance translation of Caesar’s *La guerre des Gaules* by Robert Gaguin in 1485.1 When Gaguin wrote in Latin, he used the terms “Gallia” and “Francia” or “Gallus” and “Francus” interchangeably, because for him there was continuity between Gaul and the France of his epoch.2 Working with the conviction that France “succeeded” Gaul, the French geographers based their studies on the “division introduced by the Emperor Augustus and followed by the most skilled geographers of the antiquity.”3 In their new maps, Gaul–France was described in a language more sensitive to administrative entities than to topographic realism.

The early maps of France were the modern maps that complemented Ptolemy’s *Geography* (e.g., the map of *Frantia* in the edition of Ulm of 1482, the *Gallia novella* of Francesco Berlinghieri published in Florence in 1482, or the *Moderna tabula Galliae* of the Strasbourg edition of 1513). Based on a Gallia bounded by the Rhine, Alps, and Pyrenees, which greatly exceeded the boundaries of Renaissance France, such maps offered new geographic outlines and substituted the new names of provinces for the ancient divisions of Gaul. They were based on coastlines that derived from nautical charts and augured the start of the national production of general maps of the country.

Three major cartographic documents emerged from new national mapping efforts in the sixteenth century: the map of Oronce Fine, which was initially published in 1525; Jean Jolivet’s work based on Fine’s model, published in 1560; and the map of Guillaume Postel of 1570. The aborted efforts of Nicolas de Nicolay must be added to these accomplishments, although they resulted in the mapping of only two provinces.

The geographic coverage of these three national maps differs from that of Ptolemaic maps. The French maps extend to northern Italy, including Venice, the Adriatic, and even Rome; they cover with cartouches “la Grande Allemaigne” (Great Germany), which is only detailed on Jolivet’s map. Their extended scope partly reflects the ambitions of the kings of France to claim territory in the Alps and in Italy, which were curbed by the 1559 treaty of Cateau-Cambrésis but persisted in the dreams of Catherine de’ Medici and her children. (For a reference map of France, covering all of the chapters in this section, see fig. 48.1.)

The maps of Fine, Jolivet, and Postel were graduated in both latitude and longitude, unlike the modern maps included in editions of Ptolemy’s *Geography*. These national maps used trapezoidal projections and varied as much in latitude as in longitude. Only Fine’s map retained the divisions of climate and day lengths that were found on the maps of Ptolemaic origin. Fine was equally attentive to the historical meaning of the map, leading him to give both ancient and modern place-names, in keeping with the historical awareness of the Renaissance that glorified Gaul as “a country with the best boundaries under the heavens”4 and discrediting the medieval dissolution of the empire of Louis the Pious.

**Oronce Fine (1494–1555)**

Historical records indicate that Fine’s *Nova totivs Galliae descriptio* was first published in Paris in 1525 by Simon de Colines, printer and bookseller of the University of Paris, and that its final edition was published in 1557 by Alain de Mathonière, a printseller who became a bookseller in 1565.5 However, neither of these editions was preserved. The surviving examples, at a scale of approxi-
Ioannis Fernelii Ambianatis Cosmotheoria, libros duos complexa in 1528, a book in which Fernel provided a list of coordinates based on the meridian of Paris (fol. 43v). Fernel determined latitudes similar to those established by Fine, but his longitudes were significantly different.

6. The surviving examples of these editions are: 1538, Öffentliche Bibliothek der Universität, Basel (reproduced by Lucien Gallois, De Orontio Finæo gallico geographo [Paris: E. Leroux, 1890]); 1546, Universiteitsbibliotheek Leiden; and 1554, BNF, Cartes et Plans, Rés. Ge B 1475. On the Gourmont family, see Robert W. Karrow, Mapmakers

The map was presented by its author as a basic mapping of the country; the cartouche, in part, reads: “our chief in-

Fig. 48.1. Reference map of France, ca. 1610.
tention was to reduce all of Gaul in order to meet the demands of several good men, and to establish and revise the latitudes, longitudes, and situation of main places, coasts, rivers, and the most notable mountains, so that this map can be amplified and corrected at pleasure in the future” (fig. 48.2). Fine concentrated on Transalpine Gaul as opposed to Cisalpine Gaul situated outside the border of the Alps. The image of Gaul as France was kept distinct from the various Roman “Gauls,” which the author refers to by the toponyms “Gallia belgica,” “Celtica,” “Narbonensis,” and “Cisalpina.”

Fine’s cartographic achievements, based on the compilation of coordinates exemplified by Ptolemy’s Geography, were supported by François I, who created the Collège Royal (the present-day Collège de France) and named Fine as its royal mathematician (regius mathematicus). Trained in mathematical geography, Fine was interested in the calculation of latitudes and longitudes and the construction of new projections. As a geographer, he continued and improved Ptolemy’s work by determining the coordinates of different points of the world on the basis of observations or evaluations. His work was distinct from surveyors’ work, which only measured short distances. Fine proposed to use a modified astrolabe joined to a...
compass of his own making in determining longitudes from the moon’s path and motion; he named it méthéoro-
scope géographique.

Fine proposed a list of latitudes and longitudes in De cosmo-
graphia (1530; published in 1532 as part 3 of his Protomathesis),8 using the same prime meridian as Ptole-
my, but diverged from Ptolemy in his calculation of the longitudes of such cities as Lyons, Toulouse, Avignon, and Marseilles. His list included the principal cities in Eu-
rope, but over half of the coordinates (124) were for French cities. The royal mathematician based his work on the consultation, revision, and expansion of the work of Ptolemy and other classical authorities and on the use of his own observations or evaluations. Thus the work com-
bined the authority of the ancients with the personal ex-
perience of its author. According to the cartographic method that Fine put forth in De cosmo-
graphia, he first placed points at the positions that had been determined by astronomical and geometrical methods, then added the rivers, and concluded by adding relief and the coasts, beginning with the delineation of capes.

In the preface of a treatise on the squaring of the circle (Quadratura circuli, published by Colines in 1544), Fine noted that he had presented a map of Dauphiné, Savoy, and Piedmont to François I. Of this manuscript map of 1543, only a reduced printed version survives, inserted into the Sphaera mundi (1551), where it replaced the small map of France that appeared in earlier editions. Fine must have wanted to enrich cartographic knowledge of his natal province—the Dauphiné—beyond what was already present on the map of France. This map enjoyed considerable success: it was appropriated in reduced and simplified form by Sebastian Münster in his 1540 edition of Ptolemy’s Geography and his celebrated Cosmography and was also widely circulated in Italy, especially from 1536, in a version on four sheets by the Venetian Giovanni Andrea Valvassore.9

JEAN JOLIVET (D. 1553)

Jean Jolivet’s map of France closely resembled that of Fine. Printed from four woodblocks, it was published in Paris in 1560 by Olivier Truschet and Richard Breton under the ti-
tle Nouvelle description des Gaules, avec les confins Dale-
maigne, et Italye. The first edition was followed by a sec-
ond in 1565.10 No example of either edition survives, however, and the oldest extant version, dated to 1570, was published under a different title by Marc Du Chesne: Vraie description des Gaules, avec les confins d’Allemagne, & Itale (fig. 48.3). This third edition, drawn at a scale of about 1:2,300,000, is on a smaller scale than Fine’s Gal-
liae. The note to the reader on the map mentions a royal order for “visiting the realms and provinces, including Bel-
gian and Celtic as well as Aquitaine Gauls,” from Calais to Marseilles, and from Fontarabie to Turin. The spatial distribution of the Roman Gauls served as a frame for a modern map drawn, in principle, from the visitation of the provinces. Jolivet, moreover, suggested that travelers could measure distances on his map, determining the length of direct routes and adding more distance if detours were needed to avoid streams, rivers, marshes, mountains, and forests. Jolivet’s map could complement Charles Es-
tienne’s Guide des chemins de France (1552), a written de-
scription that was lacking maps. A version of Jolivet’s map, dated 1578, adopted the title of the first edition but does not bear the name of any publisher and contains numerous additions. It was a completely revised work that appeared long after the death of its original author, a death established with new information as 1553.11 Jolivet’s map was frequently copied in varied forms that ensured its fame. Enlarged on a mural of about 1560–65, the map fig-
ured in Etienne Du Pérac’s work prepared for the Vatican’s Terza Loggia.12 A reduced version appeared in the editions of Abraham Ortellius’s Theatrum orbis terrarum from 1570 to 1612; it was copied in the first volume of François de Bellefoster’s La cosmographie universelle (1757) and in Maurice Bouguereau’s Le theatre francoys (1594).

Jolivet emerged as an official cartographer as noted on his map of France, a position that is corroborated by the definition of the geographer from Limoges as “one of the excellent men for chorography or the description of prov-
inces and nations.” La Croix du Maine and Du Verdier asserted that “he described many provinces and nations of France by the order of Henri II, which were not printed and have appeared after his death from others who, like plagiarists, attributed them and printed them to their own names without mentioning Jolivet.”13 The Nouvelle bio-
graphie générale dates Jolivet’s official position during the reign of François I (r. 1515–47),14 and this is confirmed by two recent maps of 1545 that preceded the map of France.


9. Leo Bagrow, Giovanni Andreas di Valvassore: A Venetian Cartog-
rapher of the 16th Century: A Descriptive List of His Maps (Jenkin-
town, Pa.: George H. Beans Library, 1939), no. 3.

10. On Jolivet’s works, see Karrow, Mapmakers of the Sixteenth Cen-
tury, 321–23. The only known 1560 example, preserved by the Stadt-
bibliothek, Breslau, was destroyed. The second edition is described by La Croix du Maine and Du Verdier, Les bibliothèques françaises, 1:522.


12. See the section on the Terza Loggia on pp. 816–18 of this vol-
ume. On the map of France, see Roberto Almagià, Monumenta carto-


16. One can read in the legend: “All of the country of Berry is at the elevation of the Arctic pole from forty-six to forty-seven degrees at the end of the sixth climate.”


The first is a map of Berry printed from six copperplates; it was intended to serve in the education of Marguerite de Navarre, Duchess of Berry and sister of François I. It includes the limits of the diocese of Bourges, the borders of the Duchy of Berry, and the élection (financial division) of Bourges, with the following mention: “at Bourges by the priest M. Joh. Jolivet.” The author, who here identified himself as a priest, also observed that the orientation of the map was chosen to reflect the most advantageous point of view and cited a map of the Holy Land as an example (map attributed to Bonaventure Brochard and claimed as his own by Jolivet on his map of Berry). The map of Berry was reputedly linked to scholarly geography, but it carries no trace of geographical coordinates and was rather the product of a descriptive geography. Its author had probably traveled through the province he depicted, taking care to note its agricultural resources.

The second map appeared in the same year as the map of Berry: Jolivet signed his name to a large map of Normandy on vellum, graduated in latitude and longitude, which carries the name and arms of François I, of the Dauphin, governor of Normandy, and of the Province (plate 59). On the sea appears a fleet of galleys and warships suggesting the naval army assembled to invade Britain in 1545.

A third regional map, that of Picardy, a woodcut datable to 1559–60, is obviously by the same Jolivet. It is close in date and has the same publisher as the first edition of Jolivet’s map of France. Its publisher, Olivier...
Truchet, noted that the author was a native of “lower Picardy,” conflicting with the belief that Jolivet was born in Limousin.19 But Limoges or its diocese appears to be the place where Jolivet served as priest, not where he was born. Moreover, a priest from the diocese of Limoges named Jolivet was appointed canon of Paris in 1546 and died in 1553.20 He signed a plan of the forest of Dourdan21 and could be identified with the famous mapmaker.

One might question the exact relationship between Jolivet’s map of France and the maps he designed of provinces. Why were the coasts of Normandy better drawn on the regional map than on the later map of France? It seems that the two maps came from separate traditions of mapmaking, national and regional. The image of the kingdom, which originated from the map of Fine, could not be easily changed as long as the coverage of regional maps was neither complete nor uniform.

NICOLAS DE NICOLAY (1517–1583)

After traveling throughout Europe, Nicolas de Nicolay was appointed valet de chambre et géographe ordinaire du roi in 1555 during the reign of Henri II (incidentally suggesting Jolivet’s death shortly before). His role as geographer increased when Henri’s wife, Catherine de’ Medici, assumed the regency in 1560 for her son Charles IX. The Florentine origins of the queen were revealed in her taste for cartographic images: in the salon of her Parisian mansion acquired in 1570, she hung twenty-four large maps of European countries, Africa, India, and Asia. Her interest in maps also appeared in the decorations for Charles IX’s royal entrance to Paris with his bride Elizabeth of Austria, where the statue of Catherine was holding a map of France that was more symbolic than geographic. The maps of the kingdom of France probably reminded the queen-mother of the travels that she had made throughout the country in attempts to stop the Wars of Religion.22

In 1561, the queen entrusted Nicolay with “touring and offering a general and detailed description of the kingdom.”23 From his base in the château of Moulins, Nicolay tried to complete the ambitious royal plan to “scale down and place in volumes maps and geographic descriptions . . . of each province.”24 Nicolay wrote texts that furnished accurate geographical, historical, economic, and administrative information. Official letters of 22 January 157025 ordered the royal geographer, promoted to premier cosmographe et valet de chambre du roi, to “see, visit, measure, name, and describe,” and gave him access to steeples, towers, and all elevated points so that he might “more easily consider the lay of the land and measure and describe the distances between places.” His survey of the land was to be completed by archival researches into the registers, roles, and other works, to “more truthfully and faithfully describe and name” the kingdom according to administrative usage, rather than following local pronunciation.

Nicolay’s cartographic work was limited in fact to Berry and Bourbonnais, and it did not achieve its patron’s hopes.26 Nicolay copied and clumsily tried to update the work of Jolivet in six manuscript maps of Berry (1567). His detailed description of Bourbonnais contained only a general map of the province as a whole: the geographer had traversed the country rapidly, not stopping anywhere save the most important places. He nevertheless succeeded in assembling a collection of maps in Moulins, but they were almost entirely lost when the château was destroyed by fire in 1755.

His printed texts, images, and maps guaranteed Nicolay’s fame. As a “painter and geographer,” he published a map of Europe in 1544 engraved on copper and in the style of the portolan charts.27 Ortelius mentions that the map was printed in Antwerp. Several texts followed; they were published by Guillaume Rouillé, an erudite Lyonnesse bookseller who was in close contact with Italian circles. Rouillé was anxious to expand his catalog: he published a letter describing the reconquest of Boulonnais (1550) signed by “Nicolas Nicolai, royal geographer”; a translation of Pedro de Medina’s Arte de navegar by Nicolay, which included a map of the new world (Nouveau monde) engraved on copper (1554); and a story of the voyages and travels in the orient Nicolay had undertaken (1568), which included several portraits au vif en-

19. Regarding Jean Jolivet from Limoges, see La Croix du Maine and Du Verdier, Les bibliothèques françaises, 1:522.
22. On Catherine de’ Medici, see Ivan Cloulas, Catherine de Médicis (Paris: Fayard, 1979). For biographical information about Nicolay, see also pp. 468–71 in this volume.
24. Nicolas de Nicolay, Description générale du pays et duché de Berry et diocese de Bourges . . . , ed. A. Aupetit (Châteauroux: Aupetit, 1883), 1 (letter to the queen).
This is the sole example of the map, which is in four sheets and eight bands etched with burin; the decoration was engraved by L. D. (Lyon Davent). Size of the original: 95 × 77.5 cm. Photograph courtesy of the BNF (Cartes et Plans, Rés. Ge B 8814).
In the year of his death, 1583, Nicolay published in Paris a translation of Alexander Lindsay’s maritime itinerary that he had gathered during his travels in England in 1547; the text was furnished with a map. Among mapmakers, Nicolay was best known for his map titled *Novvelle description du pais de Boulonnais, comte de Gvines, terre d’Oye et ville de Calais* (1558), which appeared in four sheets engraved on copper with a dedication to Henri II (fig. 48.4). The map was copied in the atlases of Ortelius (1570), Mercator (1585), and Bouguereau (1594). By comparing these copies with the original, one finds that most of the information has been retained—including place-names, hydrographic networks, forests, and images of cities—but that only Nicolay’s original map, intended probably for military use, included roads on land and rhumb lines on the sea. Although encouraged by royal power, the province surveying by Jolivet and Nicolay was too slow; it delayed the production of a general map of the kingdom of France that would really improve Fine’s model.

**GUILLAUME POSTEL (1510–1581)**

Whereas Nicolay fell far short of visiting the whole kingdom, Guillaume Postel published a map of France in 1570 on a scale of about 1:2,500,000 titled *La vraie et entiere description du royavmne de France, et ses confins, avec l’adresse des chemins & distan[n]ces aux villes inscriptes es provinces d’iceluy*, which he dedicated to Charles IX (fig. 48.5). The author, a “cosmographer,” de-
clared his work “less imperfect” than the maps of Fine, Jolivet, and Paolo Forlani (Venice, 1566) that preceded it and claimed to have collaborated with “many persons learned in mathematics, both French and foreign.” Although the product of cartographie de cabinet (office cartography), Postel’s work was intended for travelers, and its title reveals that it was accompanied by a written text. A comparison of Postel’s map with the map he cited of Forlani (fig. 48.6) is instructive, for the format, cartouche, almost all of their more decorative features, such as fish and ships, and the map’s eastern half are nearly identical. Postel’s frequent presence in Venice between 1537 and 1560, which increased his access to maps produced in the city, may have favored this copying. But the changes concerning the western part of Postel’s map—the part that Forlani simply copied from Fine’s map—particularly the improved outlines of Cotentin and Brittany, are possibly explained by Postel’s origins in Normandy (he was born in Barenton). Postel continued to use wood engraving for both his map of France and his polar planisphere, whose woodblocks were cut by Jean II de Gourmont.

Fontainebleau school named Lyon Davent. This same Davent possibly illustrated the cartouches of the great plan of Lyons engraved on copper in the middle of the sixteenth century (Archives Municipales de Lyon), of which Nicolay, familiar with this city where he received a part of his education, could have been the author. This hypothesis would require greater in-depth study. In any case, L. Davent entered a contract on 28 November 1555 with Nicolay for the illustration of Les quatre premiers livres des navigations et peregrinations orientales, which had to be carried out at the geographer’s residence in Saint-Germain-des-Prés and which would not be published until 1568. See Catherine Grodecki, “Le graveur Lyon Davent, illustrateur de Nicolas de Nicolay,” Bibliothèque d’Humanisme et Renaissance: Travaux et Documents 36 (1974): 347–51.

Most of the sixteenth-century regional maps of France were made for different reasons by men of different education and background and were not intended to cover the whole kingdom. Their part-time mapmakers had generally studied mathematics and were in some cases influenced by military and nautical mapping.

The oldest known map of a diocese, that of the Diocèse du Mans (1539), was drawn by Macé Ogier, head of the hôpital des Ardents in Le Mans and a priest interested in information concerning the diocese’s administration. The map was engraved on copper by Jacques Androuet du Cerceau, an architect and engraver, who, after living in Italy from 1530 to 1534, etched several perspective views of Lyons and Paris. The map was nonetheless produced locally, being printed in Le Mans in 1539 and, posthumously, in 1565. After Ogier’s death, a written description of the diocese was printed in 1558 and 1559 on the basis of his notes and itineraries. Only derived versions of the map have survived, including those printed in Bouguereau’s *Le théâtre francoys* (1594; the map is dated before June 1591), Gerard de Jode’s *Speculum orbis terrae* (1593; revised by Cornelis de Jode), and Ortelius’s *Theatrum orbis terrarum* from 1595.

The objective and forms of diocesan maps were clarified in a text concerning a map by Jean Tarde, vicar general of Sarlat, published as *Sarlatensis diocesis geographic a delineatio vera & exacta* (fig. 48.7). Tarde stated: “in the process of visitations of the diocese, I made the map and geographic description of the site in order that the said bishop and his successors would be able to see in a picture the area that they must cultivate, whose image was later engraved on copper and printed, and painted on a large panel in the episcopal hall at greater scale.” The statement suggests that the engraved map may have been accompanied by a painted mural. Tarde had studied mathematics at the Collegio Romano with Father Christoph Clavius and described the methods that he had used in *Les usages du quadrant à l’esgville aymantée* (1621). He drew the map on site “in the manner that maréchaux de camp worked in preparing the housing of the army,” tracing a meridian from a fixed position in an exposed site with the clearest view of the horizon. He then sited the places surrounding this first position on his drawing: after having determined their directions, he positioned them in relation to the distances that were estimated by local inhabitants. To cover a large area, he triangulated from several positions, “because geographic maps made from one position alone are always inaccurate.” He finished by assembling the detailed maps that he had surveyed on site. Considered locally as a good specialist, Tarde executed a map of Quercy, *Description du pays et diocese de Quercy*, at the request of the bishop of Cahors in 1606.

Historical works were illustrated not only with general maps of France—regional maps could serve a similar purpose. The Florentine Gabriele Simeoni, who lived in Lyons in 1550–60s, translated the work on Roman military camps of Guillaume Du Choul and was invited to Clermont-Ferrand by the bishop Guillaume Duprat. Simeoni was involved in the determination of the position of the Roman camp of Gergovia (near Clermont-Ferrand) and proposed its first reliable identification in his work on moral philosophy, *Dialogo pio et speculativo* (Lyons, 1560; translated into French in 1561) on the basis of Caesar’s *De Bello Gallico*. The *Dialogo* was illustrated by a map titled *La Limagna d’Overnia* that Simeoni dedicated to Catherine de’ Medici and that plotted different phases of the battle Caesar fought with Vercingetorix. His dedication to Catherine reminds us that Simeoni was employed in her entourage as an astrologer.

The category of historical maps also includes the *Description du pays armoriqve a present Bretaigne* (fig. 48.8). This copper-engraved map was prepared by the jurist Bertrand d’Argentré as part of a history commissioned by the États de Bretagne and printed in Paris in 1583. The book was confiscated because the work expressed a Breton particularism judged offensive to “the dignity of Kings, the Realm, and the French name.” A royal privi-
lege was not granted for the second edition of the book until July 1587. Printed from 1583, the map of Brittany followed the instructions of d’Argentré, who seems to have corrected its proofs, but it did not appear until the second edition of the book in 1588. According to Pinot, the map was drawn by Conquet hydrographers on the basis of several charts supplemented by maritime and terrestrial itineraries. So there was a discrepancy between the foremost objective of the map, which was to orient the readers—in tellectuals accustomed to reading a work of one thousand pages—to the history of Brittany, and the sort of information the authors used. As a result, it is not surprising that certain important sites in the text (for example, many abbeys) do not appear on the map. Moreover, the map is oriented to magnetic north in the manner of a chart but includes small sections of meridians and parallels that suggest that it is oriented to geographical north. Incomplete but valuable, the map was used again by Bouguereau for Le theatre francoys (1594). Bouguereau’s copperplate was later used for the third edition of the L’histoire de Bre taigne (1618; published by the son of Bertrand d’Argent ère), although the Flemish engraver Gabriel I Tavernier had mangled several of the place-names.

The authors of regional maps were of various professions—priests, vicar generals, hydrographers, but also lawyers, physicians, and architects. Their maps bear witness to their regional attachment and scientific curiosity. For example, the lawyer Jean Du Temps, author of the Description du pais Blaisois, drawn in 1590 and engraved for Bouguereau in 1591, was born in Blois in 1555 and was well

40. Pinot, “L’adaptation d’une carte.”
versed in astrology and mathematics. His map was graduated in latitude and longitude and gave the dimensions of the province (twenty-five leagues in longitude and forty in latitude) in addition to the circumference of the earth (nine thousand leagues). Du Temps may have constructed the map with the help of his brother, Adam, a fortifications engineer.

The physician Jean Fayen drew a map of the diocese of Limoges that is dated 1594 and appeared in Bouguereau’s *Le theatre francoys* (fig. 48.9). Fayen participated in the cultural life of Limoges at the end of the sixteenth century: he was practicing letters and sciences and sought to rectify the absence of a map for a province that was notable “from the point of view of its great fertility . . ., great number of celebrated towns, the fame of the rivers that add water and ornament to it, and the great talent and erudition of men who were born there.” Although his publisher called him an “excellent mathematician and geographer,” Fayen constructed a map that ignored latitudes and longitudes. The abundant place-names on the map reflected local pronunciation. The map’s scope was more lay than it was religious, as it failed to designate several abbeys. The author made little reference to châteaux except to mark their recent destruction, because the region remained loyal to Henri IV. Fayen was well rewarded for his efforts: he came to be known as the Archimedes of Limoges “for having so well understood his native city, province, and map.”

44. Dainville, “Le premier atlas de France,” 42.
45. According to J. Blanchon, sixteenth-century poet of Limousin; Drapeyron, “Jean Fayen,” 70.
The architect Isaac François drew a topographic map of the Duchy of Touraine, *Topographie Aug. Turon. Ducatus*, dedicated to the mayor of Tours. François took an active role in the fortifications of the city, of which he was named *directeur général* in 1592. The map refers to him as *voyeur pour le roi en Touraine* (royal roadmaster in Touraine), and we realize that François was paying specific attention to the bridges and islands of the Loire.46

This overview of some of the cartographers of the provinces of France underscores the importance and potential of *Le theatre francoys*, compiled by Bouguereau, and published in 1594. Had Catherine de’ Medici’s plan for a unified collection of maps of the French provinces been realized, Bouguereau’s atlas would not have been necessary, but it filled a gap. The first atlas of the kingdom published in France was presented to Henri IV in 1594 “as one would present him with the keys of Paris.”47 The atlas included only three maps that had not been previously published, but it had the potential to promote interest and emulation among geographers interested in revealing the unique characteristics of their own provinces through image and text.49 However, *Le theatre francoys* enjoyed small success. It was later employed by Jean III Leclerc and Jean IV Leclerc in their *Theatre geographique*

du royaume de France, seven editions that appeared from 1619 to 1632, the last one published by Jean V Leclerc. The Leclercs added new maps to Bouguereau’s, half of which were copied from Mercator and Hondius atlases. Melchior II Tavernier published another atlas with maps from Bouguereau’s and the Leclerces’ work (under the same title as the Leclercs) in 1632. More complete than its predecessors, the atlas incorporated plates engraved in Amsterdam for Henricus Hondius and Jodocus Hondius Jr., so it was unequaled by the other French atlases for which publishers did not easily find talented engravers.

**New Trends in National Mapmaking: François de La Guillotière and Christophe Tassin**

The large woodcut map of France by François de La Guillotière signals a break from the earlier models by relying on regional descriptions, which made it much richer than its predecessors by Fine, Jolivet, or Postel (fig. 48.10). This approach had been encouraged by Catherine de’ Medici in her patronage of Nicolas de Nicolay in 1561 as she tried to reform the administration of France, but Nicolay’s work remained unfinished and in manuscript. Twenty years later, La Guillotière seems to have continued and finished the project, but his map of France was not printed until 1613, long after his death.

Much of what we know about La Guillotière is through the beneficiary of his will, Pierre Pithou, who came from a Gallican family of lawyers and assembled a library rich in both manuscripts and the maps that La Guillotière willed to him: “some very beautiful and well-written documents.” The woodblocks and proofs of La Guillotière’s Charte de la France were still possessed by Pithou at the time of Pithou’s death in 1596. The process of their cutting must have been both lengthy and difficult; it is clear from the lack of homogeneity visible in the surviving prints—most notably between the Poitou sheet and the large map of France begun by La Guillotière in this period was intended to illustrate the investigation into the state of France, whose results Henri III awaited in 1583. The geographical coverage of La Guillotière’s map of France is the same as that of his predecessors; however, its large scale of 1:1,000,000 allowed the insertion of over 30,000 place-names with densities that varied by region. The author corrected the geographical layout, particularly the coastlines of Brittany and Cotentin and the hydrographic network of the country, although the large bend of the river Loire still does not appear. The coastline of Landes acquired an oblique character that continued to distinguish French from Dutch maps until the publication of the Carte de France corrigée (1693). La Guillotière most likely used those maps of the provinces to which he had access. It has been suggested that in the case of the Alps, he was inspired by the maps of the military engineer Jean de Beins, which was impossible, because the first maps of de Beins, engineer of Henri IV, dated to 1598, after La Guillotière’s death. A study of the appearance of the Pyrenees on La Guillotière’s Charte de la France suggests that the author had worked on site, following some itineraries and representing characteristic elements of the landscape as a skilled cartographer would do: the Vignemale reached in following the mountain stream of Pau, the peak of Midi de Bigorre, and the Cirque de Gavarnie south of the Alps. The map was published by Henricus Hondius and Jodocus Hondius Jr., Amsterdam for Henricus Hondius and Jodocus Hondius Jr., so it was unequaled by the other French atlases for which publishers did not easily find talented engravers.


**52.** This large map has hardly been studied. On this subject, one should consult Numa Broc’s study presented at the Twelfth International Conference on the History of Cartography, Paris, 1987, and still unpublished: “La France de La Guillotière (1613).” La Guillotière’s life still remains unknown. There is a Robert Ribaudeau or Rivaudeau, sieur de La Guillotière (died 1570), a Protestant and valet de chambre of Henri II, who may have been the father of our geographer, but François is not included in the list of his seven children given by Eugène Haag and Émile Haag, La France protestante, 10 vols. (Paris: J. Cherbuliez, 1846–59), 8:428–29.

**53.** Ortelius, Epistvlae, 666–70, esp. 668.

**54.** La Croix du Maine and Du Verdier, Les bibliothèques françaises, 1:222–23.


of Bagnères-de-Bigorre and Campan. The author was certainly familiar with this region of the Pyrenees and perhaps also with Languedoc, for he provided the most exact and detailed map of that region of the sixteenth century.

Several reasons might explain the delay in the appearance of La Guillotière’s map of France: his religious status, changes in his relations with Henri III, difficulties of engraving so detailed a map on wood, and finally, his death. Despite their significant delay, the editions issued by Jean IV Leclerc in 1613, 1615, 1620, and then by Leclerc’s widow, Frémine Richard, in 1624, 1632, and 1640 testify to the success of the undertaking. At the same time that this notable map was printed, Jean IV Leclerc succeeded Bouguereau in publishing an atlas of France under the title of Theatre geographique du royaume de France (published from 1619). The atlas began with the Gallia of Petrus Plancius, which was replaced in the edition of 1622 (published by Frémine Richard) by the France of Jodocus Hondius the Elder, dated 1600, while the Gallia of Postel was introduced in the editions of 1626 and 1641. Jean IV Leclerc did not use a reduced version of La Guillotière’s map, presumably because too much information would have been lost in the reduction.

We know of other maps by La Guillotière through his acquaintance with Pithou and André Thevet. In 1595, Pithou sent his friend Abraham Ortelius La Guillotière’s map of the Isle de France as a gift to be published in the

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59. For this edition, the prints remaining from the first edition were reused. In fact, on the example in the BNF, Cartes et Plans, Ge DD 2768, the blue-pencil editing marks reappear except on the sheet that lists the publisher’s address.
For the maps of provinces included in *Les cartes générales*, Akerman and Buisseret have identified three main sources: those from the previous century (maps published in the atlas of Bouguereau) for the regions that were of no military interest, maps that were executed during the reign of Henri IV by royal engineers or military officials in charge of army housing, and more recent materials that also came from the royal engineers. Tassin reduced the Italian appendix of the *Carte de France* (placed in the atlas after the world map and the maps of continents), and placed immediately after it the representation of the provinces. He started with the outlying ones that were strategically important to the royal engineers: Picardy and Artois, Champagne, Burgundy, Bresse, Lyonnais and Beaujolais, Dauphiné, Provence, Languedoc, Guyenne, Poitou, Brittany, and Normandy, which provided a virtual “tour de France.” After the maps of the French provinces, he moved to neighboring countries: the duchies of Lorraine and Bar, the Franche-Comté and the duchy of Montbéliard, the Low Countries, Flanders, Artois and Hainaut, Luxembourg, Alsace, and the Palatinate. Tassin’s atlas was preparing for the consolidation of the French frontiers, but continued to offer descriptions of Italian regions: the duchy of Milan and the principality of Piedmont, Genoa and Nice, Mantua, Ferrara and Venice, Florence and Rome. The 1637 edition of Tassin’s *Les cartes générales* included a nine-sheet map of France comparable to that of La Guillotière. However, use of fine copperplate lettering

allowed Tassin to increase the number of toponyms and to introduce clear hierarchical distinctions among them.

Sources for all of Tassin’s maps are not known, as is shown by another of his atlases: Cartes generale et particulières de toutes les costes de France tant de la mer oceane que mediterranée (1634). The general map in this hydrographic atlas, an index map, is completely different from that of France in Les cartes generales, and this is also true for other maps, such as that of the Provence coastlines. In the province atlas (Les cartes generales), Tassin reproduced on three sheets the manuscript map titled “La coste maritime de Provvence.” This map, completed in 1633, was surveyed during an inspection of the coastline defense undertaken by Henri de Séguiran at the bequest of Armand Jean du Plessis, cardinal Richelieu (Louis XIII’s minister). Its author, Jacques Maretz, professor of mathematics in Aix, was helped by the painters Augier and Flour.69 The manuscript map is completed by two rows of miniature maps representing twenty ports. The work of Maretz, whose principal objective was to map the coastline, left a lasting mark on future representations of the Provence coasts. It was, moreover, completed by Tassin and other engineers in an atlas—a manuscript now kept in the Bibliothèque Mijanes in Aix—the “Description generale et particulière des costes et isles de Provence.”

The growth of military cartography under Henri IV, Louis XIII, and Louis XIV stemmed from their desire to consolidate national borders established at the treaties of Lyons (1601), Münster (1648), and the Pyrenees (1659). Through mapping, Tassin was able to place himself close to Richelieu and royal power. As a publisher, he tried to diversify his production, adding to it the hydrographic atlases, in which he was primarily concerned with coastal de-

fenses, using works of military topographers—for example, the *Carte de la coste de la Rochelle* of Claude Chastillon inspired the *Coste d’Aumis.*\(^70\) Moreover, Tassin’s *Les plans et profils de toutes les principales villes et lieux considérables de France* (1634) included the maps of the *gouvernements* (military divisions that became numerous during the sixteenth century). In imposing such an administrative division of space, Tassin’s work pre-saged the works of Nicolas Sanson.

**The Administrative Mapmaking of Nicolas Sanson (1600–1667)**

The work of Nicolas I Sanson d’Abbeville and his family promoted civil cartography for administrative and pedagogic use into the reigns of Louis XIII and Louis XIV. Sanson’s mapping was indebted to the efforts of earlier geographers, whose cartographic works he used and enriched on the basis of written documentation, which allowed him to trace the boundaries of complex administrative divisions. He was able to provide the monarchy with more complete knowledge of the state, complementing national investigations like the one conducted by superintendent Antoine d’Effiat in 1630.

In the manner of Tassin, Sanson endeavored to fulfill the desire of the monarchy to have a map of all of France at its disposal that would be developed into detailed maps of the provinces.\(^71\) He was able to do so because of the close ties that he gained with Louis XIII and Louis XIV and their ministers and the assistance that he was able to obtain through the French episcopate. In 1627, Sanson made his first engraved map, which shows historical Gaul on six sheets at a scale of 1:410,000 and which attracted the attention of Richelieu, who introduced the mapmaker to the young king. Sanson would eventually instruct Richelieu, who introduced the mapmaker on six sheets at a scale of 1:410,000 and which attracted the attention of Richelieu, who introduced the mapmaker to the young king. Sanson would eventually instruct Richelieu on the best adminis-trative divisions. He was able to provide the monarchy with more complete knowledge of the state, complementing national investigations like the one conducted by superintendent Antoine d’Effiat in 1630.

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Trainied by Jesuits in geography in Amiens, and working on site shortly before 1635 as *ingénieur géographe* in Picardy, Sanson became a great *géographe de cabinet* and a renowned geography teacher. Working in the shadow of royal power, he enjoyed free access to the best administrative sources. His early major production was a thirtysheet map of France with the boundaries of the *gouvernements généraux* (military divisions), ordered by Richelieu and completed after 1643; the map does not survive. In a memorandum of 1648 written to Chancellor Pierre Ségur, Sanson proposed to take up this task once again, substituting the boundaries of *généralités*—financial divisions favored by Louis XIV—in place of the *gouvernements généraux*, whose importance had less-ened.\(^72\) The first part of this project consisted of a large map of France published in 1652—53, which probably derived from the map Sanson had already executed for Richelieu. This general map of the entire kingdom was to be developed into 250 local maps, but the project was never completed, at least not in that framework. As early as 1645, Sanson proposed to the Assembly of the Clergy to draft detailed diocese maps accompanied by lists of their benefices (*pouillés*). He needed both memoranda as well as funds to realize such a vast project, of which he would only execute a good part of the cartographic side.

Pastoureau has attributed to Nicolas Sanson a *Mémoire sur la nécessité de dresser des cartes et statistiques du royaume* included in the *Mémoires de MM. du Conseil pour la réformation de la justice* that were presented to Louis XIV in 1665. The author of this new plan inten-ded to correct maps already in existence on the basis of administrative records “neatly and legibly written and in the right form”: orthographic errors and bad locations affected most maps “which pass as the best available but are in fact worth little.” The author of the memorandum imagined the possibility of sending skilled persons to specific sites so that they could perform the needed surveys and indicated the method that they were to follow. He also suggested that he draw up new maps himself “having part of the necessary knowledge to succeed, as well as the appropriate registers and tables,” a statement that fits Sanson and his collection of documents.\(^73\) But might the royal geographer, uncontested master in *cartographie de cabinet*, accept a mission that questioned the value of his preceding work? Jean Baptiste Colbert’s memorandum addressed to the *maîtres des requêtes* (commissaries sent by the king to the provinces), which was written between September 1663 and February 1664, had already designated Sanson as an expert who would know how to correct and complete maps of the provinces from records collected by the commissaries.\(^74\)

In 1652—53, Sanson published the large map that was to replace La Guillotière’s *Charte de la France*. The *Carte et description générale du tres-haut, tres-puissant, et tres-chrestien royaume de France* was engraved at a scale of


1:880,000 (fig. 48.12). Its author expected to compile more detailed maps of élections (financial divisions), in which “all the parishes and depending places would be present,” placing this work “among the most difficult of undertakings,” in which the national map would be used as a kind of “summary,” giving the main financial divisions, that is, the généralités. Sanson’s Carte et description générale did not reach the Adriatic but was well covered to the east because, as Sanson wrote, “it seems that all which is beyond the Rhine wants to return to this Kingdom, or at least is not able to survive without entering into its protection.”

At the same time Sanson’s Carte et description générale appeared in print, Pierre I Mariette published maps of the gouvernements généraux that Sanson had designed at a

75. Nicolas Sanson, Description de la France (Paris: M. Tavernier, 1639).
scale that was roughly 1:800,000—the same scale used for the large map of the kingdom. But Sanson’s diocese maps were much more detailed, as most of them were at a scale of 1:234,000. They were planned to reach the boundaries of ancient Gaul and include 218 sheets (fig. 48.13). Almost half were drafted and published by Sanson and his heirs, and at least fifty-four remained in manuscript. Guillaume Sanson, Nicolas’s son, explained in his Introduction à la géographie (Utrecht, 1692) how color may be used to delineate the boundaries of either religious or civil divisions, allowing the same engraved map to satisfy different clienteles. Such mid-seventeenth-century geographers as Philippe Labbe described France as a series of provinces, each of which had its own personality but which were united under authority of the king. “France does not recognize or obey any but a sole monarch who is the perfectly absolute ruler, although France is divided into different provinces.” Sanson’s maps provided a reassuring vision of domesticated and rationalized areas whose boundaries seemed to enclose peoples and give them security. He wrote that France is “the most beautiful and flourishing kingdom in the universe not because of its extent . . . but because of the justice and the happiness of its king, the courage and righteousness of its nobility, and the great number and wealth of its peoples.”

But the administrative boundaries were complex, and the quality and scale of the maps were still far from the desired precision.

The work of Nicolas and Guillaume Sanson shows the limits of cartographie de cabinet. Its imprecision gave rise

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77. Labbe, La géographie royalle, 132.
78. Sanson, Description de la France.
to a new mapping of France supported by the Académie des Sciences, created by Colbert in 1666. The activities of these celebrated mapmakers and the scope of their works kept them disconnected from first-hand observation of the terrain, so that they necessarily used collected information of unequal quality. The uniform style that was characteristic of their maps masked the heterogeneous character of the materials they used. These very sources were, moreover, insufficient to provide coverage of the kingdom at the scale of the diocese maps; the memorandum presented in 1665, perhaps by Nicolas Sanson, noted that areas unknown to mapmakers needed to be surveyed. Our interest in French production of maps should not detract attention from foreign works that profited from weaknesses in French map publishing, as attested to by the success of Flemish and Dutch atlases with texts translated into French. As La Guillotière’s maps benefited Ortelius, so Melchior II Tavernier, who brought to France Dutch material, collaborated with Sanson. This two-way flow of information was necessary to compile the first atlases, Flemish or French.

The Itinerary and the Map (1515–1645)

Up to this point I have shown the connections between provincial and national maps and the ties that their authors could possibly have with royal patronage. But I must also attend to texts of any sort that appeared at the same time and that are able to testify to a “cartographic culture” of the Renaissance, keeping in mind that the use of geographical names did not necessarily imply consultation of cartographic materials.79

Sometimes there was deliberate complementarity between text and image, with the text making up for the lack of detail achieved on a map. This compensation is demonstrated by the map of the Italian peninsula commissioned by Charles VIII and published in 1515 under the name of Jacques Signot, a French engineer who took part in the wars of Italy. The map localized ten Alpine passes, of which seven were on the frontiers of France, and the accompanying text specified that Montgenèvre was “the best and most suited to the passage and conduct of artillery alike” (fig. 48.14; and see p. 725). In his study on the map of Paris drafted by Germain Hoyau (ca. 1525–83), imagier en papier (producer of prints) and drawer, and engraved by Olivier Truschet, Dérens establishes a clear relation between this map of 1550 (which shows 287 streets and alleys, 104 churches and monasteries, and 49 colleges) and the Paris guide written by Gilles Corrozet, the Fleur des antiquitez, singularitez & excellences de la noble ville, cité & université de Paris, capitale du royauume de France.80 Published from 1532 in several editions, the guide met with great success. In 1543, it became more precise, providing the course of streets and the chief monuments that lined them. But seven years later, it was succeeded by a new version, Les antiquitez, histoires et singularitez de Paris, ville capitale du Royaume de France, a less detailed guide, because, according to Dérens, the Truschet-Hoyau map, which came out that same year, rendered some information included in the late Fleur des antiquitez useless. The Paris map and Les antiquitez were sold together, as confirmed by their joined use by Theodore Zwinger in his Methodus apodemica (Basel, 1577).

The relationship between text and map can best be studied in the context of travel. Although written guides and travel maps later became inseparable, maps appeared relatively late in the Renaissance period and were at first limited to schematic representations of itineraries involving fixed stages. Only during the eighteenth century did texts and maps become complementary and guidebooks assume the appearance that they now have. But even then their texts bore the influence of the first printed guide of the kingdom that appeared more than two centuries earlier—La guide des chemins de France published by the physician, scholar, and archeologist Charles Estienne in 1552.81

Estienne developed La guide from the oral reports of travelers, merchants, and pilgrims. The work was eagerly anticipated and increasingly appreciated by the public, leading to a growing number of imitations in Paris and the provinces from 1553. Fordham describes three editions published by Estienne in just two years, 1552 and 1553. Other editions published between 1553 and 1658 were produced by different booksellers without Estienne’s consent. La guide was imitated by Théodore de Mayerne Turquet, a physician from Geneva who published La guide des chemins pour aller & venir par les provinces & aux villes plus renommées de ces quatre régions (i.e., France, Germany, Italy, and Spain), a work that enjoyed so much popularity that it was reprinted until 1653.82

Although Estienne’s La guide was not accompanied by maps, it was so precise that it obviously served as a basis for mapmakers. This use of the guide is clear from the analysis of the Tableau géographique des Gaules of Jean Boisseau. This map was dated 1645 and inserted in the Tableau portatif des Gaules ou Description nouvelle du

79. This culture is analyzed by Conley, Self-Made Map.
royaume de France, a book written and published in 1646 by the same Boisseau, identifying himself as enlumineur du roi pour les cartes géographiques (royal illuminator for geographic maps). Boisseau also published Claude Chastillon’s Topographie francoise. For his Tableau géographique, Boisseau used La Guillotière’s Chartes de la France, inserted the roads described by Estienne, representing them by two parallel lines cut by dashes to allow the user to count the number of postal leagues (lieues de poste) that separated relay stations (relais); active stations were marked by arrows. Unlike La guide, the text of the Tableau portatif that the map accompanied did not describe the itineraries; it listed and qualified the towns that were shown on the map, noting their role in the royal administration and giving their geographic coordinates. Boisseau addressed himself to travelers and military audiences—maréchaux des logis, fouriers, responsible for army housing and foodstuffs—and also to “foreigners and those who have no knowledge of geography,” or, in other words, did not know the locations of places.

In 1632, before Boisseau’s Tableau géographique, Nicolas Sanson’s Carte géographique des postes qui traversent la France was published by the engraver-publisher Melchior II Tavernier. Sanson drew only the roads equipped with relay stations created for the king’s mail (routes de poste). His map used the simplest of signs—dashes for the itineraries themselves and circles for the relay stations—and its toponyms were limited almost exclusively to the station place-names, allowing it to be read with ease. Like Estienne’s La guide and its imitators, the map rapidly gained popularity and gave rise to several competing cartographic undertakings, but it remained the standard postal map of the kingdom under Louis XIV: Sanson was well known and his methods were perhaps more efficient than those used by Boisseau.

From 1553, La guide des chemins de France included a written description of the rivers in France (“Fleuves du royaume de France”), an account whose imperfections show the degree to which the hydrographic network of France was poorly known, even though it was often used.

Nicolas Sanson’s *Carte des rivières de la France curieusement recherchée* (fig. 48.15), first published by Melchior II Tavernier in 1634, was intended to improve this knowledge. Its principal aim was to make as complete an inventory of the river names as space would allow. These names were, in fact, many more than appeared on other maps. La Guillotière’s *Charte de France* was crowded with the toponyms of towns and villages, but named only major rivers. Sanson tended to the opposite extreme: he ignored towns and named only the rivers. In the 1641 edition, he even provided the borders of the principal fluvial basins, presenting divisions based only on physical geography that were later refined by Philippe Buache during the eighteenth century. By ignoring towns, Sanson’s map was not useful for the circulation of people or of goods, but was rather a geographic inventory. As a cartographic representation of a set of geographical items, it presaged Sanson’s future tables, which would tend toward exhaustive and specific listings, suited to any kind of division and inseparable from maps. The most useful cartographic representations of rivers were to remain in manuscript and were executed in preparation for the improvement of river navigation in specific areas.

**Conclusion**

In this chapter, I have attempted to show how several genres of maps were related in sixteenth- and early seventeenth-century France. The theme linking the dis-

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cussion is the underlying tension between projecting a unified image of the kingdom and the desire for large-scale tactical maps of small areas. The two kinds of maps used two different cartographic methods: a top-down approach, working from the whole to the part, using the ideals of positioning places with longitude and latitude explained in Ptolemy’s Geography, and a bottom-up approach, working from the part to the whole, exemplified by the local military surveys developed under Henri IV and his minister Sully. The first method was employed by the cartographes de cabinet (a modern French term for “arm-chair geographers”), who weighed different manuscript and printed sources of geographical information in map or textual form to compile a single document. The second relied on first-hand observation and survey measurements, however approximate.

The two approaches were not reconciled until the systematic attempts to create a national map in the late eighteenth century at the far larger scale of 1:86,400, but several tentative projects to create both were undertaken in the period discussed here. The ideal of a “national map,” if one can speak in such terms in pre-revolutionary France, was pioneered by Oronce Fine using Ptolemaic principles. Fine’s map of France at a scale of 1:750,000 remained a constant, copied and modified by Jean Jolivet and Guillaume Postel, but not superseded, throughout the sixteenth century. Such maps of France and its provinces were more often an expression of royal control of the mapped image of the kingdom. The court commissioned maps and its geographers drew them for political and diplomatic purposes, without paying too much attention to the commercial market reactivity. Nicolas de Nicolay’s effort, under the patronage of Catherine de’ Medici, was aborted and resulted in the mapping of only two provinces. The Charte de France by François de La Guillotière, printed some twenty years after his death, was, like Fine’s map, a pattern for other cartographers, but its author had access to some of the large-scale provincial surveys. A comparison of the different emphases in cartographic signs on these national maps is instructive: it shows the importance of administrative information. In his note to readers, Fine provided a legend that differentiated bishoprics, archbishoprics, and other villages and bonnes villes (privileged towns), whereas Jolivet’s map distinguished parlements by crescents and archdioceses by double crosses. Postel used existing signs without any explanation to readers, who were supposed to know their meanings. La Guillotière’s map was difficult to read due to the multiplicity of symbols and place-names he employed; perhaps his early death prevented him from refining this aspect of the map. In all these documents, the representation of topographic relief and other details of physical geography, such as rivers and coastlines, is very approximate. Little is known of the training, materials, and working methods of the geographers who contributed most to sixteenth- and seventeenth-century French cartography, as written testimonies and archival records are rare.

Provincial mapmaking, such as that developed in the reign of Henri IV, focused on the fragile eastern and northeastern frontier areas. Sully, who supervised fortifications and finances during Henri IV’s reign, spent much time in Moulins in a château where provincial maps had been collected or drawn by Nicolay and his son-in-law and successor, Antoine de Laval. The atlas by Maurice Bouguereau (1594) gathered some of this provincial data into published form. Later, Christophe Tassin, a military engineer by training, compiled a series of atlases—of provinces, towns, and coasts—of France based on the maps of military engineers.

By the early seventeenth century, Nicolas Sanson’s ambitious innovations improved French small-scale mapmaking. It became more distinctive and apparently more homogeneous in character, although proper field surveys remained scarce, as only military personnel had the skills and opportunity to carry them out. By now, the commercial motive for compiling maps had become far stronger. To draw a set of maps that would rival those of the Amsterdam cartographer Joan Blaeu, Sanson was obliged to rely on several types of questionable source material. He remained an arm-chair geographer, with all the limitations of this approach. But his emphasis on physical geography—for example, rivers became more prominent than towns in many of Sanson’s maps—earned him an innovative role, prefiguring the maps of Philippe Buache half a century later. Sanson’s attention to roads also resulted in a standard postal route map in the late seventeenth century.

Although a viable methodology for combining both Ptolemaic principles using astronomically defined coordinates and local survey methods was tested during the early years of the French Académie des Sciences, the complete new survey of France was not carried out before the second half of the eighteenth century. César-François Cassini de Thury’s large map of France drawn from these surveys would become the basic map of France, as that of Fine had been two centuries earlier. But Cassini’s was surveyed in the field using triangulation. During the French revolution, Cassini’s map served as the base map for delineating the départements that replaced the former provinces and signaled the administrative changes from the kingdom of France to the republic.