

33 • Cartography in the Duchy of Savoy during the Renaissance

PAOLA SERENO

THE FIFTEENTH AND SIXTEENTH CENTURIES

Today, foreign visitors entering Italy via Piedmont and stopping off in Turin, the capital of an absolutist state throughout the entire modern period, would perhaps be amazed to see that, with the single exception of the rather stark and severe facade of the cathedral, the architecture and layout of the place bear no trace of those Renaissance models that so influenced other Italian cities. They might at that point begin to wonder if the city had in some way eradicated an entire part of its own past. However, if these curious travelers were then to cross the baroque threshold of the palace that contains the Court Archives of the old House of Savoy, and there study the maps of the dynasty's territories, they would find another surprise: the cartography of Savoy reveals the same sort of "absences" as the urban fabric of Turin itself. In fact, it is only a slight oversimplification to say that, as a concept, "the Renaissance" serves very little purpose in explaining the history of Turin and the region over which it once ruled. The reason that the only trace of Renaissance architecture in the city is a religious rather than a secular building is that the state as such continued to be a weak entity up to the second half of the sixteenth century—that is, during the very years when the Renaissance was bearing its richest fruits. Similarly, this weakness of the central political power explains certain important characteristics of cartography in the Duchy of Savoy in the sixteenth and seventeenth centuries.

The absolutist state, which is generally considered to have emerged around the middle of the fifteenth century, undoubtedly played an important role in the development of modern cartography. In its eagerness to stress the role played by the great voyages of geographical discovery, traditional historiography has too often neglected the part played by political institutions. There is no doubt that such voyages were of key significance, but they should be considered as only one factor in a much more complex and nuanced story. It has been only over the last fifteen or twenty years—thanks to various scholars' research into the cartography of the Italian states—that this traditional focus has shifted away from the map as finished product and toward the processes of production at work in the

creation of cartographic representations. Such a shift in focus necessarily involves a consideration of the cultural and institutional context in which maps were made, and one important key to understanding the relation between cartography and political power has been the study of cartographers as professional figures. How did they choose their profession? What controls were exercised over their professional activity? How were their works circulated?

This contextual approach to the history of cartography in the state ruled by the House of Savoy was first adopted almost twenty years ago, with attention concentrating on the Age of Enlightenment. Before its adoption, the history of cartography in Piedmont was rather scantily practiced and nonsystematic; it was little more than a celebration of local achievements, in the best cases focusing exclusively on "major" figures, with the attendant risks of distorting the picture as a whole. Furthermore, it produced only partial explorations of specific themes that did not fit together into a coherent body of research. The studies took for granted that Savoy was peripheral to the cartography resulting from the voyages of exploration and to the way Renaissance geographers in other Italian cities were elaborating a picture of the world. The end result was the application of predefined interpretative categories that tended to blind research to the very thing it was studying. In order to correct this misinterpretation, historical studies of cartography now aim to reconstruct history not merely as a collection of episodes but as a single original whole. To do this, they look at the processes at work in cartographic production and investigate not only the "silences" in individual maps but also the gaps that distinguish the history of cartography in Piedmont from its history elsewhere. A natural starting point for this is a study of context and chronology.

One cannot overlook the attempts made by Amedeo VIII of Savoy (r. 1397–1434) to unify under a single dynasty the various territories of that northwestern area of Italy that we will, for convenience, refer to simply as Piedmont. His subtle diplomatic negotiations and well-documented legislation were clearly inspired by one aim: the centralization of power and the construction of a modern state that could take its place on the geopolitical chessboard of northern Italy alongside the Duchy of

Milan and the Republic of Venice. However, his project enjoyed short-lived success, for his achievements were in part squandered by his successor and in part curtailed by Filippo Maria Visconti, who was determined to reassert the dominant role of Milan.

If Amedeo VIII's state had become a consolidated political entity, it is highly likely that the history of cartography in Piedmont would have been rather different. But, after his death, Piedmont entered a century in which the standing of the ruling dynasty continued to decline and the region itself became a battleground occupied by French and Spanish troops—"a chessboard on which everyone plays," to use Gian Galeazzo Visconti's pitiless description.¹

This brief outline of events serves to explain why the Renaissance "passed by" Turin and Piedmont—or, to put it another way, why the region had its "renaissance" a century later. Recent research has shown how the period that opened with Emanuele Filiberto of Savoy—after the Peace of Cateau-Cambrésis in 1559—can be taken as having marked a significant turning point in the history of cartography in the state of Savoy, a watershed between two clearly distinct periods.

Cartographic representations of one's own region are rightly considered one of the achievements of the Renaissance, and their absence here should come as no surprise. The term "Piedmont" was, at the time, applied less to a region as such than to that western appendix of Lombardy shown in the partition of Italy that dates from Flavio Biondo. The depictions of what we now call Piedmont are therefore to be looked for in the overall maps of Italy—above all, in those contained in editions of Ptolemy's *Geography*.² The first printed map of the region of Piedmont was produced in the workshop of Matteo Pagano in 1538–39.³ It is no coincidence that this was the year in which the emperor Charles V and the French king François I sat down to negotiate their respective spheres of interest in Piedmont. The crisis in the Savoy state had yet to be resolved, but the region had become an issue that worried the courts of Europe, and, as it began to take on a geopolitical identity, it also emerged as a subject for maps.

Besides Pagano's map, according to a list drawn up by Almagià, there were seven archetypes on which all the known depictions of Piedmont were based—and nearly all of those seven were produced in Venetian mapmaking circles.⁴ Hence, in the period when regional cartography was first flourishing, the chorography of Piedmont was being created not in the region but elsewhere: all the regional maps—be they part of the Italian or the Ptolemaic tradition—were developed and produced outside the small and politically unstable state that spread across the Alps. Chorography would, in fact, remain substantially alien to cartography and geography as they developed in

Piedmont, where interest was focused much more on the production of large-scale maps—something that would remain a constant feature of cartography in the area right up to the eve of what we might call the contemporary

Abbreviations used in this chapter include: AST for Archivio di Stato, Turin; *Dizionario* for *Dizionario biografico degli Italiani* (Rome: Istituto della Enciclopedia Italiana, 1960–); *Rappresentare uno stato* for Rinaldo Comba and Paola Sereno, eds., *Rappresentare uno stato: Carte e cartografi degli stati sabaudi dal XVI al XVIII secolo*, 2 vols. (Turin: Allemandi, 2002); and *Theatrum Sabaudiae* for Luigi Firpo, ed., *Theatrum Sabaudiae (Teatro degli stati del Duca di Savoia)*, 2 vols. (1984–85), new ed., ed. Rosanna Roccia (Turin: Archivio Storico della Città di Torino, 2000).

1. Paolo Brezzi, "Barbari, feudatari, comuni e signorie fino alla metà del secolo XVI," in *Storia del Piemonte*, 2 vols. (Turin: Casanova, 1960), 1:73–182, esp. 171.

2. On this subject, see Carlo Felice Capello, *Studi sulla cartografia piemontese, I: Il Piemonte nella cartografia pre moderna (con particolare riguardo alla cartografia tolemaica)* (Turin: Gheroni, 1952); Marica Milanese, "Il Piemonte sud-occidentale nelle carte del Rinascimento," in *Rappresentare uno stato*, 1:11–17; Paola Sereno, "Tra Piemonte, Liguria e Lombardia: Dalle rappresentazioni tolemaiche del Piemonte alle prime immagini moderne," and Paola Pressenda, "Le carte del Piemonte di Giacomo Gastaldi," both in *Imago Italiae: La fabbrica dell'Italia nella storia della cartografia tra Medioevo ed età moderna. Realtà, immagine ed immaginazione*, ed. Luciano Lago (Trieste, 2003), 315–21 and 321–26 (this book was published simultaneously in English with identical pagination under the title *Imago Italiae: The Making of Italy in the History of Cartography from the Middle Ages to the Modern Era. Reality, Image and Imagination*, trans. Christopher Taylor and Christopher Garwood). A review of Italian Renaissance maps of Italy can be found in the catalog to the exhibition curated by Lago; see Luciano Lago, ed., *Imago mundi et Italiae: La versione del mondo e la scoperta dell'Italia nella cartografia antica (secoli X–XVI)*, 2 vols. (Trieste: La Mongolfiera, 1992). Among the maps of Italy that are not included in Ptolemy's *Geography*, see in particular those by Pietro Coppo; the most recent study of these maps is Luciano Lago and Claudio Rossit, *Pietro Coppo: Le "Tabulae" (1524–1526)*, 2 vols. (Trieste: LINT, 1986). The depictions of Piedmont in Pietro Coppo's maps of Italy are discussed in Luciano Lago, "Pietro Coppo e le rappresentazioni del Piemonte nelle sue carte d'Italia," in *Rappresentare uno stato*, 1:19–26 and related descriptions and illustrations, 2:21–24 (nos. 10–11). On the map of the valleys leading from France to Piedmont, which appears in the Jacques Signot codex and can be dated 1495–98, see Carlo Felice Capello, "La 'Descrizione degli itinerari alpini' di Jacques Signot (o Sigault)," *Rivista Geografica Italiana* 57 (1950): 223–42, and Sereno, "Tra Piemonte, Liguria e Lombardia," 318–21. The 1515 printed version is figure 48.14 in this volume.

3. Roberto Almagià, "La più antica carta stampata del Piemonte," *L'Universo* 6 (1925): 985–89, and idem, *Monumenta Italiae cartographica* (Florence: Istituto Geografico Militare, 1929; reprinted Bologna: Forni, 1980), 16 and pl. XVII, no. 1.

4. Roberto Almagià, "La cartografia dell'Italia nel Cinquecento con un saggio sulla cartografia del Piemonte," *Rivista Geografica Italiana* 22 (1915): 1–26. The seven, which did not include Pagano's map (unknown to Almagià in 1915; he published it in 1925), were: Gastaldi's map of Piedmont in Ptolemy, *La geografia* (Venice, 1548); the map of Piedmont and part of Liguria engraved on copper by Hieronymus (Giralamo) Cock and printed in Antwerp in 1552; an anonymous 1553 map of Piedmont and Liguria; Gastaldi's second map of Piedmont, a woodcut printed in Venice at Matteo Pagano's workshop in 1555 (fig. 31.6 in this volume); a map of Piedmont engraved on copper and printed in

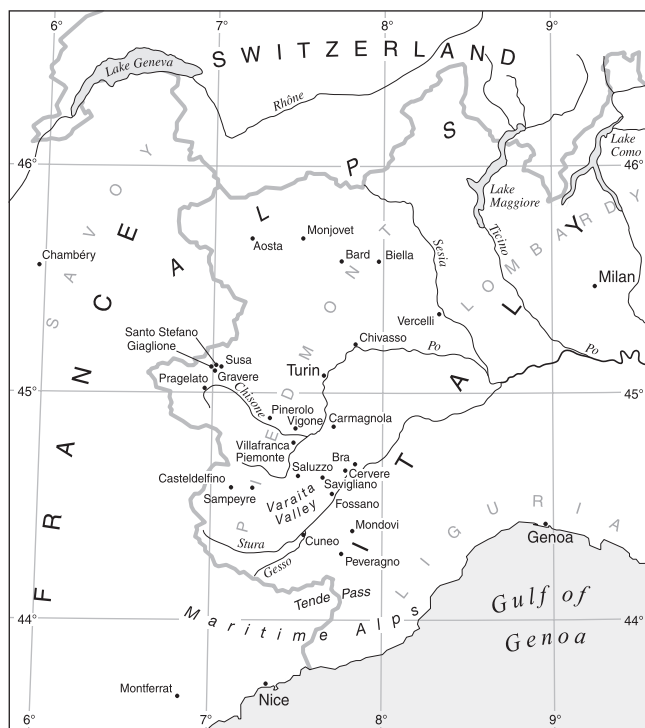


FIG. 33.1. REFERENCE MAP OF NORTHWEST ITALY. The map shows places mentioned in this chapter.

period. (For a reference map of northwestern Italy, see fig. 33.1.)

SPECIAL-PURPOSE AND TOPOGRAPHICAL MAPS

The fact that Piedmont took no part in the construction of a chorographical representation of itself or in the progress being made elsewhere in regional cartography does not mean that no original representations of its territory were produced locally. In Piedmont, there was a particular focus on large-scale works, with knowledge of territory based on practical, on-site knowledge of particular locations. This tradition originated in the early fifteenth century,⁵ was consolidated after the Peace of Cateau-Cambrésis, continued through all the centuries of the modern period, and showed particular growth during the Age of Enlightenment. Ultimately, this cartography in the service of the state would play its part in the institution of an official cartographic service for the unified Italy.

The “right to a place in history”⁶ is denied to a part of this tradition not only by a certain orientation in historical studies of the subject—which, in distinguishing between geographical maps and other maps, adopts implicit criteria of exclusion that do not help one in understanding historical processes—but also by a more practical consideration: the difficulty in finding material that gen-

erally exists in manuscripts scattered throughout various archives. One of the earliest examples of local cartography is the pen and paper drawing of 1548–49 that depicts the network of salt-duty warehouses in the province of Nice, which extended as far as Cuneo and Mondovì (fig. 33.2), using schemata that are easily translatable into those of a modern map drawn on the basis of the data it contains.⁷ The salt-duty map depicts the network of roads that crossed over the Tenda Pass and linked together the internal regional system of bonded warehouses stretching from Nice to Cuneo—a system set up about a century earlier by Paganino del Pozzo, a salt-duty excise officer in Nice. It shows that the people who built the roads and bridges in this area of the Maritime Alps followed mental—and, more probably, drawn—schemata. These schemata not only guided their work in the territory but also served to bring together local knowledge of sites and specialized technical know-how in the realization of territorial-scale objectives.

It is in the work of land surveyors in particular that one finds cartographic expression of such local knowledge. The archives are rich in documentation of their work throughout the modern period, but material dating from the Renaissance is rather scarce. However, systematic research—above all, in historic Piedmont, the southwestern part of the present-day region that, even according to the more restrictive fifteenth- and sixteenth-century definitions, was always considered the territory of Piedmont—has made it possible to locate works and authors and to reconstruct the social and cultural contexts within which maps were commissioned locally.

Territorial disputes seem to have been the most frequently occurring occasions for cartographic renditions; these renditions accompanied the documents presented to

the Venice workshop of Ferrando Bertelli in 1567; the map of Piedmont and Liguria by Gerardus Mercator, engraved on copper and included in his *Italiae, Sclavoniae et Graeciae tabulae geographicae* (Duisburg, 1589); and an undated map of Piedmont by Fabrizio Stechi, engraved on copper in Venice by Francesco Valegio and presumably dated around the end of the sixteenth century. Among those made in Venetian circles, one should mention the maps of Piedmont by Giacomo Gastaldi, who was Piedmontese by birth but spent his active career in Venice. These are discussed in Milanesi, “Il Piemonte sud-occidentale”; Emanuela Mollo, “L’attività di un cartografo piemontese fuori dello stato: Giacomo Gastaldi,” in *Rappresentare uno stato*, 1:27–31 and related descriptions and illustrations, 2:16–19 (nos. 6 and 7); and Pressenda, “Le carte del Piemonte di Giacomo Gastaldi.”

5. P. D. A. Harvey, “Local and Regional Cartography in Medieval Europe,” in *HC* 1:464–501, esp. 478–82.

6. The expression is taken from Jean Poirier, “Ethnologie diachronique et histoire culturelle,” in *Ethnologie générale*, under the direction of Jean Poirier (Paris: Gallimard, 1968), 1444–60, esp. 1445.

7. This is done in Rinaldo Comba, “Interessi e modi di conoscenza dal XV al XVII secolo,” in *La scoperta delle Marittime: Momenti di storia e di alpinismo*, ed. Rinaldo Comba, Mario Cordero, and Paola Sereno (Cuneo: L’Arciere, 1984), 15–23, esp. 18.

the public authority that was to settle such contested areas. Litigation usually concerned water rights, land ownership, and, most interestingly, problems arising from shifts or redefinition of public (especially town) boundaries. These changes were an inevitable result of the formation of absolutist states. The medieval system of local feudal lords had bequeathed to the new administrative geography both a need to reorganize areas of jurisdiction and long-established hierarchies of rights.⁸ After Amedeo VIII's 1430 "Decreta Sabaudiae ducalia," territorial disputes between towns and communes were decided first by the duke's resident council, then in the following century by the Court de Parlement in Turin, and finally, from 1560 onward, by the freshly instituted provincial prefectures, though the more important cases were heard by the senate itself.⁹

This use of maps as legal documents in the presentation and settlement of territorial disputes seems to have become established practice in Piedmont in the latter part of the sixteenth century. The earliest examples known to us date from just after the middle of the century, though they were already being drawn more frequently after 1560. A much earlier case—but it was exceptional and unique—can be found in the two painted maps and the ink sketch (the latter dated 1420–22) that were drawn up during a dispute between Ludovico I, marquis of Saluzzo, and Charles, dauphin of the Vienne throne and son of Charles VI of France, over the borderlands between the communities of Sampeyre and Casteldelfino in the Varaita Valley.¹⁰ The fact that the sketch was produced for the marquis of Saluzzo, while the two painted maps were commissioned on behalf of the dauphin, seems to suggest that cartography was already being put to such uses in France at a time when legal resort to maps was still largely unknown on the other side of the Alps.

There is yet no adequate explanation for the late appearance of maps among legal documents in Piedmont. Perhaps that very claim is a mistaken conclusion based simply on the dates of the maps that have survived. More probably, it reflects the way archives were organized and the types of judicial procedure followed by the different institutions responsible for handling such cases. However, as the Casteldelfino maps suggest, the answer might also lie in the way contemporary society viewed such representations of territory and the very availability of professionals with the requisite technical knowledge to create them. What is beyond question is that the role of state judges in such cases introduced an influence geographically distant from the parties to the dispute and from the places contested. In these circumstances, maps were by far the most efficient way of offering the external judges a visual aid that might make up for their lack of direct knowledge. Such maps might be produced separately by each party to the dispute (in support of their claims) or might

be commissioned by both of them together; in either case, the land surveyor or artist commissioned took on the role of an official expert. Nevertheless, before the maps could be accepted by the court, they had to be validated, and to this end the judges might order on-site reconnaissance of the area concerned in order to test the truthfulness of the map through a comparison between cartographic representation and actual territory.

One of the first such attestations known to us well illustrates the debates that might arise regarding the maps produced in a court case—and hence the meaning that the society of the day attributed to cartography. The map in question dates from 1558 and covers a stretch of the river Chisone that had long been the center of a dispute between the communities of Pinerolo and Vigone over the division of the costs relating to the protection of the riverbanks (fig. 33.3). Drawn up for the community of Pinerolo by the land surveyor Bertino Riveti, this is the sole survivor of the two maps connected with the case; the other map was drawn up by the land surveyor Michele de la Cacia with the help of the painter Alessandro Serra, directly commissioned by the court itself. Riveti, however, judged Cacia's "*figura seu protractus*" (drawing or scale plan) technically unacceptable because, he said, it was constructed without a baseline, and therefore it was impossible for the drawing to be accurate and for a correct judgment to be made. He supplemented this attack with a detailed memorandum defending his own map and the techniques of land surveying used therein against the criticisms put forward by the community of Vigone.¹¹

The point raised by Bertino Riveti is a technical one, concerning the abilities and skills required of those who drew up maps—a professional group yet to be fully defined (in spite of the impression given by Riveti's rather generic reference to "all the art experts"). Was there a generally recognized professional statute defining competence? It seems fair to doubt that there was. The maps we are dealing with may have some characteristics in common, but while the documentary evidence makes it clear

8. On these issues in Piedmont, see L. Provero, "Territorio e poteri nel Piemonte medievale: La nascita dei villaggi," Convegno su Orientamenti sulla ricerca per la storia locale (Cuneo, unpublished manuscript, n.d.).

9. See Rinaldo Comba, "Le carte nelle contestazioni territoriali intercomunali dei secoli XV e XVI," in *Rappresentare uno stato*, 1:117–23.

10. Archives de l'Isère (B 3710 and B 1446), the maps were first mentioned in François de Dainville, "Cartes et contestations au XV siècle," *Imago Mundi* 24 (1970): 99–121, esp. 99–102. See also Comba, "Le carte nelle contestazioni territoriali," 118. On the dispute that gave rise to the maps, see Claudio Allais, *La Castellata: Storia dell'alta valle di Varaita* (Saluzzo, 1891), 143ff.

11. Together with documents relating to the dispute, the map is now in Pinerolo, Archivio Antico Comune. It is discussed by Guido Gentile in *Giacomo Jaquerio e il gotico internazionale*, ed. Enrico Castelnovo and Giovanni Romano (Turin: Stamperia Artistica Nazionale, 1979), 309–14. See also Comba, "Le carte nelle contestazioni territoriali," 120.

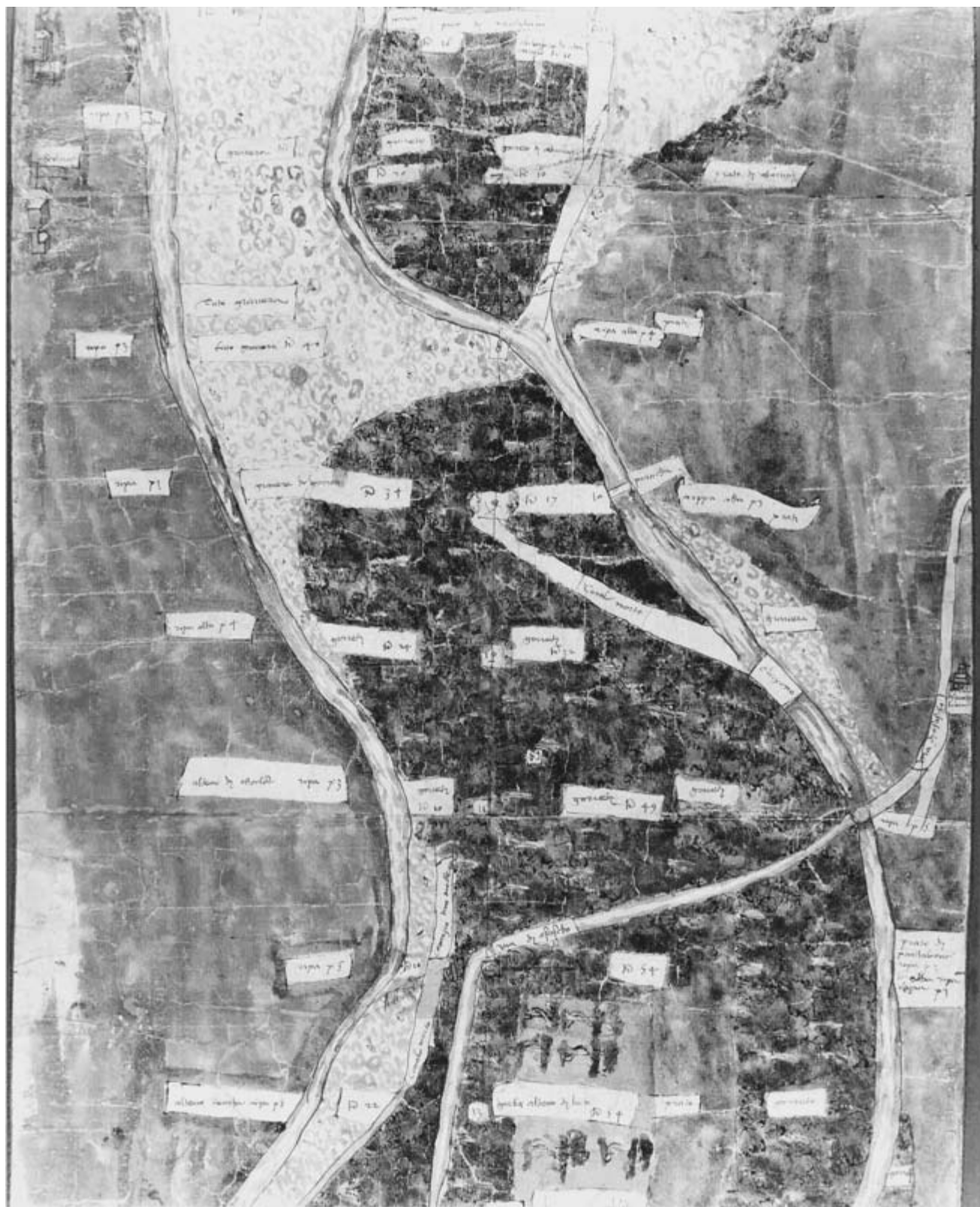


FIG. 33.3. BERTINO RIVETI, DETAIL OF THE MAP OF THE RIVER CHISONE, 1558. Ink on paper, colored and fixed on fabric during restoration.

Size of the entire original: 345 × 48.5 cm; size of this detail: ca. 60.3 × 48.5 cm. Photograph courtesy of the Biblioteca Civica Alliaudi, Archivio Storico, Pinerolo (cat. II, fasc. IV, n. 9).

that on the whole they were drawn up by land surveyors and painters, they could also have been the work of architects, military engineers, and even notaries. Clearly the fact that all these professions were interchangeable when it came to the drawing up of maps must have had an influence on the end product itself, just as a map's final form might also have been influenced by the purpose it was intended to serve.

For example, let us consider the 1566 map the Saluzzo painter Cesare Arbasia was commissioned to produce of the water channels leading off the river Gesso in the territory of Cuneo (the community was in a dispute with that of Peveragno over water rights). Measurements played no part in his "survey"—an on-site inspection carried out on horseback—and yet Arbasia was able to produce a painted map that was sufficiently accurate to indicate how watercourses were derived from the river.¹² However, when at the beginning of 1566 he was commissioned by the provincial prefect to draw up a map of the Cuneo territory lying beyond the river Gesso (land that had been the object of a ten-year border dispute between Cuneo and Peveragno),¹³ Arbasia—working with another painter, Giovan Francesco Serponte—proceeded in a very different manner and availed himself of the services of Andrea Poma, a land surveyor or, more precisely, a "leveler" (that is, a technician who knew how to use a level). The *protractus* (scale plan) created by the two painters was also based in part on measurements of the territory taken the previous year using a level and surveyor's cross staff by the land surveyor Francesco Busso, who had then been replaced by Poma and Federico Bersore in this task of measuring the distances between the old stone boundary markers that had been set up as early as 1395.¹⁴ The final *protractus* accurately reflects all these measurements, even if the scale is not given (it can be calculated at around 1:4600) (fig. 33.4). The base of this geometrical account is a watercolor rendition of the rural landscape; however, even here, comparison of the map and the accompanying written documents reveals that certain selective criteria were applied when deciding what to include in the map (this was clearly the case with the perspective renderings of settlements). If we look at the careers of Arbasia and Serponte after they collaborated on this map, we can perhaps deduce something about how the relations between painting and cartography changed as the century progressed. Arbasia returned to painting, while Serponte dedicated himself more and more to the production of land survey maps, and he was still working in this field in the early years of the seventeenth century;¹⁵ hence we can deduce that, while artistic skill and technical requirements could quite happily exist side by side in the mid-sixteenth century, increasing demands for greater accuracy of measurement ultimately led to a parting of the ways.

Another painter-mapmaker was Bartolomeo Mellano, who produced two maps of the boundaries between Fosano and Savigliano and between Savigliano and Cervere.¹⁶ These works, both produced in 1565, give a good account of the area's system of water channels and even use different symbols to indicate the two different types of vineyards (those in which the vines are grown around posts and those adopting the *alteno* method of growing the vines around trees) (fig. 33.5).¹⁷

But if we turn to the figures of Alessandro and Vermondo Resta, we see mapmakers with a very different professional background. Of Milanese origin, Alessandro worked a long time in the service of Emanuele Filiberto, duke of Savoy, who appointed him as the ducal engineer, architect, and "leveler."¹⁸ In 1575, as the duke's military engineer, Alessandro worked with his son Vermondo on a map intended to settle a dispute over an area of river

12. A watercolor drawing on canvas-backed paper, the map is now in Cuneo, Museo Civico, Archivio cartografico, n. 156. For a detailed discussion of the map, see Comba, "Le carte nelle contestazioni territoriali," and the related description and illustration, 2:56–57 (no. 32), and Rinaldo Comba, "La mappa dei canali derivati dal torrente Gesso (sec. XVI)," in *Radiografia di un territorio: Beni culturali a Cuneo e nel Cuneese* (Cuneo: L'Arciere, 1980), 31–33.

13. Cuneo, Museo Civico, Archivio cartografico, n. 43. For a detailed discussion of the map and the dispute that gave rise to it, see Comba, "Le carte nelle contestazioni territoriali," 121–22 and the related description, 2:52–56 (no. 31). On both Arbasia maps, see also Rinaldo Comba, "Schede di cartografia rinascimentale, I: Due mappe di Cesare Arbasia nel Museo Civico di Cuneo (1566)," *Bollettino della Società per gli Studi Storici, Archeologici ed Artistici nella Provincia di Cuneo* 109 (1993): 39–55.

14. Cuneo, Archivio Storico Comunale, Documenti, vol. 91, fols. 286r–89v, and vol. 92, fols. 420r–21r.

15. The career of Arbasia is recorded by C. Spantigati, "Arbasia, Cesare (Saluzzo, ?–1608)," in *La pittura in Italia: Il Cinquecento*, 2 vols., ed. Giuliano Briganti (Milan: Electa, 1988), 2:628; see also A. Griseri, "Arbasia, Cesare," in *Dizionario*, 3:729–30; "Arbasia, Cesare," in *Schede Vesme: L'arte in Piemonte dal XVI al XVIII secolo*, 4 vols. (Turin: Società Piemontese di Archeologia e Belle Arti, 1963–82), 1:39–43; Comba, "Schede di cartografia rinascimentale," 40; and Rinaldo Comba, *Metamorfosi di un paesaggio rurale: Uomini e luoghi del Piemonte sud-occidentale dal X al XVI secolo* (Turin: CELID, 1983), 143–44.

16. Savigliano, Archivio Storico Comunale, Tipi e Disegni, nn. 1 and 2, and, for the relevant documentation, see Savigliano, Archivio Storico Comunale, cat. V, cl. 5, art. 1a, vol. IV, folder 1. See also the entries on the two maps in Comba, "Le carte nelle contestazioni territoriali," 122 and the related descriptions and illustrations, 2:58–62 (nos. 33–34).

17. On the *alteno*, with some references to the symbols used in Piedmontese maps to indicate vineyards, see Rinaldo Comba, "Paesaggi della coltura promiscua: Alteni, 'gricie' e terre altenate nel Piemonte rinascimentale," in *Vigne e vini nel Piemonte rinascimentale*, ed. Rinaldo Comba (Cuneo: L'Arciere, 1991), 17–36, and Paola Sereno, "Vigne ed alteni in Piemonte nell'età moderna," in *Vigne e vini nel Piemonte moderno*, 2 vols., ed. Rinaldo Comba (Cuneo: L'Arciere, 1992), 1:19–46.

18. See the ducal patents of 1562 and 1566 in AST, Camera dei Conti, Patenti Piemonte, reg. 6, fol. 43, and reg. 10, fol. 110.

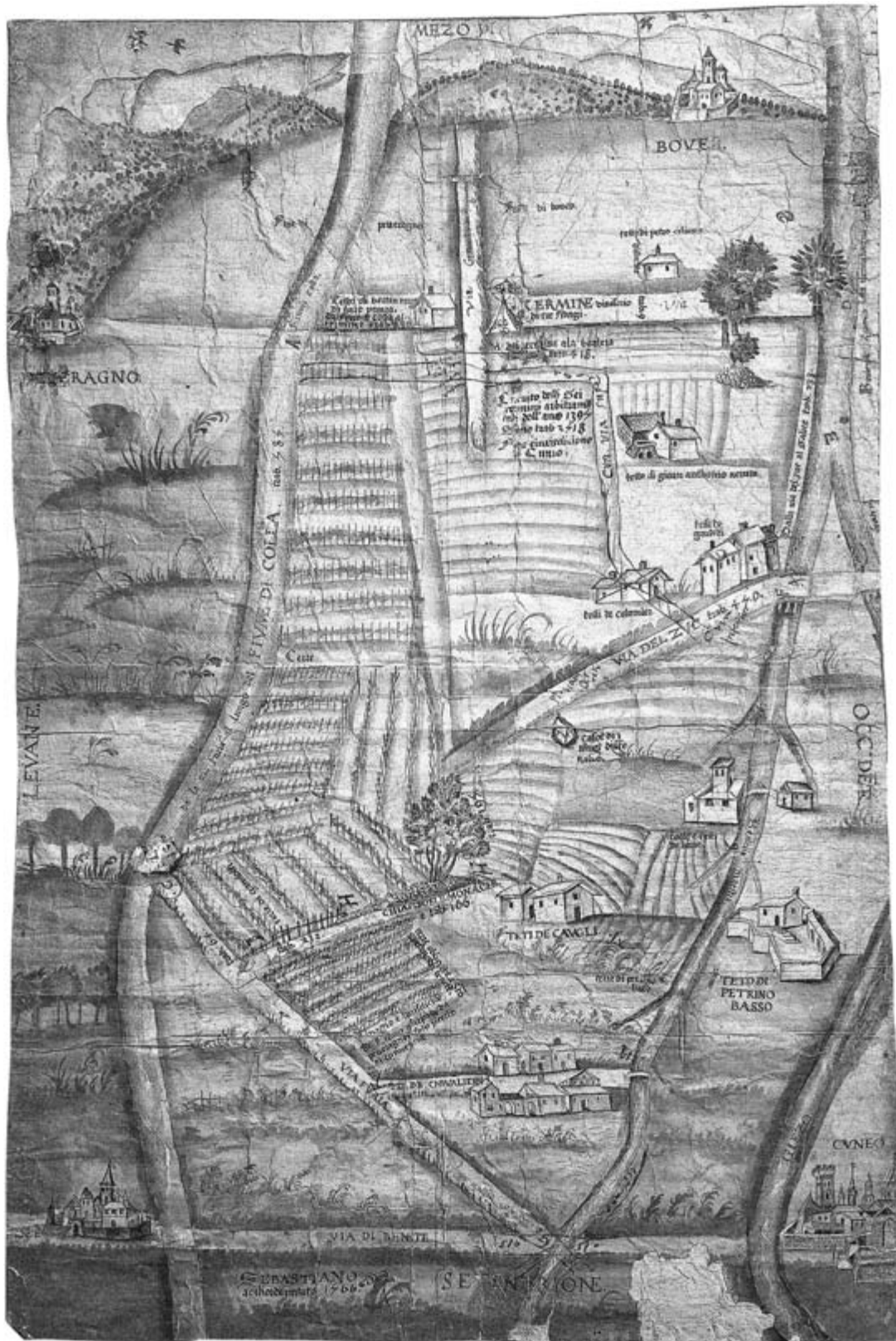


FIG. 33.4. FINAL SURVEY OF CUNEO TERRITORY, 1566. Photograph courtesy of the Museo Civico Cuneo (Archivio Cartografico, n. 43).

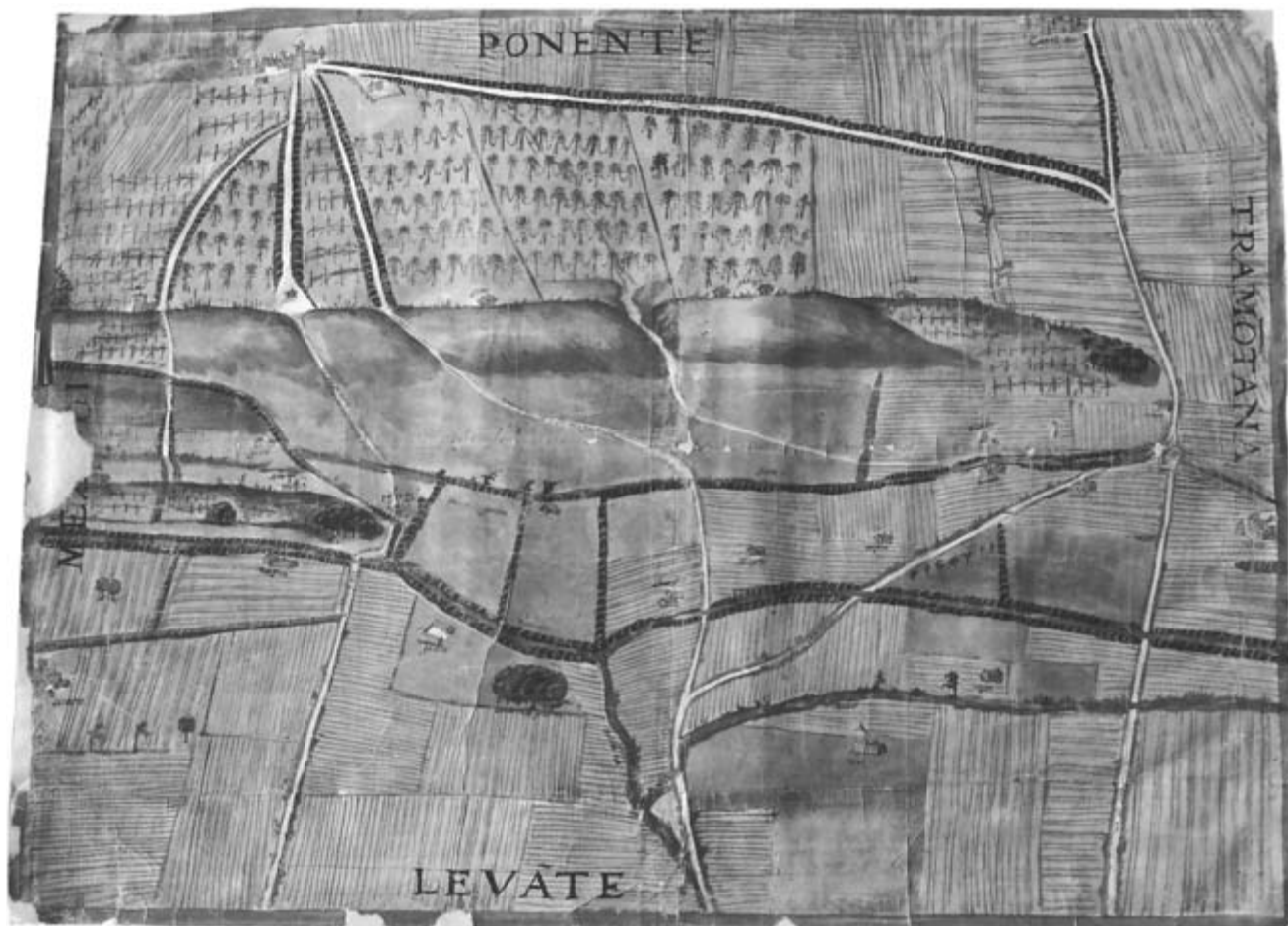


FIG. 33.5. BARTOLOMEO MELLANO'S MAP OF THE BOUNDARY BETWEEN SAVIGLIANO AND CERVERE, 1565.

Size of the original: 61 × 80 cm. Photograph courtesy of the Archivio Storico Città di Savigliano (Tipi e disegni, disegno C2).

land known as the “Gaio” that lay on the borders of the community of Carmagnola (then under the Marquisate of Saluzzo) and the estates of the counts of Costa di Arignano and Polonghera, vassals of the duke. The count of Polonghera commissioned the Restas to draw up a survey of the disputed territory, and the end result is particularly interesting because it is the only extant collection of documents from that period containing all the preliminary work and calculations used in producing the final map. Three maps, one preparatory sketch, and one notebook with calculations and sketches survive, together with various letters and documents relating to the case.¹⁹ The three maps include a final watercolor version, an identical version only partially colored (plate 28), and a totally uncolored outline all at a scale of about 1:8200. The first of the two watercolor maps was undoubtedly copied from the other, for the pinpricks used for copying are still visible when the map is held up to the light. The partially colored map was probably a first draft, as one can see from certain corrections to the outline and some

calculations that occupy the edges of the sheet. This was undoubtedly the source for the third map, which has no framework lines for the drawing and does not give the measured distances, but is particularly painstaking in its perspective rendering of the buildings indicating settlements. It is highly likely that this and the first map were two of the three maps that Antonino Thesauro, the judge in the dispute, ordered the Restas to deliver to the court.

The draft map with the internal evidence indicating how it was constructed, the partial sketches, and the data

19. For a detailed examination of the maps, see the entry in Maria Luisa Sturani, “Strumenti e tecniche di rilevamento cartografico negli stati sabaudi tra XVI e XVIII secolo,” in *Rappresentare uno stato*, 1: 103–14. See also A. Lange, “Le carte topografiche di Alessandro e Vermondo Resta del 1575 per la zona del Gaio fra Carmagnola e Carignano,” in *Carignano, appunti per una lettura della città: Territorio, città e storia attraverso la forma urbana, l'architettura e le arti figurative*, 4 vols. (Carignano: Museo Rodolfo, 1980), 1:263–67.

relating to the on-site measurements all enable us to work out the techniques used by the surveyors. The presence of a right-angled grid—still visible in the draft map and in some of the preparatory sketches—indicates the use of a surveyor's cross staff and direct measurement of distances, while annotations of measurements in degrees suggests the use of some goniometrical instrument (such as a graduated circle or a geometrical quadrant) in determining some of the main points on the map—a procedure that notably enhanced accuracy.

In this period of Piedmontese history, the other prevalent type of cartography was the production of military topographies, and the general similarity in techniques and instruments used in both this field and surveying meant that for a long time the two professions were largely interchangeable. The interest in local large-scale mapping that was characteristic of the maps produced during the Renaissance in Piedmont continued through the following centuries, in spite of the growing separation between the roles of military topographer and land surveyor. A significant example of this interest can be found in the work of Giovanni Francesco Peverone, whose life and work offer us a perfect opportunity to evaluate the conditions of cartographic production in the Duchy of Savoy during the first half of the sixteenth century.

We know that Peverone, a member of an illustrious Cuneo family, lived during the period 1509–59,²⁰ when as a master and professor of law he was a prominent member of a local circle of Neoplatonic intellectuals and a scholar of astronomy, astrology, music, painting, and architecture, as well as being the author of *Due breui e facili trattati, il primo d'arithmeticca, l'altro di geometria: Ne i quali si contengono alcune cose nuoue piaceuoli e utili, si a gentilhuomini come artegiani*. First published in Lyons by Jean de Tournes in 1558 (and reprinted in 1581),²¹ the *trattati* (treatises) are examples of the introductory manuals that represented a fairly widespread literary genre in Renaissance Europe; however, those of Peverone stand out because they were produced in Piedmont, a region that was excluded from the important scientific circles in contemporary Italy. The *Geometria* is important to the historian of cartography because it covers, within the limits of an introductory discussion of the subject and its practical applications, not only land surveying but also the construction and use of measuring instruments, the problems in calculating elevations, the various methods for topographical leveling, the way to construct a map of a city or estate, how to draw up a plan of a region (with or without instruments), and the basic principles of triangulation.²² In short, this is a manual that taught the procedures involved in drawing up chorographies and local-scale representations of territory—procedures in which instrumental measurements were an option, but direct on-site reconnaissance was essential.

It is difficult to say what type of circulation Peverone's treatises enjoyed in Piedmont, and therefore what role they played in forming the technical skills that we have already seen were developing in the state from just after the middle of the sixteenth century. The fact that a second edition of his two works was published some twenty-two years after the first suggests that there was a continuing demand for them, as does the fact that, as late as 1740, a copy of the first edition was acquired for the library of the Scuola Teorica e Pratica di Artiglieria, the recently established training school for military cartographers.²³ What one can say with certainty is that the practical approach to cartography outlined in Peverone's *Geometria* would have been "the Piedmontese way" throughout the modern age and that the reason the contemporary relevance of his treatises seems to have remained undiminished for two centuries is probably that it was a manifesto of this philosophy, with its focus on local scale and topography (which are both indissolubly linked to each other, even if perhaps serving different aims).

20. Peverone's life and work are discussed in Paola Sereno, "Se volesti descrivere il Piemonte": Giovan Francesco Peverone e la cartografia come arte liberale," in *Rappresentare uno stato*, 1:33–46.

21. The treatise on arithmetic is dedicated to Spirito Martini, a Greek scholar, Neoplatonist, and translator of Proclus, while the treatise on geometry is dedicated to Giovan Francesco Cacherano d'Osasco, a famous jurist who would soon afterward be appointed to the Savoy delegation at the treaty negotiations of Cercamp and Cateau-Cambrésis. The dedications in both editions have datelines reading "Cuneo 1556"; therefore, that year is the end marker for their completion.

22. The description of the triangulation of the plain around Cuneo, however, is totally theoretical, for the author himself admits he has never performed it in practice. In effect, he offers a simplified version of the elaborate method Gemma Frisius outlines in his *Libellus de locorum describendorum ratione*, which was published in Antwerp in 1533 as a commentary on Peter Apian's *Cosmographia*. Stefano Grande, in "Il primato cartografico del Piemonte e Casa Savoia dai tempi di Emanuele Filiberto in poi," *Annali dell'Istituto Superiore di Magistero del Piemonte* 2 (1928): 35–67, esp. 48, points out that Peverone's manual describing this method of surveying predates such contemporary works as Cosimo Bartoli's treatise *Del modo di misurare le distantie, le superficie, i corpi, le piante, le prouincie, le prospetiuue, & tutte le altre cose terrene, che possono occorrere a gli huomini, secondo le uere regole d'Euclide, & de gli altri piu lodati scrittori* (Venice: Francesco Franceschi Sanese, 1564), and therefore must have been the source for Egnazio Danti's *Trattato dell'vso et della fabbrica dell'astrolabio* (Florence: Giunti, 1569), which, it is argued, sometimes repeats Peverone verbatim. In fact, in his discussion of triangulation, Danti cites only Gemma Frisius.

23. AST, Segreteria di Guerra, Azienda Generale Artiglieria, Inventari Artiglieria, Divisione di Torino, m. 5, "Inventario de' libri esistenti nelle Reggie Scuole teoriche d'Artiglieria." Another copy of the book was in the personal library of Antonio Bertola, who, between the end of the seventeenth century and the beginning of the eighteenth, was master of arithmetic to the pages of the court, a master of fortifications, the duke of Savoy's principal civil and military engineer, and father to Ignazio Giuseppe, who would be the founder and first principal of the artillery school that would produce all of Piedmont's great military topographers. See Carignano, Biblioteca Civica, Archivio G. Rodolfo, Aritmetici, fasc. P.

However, Peverone's life itself is also part of our story. He died a year after the publication of his *Due breui e facili trattati*, but in Milan—a long way from Cuneo. We know that in 1557, during the French siege of his native city, Peverone put his technical expertise in matters of fortification at the service of the city governor; yet, at some moment between that year and the early months of 1559, he decided, for some unknown reason, to move to Milan. It may well be that the decision was due to the unpromising political and, above all, cultural situation in Piedmont during the first half of the sixteenth century; indeed, a contemporary source—a manuscript diary written by Peverone's nephew—explicitly mentions the fact that in the Milan to which he moved there were other *huomini virtuosi* (here *virtuosi* is used in the medieval Latin sense of “possessing virtuosity” or “learned”).²⁴ Whatever the truth of the matter, we do not know if Peverone actually applied his principles to the production of maps during the time he was in Cuneo or Milan. Mentions in his will of drawings, pictures, and mathematical instruments suggested that he did (as do certain mentions of commissions that can still be found in the Communal Archives of Cuneo); nevertheless, however tempted we may be to do so, we have no conclusive evidence to link him with the anonymous *Vera descrizione dell'assedio et impresa di Connio*, a chronicle of the 1557 siege of Cuneo published that same year in the Milan workshop of Francesco Moscheni and accompanied by a woodcut that is full of details that could have been known only to someone who took a leading role in organizing the city's defenses.

The irony is that Peverone died the very year in which Emanuele Filiberto reacquired some of his sovereign rights over Piedmont at the Cateau-Cambrésis negotiating table. That treaty marked a turning point in the creation and consolidation of the absolutist state, and the new opportunities for cultural and scientific growth in that state naturally involved a new role for mapmaking. At that point, another stage in the history of Piedmontese cartography began.

CARTOGRAPHY AT THE COURT OF EMANUELE FILIBERTO AND CARLO EMANUELE I

The Peace of Cateau-Cambrésis is traditionally seen as marking a moment of real change, in part due to the victory at St. Quentin. However, although the 1559 treaty recognized the legitimacy of the Savoy dynasty's rights over its Piedmont possessions, it also confirmed the presence in that region of a number of important French and Spanish fortresses, as well as failing to resolve the problem of Montferrat, which an imperial grant of 1536 had put under the jurisdiction of the Gonzagas of Mantua. In the years immediately following Cateau-Cambrésis, Emanuele Filiberto²⁵ worked toward consolidating the

territory of his state, achieving his first significant result in 1575, when his lands comprised French Savoy and the Contée de Nice and, on the Italian side of the Alps, the Principality of Piedmont, which stretched as far as the river Sesia (with the exclusion of Montferrat, the Marquisate of Saluzzo, and the upper Val di Susa and Chisone). Emanuele Filiberto transferred the capital of this state from Chambéry to Turin in 1563, after the French had withdrawn from the Italian city.

At this point, cartography became a subject of some interest to the duke; the consolidation and reorganization of his state involved various institutions, and at the same time also stimulated development in different areas of study, including geography and cartography. A letter from Duke Filiberto to his ambassador in Venice (10 October 1566) contains orders to find out “if that Piedmontese who was so excellent at producing maps and descriptions of countries is still alive . . . because we would make use of his services, and if he be dead . . . if he has left any pupil to whom he taught his profession, so that we may make use of his skills.”²⁶ That Piedmontese who was so excellent at producing maps and descriptions of countries was Giacomo Gastaldi, the author of two of the most widely consulted contemporary chorographies of Piedmont. In fact, in a corrected version of the letter, Emanuele Filiberto asks explicitly about the maps Gastaldi left behind, and in addition to asking about the possible existence of some pupil makes specific reference to a *nipote* (nephew or grandson), ordering his ambassador to search him out and discover if he had learned “his profession.” Another irony of history is that the Piedmontese Giacomo Gastaldi, whose life as a cartographer had been lived entirely in Venice, died in 1566—the very year that the duke first began to show an interest in his work.

As for the possible *nipote* who was a pupil, Giovanni Battista Gastaldi, who is considered to have produced a lost map showing the 1564 earthquake in Nice, is often confused with Giacomo Gastaldi. Almagià's search for that Nice map proved fruitless.²⁷ I have found the earthquake drawing—perhaps a copy—in a manuscript, and it is definitely not the work of Giacomo Gastaldi; nor is

24. Cuneo, Biblioteca Comunale, MS. 10/1, Miscellanea Corvo, vol. 2, fol. 293ff.

25. The most recent and complete study of the figure of Emanuele Filiberto is Pierpaolo Merlin, *Emanuele Filiberto: Un principe tra il Piemonte e l'Europa* (Turin: Società Editrice Internazionale, 1995). However, this work does not discuss the new impetus given to cartography.

26. AST, Corte, Lettere Ministri Venezia, m. 1, doc. 5. See also Mollo, “L'attività di un cartografo piemontese,” 27.

27. Roberto Almagià, “La geografia fisica in Italia nel Cinquecento,” *Bollettino della Società Geografica Italiana* 46 (1909): 716–39, esp. 736, reprinted in *Scritti geografici (1905–1957)*, by Roberto Almagià (Rome: Edizioni Cremonese, 1961), 179–95, esp. 193. The idea of the

there any certain information regarding the existence of a pupil.²⁸

The Venice letter is probably an expression of Emanuele Filiberto's project, already made explicit in a ducal edict of 1560, for recalling to the service of his state all Piedmontese who were serving foreign princes and powers. And even if his order came too late for Giacomo Gastaldi, it is undoubtedly a sign of a new interest in cartography. Although Gastaldi was Piedmontese only by birth and family—his entire working life, from 1539 to 1566, was spent in Venice—his death at the moment of a possible return to Piedmont marks yet another missed opportunity in the history of cartography in the duchy.²⁹

It had been only ten years since Peverone had found Piedmont incapable of satisfying his scientific aspirations, but now conditions were very different in a region that was entering a late Renaissance of its own. In the last thirty to thirty-five years of the sixteenth century, the Turin court saw the burgeoning of a number of the interests characteristic of the Renaissance prince—for example, in mathematics, essential to both the design of fortifications and the production of maps, and in the natural sciences, ranging from a taste for experimentation to one for collecting natural curiosities. There was even a project for organizing the ducal library as a “memory theater.”³⁰ And while all the more significant works of Renaissance science were becoming part of that library, the duke himself was calling to his court the mathematician Giovanni Battista Benedetti—along with various other architects, military engineers, astronomers, and printers—and using diplomatic channels to acquire both books and scientific instruments, displaying what would prove to be a typically Piedmontese trait: a joint interest in both theoretical speculation and practical application.³¹

The taste for collecting is particularly worthy of mention here because it led to the creation of a collection of maps begun by Emanuele Filiberto and completed by his successor, Carlo Emanuele I. All in all, this collection comprises five large folio volumes containing plans of fortifications and fortified cities (almost all of them manuscript), various other geometrical drawings, and thirty-

existence of such a map comes from a nineteenth-century edition of *Storia della Alpi Marittime* compiled in the second half of the seventeenth century by Pietro Gioffredo, tutor to the future Vittorio Amedeo II. On the subsequent hypotheses as to its author, see Renato Biasutti, “Il ‘Disegno della Geografia moderna’ dell’Italia di Giacomo Gastaldi (1561),” *Memorie Geografiche* 2, no. 4 (1908): 5–66, esp. 61, and Mario Baratta, “Ricerche intorno a Giacomo Gastaldi,” *Rivista Geografica Italiana* 21 (1914): 117–36 and 373–79, esp. 135–36. The issue is in some way clarified in Gioffredo's notebooks: AST, Corte, Biblioteca Antica, j.a.X.13, fasc. 3, “Repertorium pro componenda Historia Alpium Maritimarum sive Nicensis Comitatus, M.DC.LX.I.”

28. A manuscript copy of the “Historie naturali e morali della Città, e del Contado di Nizza dal principio del Mondo sino all’anno 1638,” which was written by a native of the city, Antonio Fighiera, served as a

source for Gioffredo. It is now in AST, Corte, Paesi in generale, Provincia di Nizza, m. 64, folder 24.

29. On some of his maps, Giacomo Gastaldi describes himself as “piemontese.” On a 1544 map, he actually says he is a native of Villafranca—a claim that is found doubtful in Stefano Grande, *Notizie sulla vita e sulle opere di Giacomo Gastaldi, cosmografo piemontese del secolo XVI* (Turin: Carlo Clausen, 1902), 4–5, given that local Villafranca sources contain no mention of his family name that predate 1603. However, a document found by Mollo and discussed in his “L’attività di un cartografo piemontese fuori dello stato,” 27, proves the existence of a certain Matteo Gastaldi in Villafranca before the year 1522; see AST, Corte, Protocolli dei notai ducali e camerari, 210, fol. 3 (red). On the scanty biographical information regarding Giacomo Gastaldi, see also Antonio Manno and Vincenzo Promis, *Notizie di Jacopo Gastaldi, cartografo piemontese del secolo XVI* (Turin: Stamperia Reale, 1881); Baratta, “Ricerche intorno a Giacomo Gastaldi,” 117–25; Roberto Almagià, “Nuove notizie intorno a Giacomo Gastaldi,” *Bollettino della Società Geografica Italiana* 84 (1947): 187–89; Romain Rainero, “Attualità ed importanza dell’attività di Giacomo Gastaldi ‘cosmografo piemontese,’” *Bollettino della Società per gli Studi Storici, Archeologici ed Artistici della Provincia Cuneo* 86 (1982): 5–13; D. Busolini, “Gastaldi, Giacomo,” in *Dizionario*, 52:529–32; and Robert W. Karrow, *Mapmakers of the Sixteenth Century and Their Maps: Bio-Bibliographies of the Cartographers of Abraham Ortelius, 1570* (Chicago: For the Newberry Library by Speculum Orbis Press, 1993), 216–49.

30. An overall picture of the cultural policy of Emanuele Filiberto is given in Merlin, *Emanuele Filiberto*, 142–48 and 177–90. On the project for a universal theater of the sciences, see Sergio Mamino, “Ludovic Demoulin De Rochefort e il ‘Theatrum omnium disciplinarum’ di Emanuele Filiberto di Savoia,” *Studi Piemontesi* 21 (1992): 353–67. During the course of the seventeenth century, the ducal library passed through various vicissitudes. Part of the book collection and a number of the objects from the *Wunderkammer* started by Emanuele Filiberto turned up in the personal library of the ducal librarian, Pietro Lodovico Boursier, when he died in 1658. Some of this material was returned; some remained with the Boursier family—and then, when that family line died out, passed into the family of the Counts Mola-Larissé. Some of the books and manuscripts thence became part of the Biblioteca Civica di Carignano and are cataloged in Giacomo Rodolfo, *Di manoscritti e rarità bibliografiche appartenuti alla Biblioteca dei Duchi di Savoia* (Carignano, 1912).

31. Benedetti, a pupil of Niccolò Tartaglia, was called to the court in 1566 as court mathematician, professor of Turin University, and tutor to the young prince of Piedmont, Carlo Emanuele. A Venetian by origin, he went to Turin from the court of the Farnese—as did Francesco Paciotto (of all the military engineers called to the court, the one closest to the duke's heart). Benedetti stayed in Turin until his death in 1590, and during that time he exercised substantial influence over Emanuele Filiberto. An anti-Aristotelian, he was a Neoplatonist who looked with favor on the Hermetic tradition, but he also constructed various mathematical instruments and invented the *trigonolometro*, which he described in a manuscript work that was once in the ducal library and is now in the Biblioteca Civica di Carignano: “Giovanni Battista Benedetti, Descrizione, uso et ragioni del Trigonolometro” (1578). The anonymous manuscript “Dichiarationi delle parti et uso dell’instromento chiamato isogono” is also attributed to him (see Rodolfo, *Di manoscritti e rarità bibliografiche*, 43). On Benedetti, see Sergio Mamino, “Scienziati e architetti alla corte di Emanuele Filiberto di Savoia: Giovan Battista Benedetti e Giacomo Soldati,” *Studi Piemontesi* 19 (1989): 429–49, and V. Cappelletti, “Benedetti, Giovanni Battista,” in *Dizionario*, 8:259–65. There is a list of the military engineers who worked at the Savoy court in Carlo Promis, *Gl’ingegneri militari che operarono o scrissero in Piemonte dall’anno MCCC all’anno MDCL* (1871; reprinted Bologna: Forni, 1973).

nine printed geographical maps plus two in manuscript form.³² Dating from the second half of the sixteenth century, the printed maps are contained in the first volume and cover a large part of the world. All of them come from Venice, which was the duke's favorite market for cartographic matters—as one can see from the previously mentioned letter to his ambassador concerning Gastaldi and his maps. Given that letter, it is curious that the ducal collection does not contain Gastaldi's maps of Piedmont or any map of Italy as a whole. As I have already emphasized, small-scale cartographic work was never part of the Piedmont tradition, which favored the topographical and the local, so this little group of printed maps in the first volume appears to have been a curious concession to the erudite taste that prevailed elsewhere. The main body of the collection, on the other hand, seems to unite the taste for collecting with the practical purpose of compiling an up-to-date record of all the main fortifications in the world. The sole exception in this period was a chorographical map that Carlo Emanuele I commissioned from his court mathematician and librarian, Bartolomeo Cristini, in 1605. However, the reason for that commission was a specific request from Giovanni Antonio Magini, who wanted an official source for his own map of the region of Piedmont (drawn in 1609, engraved by Benjamin Wright in 1613, and included as part of the *Italia* published by Magini's son Fabio in 1620).³³ However, Cristini's map, which some have argued was left incomplete at the scholar's death in 1606, has never been found. Two anonymous and undated manuscript chorographies of Piedmont are presently being studied as part of a systematic cataloging of all Piedmont cartography, but it would be premature to hazard any hypothesis as to their authorship.³⁴ All one can say is that both works are exceptions in an area where most maps were large-scale local topographies.

As already mentioned, the bulk of the ducal collection of drawings consists of fortification plans drawn up by the military engineers (some of whom were those called back to serve the Savoy court during the second half of the sixteenth century and the early years of the seventeenth). Their studies of military architecture and ballistics produced procedures for the surveying and measurement of distances that would also be applied in cartography. It is no coincidence that the "Instruzione per riconoscere le provincie et Luoghi" (dating from around the beginning of the seventeenth century) was produced by one of the duke's military engineers, Ferrante Vitelli.³⁵ This work, in fact, anticipates the schema of geographical observation to be used in military reconnaissance that would be part of the basis for military topographies, especially in the eighteenth century. Indeed, when it was impossible to carry out direct surveys of territory under enemy control, such reconnaissance became the sole basis of military maps.

That military engineers drew up local maps has already been demonstrated in the case of the map of the Gaio area by Alessandro Resta and Vermondo Resta (extant works of the former also include maps of the fortifications of Savigliano and Chivasso).³⁶ However, there are also various other examples of such engineers' producing maps intended for purely civilian uses. An interesting case is that of Giacomo Soldati. Of Milanese origin, Soldati was in the service of Emanuele Filiberto and Carlo Emanuele I from 1566 onward (the former appointed him ducal engineer and cosmographer).³⁷ Responsible for the defenses of the state, he signed a memorandum (complete with accompanying drawing) covering the Turin Citadel,³⁸ while three other drawings cataloged as his cover the forts of Bard (at the entrance to the Valle d'Aosta), Santo Stefano, and Monjovet,³⁹ and in 1591–93 he produced a drawing based on direct observation from a distant vantage point of Susa and its valley, covering the area of the city and its fortress (fig. 33.6). In this pen and watercolor drawing, Soldati used two different ways of indicating landscape relief; indeed, the method used to indicate the mountains between Graverè and Susa is not to be found in the known work of any other cartographer, but it does figure

32. The collection is known under the title *Architettura militare*: AST, Biblioteca Antica, MSS., j.b.I. 3-4-5-6 and j.b.III. 11. A project is underway to publish the entire collection with reproductions of and detailed dossiers on each of the drawings and maps. Financed by the Ministero dei Beni Culturali, this scheme is being coordinated by the director of the AST, Isabella Massabò Ricci, and involves a committee of experts and scholars. The first volume, Antonio Dentoni-Litta and Isabella Massabò Ricci, eds., *Architettura militare: Luoghi, città, fortezze, territori in età moderna* (Rome: Ministero per i Beni e le Attività Culturali, Direzione Generale per gli Archivi, 2003), contains all the sixteenth-century printed maps, with dossiers prepared by Lucio Gambi, Marica Milanese, Paola Pressenda, Paola Sereno, and Maria Luisa Sturani.

33. Vernazza di Ferney, *Notizie di Bartolomeo Cristini scrittore e leggitore di Emanuele Filiberto* (Nizza, 1783); Roberto Almagià, *L' "Italia" di Giovanni Antonio Magini e la cartografia dell'Italia nei secoli XVI e XVII* (Naples: F. Perrella, 1922), 29; and Grande, "Il primato cartografico," 58.

34. The two chorographies are in Turin, Biblioteca Reale, and Florence, Biblioteca dell'Istituto Geografico Militare.

35. AST, Corte, Materie Militari, Imprese, m. 1, n. 1.

36. Commissioned by order of Emanuele Filiberto in 1575, the map of the fortifications of Savigliano is now in AST, Camera dei Conti, art. 666, n. 19; the map of the fortifications of Chivasso is in the previously mentioned collection, AST, Biblioteca Antica, *Architettura militare*, vol. 1, fol. 5.

37. AST, Corte, Protocolli Ducali, Prot. 228, fol. 165 (red), 1 March 1576. At the Turin court, Soldati also dabbled in poetry, as one can see from the stanzas he composed in praise of Caterina of Austria, Carlo Emanuele I's wife: AST, Corte, Storia della Real Casa, cat. 3°, "Storie particolari-Carlo Emanuele I," m. 13, n. 26.

38. AST, Corte, Materie Militari, Intendenza Generale Fabbriche e Fortificazioni, m. 1, n. 3, "Discorso di Giacomo Soldati intorno al fortificar la Città di Torino, colla pianta ove restano marcate le vecchie fortificazioni, e le aggiunte, che credeva necessarie."

39. AST, Corte, Carte Topografiche sez. III, cart. B, n. 3.

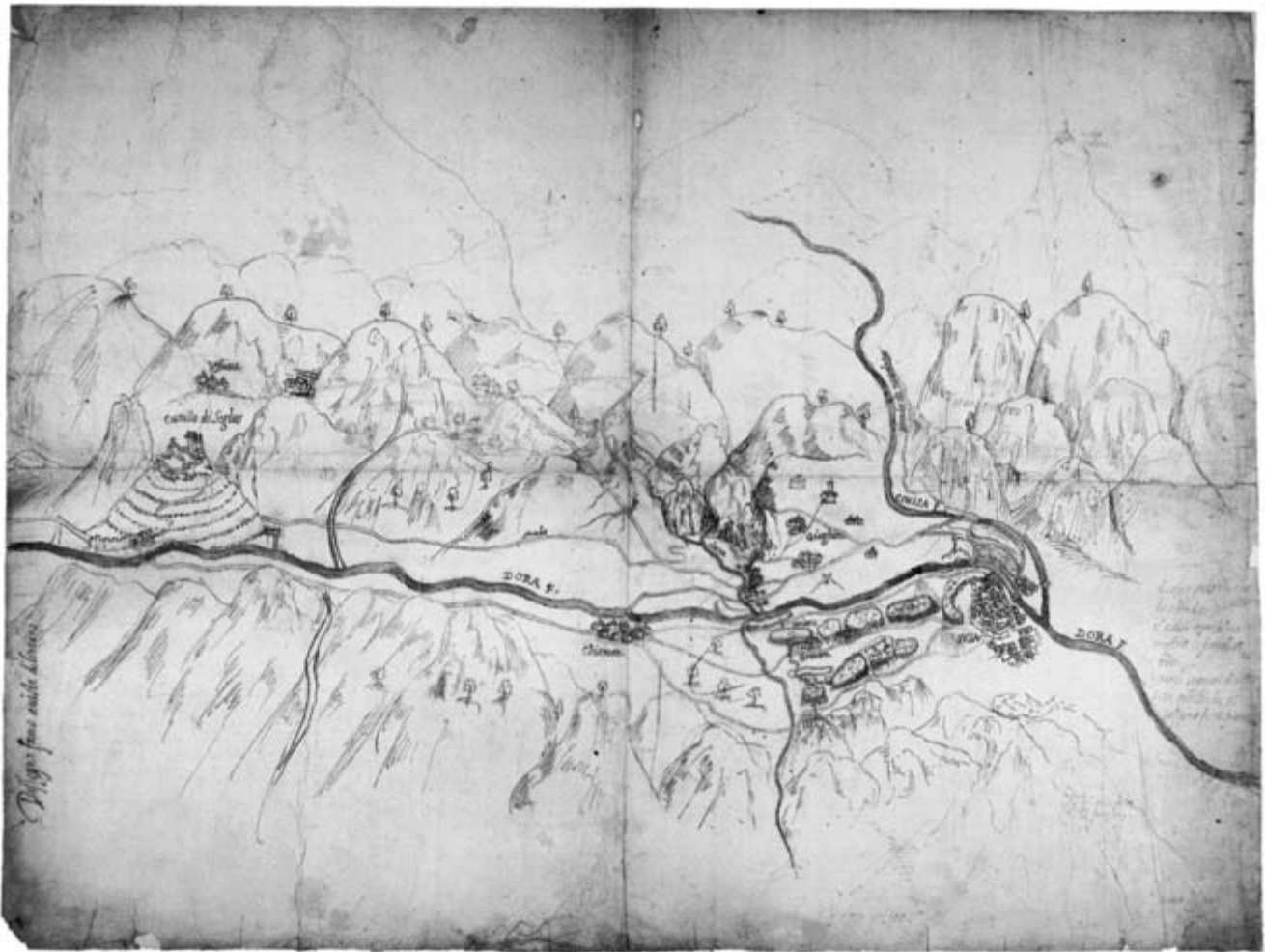


FIG. 33.6. GIACOMO SOLDATI'S MAP OF THE SUSA VALLEY, 1591–93. Pen and watercolor.

Photograph courtesy of the AST (Corte, Carte Topografiche serie III, Susa 1).

in the depiction of relief in an anonymous map of the defenses of the Val di Susa near Giaglione,⁴⁰ which I would therefore attribute to Soldati. The ducal engineer and cosmographer was also an expert in hydraulic engineering, and in 1580 he produced an interesting document (complete with parchment map) relating to a project for enclosing part of the flooded river bed of the Sesia, which marked the eastern boundary of Piedmont.⁴¹ So once again we can see that technical and scientific skills developed in the military field were being put to varied uses by the state. In addition, Emanuele Filiberto's interest in hydraulic engineering is well known thanks to such projects as the Naviglio di Bra and one for a shipping canal between Turin and Cuneo. These schemes produced various maps and drawings, including an ink and watercolor map, datable between 1575 and 1589, giving a schematic picture of the Naviglio di Bra in the Cherasco area (where the river powered the duke's water wheels) and two pen drawings of 1567 and 1584–89; the former shows the course of the *bealera* (canal) of Pertusata from its source

in the river Stura to the area of Cherasco,⁴² while the latter traces the canal with its new mills in the stretch from Fossano to Bra (fig. 33.7).

Military engineers also influenced the way cities were represented. The utilitarian nature and purpose of maps

40. AST, Camerale, art. 666, n. 21.

41. Turin, Biblioteca Reale, MSS. Sal. 768. On Soldati's work in the Milan area as a hydraulic engineer, see Promis, *Gli ingegneri militari*, 194–97.

42. AST, Camera dei Conti, art. 664, nn. 12 and 12a. The maps were published at a cartographic exhibition, the catalog for which, however, adopts very imprecise criteria for its organization of cartographic documents: Nicola Vassallo, *Dal Naviglio del duca ai consorzi irrigui: Cinque secoli di canalizzazioni nella bassa pianura cuneese dalla quattrocentesca "bealera di Bra" all'amministrazione dei canali demaniali*, exhibition catalog (Savigliano: L'Artistica, 1989), 42–45. To understand the context of the ducal policy regarding water resources, see Pierpaolo Merlin, "Le canalizzazioni nella politica di Emanuele Filiberto," *Bollettino della Società per gli Studi Storici, Archeologici ed Artistici della Provincia di Cuneo* 96 (1987): 27–35.

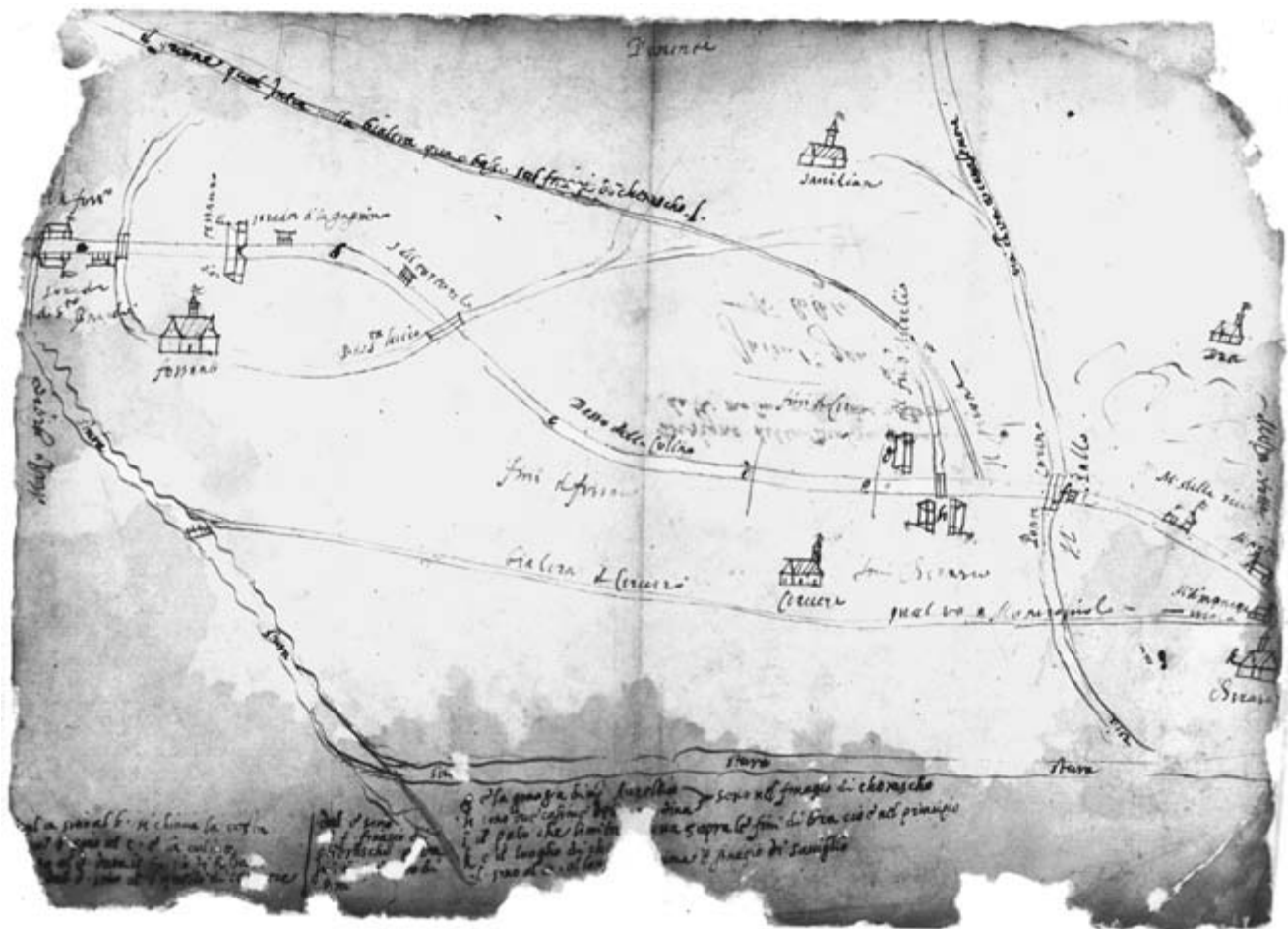


FIG. 33.7. DUCAL CANAL FROM FOSSANO TO BRA, WITH NEW MILLS, 1584–89. Pen drawing.

Photograph courtesy of the AST (Camerale Piemonte, articolo 664, fascicolo 9).

in the state of Piedmont meant that before the *Theatrum Sabaudiae* (discussed later)—that is, the end of the seventeenth century—there was little trace of celebratory cartography; more often than not, a representation of a city was intended as a plan of its defenses and fortifications. This meant that the main cities of the state were generally shown in plan with an outline of the defensive city walls enclosing what was generally just empty space (at most, the houses, squares, and roads of the city were schematically indicated with solid fields of color intended to represent the blocks that made up the urban fabric). There are numerous examples of this type of urban cartography, often in various versions, either because they were updated at each change in a city's defenses or because they were initially drawn up during the planning stage. These maps (of which there is one extant example in the *Architettura militare* collection) were always manuscript drawings, for their very nature made them secret documents; however, cartographic espionage flourished, and such works seem to have circulated in all the courts of Europe.

Turin was not exempt from this schematic representation. But when Emanuele Filiberto moved his capital there from Chambéry, shifting the center of power from Savoy to Piedmont, Turin became the object of various ducal and municipal policies, each, within its specific sphere, aimed at transforming what was still a medieval town into a modern city.⁴³ Naturally enough, there had to be an official representation of this modern image of the capital, so Turin is the only Piedmont city that appears in map form as more than a mere metonymy of walls and ramparts. In 1572, Giovanni Caracha, a Flemish-born painter at the service of the duke, was commissioned to draw up an image of the city as it appeared after more than a decade of building. Titled *Augusta Taurinorum* (the very use of Latin reveals its celebratory function), the work was the basis of a woodcut produced

43. Martha D. Pollak, *Turin, 1564–1680: Urban Design, Military Culture, and the Creation of the Absolutist Capital* (Chicago: University of Chicago Press, 1991).

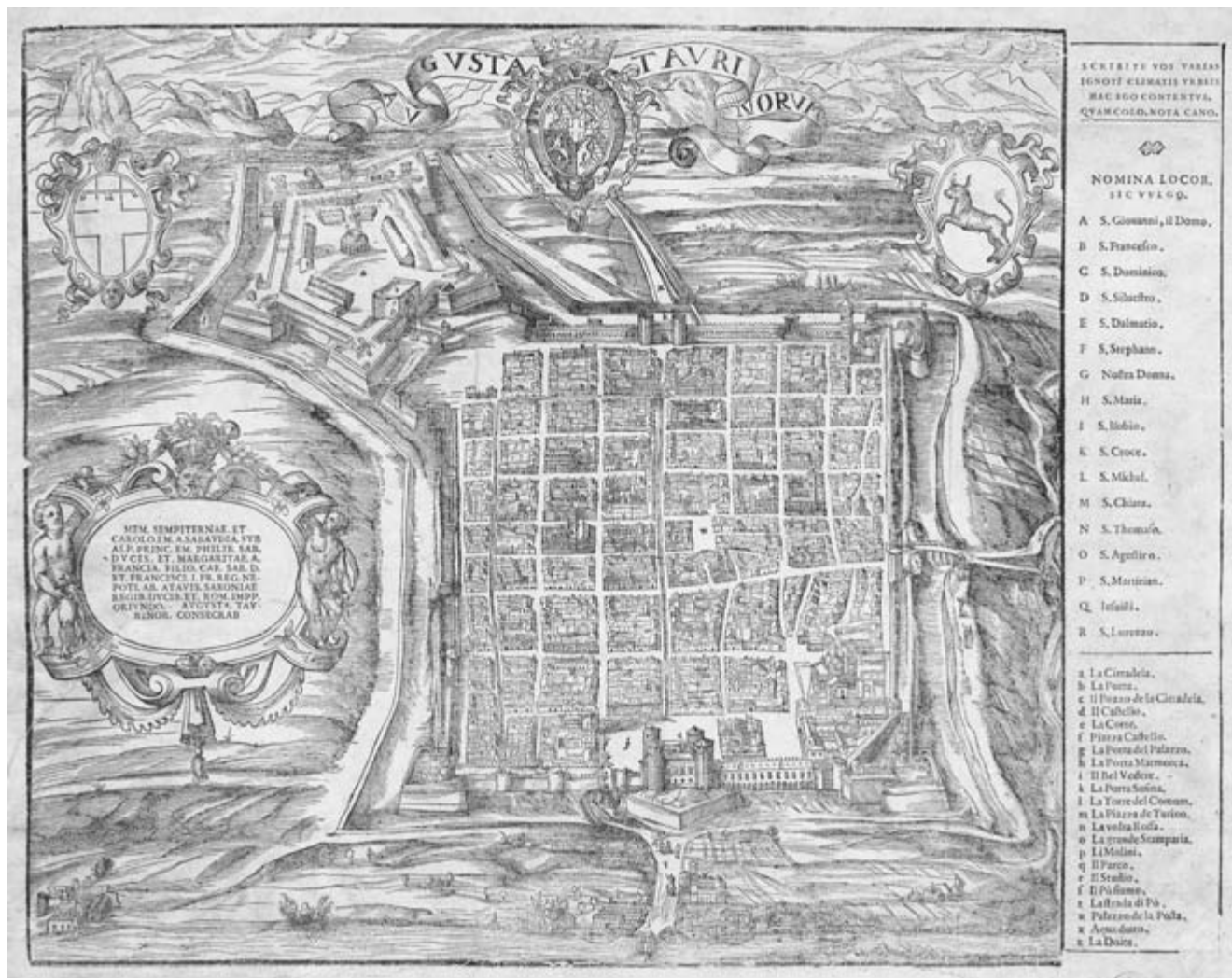


FIG. 33.8. PLAN OF TURIN BY GIOVANNI CARACHA, 1572. The *Augusta Taurinorum*, woodcut produced by Giovanni Criegher, Turin, 1577. West is at the top.

Photograph courtesy of the Archivio Storico della Città di Torino (Collezione Simeom D1).

by Giovanni Criegher (fig. 33.8). This perspective view of the city, whose origin as a Roman *castrum* is clear from its square outline, indicates a regular grid of city streets, although it can hardly disguise how the haphazard building work resulting from recent demographic growth had stretched to the limit the geometric form imposed during the Middle Ages. The entire city is enclosed within walls, parts of which date from Roman times, and it is in these defenses that one can see the results of the duke's first efforts to model his new capital: in the southwest corner is the new pentagonal citadel, the design of which was worked on by Francesco Paciotto and many of the best military engineers called to Emanuele Filiberto's court.

Caracha's view remained the official image of Turin for many years, and it was reused several times—for ex-

ample, in Filiberto Pingone's 1577 *Augusta Taurinorum chronica et antiquitatum inscriptiones* (printed in Turin by Niccolò Bevilacqua), in Egnazio Danti's map of Piedmont in the Vatican's *Galleria delle Carte Geografiche* (painted in 1580–82),⁴⁴ and in a 1583 parchment watercolor by Girolamo Righettino, complete with an allegorical frame and a dedication to Carlo Emanuele I.⁴⁵

44. Paola Sereno, "Pedemontium et Monsferratus," in *La Galleria delle Carte Geografiche in Vaticano / The Gallery of Maps in the Vatican*, 3 vols., ed. Lucio Gambi and Antonio Pinelli (Modena: Franco Cosimo Panini, 1994), 1:275–82.

45. Girolamo Righettino's manuscript map is now in AST, Corte, Museo Storico.

THE SEVENTEENTH CENTURY:
FROM THE *THEATRUM SABAUDIAE* TO
BORGONIO'S *CARTA GENERALE*

Taking the ducal capital as a metaphor for the state as a whole, Righettino's use of Caracha's image of Turin marks a clear concession to a celebratory use of cartography. However, such celebratory maps would make their appearance at the Turin court only in the following century. Although they were not numerous, there are sufficient numbers of these works to suggest that there was a veritable genre of maps that were created not to serve some functional or professional purpose but rather to celebrate some event or to glorify the sovereign or some member of his court. Mainly produced by military engineers and army officers, these include the map of the area stretching from Turin to the Alps, complete with fortifications, drawn by captain Agostino Parentani and engraved by Giovanni Paolo Bianchi, probably around the year 1640 (fig. 33.9), and the splendid watercolor and ink drawing of the territory around Turin, Saluzzo, and Pinerolo (together with part of the Valdesi valleys), which is dated 1690 and dedicated to Vittorio Amedeo II by a certain Contini, chaplain to the regiment of Savoy.⁴⁶ The wealth of geographical information in this map is yet to be studied in full, particularly the interesting details in the rendition of the Protestant Valdesi valleys, which contemporary local cartography tended to depict in a rather sketchy way.

The previously mentioned ducal collection of drawings relating to military architecture embodied a taste shared by a number of sixteenth-century European courts, and it served as a model for other works intended to celebrate the duchy and its dynasty. Though represented by works of more modest form—often limited to drawings of fortifications—this celebratory cartography would generate a genre that would continue to be produced in Piedmont throughout the eighteenth century (when it tended to give way to the depiction of “theaters of war”) and would even inspire works by Carlo Emanuele III himself.

Examples of this genre include the collection put together by Carlo Morello, the duke's “prime civil and military engineer.” In 1656, this artillery captain produced his “Avvertimenti sopra le fortezze di S.A.,” a manuscript collection of drawings depicting the fortifications in the defense or attack of which Morello had been involved during his military career at the service of the House of Savoy.⁴⁷ The collection also included two manuscript chorographies, one of the Valle d'Aosta and the other of the Contée de Nice, that are both in traditional form, with molehill elevations and small conventional perspective renditions of settlements. The map of the Valle d'Aosta is probably a copy or reworking of the map that, in the biographical notes that introduce the work, Morello says he

was ordered to draw up in 1622 by Carlo Emanuele I. The map of the Contée de Nice, which includes part of the Genoa area, might date from 1650, when Morello was sent to the Nice area to plan improvements to the fort of Sant'Elmo in Villefranche; however, it might also date from the same period as the Valle d'Aosta map, given that in 1625 Morello was working for the duke as an undercover cartographer in the Republic of Genoa, where his mission was to draw up secret surveys and maps of fortifications. The formal characteristics of the two maps are identical, and the model for them was clearly provided by the fortification maps of the areas of Languedoc and Dauphiné bordering Piedmont (including the upper Val di Susa and the Pragelato) that Henri IV of France had commissioned from Jean de Beins at the beginning of the seventeenth century.⁴⁸ The influence of the French cartographer's work can certainly be seen in the way the collection is organized, with its mix of fortification plans and chorographies, but also—and above all—in the style of Morello's two chorographical maps. The Italian may well have known the work of Beins not through reduced printed versions of his map of all of Dauphiné but through direct experience, given that on various occasions both men worked on the same defensive systems. Initially they were on opposite sides—in the dynastic struggle within the House of Savoy that opened with the death of Vittorio Amedeo I, Morello sided with Crown Prince Tommaso against the Regent Duchess Cristina, daughter of Henri IV—but then on the same side when Morello returned to the service of Duchess Cristina in 1640.

The true masterpiece of celebratory cartography in the Duchy of Savoy, however, is the *Theatrum statuum regiae celsitudinis Sabaudiae ducis*, known as the *Theatrum Sabaudiae*,⁴⁹ commissioned by Carlo Emanuele II when he was still under the regency of his mother, Cristina of France. This long-term project ultimately resulted in the publication of two volumes in 1682 under the rule of Vittorio Amedeo II, who thirty years later would become, thanks to the Treaty of Utrecht (1713), the first of the dukes of Savoy who could style himself “king.”

46. Turin, Biblioteca Reale, Dis. III, 22.

47. Turin, Biblioteca Reale, Mil. 178. A still understudied figure, Carlo Morello is sketchily described by Promis in *Gl'ingegneri militari*, 69–71, where he uses the information that can be gleaned from Morello's own work.

48. The collection of maps of the Dauphiné at the BL was published in a facsimile edition by François de Dainville, *Le Dauphiné et ses confins vus par l'ingénieur d'Henry IV, Jean de Beins* (Geneva: Librairie Droz, 1968).

49. *Theatrum statuum regiae celsitudinis Sabaudiae ducis*, 2 vols. (Amsterdam: Apud Hæredes Ioannis Blæu, 1682). A facsimile edition, *Theatrum Sabaudiae*, was edited by Luigi Firpo and accompanied by various studies of the work that update the old, but still useful, discussion in Ferdinando Rondolino, *Per la storia di un libro: Memorie e documenti* (Turin, 1904).



FIG. 33.9. MAP OF AREA FROM TURIN TO THE ALPS BY AGOSTINO PARENTANI, CA. 1640.

Biblioteca Reale, Turin (Inc. IV, 12). By concession of the Ministero per i Beni e le Attività Culturali.

The *Theatrum Sabaudiae* came about largely as a result of chance. Initially it was Joan Blaeu who applied to the Turin court for official topographies of the duchy's cities to include in a collection of plans of Italian cities modeled on the atlas of Flemish cities that Blaeu had published in 1649 (*Novum ac magnum theatrum urbium Belgicae li-*

berae ac foederatae). The work dedicated to Italy—*Theatrum civitatum et admirandorum Italiae*—was published in three volumes in 1663, but without any plans of the cities of Piedmont or Savoy. In the Savoy state, the project got underway sometime between 1657 and 1660. But as early as 1661, it seems that the duke intended to change

the project, going beyond the requested city views and geographical accounts of surrounding territory to include many more of the state's cities and towns than had originally been planned. Each of these communities was allowed to choose its own cartographer as long as the final product met with the approval of the duke, who exercised strict control over the management of the scheme. But they were also made responsible for meeting all the costs that arose. The expenses borne by the municipality of Turin in producing these drawings to be sent to Holland are recorded in revealing documents that after 1664 no longer refer to the scheme as relating to an atlas of Italian cities but rather speak of a "book of the cities of Piedmont."⁵⁰

However, it was only with the 1672 extension of the project to include the cities of Savoy that it could really be said to aim at a full representation of the territories of the state. In February of that same year, many of the drawings that had already been sent to Amsterdam were destroyed or damaged in a fire at Blaeu's workshop, although all the copperplates that had already been engraved and printed were saved. The reworking of those lost drawings (and the works that had not met with the duke's approval), plus the often difficult relations between the duke and printer, naturally slowed the progress of the project, which was further hampered by the deaths of the two men (with Blaeu dying before Carlo Emanuele II). Thus, only in 1682 was the work finally printed, and at the end of that year the first forty-five uncolored copies were sent by ship from Amsterdam. These were followed, via land, by four colored copies,⁵¹ one of which Duchess Giovanna Battista (regent for duke Vittorio Amedeo II) donated to the city of Turin, which as state capital opens the *Theatrum* with twenty-two engravings.

Although some of the communities involved in this well-orchestrated representation of the territories of the House of Savoy commissioned their drawings from painters, most chose military engineers, such as Pietro Arduzzi, Giovenale Boetto, Giacomo Antonio Biga, Simone Formento, and Michelangelo Morello (Carlo Morello's son, who would copy the depiction of Turin's Porta Nuova in the *Theatrum* from his father's "Avvertimenti sopra le fortezze").⁵² Most of the drawings in the celebratory work were by these men or by Giovanni Tommaso Borgonio, topographer, calligrapher, court scene painter, and the true coordinator of the cartographic aspects of the *Theatrum* (he produced 83 of the 135 plates, and was often commissioned by the duke to rework the drawings that did not meet his approval).

Along with those 135 engraved plates, the two volumes of the *Theatrum* were adorned with various portraits of members of the ducal family, a splendid Savoy coat of arms, a dynastic family tree, and allegories of Piedmont and Savoy (opening volumes 1 and 2, respectively).⁵³ All of this underlined the celebratory significance of the work,

which was also emphasized by the decoration around the various engravings. This decoration, although not particularly elaborate when compared to that of contemporary works of European cartography, was unusual in the normally sober Piedmontese cartography (where understatement was a cultural characteristic) and can be said to have made the *Theatrum* into a book of heraldic devices.

This book of the cities of Piedmont was, however, more than just a collection of urban topographies. The places chosen to form this metaphor of the state were not only cities but also country estates, castles, fortresses, abbeys, monuments, and *delitiae* (ducal residences outside urban areas), and the representation of any given city might comprise not only an overall view but also specific engravings of churches, palaces, squares, city gateways, and Roman arches. This collection of *mirabilia* in an illustrated book served a purpose both within and outside the state: Piedmont was just recovering from the civil war that had raged between the reigns of Vittorio Amedeo I and Carlo Emanuele II, and this elaborate exhibition of the magnificence of its territories—a veritable metaphor for the person of the duke—served to legitimate the standing of the House of Savoy among the other great ruling powers of Europe. This was achieved by a solid combination of image and narrative. Each site is also represented by a description or *relatione* modeled on those found in Renaissance chorographies (for which there were local examples in Francesco Agostino della Chiesa's *Corona Reale di Savoia* and Giovanni Botero's *Relationi universali*). In the *Theatrum*, this model—based on a narration of historical facts, a description of geographical

50. Turin, Archivio Storico Comunale, Carte Sciolte, n. 1537. See also Ada Peyrot, "Le immagini e gli artisti," in *Theatrum Sabaudiae*, 1:31–65, esp. 33.

51. Isabella Ricci and Rosanna Roccia, "La grande impresa editoriale," in *Theatrum Sabaudiae*, 1:15–30, esp. 25, which quotes the letter of 12 November 1682 from Willem, Pieter, and Joan Blaeu to the duke (AST, Corte, Lettere Particolari, m. B9).

52. Carlo Morello also seems to have been commissioned to draw up the view of Aosta after the previously commissioned painter, Michel Jobé, failed to perform the task satisfactorily; however, even his drawing must have been rejected, because the final plate in the *Theatrum* is signed "Innocente Guizzaro, painter."

53. This might lead one to think that the distribution of the plates in the two volumes of the work was designed to respect the main geographical feature of a state made up of lands on "this side" and "that side" of the mountains—that is, of Piedmont and Savoy; however, the second volume does contain a number of plates relating to Piedmont. The allegories, ducal coat of arms, genealogy, and portraits were all produced in Amsterdam by Dutch and Flemish painters and engravers such as Gérard de Laresse, Robert Nanteuil, Laurent Dufour, Abraham Bloteling, Jan Luyken, Ambrosius Perlingh, Gerard Valck, Johannes de Broen, and Coenraert Decker. Drawn in Piedmont, the maps were engraved in Amsterdam, some in the workshop of Romeyn de Hooghe, with the assistance of Johannes de Ram (these are the only two names of engravers that have emerged from the documents concerned).

features, a collection of antiquarian curiosities, classical coins and inscriptions, and a hagiography of illustrious local figures and noble families—was adapted to communicate specific geopolitical messages.

An academic aura can also be seen in the very use of Latin in a state where, since the issue of a ducal edict during the reign of Emanuele Filiberto, the language had no longer been used in official documents. The editing of these *relationi* involved local court historians and literati, some of whom can be identified by name.⁵⁴ The overall management of the project—comprising the organization of layout and the revision of the *relationi*—was entrusted to Emanuele Tesauo and Pietro Gioffredo. The former was court historian, epigraphist, and tutor to the sons of the House of Savoy; the latter—a scholar of history, antiquities, and geography and the author of *Corografia e Storia della Alpi Marittime* and a *Niceae civitatis sacris monumentis illustrata*⁵⁵—had initially been called to the court to work alongside Tesauo in the education of the future Vittorio Amedeo II. Although the graphics of the entire work are baroque in taste, there is no doubt that the end result of the labors of Tesauo and Gioffredo is a *theatrum* in the Renaissance sense of the term. The magnificence of the sovereign is celebrated and exhibited by means of a *libro figurato* (illustrated book), with geographical reality embellished and transformed into a collection of *mirabilia*. However, reality is never distorted to such a degree that the portrait becomes purely imaginary. Where there are both planimetric plans and views of the same city, and a comparison of the two reveals discrepancies, these can often be explained by technical considerations. For example, the frequent discrepancies in the depiction of city walls (such as in the number of bastions) may arise simply from the difference between a planimetric and an axonometric view.⁵⁶ The maps and ground plans might also be conjectural: for example, the ground plan and view of Augusta Taurinorum (Turin) were often reworked, and the version that appears in the *Theatrum* dates from 1674. However, while the view shows the city as it was after the expansion of 1620, the ground plan includes the results of two urban development schemes that were yet to be carried out: the Po area expansion (implemented around a decade later, after 1683) and the Porta Susina expansion (on which Vittorio Amedeo II would not decide until 1702). So, while the view varies only slightly from reality—despite all the foreshortening imposed by the rules of perspective—the ground plan is a forecast of the future, the representation of a desire, a dream of greatness. And the fact that this dream was fairly close to the way things actually turned out meant that the *Theatrum* could go on being used. Reprinted many times, it would serve as a representation of the state and its ruling dynasty well into the next century.⁵⁷

In this *mise-en-scène* of the state, time is incorporated in space, and the present not only expands into the future



FIG. 33.10. REVELLO FROM THE *THEATRUM SABAUDIAE*.

Size of the original: 42 × 61 cm. Biblioteca Reale, Turin (vol. 1:67). By concession of the Ministero per i Beni e le Attività Culturali.

but can also serve as the custodian of an eradicated past. For example, in the *Theatrum* the town of Revello is shown dominated by the imposing castle of the marquis of Saluzzo (fig. 33.10). This mighty fortification, constructed to command one of the main routes leading into France, had been demolished almost half a century before

54. The rough drafts of the *relationi* sent to the court—some in Italian, some in French (the language of the court, still common in modern-day Piedmont), and some already in Latin—are now in AST, Corte, “Storia della Real Casa,” cat. 5, m. 1. Many of them bear corrections and annotations in different hands, which shows that the editing work was a collective task. None are signed, but some contain indirect indications that make it possible to identify their author. On the intellectual atmosphere in which the *relationi* were written, see Maria Luisa Doglio, “Le relazioni come documento letterario,” in *Theatrum Sabaudiae*, 1:67–75.

55. A manuscript notebook found in Turin, Biblioteca dell’Accademia delle Scienze, which was undoubtedly compiled by Pietro Gioffredo, contains a sort of teaching syllabus that reveals that one of his tasks was the geographical education of the prince of Piedmont (for which he had prepared a consideration of Ptolemy’s *Geography*): Paola Sereno, “Per una storia della ‘Corografia delle Alpi Marittime’ di Pietro Gioffredo,” in *La scoperta delle Marittime: Momenti di storia e di alpinismo*, ed. Rinaldo Comba, Mario Cordero, and Paola Sereno (Cuneo: L’Arciere, 1984), 37–55.

56. For example, in the two plates depicting Vercelli, the wall bastions shown in the planimetric image number fourteen, while in the axonometric image they number sixteen (similarly, the numbers of the demilunes and outer points of the moats change from nine to ten and from twenty to twenty-three, respectively). On this question, see Vincenzo Borasi, “Villaggi e città in Piemonte nel Seicento,” in *Theatrum Sabaudiae*, 1:77–89.

57. Working together with Johannes Janssonius van Waesbergen, Joan Blaeu’s heirs would produce a reprint, with Dutch translation, in 1693. Shortly afterward, Adriaan Moetjens, a printer in The Hague, would acquire the copperplates from Blaeu’s heirs and in 1697 reprint the Dutch edition, with a French edition appearing in 1700. Finally, as late as 1725, Rutger Christoffel Alberts would publish a new edition (with updated descriptions) in The Hague, in both French and Dutch.

the creation of the *Theatrum*. Nevertheless, its inclusion here served to remind the inviolability of this stretch of land, which was long the object of dispute with France and had only relatively recently been incorporated within the duchy.

Once defined as a “solemn panegyric in images,”⁵⁸ this weighty corpus of geocartography is completed with three chorographical maps—of Piedmont (volume 1) and of the Duchies of Savoy and Chiabrese (volume 2)—each surrounded with the coats of arms of its respective provinces. It is likely that, when originally commissioned, the work was not intended to include such maps. The reconstruction of the genesis of the *Theatrum* has revealed no reference to the chorographical map of Piedmont, which predates 1675, when Borgonio was commissioned to draw it. The addition was probably the result of insistence from Blaeu, who did not feel that the *Theatrum* would be complete without a map of Piedmont and, at the same time, considered the chorographical map he had used in his *Atlas maior sive Cosmographia Blaviana* already inadequate. Drawn up rather quickly over the period 1675–76, the map in the *Theatrum* is, in effect, an updating of Blaeu’s map, which in turn had been based on those by Magini. The whole incident offers further confirmation of the tendency in Piedmont to consider space topographically rather than chorographically; hence its indifference to small-scale cartography.

Although it was a reworking of the Blaeu map, the chorography of Piedmont in the *Theatrum* did involve a number of on-site surveys, as we can see from records of payments to Borgonio.⁵⁹ Such surveys not only contributed to that chorography, however; they were probably seen as providing a good opportunity to think about producing an overall map of the state on a large scale. This thesis seems to be borne out by a record of payment to Borgonio in 1679 “for the costs of the plates, made two years ago, that are to serve for the engraving of the geographical map of the states of His Royal Highness.”⁶⁰ These were clearly the plates used in engraving the *Carta generale de stati di sua altezza reale*, which Borgonio drew on fifteen sheets “with the use of a compass and a back-sight” (fig. 33.11). Two of those sheets are taken up with his “Descrizione de stati di sua altezza reale tanto di quà che di là da monti.” The map was etched in 1679 and 1680 by Giovanni Maria Belgrano, ducal engineer and topographer, and is also known as “Carta di Madama Reale” because it is dedicated to Duchess Giovanna Battista, widow of Carlo Emanuele II and regent for her son Vittorio Amedeo II.⁶¹ Printed two years before the *Theatrum*—a work with which it is closely linked—the *Carta generale* has margin indications of degrees of latitude and graphic scales. Because the scale varies throughout the work, it is not easy to calculate (the estimates put forward by various scholars range between 1:144,000 and 1:225,000).⁶² Created as the result of a program of celebratory cartography, the

map would immediately be put to work serving propaganda purposes: before the appearance of the *Theatrum* it was already circulating in the courts of Europe (in Bavaria, France, and Portugal), accompanied by the splendid *Généalogie de la royale maison de Savoye* (again drawn by Borgonio).⁶³

As was the *Theatrum*, the *Carta generale* continued to be used for some time. A first sign of its success is the fact that it was a model for contemporary maps of Piedmont printed abroad, in Paris in particular, such as the four-sheet map printed by Nicolas de Fer in 1692, his *Italie aux environs du Po* of a decade later, and Vincenzo Coronelli’s *Stati di Savoia e Piemonte*. However, the standing of Borgonio’s map would remain solid well into the following century; for example, the depiction of northern Italy in Didier Robert de Vaugondy’s *Atlas universel* (1757) is clearly derived from Borgonio. In 1765, Andrew Dury, a London map printer, having observed that Borgonio’s map had become so rare that it circulated only in specially commissioned and very expensive manuscript copies, decided to remedy the situation by publishing a new version. Titled *Chorographical Map of the King of Sardinia’s Dominions Taken from the Famous Map of Borgonio*, this was to the same scale as the original but contained corrections based on more recent maps of specific areas (the geographical coordinates in the original work—undoubtedly in need of

58. The expression is used by Luigi Firpo in his introduction to Ada Peyrot, *Torino nei secoli: Vedute e piante, feste e cerimonie nell’incisione dal Cinquecento all’Ottocento*, 2 vols. (Turin: Tipografia Torinese Editrice, 1965), 1:XIII. The *Theatrum* invites comparison with other “panegyrics in images”—those painted on the walls of aristocratic palaces. For example, one can see the same ideological-cultural model as the inspiration for the Sala dei Castelli in Palazzo Ferrero della Marmora in Biella, which is frescoed with the coats of arms of the family and its allies, together with views of the towns and castles that made up the family’s fiefdom. A seventeenth-century work, the cycle has been dated around the second quarter of the century, but that dating is uncertain, and therefore it is not clear whether the Biella work copied or served as part of the inspiration for the *Theatrum*.

59. AST, Camera dei Conti, art. 86, par. 3, “Conto Tesoriere Generale Belli,” 1676, fol. 164r., cap. 318.

60. AST, Camera dei Conti, art. 86, par. 3, “Conto dell’auditore, amministratore del Tesoriere Generale, Silvestro Olivero,” 1679, cap. 451. The existence of a relation between the chorographical map of Piedmont in the *Theatrum* and Borgonio’s *Carte generale* is also upheld in Guido Gentile, “Dalla ‘Carta generale de’ Stati di S.A.R.’, 1680, alla ‘Carta corografica degli Stati di S.M. il Re di Sardegna,’ 1772,” in *I rami incisi dell’Archivio di Corte: Sovrani, battaglie, architetture, topografia*, exhibition catalog (Turin: Archivio di Stato di Torino, 1981), 112–29, followed by catalog entries, 130–67.

61. AST, Camera dei Conti, art. 86, par. 3, “Conto dell’auditore Olivero,” 1680, chap. 527, and 1681, chap. 252.

62. The average value of 1:168,000 calculated by Errera seems more plausible; see Carlo Errera, “Sull’opera cartografica di Giov. Tomaso Borgonio,” *Archivio Storico Italiano*, 5th ser., 34 (1904): 109–23, esp. 115.

63. The documentary references are in Gentile, “Dalla ‘Carta generale,’” 118–20.

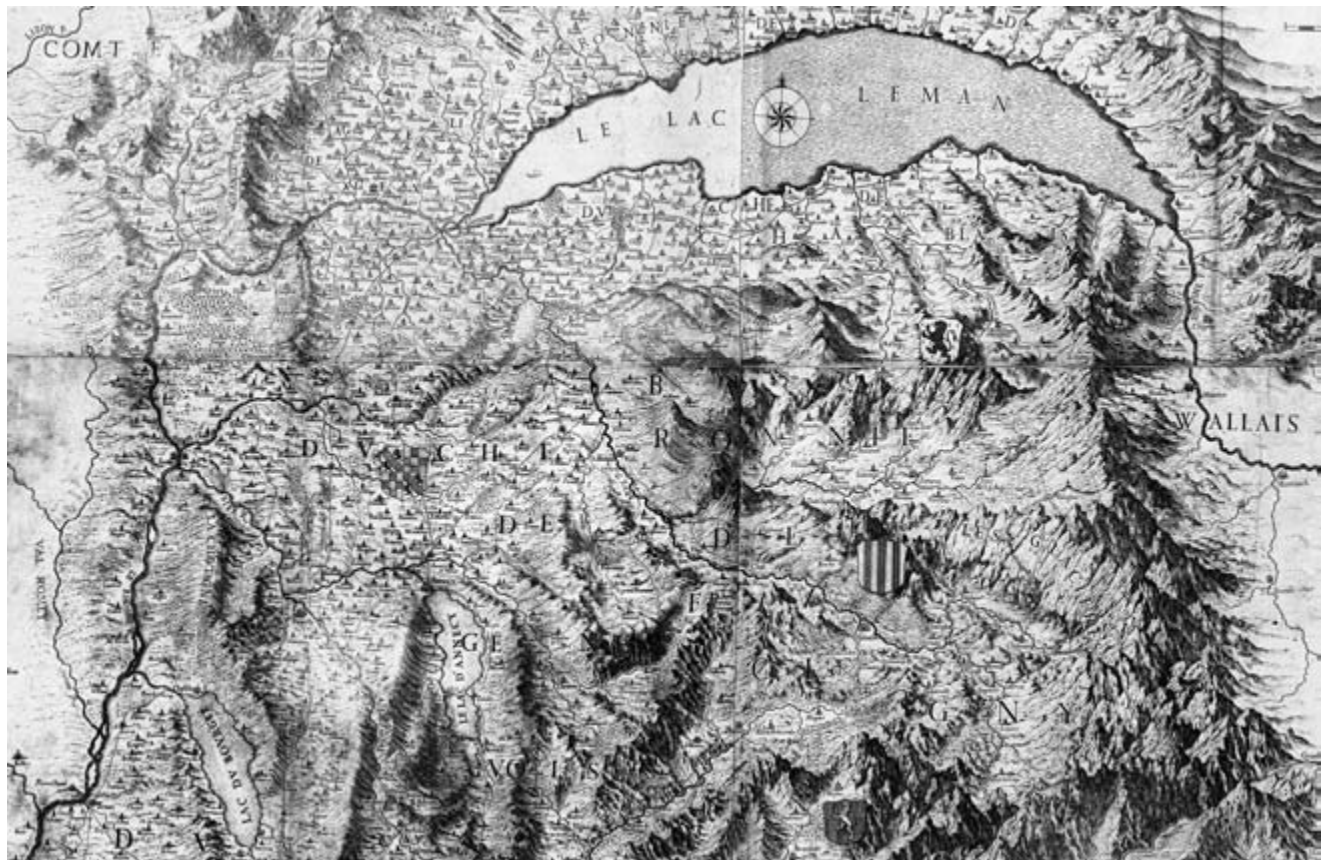


FIG. 33.11. DETAIL FROM THE *CARTA GENERALE* BY GIOVANNI TOMMASO BORGONIO, ENGRAVED BY GIOVANNI MARIA BELGRANO, 1679/80.

Biblioteca Reale, Turin (n. 59, 16). By concession of the Ministero per i Beni e le Attività Culturali.

revision—were omitted). Finally, the court of Turin itself was responsible for another new edition of Borgonio's map. The fruit of a decade of revision by the king's engineer-topographers, who also added the provinces that had more recently come under the House of Savoy, this map was published in 1772 with the title *Carta corografica degli Stati di S. M. il Re di Sardegna data in luce dall'ingegnere Borgonio in 1683 [sic] corretta ed accresciuta nell'anno 1772* and was engraved in Turin by Giacomo Stagnone.

In the presentation of his new version, Dury claimed that Borgonio's map had been the result of years of land surveying for a new cadastral register. However, the map was not really based on land survey measurements, and, what is more, the first cadastral register of plots of land in the state of Piedmont would not appear until the following century—even if the origins of such a register might be traced back as far as the late seventeenth century, when Vittorio Amedeo II issued the *Editto di Perequazione Generale dello Stato* (Edict for the general standardization of taxes throughout the state), the first of the fiscal reforms that initiated the modernization of the state and necessarily implied the production of a cadas-

tral register of plots of land—something that would be one of the great achievements of Enlightenment cartography. So, although scholars have tended to reject Dury's claims as unfounded, it is worth pointing out that the "Provvedimento del Magistrato di S.A.R. sopra la riunione del registro" (issued on 5 January 1677) does seem to contain some notion, as yet imprecise, of a project for the geometric measurement of land. And it seems no coincidence that 1680 saw the issue of a ducal edict that makes explicit reference to the 1677 "Provvedimento" in prohibiting those who were "non-approved" from working as land surveyors—in effect, instituting a professional category and state control over access thereto.⁶⁴ This edict may well have resulted from the idea for a massive

64. AST, Camera dei Conti, art. 693, par. 1, 1680, reg. 97, fols. 3 and 272. The only previous measure regarding land surveying was an edict of 1633 that had established norms for the measurement of buildings and expanses of land. These norms, based on those used by the ducal architect Carlo di Castellamonte, then had to be observed by all who applied to practice the profession in the capital. See Paola Sereno, "Paesaggio agrario, agrimensura e geometrizzazione dello spazio: La Perequazione Generale del Piemonte e la formazione del 'Catasto Antico,'" in *Fonti per*

project to produce a complete cadastral register, for which the land surveyors would have to undertake the enormous task of mapping the entire territory of the state on a large scale (something that may well have been suggested by their own work in that period on the first illustrated *cabrei*, registers containing the documents and maps relating to the large landed estates of the nobility and the church).⁶⁵ It has yet to be demonstrated that Boronio's map was part of this project. However, it no longer seems ill considered to suggest that, within the framework of such a scheme, the court cartographer might have been commissioned to draw up an overall map of the state's territory to a scale that was certainly not that of cadastral registers but allowed for much more detail than did the chorographical scale to be found in traditional regional cartography. Accepting this, we can

see the *Theatrum* and the "Carta di Madama Reale" as a link between the Renaissance and the Enlightenment, marking a juncture between celebratory and administrative cartography.

lo studio del paesaggio agrario, ed. Roberta Martinelli and Lucia Nuti (Lucca: CISCU, 1981), 284–96, and Laura Palmucci, "La formazione del cartografo nello stato assoluto: I cartografi-agrimensori," in *Rappresentare uno stato*, 1:49–60.

65. See Paola Sereno, "Rappresentazione della proprietà fondiaria: I cabrei e la cartografia cabreistica," in *Rappresentare uno stato*, 1:143–61 and related descriptions and illustrations, 2:76–94 (nos. 50–55), and Paola Sereno, "Far riconoscer per misura giudiciale: La formazione dei cabrei e delle mappe cabreistiche," in *Il libro delle mappe dell'Arcidiacono Riperti: Un cabreo astigiano del Settecento*, ed. Paola Sereno (Torino: Stamperia Artistica Nazionale, 2002), 19–41.